

Cognitive Management:
Using Cognitive Therapy to Facilitate
Organisational Change and Learning

Thesis submitted in part fulfillment of the requirements for the degree of

Doctorate in Clinical Psychology

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August 1999



DECLARATION

This thesis has been composed by myself and the work contained herein is my own.

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'There is nothing permanent except change'

Heraclitus, 510 BC

'We don't see things as they are, we see things as we are'

Anaïs Nin

French Author

Quoted in the *Independent*, 5 March, 1999, p. 3

**'One of the most significant findings in psychology in the last 20 years is that
individuals can choose the way they think'**

Seligman (1991, p. 8)

This thesis brings the organisational, clinical and cognitive levels of analysis together by exploring the efficacy of applying cognitive therapy to organisations. Modern organisations need to be competent at managing change and learning if they are to survive. Although an abundance of change management strategies and organisational learning initiatives are available, the literature abounds with examples of interventions that have been ineffective. Using an attributional framework, it was hypothesised that organisational members need to make unstable and specific causal attributions about work-related situations if they are to cope with constant change and learn more effectively. A model is generated from existing research to demonstrate how change at an individual cognitive level can lead to increased organisational effectiveness and well-being. An intervention called 'Cognitive Management' was developed to test the model. The programme integrated cognitive therapy with organisational development methods. Utilising a non-equivalent groups pre-test/post-test design, the effect of Cognitive Management was assessed on measures of cognition, behaviour, emotion, general well-being, team reflexivity and group task effectiveness was assessed. As work groups provide the foundations of modern organisations, this method of working constituted the focus of the research. The sample (n = 18) comprised of two teams (one intervention and one control) from the public sector and two teams (one intervention and one control) from the private sector. The results of the empirical investigation suggest that Cognitive Management is effective in positively changing group members' work-related cognitions, emotions and behaviours, and consequently bringing about improvements in well-being and group task effectiveness. Methodological considerations are discussed and the future development of Cognitive Management outlined.

LIST OF CONTENTS

Abstract		6
Chapter 1:	The Interface Between Clinical Psychology & Organisation Development	10
Chapter 2:	Cognitive Therapy & Attribution Theory	21
Chapter 3:	Organisational Change & Learning	41
Chapter 4:	Learning & Changing Within Work Groups	69
Chapter 5:	Cognitive Management: Using Cognitive Therapy to Facilitate Organisational Change & Learning	93
Chapter 6:	Research Hypotheses & Methodology	119
Chapter 7:	Results	136
Chapter 8:	Discussion	151
References		162
Appendix 1:	The Cognitive Management Programme	193
Appendix 2:	Research Measures	323

LIST OF FIGURES

Figure 1:	Beck's Cognitive Model of Emotional Disorders.	26
Figure 2:	Common Thinking Errors.	28
Figure 3:	Model of an Organisation.	44
Figure 4:	Kolb, Rubin and McIntyre's Learning Model.	50
Figure 5:	The Basic Assumptions of a Learning Culture.	64
Figure 6:	Components of Work Group Effectiveness.	70
Figure 7:	A Two Dimensional View of Well-Being.	72
Figure 8:	Three Axes for the Measurement of Well-Being.	73
Figure 9:	The Input-Process-Output Structure: Influences on Team Effectiveness.	75
Figure 10:	The Relationship Between Reflexivity and Work Group Effectiveness in CDM Groups.	84
Figure 11:	Hypothetical Outcomes of Cognitive Management.	121

LIST OF TABLES

Table 1:	Mean Attributional Scores for Both Research Groups at Pre-Test and Post-Test (with Standard Deviations).	143
Table 2:	Mean Affective Well-Being Scores for Both Research Groups at Pre-Test and Post-Test (with Standard Deviations).	145

1) THE INTERFACE BETWEEN CLINICAL PSYCHOLOGY & ORGANISATION DEVELOPMENT

This thesis reviews the development and efficacy of Cognitive Management, a programme designed to facilitate organisational change and learning. The programme operates at the interface between clinical psychology and organisation development (OD) by integrating cognitive therapy (CT) theory and strategies with organisational change methods. Working at this interface is unusual because these disciplines are often perceived as being quite distinct from one another. Clinical psychology, on the one hand, is ultimately concerned with the assessment and treatment of emotional disorders. This process is usually undertaken at a micro level, with the patient and clinical psychologist engaged in one-to-one consultations. OD, on the other hand, is:

A planned, organisation-wide process of change, derived from behavioural science, to increase an organisation's health and effectiveness through interventions in the organisation's processes...such that the organisation actively anticipates and manages its own development and learning (Huffington, Cole & Brunning, 1997, p. 20).

This chapter will demonstrate, however, that working at the interface between clinical psychology and OD is a legitimate research activity. Consideration will be given to: (1) the role of emotions within organisations; (2) the reciprocal links

between the individual and the organisation; (3) existing organisational applications of therapeutic models; and (4) the positive contributions that inter-disciplinary research can make to the scientific community. This chapter will conclude by providing an overview of the remainder of this thesis.

THE ROLE OF EMOTIONS WITHIN ORGANISATIONS

Emotions, like many other psychological constructs, elude straightforward definition or description. Four factors, however, seem to be pertinent to the experience of emotion (Parkinson, 1995): (1) situational cognitive appraisal (e.g. an evaluation of threat or harm in the situation); (2) change in action tendencies (e.g. approach or avoidance); (3) bodily reactions (e.g. heart rate); and (4) expressive movements (e.g. facial expression, posture).

Several authors have commented that the emotional significance of employment has often been minimised within the research literatures of both OD and clinical psychology (Fineman, 1993, 1996; Kreitner & Kinicki, 1998; Peckrun & Frese, 1992; Schein, 1999; Walsh, 1996). According to Fineman (1996), the ideological context within which work is construed is a significant factor in explaining this academic void:

Deeply rooted in Western (especially male) cultural beliefs about the expression of emotion is the belief that organizational order and

manager/worker efficiency are matters of the rational, that is non-emotional activity. Cool strategic thinking is not to be sullied by messy feelings. Efficient thought and behaviour tame emotion. Accordingly good organizations are places where feeling are managed, designed out, or removed (p. 545).

Similarly, Briner (1999) states that workplaces are perceived as rational and goal-orientated environments which exist only to provide products or services for the consumer. The terms 'business-like' and 'professional', for example, seem to specifically exclude emotion and imply that affect is something which might get in the way of work activities. Consequently, emotions are perhaps seen as unimportant or irrelevant to work activity and therefore not worthy of investigation.

This decoupling of the 'emotional/non-rational' world and the 'rational/ technical' world of the organisation means that whole areas of psychological activity are lost as significant foci of research. Recently, however, researchers have begun to recognise the importance of emotions within organisational contexts. For example, Kets de Vries (1995) argues that the complexities of emotional life within organisations 'raise important questions about human motivation, individual and organisational action, the nature of decision-making, and the problem of change' (p.1). Similarly, George and Brief (1996) assert that emotions, both positive and negative, are central in determining how much attention and effort a person directs towards each of their work goals. Particular attention is given here to considering the role of affect in

strategic decision-making and exploring the association between well-being and job performance.

Affective events theory (Weiss & Cropanzano, 1996) posits that people's perceptions of and attitudes toward work are formed by their emotional reactions to particular work events. Daniels (1999) has provided empirical support for this reasoning in his investigation into the role of emotions in the strategic decision-making process. This process involves developing the long-term direction of the entire organisation (Johnson & Scholes, 1993) and is, therefore, concerned with the fundamental nature of the organisation itself. In a small heterogeneous sample ($n = 59$), Daniels found that managers with high negative affectivity were biased towards perceiving negative trends within their organisation (e.g. poor performance, greater environmental complexity, industry decline and increased competition). Conversely, managers with low negative affectivity were biased towards perceiving the more positive aspects of their strategic environment. It would appear, then, that the affective disposition of individual managers can influence their processing of information with regard to the strategic environment.

Affect has been found to influence social as well as cognitive processes (Parkinson, 1995) and there can be consistency of affect within groups (George, 1990). Therefore, the affect of others may influence an organisational member's information processing. In particular, the process of emotional contagion may be relevant. Here,

one person's affective state may induce that state in another by unconscious signals (Hatfield, Cacioppo & Rapson, 1992).

Daniels goes on to suggest that affectivity may determine the decision-making tendencies of individual managers. Managers with high negative affectivity, he maintains, may consider strategies reflecting pessimistic interpretations of the strategic environment to be more appropriate (e.g. strategies of rationalisation). In contrast, those managers with low negative affectivity may orient towards strategies that reflect optimistic interpretations of organisational and industry activity (e.g. strategies of growth or product development).

Clearly then, emotions can effect how people process information about work and have the potential to determine occupational performance. Current research is fairly non-specific in its application, however. It remains to be seen whether attempts to understand the causes and consequences of generally positive or negative feelings are valid ways of conceptualising emotions (Briner, 1997, 1999).

RECIPROCAL LINKS BETWEEN THE INDIVIDUAL AND THE ORGANISATION

Rollinson, Broadfield, and Edwards (1998) state that the individual and the organisation have come to be regarded as discrete and separate within the applied organisational literature. This is demonstrated by the fact that two largely distinct

bodies of knowledge have emerged. The traditional concern of *organisational behaviour* is at the micro level of organisation. Conversely, consideration of the macro level has been the focus of *organisational analysis*.

The employment related literature has, however, verified the psychological significance of the interface between the individual and the organisation or context. Various organisational factors, for example, opportunity for personal control and skill use, variation in job content and location, and the availability of non-repetitive work, have been identified as determinants of employee well-being (see Warr, 1999, for a comprehensive list of research studies). In addition to these organisational effects the converse is also indicated, that is, the individual employee has been found to be instrumental in determining corporate survival and growth. The definitive role played by the individual in relation to organisational effectiveness and well-being is discussed throughout the remaining chapters.

More diverse academic literatures have also highlighted the reciprocal links between the individual and the organisation. For example, within the literature on stress management, Handy (1988) suggests that researchers need to pay equal attention to both the psychology of individuals and the functions and structures of organisations and society which constrain people to think and act in particular ways. Within social psychology the interactionist approach to persons and situations (Krahe, 1992; Magnusson & Endler, 1977) describes 'active behaviour as a function of a continuous process of multidirectional interaction or feedback between the individual

and the situations he or she encounters' (Krahe, 1992, p.70). Finally, the conceptual underpinning of the literature on community psychology is the person in context (Orford, 1993). Developing conceptual and empirical links between micro (i.e. organisational behaviour) and macro (i.e. organisational analysis) levels of analysis, then, appears to be a legitimate research activity.

Despite the increasing research interest in this area, Walsh (1996, 1999) argues that there is no widely accepted theory currently available to explore adequately causality and specificity in the reciprocal process which appears to exist between the psychology of the individual and the psychology of the organisation. She advocates that more conceptual and empirical development work is needed to explore the interaction between the individual and the organisation. This research project aims to further this process.

CLINICAL SYSTEMS OF CHANGE AND LEARNING USED WITHIN ORGANISATIONS

Various psychotherapies have evolved to help psychologists comprehend and treat the emotional problems of individual patients (e.g. behaviour therapy, cognitive-behaviour therapy). Increasingly, these clinical models are being used to understand and intervene in organisational problems. For instance, many organisational consultants use psychotherapeutic skills as part of their practice (see Neuman, Kellner & Dawson-Shepherd, 1997). The literature on organisational change and

development is undoubtedly informed by therapeutic ideas and concepts with particular emphasis upon psychoanalytic theory and practice (Casemore, Dyso, Eden, Kellner, McAuley & Moss, 1994; De Board, 1978; Kits de Vries, 1991; Schneider & Dunbar, 1992) and family systems theory (Campbell, Draper & Huffington, 1991; McCaughan & Palmer, 1994).

More recent examples of the influence of therapeutic ideas within the work place have included using the methods and theory of personal construct psychology to provide an appreciation of what British Airways staff thought about themselves and their work context (Fransella, 1997). Cognitive analytic therapy has been applied to a hospital setting to provide an understanding of a dysfunctional and disharmonious staff group (Walsh, 1996). Attachment theory has been used to assist in the conceptualisation of relationships amongst various team members and senior managers (West, 1999). Whilst these applications are insightful and may appear to have face validity, they are all theoretical and exploratory in nature. Proudfoot (1996), however, in an unpublished study, reports on the outcomes of an empirical investigation into the efficacy of integrating CT with organisational training methods to lessen employees' resistance to change within a major insurance company (see chapter 5). This research project aims to further the empirical and theoretical development of the organisational application of psychotherapeutic models.

ADVANTAGES OF INTERDISCIPLINARY RESEARCH

This research project attempts to combine the disciplines of clinical psychology and OD. Proudfoot (1996), drawing from the work of Taylor (1981), believes interdisciplinary research offers a number of advantages:

1. Such research provides an opportunity to test a theory in settings other than those for which it was specifically developed: for example, it allows consideration of the extent to which existing findings in clinical psychology can be generalised to non-clinical settings. Whilst confining research solely to the discipline for which it was developed facilitates precision of inferences, important and potentially fruitful application to other areas of human functioning and interaction might be missed.
2. It expands the range of dependent variables that are studied, particularly the behavioural consequences of the cognitive variables.
3. It helps to define the boundaries of the phenomenon under consideration.

Moreover, Ilgen and Klein (1989) maintain that applying the constructs and concepts of one discipline can advance the knowledge base of another in three fundamental ways:

1. the constructs and concepts from one discipline are shown to be appropriate to the other. They term this 'demonstrative research', and claim that, although useful and

necessary as a first step, it does not advance the knowledge in either discipline to any great degree. However, advances can be made if:

2. the research in the new area contributes to knowledge about the constructs under investigation regardless of the setting or discipline, or
3. the research generates knowledge that can be usefully applied to organisations.

By conducting an empirical investigation at the interface between clinical psychology and OD, this research attempts to achieve some, if not all, of these advantages.

OVERVIEW OF THE THESIS

This research aims to bring the cognitive, organisational and clinical levels of analysis together by empirically exploring the efficacy of integrating CT with OD. In doing so the research is highly innovative. Indeed, the author is only aware of one unpublished study that has achieved this aim (Proudfoot, 1996). Operating within these parameters has meant that considerable time has been invested in developing the Cognitive Management Programme (see chapter 7 and Appendix 1) and uncovering sound theoretical and empirical justifications for conducting research at this interface. Consequently, this thesis is developmental and constituted an exploratory data analysis.

As teams are the main structural mechanism for organising work (West, Garrod & Carletta, 1997), this method of working provided the focus for this research project.

This orientation is in contrast to the work of Proudfoot (1996) who used individual employees rather than pre-existing work groups as the focal point of her study (see chapter 5).

An overview of CT, specifically the principles on which it is based and its demonstrated efficacy, is given in the next chapter followed by a review of the organisational change and learning literature in chapter 3. A specific model of work group learning, team reflexivity, is described in chapter 4. Chapter 5 provides an overview of theoretical and empirical support for using CT to facilitate organisational change and learning. The development of Cognitive Management is also outlined in this chapter.

Whilst CT has been well researched (see chapter 2), the OD literature is largely theoretical in orientation. Although this project utilises this knowledge base throughout, it concludes with an empirical investigation of the effectiveness of CT in facilitating organisational change and learning. The research hypotheses and methodology are presented in chapter 6. Finally, the outcomes of CM are described and discussed in chapters 7 and 8 respectively.

2) COGNITIVE THERAPY & ATTRIBUTION THEORY

Cognitive therapy (CT) is a system of psychotherapy based on Beck's (1967, 1976; Beck, Rush, Shaw & Emery, 1979) cognitive model of emotional disorders and well-defined therapeutic techniques. The therapy is active, present-focused and psychoeducational in nature. The cognitive therapist designs specific learning experiences to teach patients to monitor automatic thoughts; recognise the connections between cognition, affect and behaviour; collect evidence and generate alternative interpretations; substitute more realistic cognitions for distorted thoughts; and identify dysfunctional beliefs that predispose the individual to distorted interpretations.

CT is designed to be a time-limited and short-term treatment. Fifteen to twenty 50 minute sessions at weekly intervals have been shown to be sufficient for recovery from depression, with more seriously depressed patients requiring twice weekly sessions for the initial four to five weeks. A tapering off process is recommended for the end of therapy, with the last few sessions occurring once every two weeks, and "booster sessions" after termination of the therapy (Sacco & Beck, 1985).

PRINCIPLES OF COGNITIVE THERAPY

A series of cognitive therapies for different emotional disorders have been developed from the basic CT for depression (Beck, 1967). They each have in common the therapist's assisting patients to identify, evaluate and modify their dysfunctional beliefs. Although the clinician draws upon a repertoire of cognitive-behavioural techniques, a standard set of core principles, derived from Beck's protocol for CT (Beck & Emery, 1979), underlie the various applications.

Principle 1: Cognitive Therapy is Based on a Cognitive Model of Emotional Disorders

This model is described in detail below.

Principle 2: Cognitive Therapy is Brief and Time-Limited.

Brief therapy discourages dependency and increases client's self-sufficiency (the client becomes his/her own therapist, thus enabling therapy to continue after treatment ends). The pace of therapy is relatively brisk; little time is spent in gathering background information or searching for the aetiology of problems. Therapy is task-oriented and focuses on problem-solving.

Principle 3: A Sound Therapeutic Relationship is Necessary

A number of techniques are used to establish rapport, such as acceptance of client's value system, accurate empathy, emphasis on collaborative nature of therapy, use of appropriate self-disclosure, seeking client's feedback throughout therapy, use of capsule summaries throughout therapy.

Principle 4: Therapy is a Collaborative Effort Between Therapist and Client

The client and the therapist work together in solving the problem. This team approach is crucial. It can be enhanced by using questions for data-gathering to bring out information, by setting an agenda at the beginning of the session and by being problem-centred.

Principle 5: Cognitive Therapy Primarily uses the Socratic Method

Rather than directly challenging the patient's thoughts and beliefs, the goal of the cognitive therapist is to use questions to assist patients to uncover and challenge their own beliefs. Directive suggestions and explanations are also avoided as they are less powerful than questions in helping the patient to realise what his/her thoughts are, look for the distortions in them, substitute more balanced cognitions and develop plans to change the thought patterns. Nevertheless, on occasions, the cognitive therapist may also act more directly as an educator and skills trainer.

Principle 6: Cognitive Therapy is a Structured Approach.

Therapy is structured by setting an agenda for each session, by helping the client to reduce problems to their common denominations, by avoidance of silence in the sessions, by focusing on task-related behaviour. The structured approach helps the patient to feel more comfortable, to learn more easily, and it establishes targets for intervention.

Principle 7: Cognitive Therapy is Problem-Oriented

The focus of CT is on the here-and-now, solving problems the patient brings into therapy (in contrast to other therapies which discuss past problems). The patient is expected and encouraged to bring to therapy problems that can be worked on. A variety of problem-solving skills are learnt. The rationale is that not all of the patient's problems can be solved in therapy, but the patient can learn strategies for solving future problems.

Principle 8: Cognitive Therapy is Based on an Educational Model.

A basic premise of CT is that people have learned inappropriate ways of thinking and acting in specific areas. The purpose of therapy is to help them to learn more adaptive ways of dealing with their stressful experiences. The patient not only learns a series

of coping strategies, but learns new ways of viewing situations, and ways to gain more from experiences.

Principle 9: Cognitive Therapy is Based on the Scientific Method

This dictates that decisions are made on the basis of facts as they are known at the time. No one knows 100% about any situation, but one has tentative hypotheses that can be proved or disproved. Clients are taught to consider beliefs as hypotheses, not as proven; to pay attention to all facts and not to arbitrarily exclude certain ones; to test hypotheses against their fit with reality; and to revise hypotheses and experiments according to new incoming data.

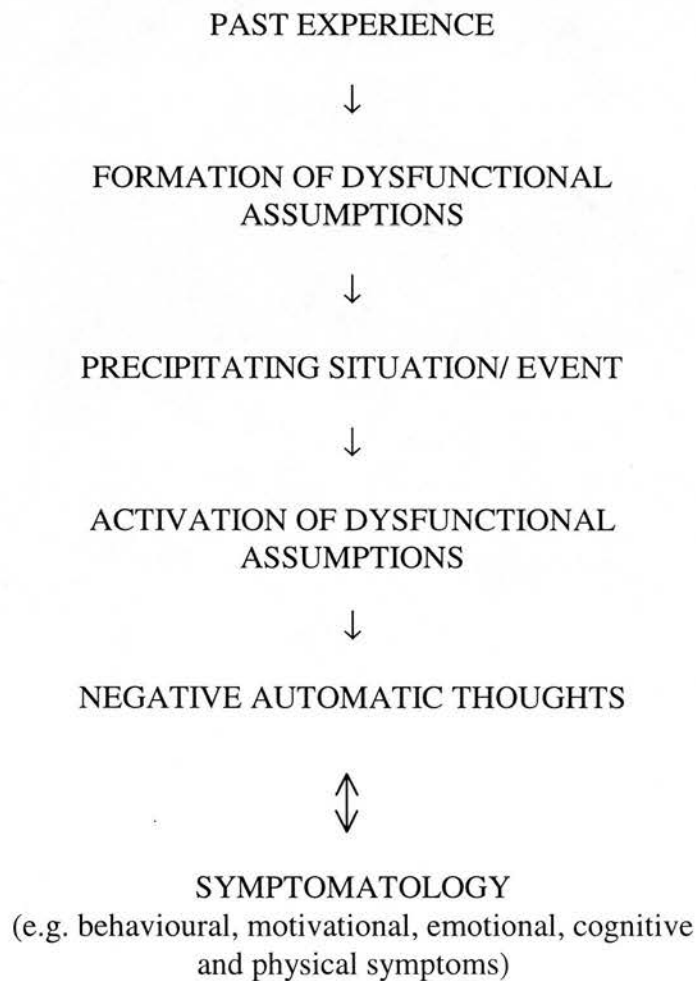
Principle 10: Homework is a Central Feature of Cognitive Therapy

CT aims to show the patient how to apply the procedures that are learned in therapy to the situations that will be met in everyday life, both now and in the future when therapy has ended. The primary way to ensure that general application takes place is by homework assignments between sessions. Homework also reinforces and supplements the therapeutic and educational aspects of CT.

BECK'S COGNITIVE MODEL OF EMOTIONAL DISORDERS

The model of emotional disorders developed by Beck (1967, 1976; Beck *et al.* 1979) is based on the underlying theoretical rationale that an individual's affect and behaviour are largely determined by the way in which he/she perceives the world. A relationship, therefore, is assumed to exist between behavioural, cognitive and affective systems (see Figure 1).

Figure 1: Beck's Cognitive Model of Emotional Disorders



The model suggests that experience leads people to form assumptions or 'schemata' about themselves and the world. These assumptions or schemata are subsequently used to organise perception and to govern and evaluate behaviour. Beck states that some assumptions may be rigid, extreme, resistant to change and hence 'dysfunctional' or counterproductive. An example of a dysfunctional assumption might be 'I must do well at everything I undertake'.

Beck argues that dysfunctional assumptions alone do not account for the development of emotional disorders (Beck *et al.* 1979). Problems arise when critical incidents occur which mesh with the person's own system of beliefs. It is suggested that such incidents activate the person's underlying dysfunctional assumptions. So, for example, the belief that personal worth depends on success might lead to depression in the event of a failure.

Once activated, dysfunctional assumptions produce an upsurge of 'negative automatic thoughts'—'negative' in that they are associated with unpleasant emotions, and 'automatic' in that they are spontaneous rather than being the product of any deliberate reasoning process. These thoughts may be interpretations of current experiences, predictions about future events, or recollections of things that have happened in the past. These interpretations are all distorted in some way (see Figure 2 for a list of common cognitive distortions)

Figure 2: Common Thinking Errors (adapted from Burns, 1980)

THINKING IN EXTREMES	Seeing things in all-or-nothing terms or black-and-white categories. Using words like, 'always', 'never', 'everyone', 'no one' and 'everybody'.
JUMPING TO CONCLUSIONS	Jumping to a negative conclusion when there are no definite facts to justify a negative interpretation.
MIND READING	Assuming knowledge of what other people are thinking.
MAGNIFYING OR MINIMISING	Exaggerating the negative aspects of experiences and discounting the positive.
EMOTIONALLY REASONING	Assuming individual emotional reactions reflect reality.
PERSONALISING	Taking responsibility for things that have little or nothing to do with oneself or blaming others for things.
LABELLING & MISLABELLING	Attaching negative labels to oneself or others.

Negative automatic thoughts, in turn, lead to other common symptoms of emotional disorders. These include: behavioural symptoms (e.g. lowered activity levels, withdrawal); motivational symptoms (e.g. loss of interest, inertia); emotional symptoms (e.g. anxiety, guilt); cognitive symptoms (e.g. poor concentration, indecisiveness); and physical symptoms (e.g. loss of appetite, loss of sleep). Beck argues that the relationship between negative automatic thoughts and depressive

symptomatology is reciprocal, as the more depressed a person becomes, the more depressing thoughts they think.

EVALUATION OF COGNITIVE THERAPY

CT has been one of the most widely researched psychotherapies. It has been used to successfully treat depression (Hollon, 1990) and other psychiatric disorders (Hawton, Salkovskis, Kirk & Clark, 1989). Its efficacy, compared with other forms of psychotherapy and pharmacotherapy, has been demonstrated repeatedly. Major studies have shown that CT is as effective as pharmacotherapy in the treatment of unipolar depression (Blackburn, Bishop, Glen, Whalley & Christie, 1981; Elkin, Shea, Watkins, Imber, Sotsky, Collins, Glass, Pilkowis, Leber, Docherty, Fiester & Parloff, 1989; Evans, Hollon, DeRubeis, Piasecki, Grove, Garver, & Tuason, 1992; Murphy, Simons, Wetzel, & Lustman, 1984; Rush, Beck, Kovacs & Hollon, 1977), and more effective than pharmacotherapy in the prevention of relapse (Blackburn, Eunson, & Bishop, 1986; Evans *et al.* 1992; Kovacs, Rush, Beck, & Hollon, 1981; Simons, Murphy, Levine, & Wetzel, 1986). The cognitive treatment of depression is now considered by many to be the preferred alternative to behavioural and biochemical interventions.

CT has also been found to be more effective in the treatment of anxiety disorders. Several controlled trials have demonstrated its superiority over pharmacotherapy (e.g. Power, Simpson, Swanson, Wallace, Feistner, & Sharp, 1990) and over behaviour

therapy (Butler, Fennell, Robson & Gelder, 1991) in treating patients with generalised anxiety disorder. CT has been particularly effective in the treatment of panic disorder, both alone and in comparison with other treatments, such as behaviour therapy, pharmacotherapy and placebo control (Clark, 1991). Furthermore, the effects have been shown to persist.

CT has been applied to a number of other clinical presentations. The treatment of eating disorders with CT has been shown to be superior to other psychotherapies and medication (Agras, Rossiter, Arnow, Schneider, Telch, Raeburn, Bruce, Perl, & Korn, 1992; Fairburn, Jones, Peveler, Carr, Soloman, O'Connor, Burton, & Hope, 1991). Other problems that have successfully used CT include (see Proudfoot, 1996): substance abuse, HIV-related depression, marital problems, family therapy, personality disorders and schizophrenia.

Unquestionably, CT offers a valuable and highly effective framework for bringing about change at a clinical level. Its emphasis on empirical validation and on the development of a scientific data base has prompted enormous progress in research and practice. However, the cognitive model is not without its weaknesses. Teasdale (1993) lists a number of shortcomings, which he maintains stem primarily from the development of CT in isolation from basic cognitive science. Three of these are discussed here. Then a further weakness will be outlined by the author.

The first shortcoming of CT noted by Teasdale is that it is not unique in reducing negative thinking in depression as other non-cognitive treatments have been shown to produce a concomitant reduction in negative thinking when alleviating depression. He proposes that rather than achieving its effect by changing negative thinking, CT achieves it by some other mechanism that is common to other treatment approaches. He argues that changes in negative thinking may be a consequence of the depression rather than antecedent to it. Many authors would agree (e.g. Simons, Garfield, & Murphy 1984). Others might argue that cognitive variables are mediators of change in CT, but the consequence of change in other treatments for depression (e.g. DeRubeis, Hollon, Garvey, Grove, & Tuason, 1990b). Alternatively, it could be argued that the modes of action of different treatments produce changes in patients that are identical at the end of treatment, but this does not explain the existence of differential relapse rates among treatments. Different rates of relapse are potentially explained by Clark, Salkovskis, Hackman, and Gelder, (1991) in their comparison of CT, exposure therapy and pharmacotherapy for panic disorders. These authors concluded that cognitive change may mediate the clinical effectiveness of all three treatments but that such changes may be the result of different processes and may differ in their stability after treatment is terminated.

Teasdale's second criticism is that there has been an absence of evidence supporting the enduring existence of the underlying dysfunctional assumptions and attitudes, which act as the vulnerability to depression. They seem to be mood-dependent, he suggest, disappearing once the depression has remitted. This notion is supported by

the review of studies by Haaga, Dyck and Ernest (1991). Furthermore, studies have suggested that the changes in dysfunctional attitudes are not specific to CT (Hamilton & Abramson, 1983; Simons *et al.* 1984). However, it should be noted that there has been some dissatisfaction with the measure most commonly used for assessing cognitive schemata, the Dysfunctional Attitude Scale (see Segal, 1988).

A third shortcoming of CT cited by Teasdale is that patients can experience emotional reactions without being able to access the negative automatic thoughts that, according to the model, mediate the emotional reaction. In addition, he notes that the cornerstone to changing dysfunctional thoughts in CT, 'rational' argument or 'corrective' information, is frequently ineffective in effecting emotional change, even when the client acknowledges 'intellectually' the logical power of evidence. In response to this criticism, it could be argued that emotional change is delayed in CT because it is dependent upon schema change that only occurs through repeated practice of CT skills.

Finally, the author challenges one of the premises underpinning CT, namely that a person's cognitions are 'unrealistic' and that 'reality' is empirically verifiable. Such an assertion is at odds with a substantial amount of research in cognitive, clinical and social psychology which indicates that inaccurate and self-serving cognitions are widespread in human thought, and what is more, these thoughts are deemed to be functional. For instance, Nisbett and his colleagues (e.g. Nisbett & Ross, 1980; Nisbett & Wilson, 1977) have argued that people often do not know what influences

their behaviour, and that there are pervasive biases in the way people account for their own behaviour and the behaviour of others. One common source of bias, known as the actor-observer effect, is the tendency for people to say that their own behaviour is caused by situational factors and that other people's behaviour is caused by dispositional factors (Fiske & Taylor, 1991; Jones & Nisbett, 1971). Another type of bias, the self-serving bias, is the tendency to take credit for success and deny responsibility for failure (Fiske & Taylor, 1991). These common sources of bias are deemed to be adaptative.

In discussing this criticism, Proudfoot (1996) draws on the work of Taylor and Brown (1988) on 'cognitive illusions'. These authors provide evidence that people make pervasive, enduring and systematic cognitive distortions (illusions) about themselves, their experiences and their future which are adaptive for mental health and well-being. Taylor and Brown claim, on the basis of extensively reviewed research evidence, that overly positive self-evaluations, exaggerated perceptions of control and mastery, and unrealistic optimism about the future are hallmarks of normal human thought, particularly under circumstances of adversity, and, what is more, they are mentally healthy. Moreover, such cognitive illusions promote other attributes of mental health, including the ability to care for others, the ability to be contented and happy, and the ability to engage in productive and creative work. Other researchers have questioned the view in CT that negative thinking is dysfunctional. Work by Schwartz (1992) and Schwartz and Michelson (19987) suggests that negative thinking need not be negative in its consequences, and that a

balance of negative and positive thinking can facilitate coping. In response to this weakness, a new constructivist approach to CT has evolved. This approach is outlined in chapter 7.

Some sound and convincing shortcomings of CT have been proposed by Teasdale. Furthermore, the notion that 'reality' can be objectively verified has been questioned. Clearly, these points are important to consider when attempting to explore the efficacy of any innovative applications of CT.

ATTRIBUTION THEORY

Attribution theory (AT) is 'concerned with the causal judgements that individuals use to explain events that happen to themselves as well as others in the social and physical domains of life' (Försterling, 1988, p. 11). Individual differences in causal judgements can be measured along several dimensions.

Internal Versus External

The internal/ external dimension pertains to the distinction between factors internal to the person (e.g. ability) and factors external to the person (e.g. difficulty of the task). This causal dimension appears to be the most widely accepted dimension along which attributions are thought to vary. Nearly all conceptions of attribution differentiate between these two causal dimensions (e.g. Heider, 1958; Kelley, 1967;

Weiner, Frieze, Kukla, Reed, Rest & Rosenbaum, 1971). This distinction can also be found in theoretical conceptions outside of attribution theories (e.g. Rotter's social learning theory, 1954, 1966). Empirical support for this dimension is fairly convincing. In the seven empirical studies identified by Weiner (1985), six reported a relationship between internal and external variables. Similarly, in their meta-analysis of attributional style and depression, Sweeney, Anderson and Bailey (1986), found a relatively large effect size (- 0.36) for the internal attribution dimension in explaining depression.

Stable Versus Variable

This factor, proposed by Weiner et al. (1971) and included in a number of attributional theories and models (e.g. Abramson, Seligman & Teasdale, 1978; Martinko & Gardner, 1982), refers to the variability of causation over time. For example, some factors may not change over time (e.g. ability), whereas others are thought to fluctuate temporarily (e.g. mood). Evidence supporting the validity of the stability characteristic is again fairly convincing. Four of the seven studies reviewed by Weiner (1985) clearly identified a stability dimension, and Sweeney et al. (1986) reported medium effect sizes (- 0.25) of stability in their study of depression.

Global Versus Specific

Another dimension that has been proposed by Abramson et al. (1978) in their reformulated learned helplessness model pertains to a global/ specific characteristic

of attributions. This relates to the extent to which the cause of an event applies only to the original situation or is pervasive across many situations. While Abramson, Seligman and colleagues have found support for the global/specific continuum in their model and continue to include it in their research (Alloy, Peterson, Abramson & Seligman, 1984), a number of criticisms of this dimension have been raised. In particular, Weiner (1985) notes that a global/ specific dimension did not emerge in a single study reviewed. The debate over the validity of this construct, therefore, continues.

Attributional Style

Attributional style (AS) is a measure of individual differences in the use of these various causal dimensions to explain favourable and unfavourable events (Abramson *et al.* 1978; Seligman, Abramson, Semmel & von Baeyer, 1979). According to the reformulation of the learned helplessness model, individuals with a “pessimistic” or “negative” AS are more likely to display helplessness deficits when confronted with a bad event than individuals with an “optimistic” or “positive” AS (Abramson *et al.* 1978; Seligman *et al.* 1979). The former denotes a tendency to construe the causes of bad events as internal, stable and global (e.g. “It’s my fault, it’s going to last forever and it’s going to undermine everything I do”). Contrastingly, the latter pertains to an inclination to perceive the aetiology of negative situations as external, unstable and specific (e.g. “It’s not fault, it’s not going to last forever and it’s not going to undermine everything I do”). Peterson and Seligman (1984) reviewed 12 studies that

confirm this model by finding depressive deficits associated with a pessimistic explanatory style in students, depressed patients, prisoners and children.

ATTRIBUTION THEORY AND COGNITIVE THERAPY

AT and CT are related on two grounds. Firstly, it has been empirically demonstrated that CT makes enduring changes in AS. An unpublished study by Proudfoot (1996) reported significant changes in AS amongst a non-clinical group as a result of a CT based intervention (see chapter 5). Two further studies are reviewed here. Seligman, Castellon, Cacciola, Schulman, Luborsky, Ollove, and Downing (1988) compared AS scores with severity of depression symptoms and concluded that AS is indeed a mechanism for change in CT.

Further support for the hypothesis comes from a study by Firth-Cozens & Brewin (1988). In comparing cognitive-behavioural therapy with exploratory (interpersonal) therapy in a cross-over design, they found that improvement in AS resulted from both treatment approaches, but more so from cognitive-behavioural therapy. They drew 3 conclusions from their research: (1) that reattribution is an important element of treatment; (2) that attributional change is not exclusively important to depression, but may play a similar role in anxiety; and (3) that attributional change does not wait for complete remission of symptoms, but that the two improve together. That is to say, clients begin to view the causes of their life experiences as more unstable, specific and controllable as therapy progresses.

Secondly, attributional analyses of clinical phenomena share many features with CT. Each has as its basic premise that thoughts influence feelings and behaviours. Försterling (1988) asserts that attribution conceptions (e.g. Kelley & Michela, 1980) and CT belong to the so-called cognitive psychological theories. These theories assume that cognitions mediate between stimuli and reactions (emotions and behaviours).

Both CT and AT arrive at matching statements on the cognitive content of reactive depression. According to Försterling (1988), the cognitive triad that Beck considers to be responsible for reactive depression, in which the depressive perceives the self, environment, and the future negatively, has the same meaning as the tendency to make internal, stable and global attributions for failure. The tendency of depressed patients to make internal attributions for failure is characteristic for their negative view of themselves; the stability of the attributions for failures causes the future to also be perceived as hopelessly negative, and the globality of their causal thinking reflects the fact that they regard many aspects of their situation negatively.

Each assume that maladaptive behaviour and emotional reactions can be modified by changing the intervening cognitions (see Foresight, 1990), although attributional change programmes are less well developed. Finally, according to AT, attributions about the causes of events are arrived at by using a 'scientific method'. In CT, it is exactly this method that is applied to analyse, test, and revise unrealistic cognitions, and to encourage rational and realistic thoughts.

THE APPLICATION OF COGNITIVE THERAPY TO NON-CLINICAL POPULATIONS

In CT, psychopathology is considered to be the result of faulty information processing. However, to distort incoming information in line with pre-existing conceptual frameworks is not in itself abnormal (see chapter 5). The model, therefore, has the potential to be effective when applied to a non-clinical population. Proudfoot, Guest, Carson, Dunn & Gray (1997) adapted the principles of Cognitive-Behavioural Therapy (CBT) for use with a clinically asymptomatic group and reported significant cognitive, emotional and behavioural outcomes. Long-term unemployed people (n = 199) were randomly assigned to either a CBT programme or a control programme (matched for all variables other than specific content that emphasised social support).

As a result of the intervention, participants were found to adopt a more optimistic AS, that is, they developed the tendency to perceive negative events as external, unstable and specific and vice versa for positive events. These significant attributional changes were found to persist 4 months after the completion of training. On measures of mental health, those participants receiving the CBT intervention reported significantly greater improvements than those in the control group. Moreover, four months after the completion of training, 34% of the CBT group had been successful in securing full-time employment compared with only 13% of controls. This last result is likely to have significant financial implications for the

government since each long-term unemployed professional who gains a full-time job saves the UK welfare budget about £14,700 per annum and generates at least £5000 a year revenue in tax paid. The authors concluded that the application of CT to unemployed people can improve mental health, produce tangible benefits in job-finding amongst a large, non-clinical sample of unemployed people and has potential benefits for society at large. In view of the efficacy of CT in bringing about significant psychological changes amongst a large sample of unemployed people, potential exists for the approach to be viable when used with employed persons.

3) ORGANISATIONAL CHANGE & LEARNING

The ultimate goal of CT is to bring about individual change at a cognitive, behavioural and/or emotional level. This is achieved through patients learning new skills and/or new ways of perceiving their difficulties. Similarly, change and learning are fundamental prerequisites to organisational success and must, therefore, be central to any OD program (Schein, 1999). The importance of organisational change and learning to organisational growth and survival is affirmed by the following quotations:

Given a dynamic, changing environment with variation giving rise to problems that require choices, the capacities to learn and unlearn are critical for organizational competitiveness and well-being (Lawson & Shen, 1998, p. 26).

By the end of the millennium, organisations that are fit to survive will need to learn how to transform themselves continuously in order to adapt to, and shape, their environments (Huffington, Cole & Brunning, 1997, p. xi).

For an organisation to survive, its rate of learning must be equal to, or greater than, the rate of change in its external environment (Ravens, cited in Garratt, 1987).

We basically do not know what the world of tomorrow will really be like except that it will be different. *That means that organizations and their leaders will have to become perpetual learners.* (Schein, 1992, p. 361 [italics in original]).

This chapter will consider change and learning from an organisational perspective and outline various contextual influences on these two dimensions. Primarily, an organisational model that has been used to guide the research process is presented.

MODEL OF AN ORGANISATION

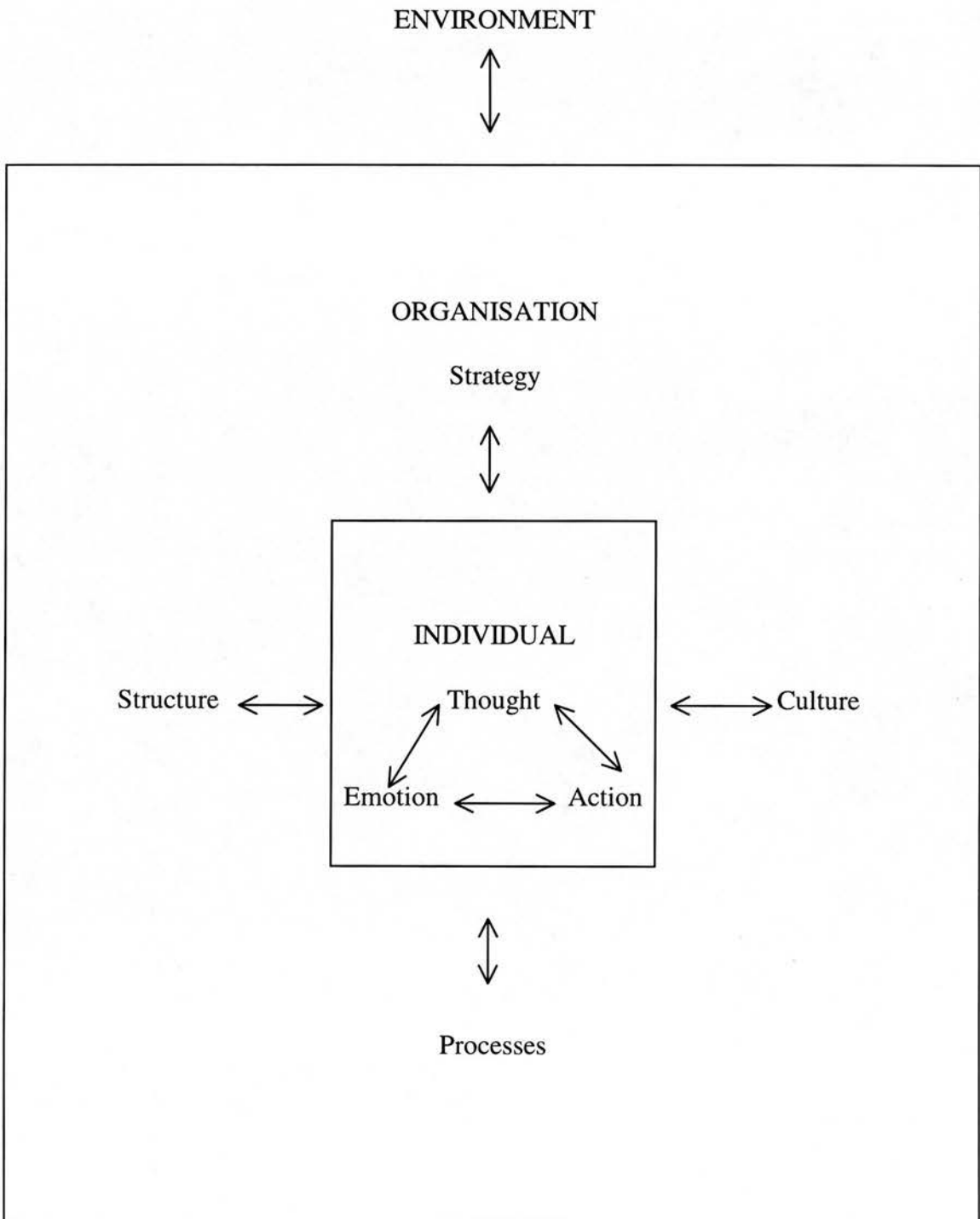
There are an abundance of organisational models cited within the research literature that attempt to describe the nature of the relationships between various organisational variables (e.g. Burke, 1994; Nadler & Tushman, 1977; Rollinson *et al.*, 1998; Silbiger, 1993). These models depict the most important elements of organisations as follows:

1. *Strategy*: the goals of the organisation and the means by which the company seeks to realise them.
2. *Culture*: the combined sum of the individual opinions, shared values and norms of organisational members.
3. *Processes*: the methods by which things are achieved within the organisation (e.g. communication, decision-making, leadership).

4. *Structure*: the division and grouping of tasks, authorities and responsibilities. The position and formal relationship between members of the organisation.
5. *Environment*: the complexity and dynamic nature of the environment within which the organisation operates.
6. *Individual*: the individual employee's emotions, behaviours and cognitions.

In consideration of these significant elements, the conceptualisation of an organisation shown in Figure 3 was formulated from the theoretical and empirical literatures. This model was deemed particularly relevant for this research project for three reasons. Firstly, the individual is depicted as a comprehensive system with behavioural, cognitive and affective components. Whilst employees' actions and thought processes are emphasised in most organisational models, many do not incorporate the influence of emotions in determining individual, and ultimately, organisational outcomes.

Secondly, the model highlights the systemic links between variables. Each of these factors are assumed to be inter-connected. Thus, the relationship between them is reciprocal in nature, as change in one entity can precipitate change in another.

Figure 3: Model of an Organisation

The final reason for using this adapted model to guide the research process is related to the second. Benjamin and Mabey (1993, p. 181) argue that, 'the primary motivator for how change is accomplished resides with people within the organisation'. By placing the individual at the centre of any cause and effect relationship, the model highlights the instrumental role played by company employees in driving organisational change, and ultimately determining the success of change initiatives. Ultimately, this means that, for example, if senior managers want to bring about changes in culture by amending organisational processes, these changes will only come about via the individual.

ORGANISATIONAL CHANGE

Change may be regarded as a general indication of difference between two states (Ford & Ford, 1995). Within organisations, these states are often defined behaviourally (Swieringa & Wierdsma, 1992). For example, a marked improvement in team performance as a result of a team building intervention.

Companies can and do experience severe problems in managing change effectively.

According to Senge (1990, p.174):

One thing all managers know is that many of the best ideas never get put into practice. Brilliant strategies fail to get translated into action. Systematic insights never find their way into operating policies. A pilot experiment may prove to

everyone's satisfaction that a new approach leads to better results, but widespread adoption of the approach never occurs.

Although an abundance of change management strategies are available (e.g. Lewin, 1951; Lewis, 1991; McCalman & Paton, 1992), the literature abounds with examples of change projects that have been ineffective (see Burnes, 1996; Burnes & Weekes, 1989; Cummings & Huse, 1989; Juran, 1988; Kanter, Stein & Jick, 1992; Kearney, 1989; Kelly, 1982a, b; Zairi, Letza & Oakland, 1994;). Indeed, Burnes (1998) goes as far as to state that the *majority* of change programmes fail. Three of the most common organisational change initiatives implemented in the last two decades will be reviewed here.

Total Quality Management (TQM) refers to a process whereby all levels of staff within a company have a total commitment to high-quality results, continuous improvement and meeting customer needs. Organisations that have introduced TQM projects in order to enhance effectiveness have, by in large, not satisfied the expectations of their clients. To illustrate, Cameron (1997) lists various studies undertaken by consulting firms, some of which follow. Rath and Strong (cited in Cameron, 1997), surveyed Fortune 500 companies and found that only 20 percent reported having achieved their quality objectives, and over 40 percent indicated that their quality initiatives were a complete failure. Similarly, a study of 30 TQM programs by McKinsey (cited in Cameron, 1997), another consulting firm, found that two thirds had lost momentum, fallen short of their projected outcomes or failed.

Ernst and Young's study (cited in Cameron, 1997) of 584 companies in four industries (manufacturing, banking, information technology and health care) in the United States, Japan, Germany and Canada found that most firms had not successfully implemented their TQM practices.

Downsizing has been another attempt to improve productivity, efficiency, competitiveness and effectiveness in recent times. Unfortunately, two thirds of companies that shed some of their employees end up doing it again a year later and the stock prices of firms that downsized during the 1980s and early 1990s actually lagged the industry average by the middle of the 1990s (see Cameron & Quinn, 1999).

A third common approach to enhancing organisational performance has been reengineering - the attempt to redesign completely the processes and procedures in an organisation. Similar to TQM and downsizing initiatives, however, evidence suggests that this approach to change has also been largely ineffective. A survey was conducted of 497 companies in the United States and another 1245 companies in Europe (CSC Index, 1994). The study found that 69 percent of the former and 75 percent of the latter had engaged in at least one reengineering project. Unfortunately, the study reported that 85 percent of those firms found little or no gain from their effort. Less than half, for example, achieved any change in market share, one of the primary goals. The authors concluded that reengineering was not enough to achieve the desirable changes.

It is possible that most change programmes fail because they only bring about change in a given psychological state (e.g. behaviour). Changes in behaviour may occur without any cognitive development and knowledge may be gained without any accompanying change in behaviour (Fiol & Lyles, 1985; Swieringa & Wierdsma, 1992). Under these conditions it is probable that the outcomes of change initiatives will be minimal and short lived (Schein, 1999). For more longitudinal changes of greater magnitude, the organisation must learn. As learning by individuals is a prerequisite for organisational learning (Cameron & Quinn, 1999), this form of learning will be described first.

INDIVIDUAL LEARNING

Learning is defined as:

A relatively permanent change in behavior and cognitive operations...as a result of experience. This definition also implies that what is learned can be unlearned and thus that actions are flexible and can be adapted to changing environmental conditions (Lawson & Shen, 1998, p. 26).

Change in a given state is a necessary but not sufficient prerequisite for learning. Learning consists of changes in both action or adaptation (behavioural) and knowledge or insight (cognitive). Theorists have commented on the nature of the causal relationship between these two variables and consequently debated the

primary target for intervention. Beer, Eisenstat and Spector (1995) believe that individual knowledge, attitudes and beliefs are shaped by recurring patterns of behavioural interactions.

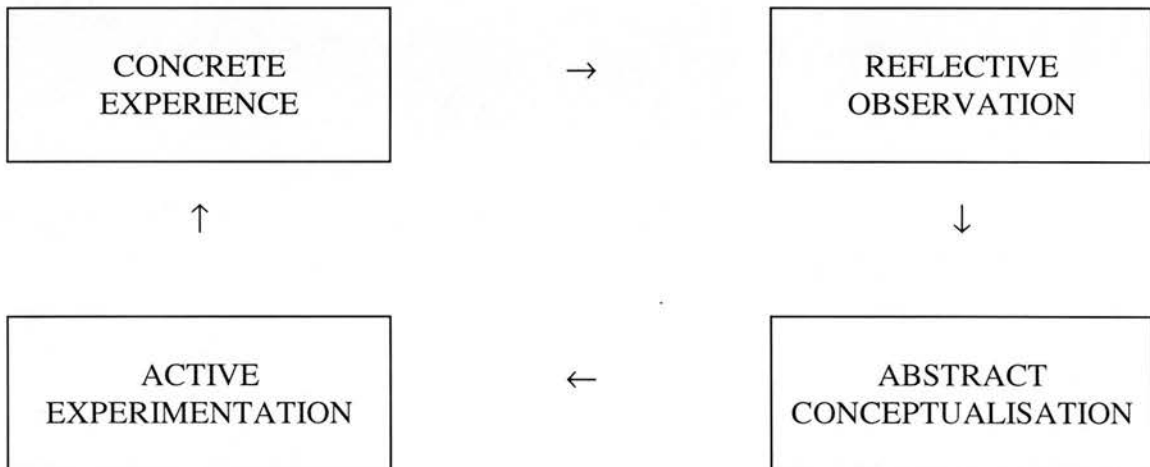
Conversely, CT is based on the premise that an individual's affect and behaviour are largely determined by their cognitions (see chapter 2). Individual thought patterns, therefore, constituted the primary focus for intervention within this research. There is evidence within the organisational literature to support this rationale. Drawing from empirical research and clinical experience, Schein asserts that behavioural development is dependent upon cognitive development (see below). Fiol and Lyles (1985) argue that learning is a process of improving actions through better knowledge and understanding. Moreover, Probst and Büchel (1997) state that changes in knowledge and value base lead to improved problem-solving ability and capacity for action.

Further evidence to support this relationship between cognition and behaviour is demonstrated by two influential psychological models. The first of these originated from the work of Kolb, Rubin and McIntyre's (1974) on individual experiential learning. These authors postulate a four-step repetitive cycle incorporating elements of concrete experience, reflective observation, abstract conceptualisation, and active experimentation (see figure 4). This cycle is summarised as follows:

Immediate concrete experience is the basis for observation and reflection. These observations are assimilated into a “theory” from which new implications for action can be deduced. These implications, or hypotheses, then serve as guides in acting to create new experiences (Kolb *et al*, p. 2).

The second influential psychological model was developed by Lewin (1947) and subsequently elaborated by Schein (1961a, b, 1964, 1972; Schein & Bennis, 1965). The model identifies the necessary psychological conditions that must be present for any change to occur and to be maintained over time. These are: unfreezing, changing and refreezing.

Figure 4: Kolb, Rubin and McIntyre’s Learning Model



According to these theorists, if change is to occur in more than minor incremental ways and persist, the social system must first experience significant disequilibrium. The creation of such disequilibrium Lewin called unfreezing, or creating a motivation to change. Schein found that unfreezing is composed of three very different processes, each of which must be present to a certain degree for the system to develop any motivation to change:

1. Enough *disconfirming data* to cause serious discomfort and disequilibrium. Organisational members are not likely to embrace change unless they experience some need for it. Dissatisfaction with the status quo might be manifested through various organisational symptoms (e.g. quality is poor, costs are too high, morale is low, sickness is up).
2. The connection of the disconfirming data to important goals and ideals causing *anxiety and/or guilt*. This requires establishing a discrepancy between what is current but not working well and some future goal that would make things work better. When organisational members recognise a gulf between these two states, they will be motivated via guilt or anxiety to reduce it.
3. The creation of *psychological safety*. To face disconfirmation, experience guilt or anxiety and be able to act or move, organisational members must believe that changing will not evoke a loss of identity or integrity and consequent loss of self-esteem. Such a situation might cause individuals to defensively deny any problems.



Once an organisation has been unfrozen, new learning can occur. This stage entails what Schein calls “cognitive restructuring”, that is, helping people to see things differently and to react differently in the future. He maintains that behaviour change will only persist unless cognitive change has either preceded or accompanied it. This stage can be accomplished by two main processes: identification with a significant other (e.g. new role model, mentor, manager or consultant) and scanning the environment for new relevant information (e.g. methods that appear to be working effectively within other organisations).

The final step in any given change process is refreezing, which refers to the necessity for the new behaviours and set of cognitions to be reinforced. Schein advocates that the changes can be integrated in two parts. Personal refreezing is the process of taking the changed way of doing things and making it fit comfortably with the person’s total self-concept. This may involve experimenting with new roles and behaviours and making adjustments as a result of feedback until the new way of doing things becomes reasonably comfortable. Relational refreezing is the process of assuring that new behaviours will fit with significant others.

Both these psychological models acknowledge the primacy of cognitions in ultimately determining the success of learning and change. Both models are somewhat limited, however, by the fact that neither Kolb *et al* nor Lewin or Schein elaborate upon the particular skills required to successfully learn or change.

The Role of Emotions

Learning, then, involves behavioural and cognitive changes. However, the role of individual emotions in determining learning outcomes must not be ignored. Research reviewed in chapter 1 has demonstrated that a person's affective state can influence their work-related thought processes. The precise nature of the causal relationship between emotions and behaviour remains to be clarified, however (see chapter 4 for an overview of research studies).

ORGANISATIONAL LEARNING

In the course of their development, individuals evolve cognitive patterns which influence their perception and interpretation of situations (Nisbett & Ross, 1980; Simon, 1960; Tversky & Kahneman, 1974). These cognitive patterns are responsible for individual views of reality. Just as individuals possess cognitive patterns, so organisations develop theories of action (Argyris & Schön, 1978, 1996).

Organisational researchers have described these theories of action in different ways. For example, as: organisational doctrines (Nystrom & Starbuck, 1984); organisational frames of reference (Shrivastava, 1983); mental or cognitive maps of the organisation (Weick & Bougon, 1986); organisational knowledge base (Pautzke, 1989); intersubjective views of reality (Berger & Luckmann, 1990); and knowledge structures (Walsh, 1995).

The concept of theories of action can be used at the individual and organisational level and can be taken to mean expectations about the consequences of particular behaviours under specific conditions (Pawlowsky, 1992). At an organisational level, the theories constitute the formal or informal expression of the economic, political, social and ecological goals of the organisation and are manifested in vision and mission statements, goals, culture, structures and power relations. These theories form the frame of reference of the organisation, which determine the image held by the public and employees of the company and ultimately make the actions of the system intelligible (Probst & Büchel, 1997).

The creation and evolution of theories of action is dependent upon organisations learning from their experiences. As stated previously, this process is precipitated by the learning of individuals. When this kind of learning is captured and shared with other members of the organisation in various forms (e.g. policies, standard operating procedures, cultural norms and stories) the learning becomes organisational (Lawson & Shen, 1998). This transformation from an individual to collective learning orientation is dependent upon 3 conditions (Klimecki, Probst & Eberl, 1994):

1. *Communication*: The development of a collective view of reality depends on mutual understanding by means of language. Without communication, there can be no agreement about reality or on the action which reality suggests. The knowledge of individuals cannot be made available to the organisation, and there can be no collective discussion leading to a shared frame of reference.

2. *Transparency*: If individual knowledge is to be transformed into organisational knowledge, the processes and outcomes of communication must be made accessible and transparent to all members of the organisation. Transparency presupposes the existence of a medium in which knowledge and symbolic values can be stored and thereby reflected upon. Organisations therefore fix their main ideas in the form of management principles, vision and mission statements, histories and other symbolic forms.
3. *Integration*: If the knowledge of individuals is to be made available to the organisation, then those individuals must be able to integrate their actions into the whole. An integrated structure not only serves to facilitate organisational action but can also be used to support the personal development of individual employees.

Though individual learning is clearly important to organisations, organisational learning is both quantitatively and qualitatively distinct from the sum of the learning processes of individuals (Probst & Büchel, 1997). Organisations develop and maintain learning systems that not only influence their immediate members, but are transmitted to others by way of organisational histories and norms (Lawrence & Dyer, 1983; Martin, 1982; Mitroff & Kilman, 1976). Hedberg (1981) states:

Although organizational learning occurs through individuals, it would be a mistake to conclude that organizational learning is nothing but the cumulative result of their members' learning. Organizations do not have brains, but they have cognitive systems and memories. As individuals develop their

personalities, personal habits, and beliefs over time, organizations develop world views and ideologies. Members come and go, and leadership changes, but organizations' memories preserve certain behaviors, mental maps, norms and values over time (p.6)

The effect of these corporate cognitive systems and memories on organisational performance and well-being is described in greater detail later in this chapter.

The Process of Organisational Learning

Theories of action are instrumental in precipitating organisational learning. Argyris and Schön (1978, 1996) distinguish between two kinds of theories of action: espoused theories and theories in use.

Espoused theories of action, according to Argyris and Schön, are the formal or informal expression of the goals of the company and form the framework of the institution. They are ideas and values according to which individuals or organisations officially direct their actions. There is usually broad agreement on them within the organisation and they normally spring from management principles held by the leaders. These theories amount to what should be happening within a given company. Contrastingly, theories in use refers to the theory of action which is implicit in the performance of a pattern of activity. Argyris and Schön assert that they are the

outcome of individual and group experiences and the interactions between them, in essence, what is actually happening within an organisation.

Discrepancies between what should be happening within an organisation (espoused theories) and what is actually happening (theories in use) trigger organisational learning processes (Probst and Büchel, 1997). This assertion is corroborated by Lewin's and Schein's change model outlined above. This discrepancy is often the product of changing environmental conditions, both internal and external to the organisation (Lawson & Shen, 1998; see chapters 4 & 5).

Once contrasts between espoused theories and theories in use have been identified, the goal of organisational learning is to change the knowledge base of organisational members (Probst & Büchel, 1997). The content of organisational knowledge has been classified into 4 types by Sackmann (1991, 1992):

1. *Dictionary knowledge*: This is descriptive knowledge (the 'what'). It contains the descriptions which are shared by members of the organisation, i.e. the definitions and references that are used throughout the system. It embraces language customs and terminology, e.g. customer satisfaction, customer focus, efficiency, lean management.
2. *Directory knowledge*: this is procedural knowledge (the 'how'). It embraces generally shared practices, and includes knowledge about cause-and-effect

relationships and chains of events. It answers questions like, 'What leads to customer satisfaction?', or 'What influences the market?'

3. *Recipe knowledge*: This is prescriptive knowledge (the 'should'). It offers instructions and recommendations, based on certain shared norms. This kind of knowledge includes guidelines for action such as quality levels, production times, choice of suppliers and benchmarking.
4. *Axiomatic knowledge*: This is knowledge about reasons and causes (the 'why'). It contains the premises for organisational action. Examples are goal-setting, formulations of company policies and basic values underlying business activity.

Learning in relation to these four areas of knowledge can occur at three different levels. Probst and Büchel (1997) describe these as: adaptive, reconstructive and process learning. Adaptive learning simply involves adapting knowledge and behaviour towards the attainment of goals but does not require changes in deeper cognitive structures. Reconstructive learning requires members of the organisation to challenge and, if necessary, modify the goals and hypotheses upon which the organisation is based. The central element in process learning is the improvement of the ability to learn. Here, the subject of learning is learning itself. This meta-learning involves employees knowing their ways of reasoning and perceiving, and being aware of their assumptions (Swieringa & Wierdsma, 1992).

It is argued that for an organisation to continually transform itself in response to constant environmental change, corporate members must develop more flexible

thinking styles. That is, the content of their knowledge base must reflect the fact that what is true today may not be true tomorrow and what occurs in a specific situation might not generalise to other situations. Accordingly, employees' attributions must become more unstable and specific (see chapter 2). This process involves successfully identifying and challenging their work-related thoughts and assumptions. It is hypothesised that development of these meta-learning skills amongst the workforce can lead to improved performance and well-being, and ultimately organisational transformation.

There is empirical evidence to support this reasoning. Proudfoot (1996) found that an optimistic attributional style (e.g. external, specific and unstable interpretations of negative events) lead to significant increases in work-related well-being and effectiveness (see chapter 5). Similarly, Seligman and Schulman (1986) and Corr and Grey (1991, 1995) reported that an optimistic attributional style was correlated with various organisational performance indices (see chapter 5). The hypothesis that unstable and specific work-related attributions can determine corporate success in environments of constant change will be elaborated upon throughout this thesis.

INFLUENCES ON ORGANISATIONAL CHANGE AND LEARNING

Five contextual factors have been found to influence the probability that organisational learning will occur. These are: corporate culture, strategy, processes, structure and the environment. Each of these factors have a reciprocal relationship

with learning in that they create and reinforce learning and are created by learning. Organisational culture has been found to be instrumental in determining the efficacy of organisational learning, development, and planned change. In view of the importance of organisational culture, particular attention was devoted to considering this area.

Cultural

Empirical research has demonstrated that organisational culture has a powerful effect on the performance and long-term effectiveness of an organisation (for reviews see Cameron & Ettington, 1988; Denison, 1990; Trice & Beyer, 1993). The most frequently cited reason given within the literature to account for the failure of most planned organisational change initiatives is neglect of the organisations culture (Caldwell, 1994; Gross, Pascale & Athos, 1993; Kotter & Heskett, 1992). Specifically, Cameron (Cameron, 1992, 1995; Cameron, Freeman & Mishra, 1991) has conducted empirical studies in more than one hundred organisations that have engaged in Total Quality Management (TQM) and downsizing as strategies for enhancing organisational effectiveness. The results of these studies are unequivocal. The successful implementation of both TQM and downsizing programmes, and ultimately the performance of the organisation, depended on having the improvement strategies embedded in the organisation's culture. When TQM and downsizing were implemented independent of a culture change, they were unsuccessful.

In addition to the above effects, the impact of organisational culture on individuals (e.g. employee morale, commitment, productivity, physical health and emotional well-being) is also well documented (see Kozlowski, Chao, Smith & Hedlund, 1993 for a review). Clearly then, culture can significantly influence the behavioural, cognitive and emotional development of an organisation.

An organisation's culture manifests itself in overriding ideologies and established patterns of behaviour (Martin, 1982; Schein 1983). Thus, culture consists of the shared beliefs, the ideologies, and the norms that influence organisational decision making (Beyer, 1981; Mitroff & Kilmann, 1976; Pfeffer, 1981). Schein (1992) maintains that culture is the accumulated shared learning of a given group. He defines the culture of a group as:

A pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to *perceive, think and feel* in relation to those problems. (Schein, 1992, p. 12, my italics).

An organisation's culture, then, reflects the basic assumptions that a group has learned as it has attempted to resolve environmental issues. External problems of adaptation include developing a consensus on the group's primary task, goals and strategies. Internal problems of adaptation include developing a consensus within the

group on common language and conceptual categories, group boundaries, power and status, intimacy, and rewards and punishments. For collective learning to occur there must be a set of people who have been together long enough to have shared significant problems of external and internal adaptation, who have had opportunities to solve those problems and to observe the effects of their solutions and who have taken in new members (Schein, 1995).

Culture appears at first to have a paradoxical relationship with organisational change and learning. It seems probable that contemporary business environments continue to demand that organisations are competent at learning, adaptation, innovation and perpetual change. Culture, however, is a stabilizer, a conservative force, a way of making things predictable. The function of organisational culture is to (Cameron & Quinn, 1999): reduce collective uncertainties; create social order, continuity, a collective identity and commitment; and elucidate a vision for the future. Therefore, by definition, organisational culture appears to exclude perpetual learning and change.

According to Schein (1992), however, culture and learning are not mutually exclusive. He advocates that it is possible to conceptualise of a culture that integrates learning and change as stable elements. Combining the ideas of Malone (1987), Michael (1985, 1991) and Senge (1990) about the organisation of the future, Schein attempts to describe the basic assumptions of a learning culture (see Figure 5).

Creating a culture that is orientated toward learning is extremely difficult to achieve, however:

Many companies have found that they or their consultants can think of new strategies that make sense from a financial, product or marketing point of view, yet they cannot implement those strategies because such implementation requires assumptions, values, and ways of working that are too far out of line with the organization's existing assumptions. In some cases, the organization cannot even conceive of certain strategic options because they are too out of line with shared assumptions about the mission of the organization and its way of working (Schein, 1992, p. 381).

According to Schein (1992), culture formation is the striving toward the human need for stability, consistency and meaning. To identify or even challenge the basic assumptions upon which a culture is created through process learning or deep reflection (see chapter 4) is intrinsically difficult because the re-examination of basic assumptions temporarily destabilises these human needs, thereby, precipitating large quantities of anxiety. This emotional response is likely to be even greater if the basic assumption constitutes an attempt at anxiety avoidance. Rather than tolerating such anxiety, people tend to want to perceive the events around them as congruent with their assumptions, even if that means distorting, denying, projecting or even falsifying what may have gone around them (Schein, 1992). Culture as a set of basic assumptions then, defines for organisational members what to pay attention to,

provides meaning, and informs them how to react emotionally to what is going on and what actions to take in various kinds of situations. If these assumptions are no longer questioned they eventually drop out of consciousness.

Figure 5: The Basic Assumptions of a Learning Culture (Schein, 1992)

ORGANISATION-ENVIRONMENT RELATIONSHIP	The more turbulent the environment, the more important it will be to demonstrate that control of the environment is both desirable and possible
THE NATURE OF HUMAN ACTIVITY	The appropriate way for humans to behave is to be proactive problem solvers and learners. Therefore the process of learning must ultimately be made part of the culture.
THE NATURE OF REALITY & TRUTH	Solutions to problems derive from a pragmatic search for truth and that truth can be found anywhere.
THE NATURE OF HUMAN NATURE	Must have faith in people and believe that ultimately human nature is basically good and in any case mutable.
THE NATURE OF HUMAN RELATIONSHIPS	A complex blend of individualism and groupism is required if people are to remain creative and innovators whilst at the same time being able to implement complex interdependent decisions.
THE NATURE OF TIME	The optimal time orientation for learning appears to be somewhere between far future and near future. One must think far enough ahead to be able to assess the systemic consequences of different courses of action, but one must also think in terms of the near future to assess whether or not one's solutions are working.
INFORMATION AND COMM	Communication and information are central to organisational well-being.
UNIFORMITY VERSUS DIVERSITY	Diversity should be stimulated and the assumption that diversity is desirable at the individual and subgroup levels promulgated. Such diversity will inevitably create subcultures, and those subcultures will eventually be a necessary resource for learning and innovation.
TASK VERSUS RELATIONSHIP ORIENTATION	People must be task and relationship orientated. In a complex, turbulent environment in which technological and other forms of interdependence are high one needs to value relationships in order to achieve the level of trust and communication that will make joint problem solving and solution implementation possible.
LINEAR VERSUS SYSTEMIC FIELD LOGIC	As the world becomes more complex and interdependent, the ability to think systemically, to analyse fields of forces and understand their joint causal effects on each other, and to abandon simple linear casual logic in favour of complex mental models will become more critical to learning. A learning culture must therefore be built on the assumption that the world is intrinsically complex, non-linear and overdetermined.

Processes

Organisational and social psychologists have identified processes which impede effective learning within groups (see West, Garrod & Carletta, 1997, for a review). Firstly, social conformity effects occur within groups. These effects have been found to cause group members to withhold opinions and information contrary to the majority view (Brown, 1988; Moscovici & Doise, 1994). Secondly, status, gender and hierarchy effects can also cause some members' contributions to be valued and attended to disproportionately (Brown, 1988). Thirdly, the norm of reciprocity is based on the assumption that people tend to react to other people in a manner similar to the way in which those people behave towards them (Fisher, 1980). This norm can create an accumulative effect within groups as each person's behaviour reinforces the similar behaviours of other group members. Fourthly, diffusion of responsibility can inhibit individuals from taking responsibility for action when working with others. People often assume that responsibility will be shouldered by others who are present in a situation requiring action (Darley & Latané, 1968). Finally, the social loafing effect is the tendency of individuals in group situations to work less hard than they do when individual contributions can be identified and evaluated. In organisations, individuals may put less effort into achieving quality decisions in meetings if they perceive that their contribution is hidden in overall group performance (West, 1994).

Structure

Duncan (1974) points out that different decision-making structures are needed in the same organisational unit, depending upon the degree of flexibility that is required. A centralised, mechanistic structure tends to reinforce past behaviours, whereas an organic, more decentralised structure tends to allow shifts of beliefs and actions. By reducing the information demands, the decentralised structure reduces the cognitive workload of individuals, thereby, facilitating the assimilation of new patterns and associations (Galbraith, 1973). Functional organisations may be efficient but are less likely to adapt (Fiol & Lyles, 1985). In fact, Meyer (1982) suggests that 'formalised and complex structures retard learning but that learning is enhanced by structures that diffuse decision influence' (p. 533). Hence, organisations can be designed to encourage learning and reflective action-taking, but this generally means moving away from mechanistic structures (Morgan & Ramirez, 1983).

Strategy

The organisation's strategic posture partially determines its learning capacity. Strategy determines the goals and objectives and the breadth of actions available for carrying out the strategy. Thus strategy influences learning by providing a boundary to decision making and a context for the perception and interpretation of the environment (Chandler, 1962; Cyert & March, 1963; Daft & Weick, 1984).

Similarly, the strategic options that are perceived are a function of the learning capacity within the organisation (Burgelman, 1983).

The strategic posture also creates a momentum to organisational learning. Miller and Friesen (1980) stress that the firm's strategic direction creates a momentum that is pervasive and highly resistant to small adjustments. Reorientations and adjustments occur as widespread revolutions that affect entire strategies.

Environment

If either the internal or external environment is too complex and dynamic for the organisation to handle, an overload may occur, and learning will not take place (Lawrence & Dyer, 1983). Hedberg (1981, p. 5) suggests that "learning requires both change and stability...between learners and their environments". Although too much stability within an organisation can be dysfunctional (there is little inducement to learn and/or change if established behaviours never grow obsolete), too much change and turbulence make it difficult for learners to map their environment (March & Olsen, 1975).

The process of learning involves the creation and manipulation of this tension between constancy and change; in fact, a certain amount of stress is a necessity if learning is to occur (Cangelosi & Dill, 1965; Hedberg, Nystrom & Starbuck, 1976). The level of stress and the degree of uncertainty about past successes determine the

effectiveness of the conditions of learning discussed, and they also influence how the environment is perceived and interpreted (Daft & Weick, 1984; Starbuck, Greve, & Hedberg, 1978; Weick, 1979).

SUMMARY

For organisations to be competitive and to survive within contemporary business environments, they must become competent at learning. Organisational learning begins with cognitive development at an individual level. In particular, employee's must become aware of their assumptions and strive toward making specific and unstable attributions about work-related situations. Various mechanisms transform individual learning into organisational learning, although numerous factors can influence the outcome of this process, the most significant of which is the corporate culture.

4) LEARNING AND CHANGING WITHIN WORK GROUPS

Work groups provide the foundations of modern organisations (see chapter 1). The rationale behind implementing team-based working practices within organisations is multi-faceted (see West, Borrill & Unsworth, 1998 for a review). Probably the most important reason for organising work activity in this way is that teams enable organisations to learn (and retain learning) more effectively (Senge, 1990), thereby, promoting organisational growth and survival (see chapter 3). In this chapter the importance of learning and changing for work group effectiveness will be considered. Lawson & Shen (1998) state that the term “team” and “work group” both embrace the idea of people in social interaction, people influencing each other, and people sharing some common purpose. Therefore, for the purpose of this research, “group” and “team” will be considered as two interchangeable constructs.

COMPONENTS OF WORK GROUP EFFECTIVENESS

Work group effectiveness can be measured across three outcome variables (see Figure 6). These are: group task effectiveness, group member well-being and group viability.

Figure 6: Components of Work Group Effectiveness

GROUP TASK EFFECTIVENESS	The extent to which the group successfully meets the competing criteria of task effectiveness held by interested stakeholders.
GROUP MEMBER WELL-BEING	The extent to which working in a team leads to better outcomes for members in terms of mental health and job satisfaction.
GROUP VIABILITY	The probability that a team will continue to work together and function effectively.

Group Task Effectiveness

The literature on organisational effectiveness distinguishes between efficiency (doing things right) and effectiveness (doing the right things) (Sundstrom, De Meuse, & Futrell, 1990). Efficiency can be defined as the output for a given input and how a team compares with similar teams on set criteria (Poulton, & West, 1994). Effectiveness is the team's ability to survive, adapt, maintain itself and grow (growth referring to size, innovation or skill development) (Goodman, 1986). There are three principal models of team effectiveness: (1) the goal model; (2) the system resource model; and (3) the internal process model.

The goal model (Clinebell, 1984; Hall, 1980) views teams as concerned with the attainment of certain end products or goals (e.g. profitability). This approach to measuring team effectiveness often involves assessing the extent to which the group is achieving the criteria of effectiveness set by the team's stakeholders (see chapter 6). Criticisms of this model (Bedeian, 1987) relate to the complexity of most teams which results in the pursuit of numerous goals at the same time. As these goals may conflict, effectiveness in one goal may be inversely related to attaining effectiveness in another.

The system resource model (Shipper & White, 1983) measures the team's effectiveness in its ability to exploit its environment in the acquisition of scarce and valued resources (e.g. attracting excellent staff). The disadvantage of this model is that, although a team may be successful in attracting the scarce resources, it does not follow that these resources will be utilised efficiently to produce the desired outcomes.

The internal process model (Evans, 1976) considers effectiveness as internal team health and efficiency, characterised by good problem-solving and team member well-being. A criticism of this approach is that the interpersonal skills of team members, for example, may be more important than the speed and efficiency of their work.

Group Member Well-being

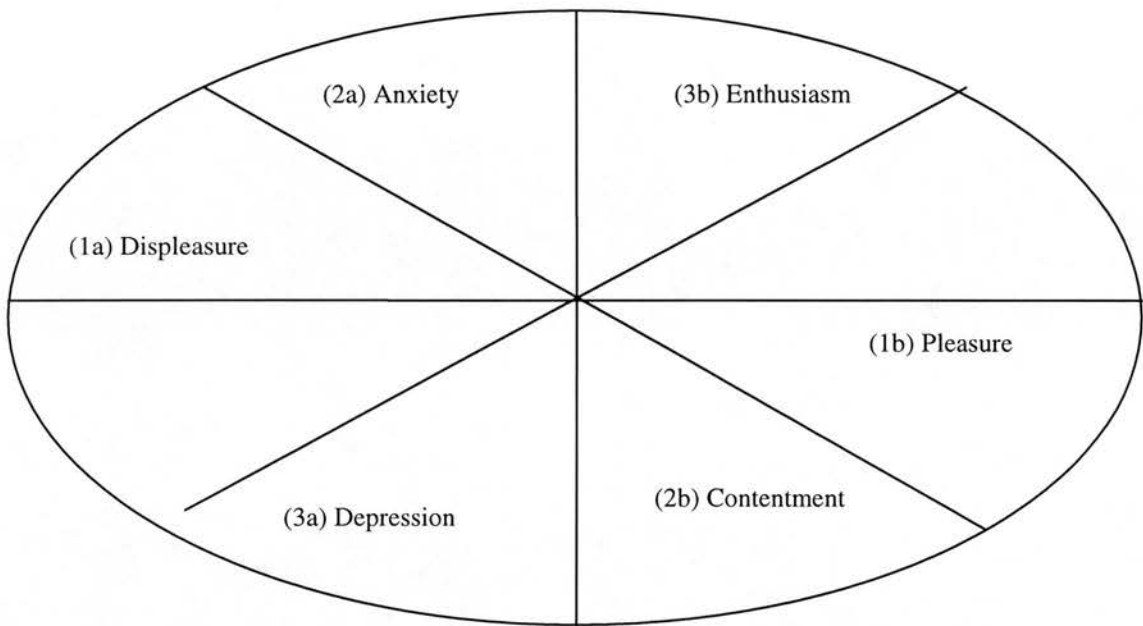
Group member well-being is an individual level variable and should not be misconstrued as a group level outcome (West, 1996). Well-being of all kinds is often viewed along a single dimension, roughly from feeling bad to feeling good. Warr (1999) states that such a dimension can capture important feelings, but advocates that it is preferable to think in terms of a two dimensional framework representing two independent dimensions of feeling: pleasure and arousal (see Figure 7). Such a framework has been substantiated in many investigations (e.g. Mathews, Jones & Chamberlain, 1990; Thayer, 1989; Watson, Clark & Tellegen, 1988).

Figure 7: A Two-Dimensional View of Well-being

		Aroused -	- Surprised
		Alarmed - A	- Excited
		Afraid - r	- Full of energy
		Tense - o	(+) - Enthusiastic
		Anxious - u	- Cheerful
		Uneasy - s	- Happy
		Dissatisfied - a	- Glad
	(-)	Discouraged - l	(+) - Pleased
			P l e a s u r e
		Dejected -	- Satisfied
		Miserable -	- Contented
		Depressed -	- Comfortable
		Sad -	- Calm
		Gloomy -	(-) - Relaxed
		Lacking energy -	- Tranquil
		Fatigued -	- Drowsy
		Bored -	- Sluggish

Within this framework, three principal axes of measurement are indicated (Daniels & Guppy, 1994; Lucas, Diener & Suh, 1996) and a person can be characterised in terms of his or her location on each of the axes (Warr, 1999). These axes are shown in Figure 8.

Figure 8: Three Axes for the Measurement of Well-Being



In view of the central importance of feelings of low or high pleasure (the positive pole of which is often examined as satisfaction or happiness), the first axis is in terms of the horizontal dimension alone. These feelings are often examined without attention to a person's level of mental arousal. The other two axes are differentiated in this respect and, by taking account of mental arousal as well as pleasure, they run diagonally between opposite quadrants through the mid-point of the figure. The

second axis runs from anxiety to comfort. Feelings of anxiety combine low pleasure with high mental arousal, whereas comfort is illustrated as low-arousal pleasure. Third is the axis from depression to enthusiasm. Feelings of enthusiasm and positive motivation are in the top-right quadrant, and depression and sadness (low pleasure and low mental arousal) are at the other end of the axis. The end-points of the arousal dimension are left unlabelled because this dimension on its own is not considered to reflect well-being.

Group Viability

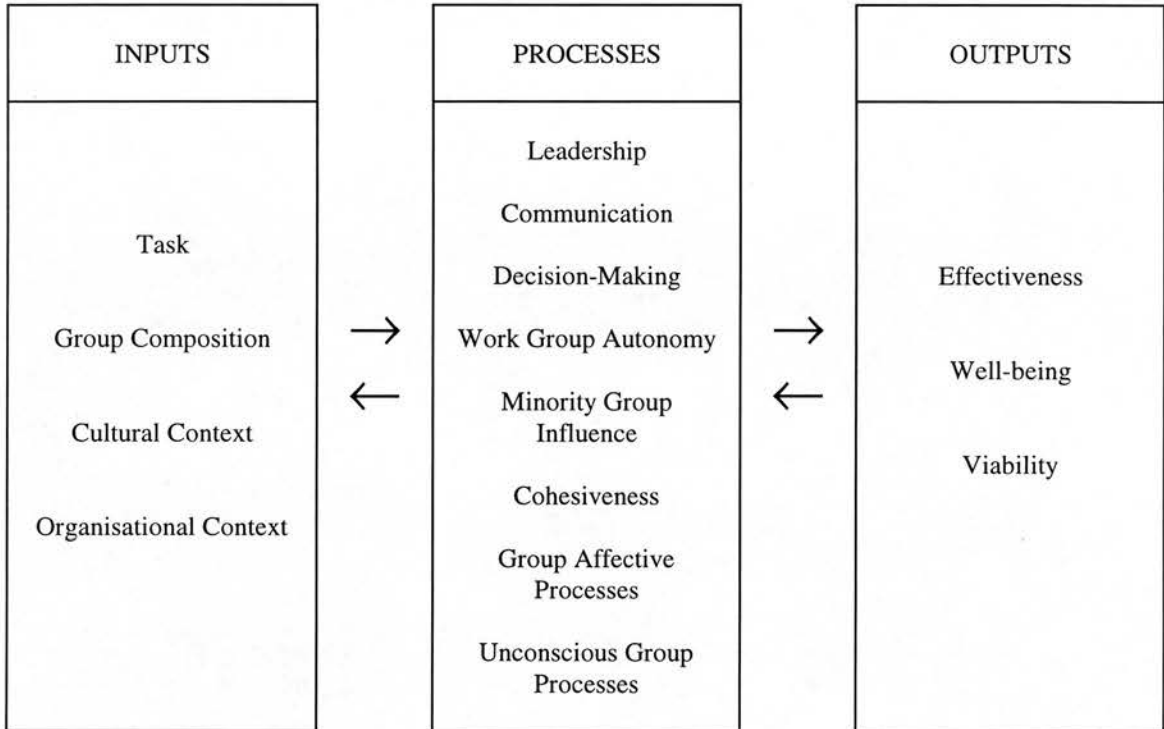
This component of team effectiveness relates to the probability that a team will continue to work together and function effectively. For a group to be viable, therefore, improvements in group task effectiveness and group member well-being need to be maintained over time.

CRITIQUE OF EXISTING MODELS OF WORK GROUP EFFECTIVENESS

Input-process-output models (see Figure 9) have dominated conceptual formulations of group effectiveness (Gladstein, 1984; Hackman, 1983; Hackman & Morris, 1975; Sundstrom, De Meuse & Futrell, 1990). These approaches represent descriptive structures that attempt to clarify broad classes of variables across diverse work groups. Mechanical manipulations of these variables is assumed to effect particular consequences (e.g. efforts to promote better communication amongst team members

will produce greater work group effectiveness and well-being). However, in an attempt to generate an overall theory of work group effectiveness, these approaches suffer from a number of important limitations. West (1996) outlines four limitations.

Figure 9: The input-process-output structure: influences on team effectiveness



The first concerns the diversity of work groups. West (1996) and West, Garrod & Carletta (1997) distinguishes between two types of teams at opposite ends of a decision-making continuum: simple decision-making groups and complex decision-making (CDM) groups. The former usually operate with relatively low control and discretion in environments that are relatively certain and predictable (e.g. shop floor teams). In contrast, CDM groups (e.g. senior management teams, primary health care

teams, social service teams, community psychiatric teams, project teams in commercial settings, nursing teams, and research teams):

- operate in uncertain, unpredictable environments.
- often work with complex and unpredictable technology.
- have task performance requirements which can change daily.
- have high team member interdependence.
- have autonomy over their day to day work.
- perform tasks which are complex, i.e. there are multiple elements and multiple interactions between elements.
- have multiple components of effectiveness and the team is responsible to many constituents.

In view of the fact that there is a rich and dynamic diversity between work groups, the aim of developing a generalised model to account for group outcomes across divergent settings seems unattainable. According to Hackman and Morris (1975), no single theory can encompass and deal simultaneously with the complexity of factors that can affect group task effectiveness.

Secondly, perhaps due to attempts to make them applicable across a multitude of work groups, the global models of team functioning are overly complex, as evidenced by the large number of variables included (e.g. Sundstrom *et al.*, include 17 variables; Gladstein over 20 variables; and Hackman 14). To investigate

empirically the representational validity of these models is, therefore, very challenging for researchers.

Thirdly, existing models of team functioning are largely descriptive and do not, therefore, make testable predictions or generate hypotheses. Consequently, their heuristic value is limited and they have largely failed to stimulate vigorous research endeavour and further theoretical development.

Finally, the approach of psychologists to understanding work groups has traditionally reflected a “technical-rational” perspective (Schön, 1983). This orientation is based on the notion that mechanical manipulations of the elements of input-process-output models can be undertaken in order to effect particular consequences. However, such static formulations ignore the fact that groups and their environments change over time (McGrath & O’Conner, 1996) and that goals are likely to be multiple and competing (Brodbeck, 1996).

TEAM REFLEXIVITY AND COMPLEX DECISION-MAKING GROUPS

In consideration of these theoretical and technical limitations, West (1996, 1999; West, Garrod & Carletta, 1997) has developed a focused and context-specific conceptual model of work group functioning. He proposes that what may best produce work group effectiveness in the specific case of CDM groups is an overarching factor influencing all aspects of team performance — team reflexivity.

The concept of reflexivity may be described in the following way:

Throughout the history of philosophy and psychology, this quality has been described as *consciousness, will, thinking, reason, judgement, reflection, agency, self-monitoring, recursion, [and] meta cognition* (Rennie, 1992, p. 224-225, italics in original).

For West, reflexivity encompasses both self-awareness and agency. Similarly, Soros (1998) states:

On the one hand, participants seek to understand the situation in which they participate. They seek to form a picture that corresponds to reality. I call this the passive or *cognitive function*. On the other hand, they seek to make an impact, to mold reality to their desires. I call this the active or *participating function*. When both functions are at work at the same time, I call the situation reflexive (p. 7, italics in original).

Undoubtedly then, reflexivity is an individual factor containing elements of both cognition and behaviour. In this sense, reflexivity is synonymous with learning (see chapter 3).

For groups involved in decision-making, there is evidence to suggest that over time a group pattern of thinking emerges that is more than the existence of a simple

collection of separate individual minds. The notion of 'group mind' has long been asserted by various researchers including Bion (1961), Freud (1960), LeBon (1985) and McDougall (1921). For example, Freud observed that individuals in groups tend to subjugate their individuality and act as though they were of one mind. Similarly, Bion asserted that a group's mentality exists beyond that of the individual group members in that the group's mentality connects group members by an unconscious agreement. Accordingly, West maintains that reflexivity can also be conceptualised as a group level phenomenon. Reflexivity as it relates to groups is defined as:

The extent to which team members collectively *reflect* upon the team's objectives, strategies and processes, as well as their wider organisations and environments, and *adapt* them accordingly (West, 1999, p 4, my italics).

West elaborates upon the potential content of these various domains of reflexivity. He maintains that team members may specifically reflect and adapt upon:

- *Team objectives*: their appropriateness, clarity, value to stakeholders and to team members, and the group's commitment to them, objectives in team meetings.
- *Team strategies or plans for achieving goals*: their detailedness, clarity, value, alternatives, time-span, effectiveness.
- *Team processes*: decision-making; leadership; communication; frequency and type of interaction between members; recruitment and selection; management of controversy and conflict within the team; methods of monitoring performance;

ways of seeking and responding to feedback; processes in meetings; self-appraisal; support for innovation; effectiveness.

- *Organisation*: goals, practices, supports for the team, information and communication systems, reward systems, appraisal systems, feedback on performance, intra-organisational linkages, cross team collaboration, wider social influence, environmental impacts.
- *Environment*: uncertainty, munificence, inter-organisational linkages, social and political context.

The Process of Reflexivity

Group reflexivity is a progressive, self-monitoring activity in which a team consciously engages. When teams examine their objectives, strategies, processes, organisations and environments, discrepancies between actual and desired circumstances are revealed. Moreland and Levine (1992, p. 19) state that, 'Every symptom embodies a contrast between realism and idealism: members realise that conditions within the team are not what they ought to be'. Team reflexivity then, is a continuous process of moving from a current to a desired reality. However, research has shown that this process can be aversive for team members (Cowan, 1986; Pounds, 1969; Smith, 1989). As a consequence of this increased arousal, team members motivation to reflect upon the functioning of the group may be reduced. Reflection, therefore, is unlikely to arise spontaneously within teams. It may, however, be precipitated by various circumstances. For example: team member

changes; team errors, failures and successes; conflicts within the team; and organisational conflicts, crises, shocks, surprises, obstacles and changes.

Once the reflexive process has been initiated by these current or anticipated endogenous or exogenous changes, the practice of reflexivity progresses through three (not necessarily linear) stages (Swift & West, 1998; West, 1999): reflection, planning and adaptation.

Reflection can vary according to depth of awareness or inquiry (superficial attention to conflict in the team versus sustained consideration of the process of team learning). The behaviours associated with team reflection are classified below in a proposed order of depth of reflection:

1. *Shallow reflection* is characterised by surface level attention, causal appraisal or cursory monitoring of work factors. It is the first level of awareness and cognition in the reflexivity process and is manifested as a scanning of events and situations by the team. Shallow reflection is characterised by a series of inter-related stages: attending, monitoring, questioning, reviewing, analysis, and digesting.
2. *Moderate reflection* means that the team conducts a more critical appraisal of tasks, objectives, strategies and processes. Openness to diverse ideas and learning through exploring are likely to take place at this level. The series of inter-related stages characterising moderate reflection are: evaluating; developing implementation intentions; generating alternatives; learning by exploring.

3. *Deep reflection* suggests a sustained consideration of learning processes by the team. This level is likely to involve: explicitly discussing assumptions within the team; developing explicit and collective understanding of objectives, strategies, processes, and representations of the wider environment; overtly assimilating changing views of aspects of the team (or its organisation or environment) into a new collective representation; learning about how the group learns.

The planning dimension of the process succeeds reflection and pre-empts adaptation. With sufficient detail, this intermediary stage is likely to result in action (Gollwitzer, 1996). Action Theory (see Frese & Zapf, 1994; Tschan & von Cranach, 1996) provides a powerful analysis of planning or action programming. The dimensions of the planning phase in the reflexivity model are drawn from the Frese & Zapf (1994) interpretation of Action Theory: detail, inclusiveness, hierarchical ordering, and time-scale:

- *Detail* is simply the extent to which a plan is worked out in detail before, as opposed to being worked out during action. The greater the detail of the plan, the more likely is reflection to culminate in action or adaptation (Gollwitzer, 1996).
- *Inclusiveness* of potential problems refers to the extent to which a team develops alternative plans in case of inadvertent circumstance.
- A priori *hierarchical planning* of plans is the extent to which plans are broken up into sub-plans before actions are commenced.

- *Time scale* is self explanatory; in uncertain environments both long and short range plans may be necessary to sustain effectiveness.

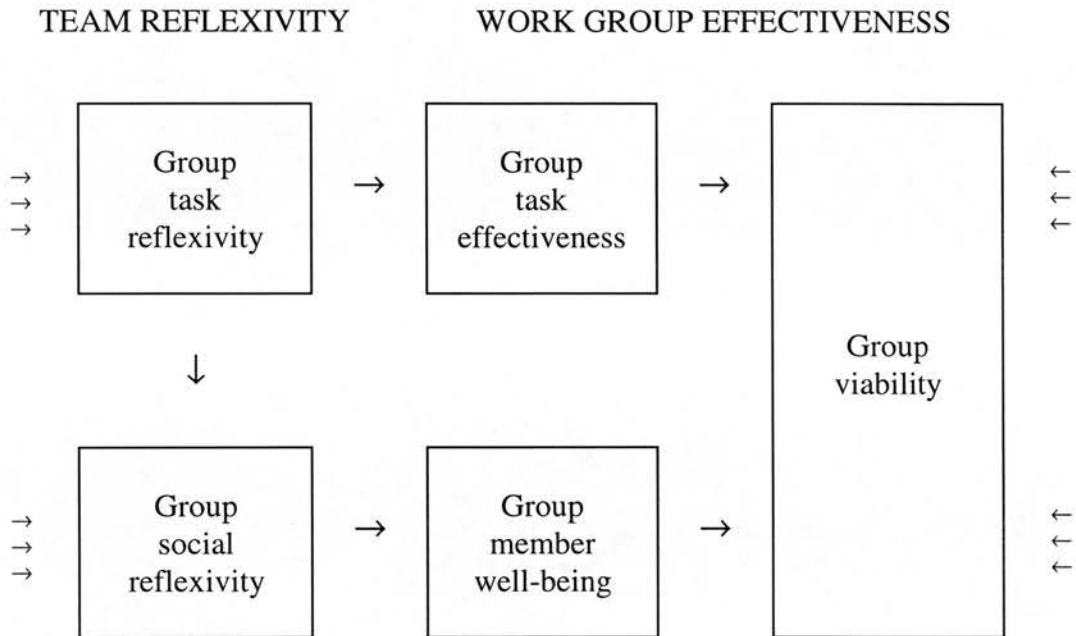
Action or adaptation refers to goal-directed behaviours relevant to achieving the desired changes in team objectives, strategies, processes, organisations or environments, identified by the team during the stage of reflection. The action phase of team reflexivity can be measured on four dimensions (West & Anderson, 1996):

- *Magnitude*. The scale of an action or change initiated by the team.
- *Novelty* refers to how new or different the action or change is for the team, organisation or other stakeholders.
- *Radicalness*. The extent to which the action or change represents a change to the status quo.
- *Effectiveness* is the extent to which the action or change achieves the goals the team members intend.

Team Reflexivity and Work Group Effectiveness

West asserts that group reflexivity will enable CDM groups to increase their work group effectiveness. The relationship between team reflexivity, group task effectiveness, group member well-being, and group viability is shown in Figure 10

Figure 10: The relationship between reflexivity and work group effectiveness in CDM groups (adapted from West, 1996)



Note: Large arrows = relationships between principal variables. Small arrows = extrinsic factors affecting principal variables.

West draws support for the hypothetical directions of causality depicted in Figure 10 from diverse academic literatures and from his own research with teams in both the public and private sector. The evidence for these various hypotheses will now be reviewed.

In formulating this model, West distinguishes between group task reflexivity and group social reflexivity (West, 1994). The former dimension of team functioning refers to those elements within teams that relate directly to the accomplishment of the task (e.g. team objectives, strategies, and processes). For example, a task orientation

is evident in all of the domains of reflexivity specified by West (see below). The latter dimension of team functioning describes processes within groups that influence how members experience the team as a social unit but are not directly related to task achievement. This would include social support, resolution of conflict, support for group member growth and development, and management of group climate. Interestingly, conflict resolution would appear to straddle both task and social dimensions since controversy can be either task or non-task based (Schein, 1999). West believes that group task reflexivity enhances group task effectiveness and develops group member well-being via group social reflexivity. The effect of team reflexivity over time is group viability.

Firstly, it is hypothesised by West that group task reflexivity will have a direct positive impact upon group social reflexivity. When a group develops patterns of task-related reflection and adaptation, it is argued that these will generalise to social functioning. Social learning theory (Bandura, 1971) would support a direct link between the ability to manage constructive task-related controversy, and the ability to manage non-task-based social conflicts effectively. Moreover, since part of task-based reflexivity may involve reviewing member interdependence and mutual task-based support, it is argued that this will generalise to consideration of non-task-based social support during times of difficulty and crisis. Similarly, since task reflexivity is likely to produce a climate of task excellence (West, 1990), this will also influence social climate. Finally, task reflexivity will stimulate members to explore new challenges and develop skills appropriate to meeting them. Successful skills

development will encourage group members to provide support for skill development of others within the group. In summary, it is argued that it is through enabling group members to work reflexively and actively together, thereby achieving effective change in their work environments, that people come closer together in mutual understanding, caring and support.

Secondly, it is proposed that group social reflexivity will not influence group task reflexivity or group task effectiveness in any direct way. There are a number of indications in the literature to support this assertion. A review by Mullen & Copper (1994) suggests that although there is a significant relationship between cohesiveness and performance, the direction appears to be from performance to cohesiveness, rather than vice versa. Reviews of the literature on team building interventions designed to improve social interaction processes and thereby group task effectiveness (Sundstrom, De Meuse & Futrell, 1990; Tannenbaum Salas & Cannon-Bowers, 1996) conclude that such interventions have reliably positive effects upon member attitudes and perceptions, but have no reliable impact on task effectiveness.

Thirdly, West argues that group task reflexivity will have a direct positive impact upon task effectiveness. Previous work suggests that task orientation (a similar construct) is associated with team innovation and effectiveness (see Anderson, Hardy & West, 1990; Ulich & Weber, 1996; West & Anderson, 1995). Tjosvold (1990) describes constructive controversy within groups as the extent of exploration of opposing opinions. He argues for a direct causal relationship of controversy with

effectiveness and offers empirical support for this proposition (Tjosvold, 1985). Similar notions, although not well developed, have been proposed by Shiflett (1979) in relation to groups and, at the organisational level, Argyris (1993) proposed the idea of 'double-loop learning' in organisations as an indication of members' ability to recognise and modify underlying assumptions about organisational functioning. At the individual level, Dörner (cited in Frese & Zapf, 1994) found that self-reflection was an important prerequisite in problem-solving. Those high in self-reflection solved problems better than those low in self-reflection. Furthermore, the number of self-reflections decreased under conditions of failure. In a study of 'superworkers', Dörner used complex computer simulations where subjects were required to take the role of a city mayor:

Successful subjects had more precise goals, asked more questions, particularly more "why" and more abstract questions...they also developed more hypotheses and tested their hypotheses...and did not "act out the moment"...they were more self-reflective and they thought more effectively about changing things rather than just describing them (cited in Frese & Zapf, 1994, p. 44).

Fourthly, West asserts that group task reflexivity will have a direct impact upon group member well-being via social reflexivity. The OD literature supports this assertion. Firstly, social support has been found to have an important buffering and possibly direct impact upon the well-being of individuals at work (Cohen & Wills, 1985; Sonnentag, 1996). Secondly, research has demonstrated that the quality of

relationships at work can be a powerful determinant of job-related well-being (see Sonnentag, 1996; Warr, 1987) and effective methods of interpersonal conflict resolution are therefore likely to have a significant impact. Thirdly, growth and development opportunities are an important component of group social reflexivity and have been found to directly contribute to well-being and stress (Nicholson & West, 1988; Warr, 1987; West, Nicholson & Rees, 1990). Finally, with regard to the fourth social determinant of well-being, in groups which provide a warm, friendly and pleasant environment, team member job-related well-being will tend to be good (George, 1996). The links from social functioning to group member well-being are therefore relatively uncontroversial.

Figure 10 denotes that there will be no causal relationship between well-being and effectiveness. Empirical research has found various affective experiences to be correlated with numerous types of work-related behaviour. These behaviours include: performance in the job; absence from work; staff turnover and discretionary activities (see Warr, 1999 for a review). The relationship between job satisfaction, anxiety and depression and work-related performance will be elaborated upon further.

Iaffaldino and Muchinsky (1985) conducted a meta-analysis of previous studies of job performance (usually indexed through supervisor ratings) and job satisfaction. They found that overall job satisfaction was significantly positively associated with performance. Petty, McGee and Cavender (1984) reported very similar findings, but also noted that the association of overall job satisfaction with rated performance was

stronger for managerial and professional employees than for others. Subsequent studies have replicated these results (Podsakoff, Mackenzie, & Bommer, 1996; Shore & Martin, 1989).

Ostroff (1992) examined this relationship at the level of entire organisations, hypothesising that those with more satisfied employees would be more productive than companies with less satisfied staff. In a study of 298 schools, standardised measures of academic performance, administrative efficiency and student behaviour were found to be significantly associated with teachers' overall job satisfaction. This pattern was retained after statistical controls were introduced for differences between the schools (e.g. student characteristics and the resources available). Standardised observational procedures were applied by Robertson, Gilloran, McGlew, Mckee, McInley and Wight (1995) in a study of nurses' delivery of geriatric health care. These researchers found strong differences in the quality of care between wards with nurses whose overall job satisfaction was either high or low.

It seems likely that employees who report more job anxiety might be experiencing difficulty in coping with job demands and thus be liable to perform relatively less effectively. Very few investigations into this probable negative correlation between job-related anxiety and job performance have been conducted. However, a study by Jamal (1984) concluded that higher levels of job-related tension were associated with lower supervisory ratings.

Warr (1999) suggests an alternative hypothesis and postulates that the relationship between job tension and performance is one of an inverted-U, such that moderate demands are linked to raised but manageable job-related tension and also to high performance, but that both lower and higher levels of tension (and job demands) are accompanied by lower performance. Anderson (1976) suggests that this was the case in data from a sample of small-business owners. Further research is need, however.

Motowidlo, Packard and Manning (1986) examined the association between nurses' job-related depression and ratings by supervisors and co-workers of their interpersonal effectiveness and of their cognitive/motivational effectiveness. In both bivariate and multivariate analyses, job-related depression was significantly associated with lower effectiveness of both kinds.

The relationship between work-related well-being and behaviour is thus well established. In his theorising, West (1996) advocates that group task reflexivity will have an indirect positive impact upon group member well-being via group task effectiveness. According to West, high levels of group task effectiveness will affect individuals' sense of job competence and thereby reduce work-related anxiety or depression. Moreover, job aspirations will be met and raised, giving individuals a sense of accomplishment and commitment, with consequent benefits for well-being. However, there is no evidence within the empirical literature to support this assertion since the direction of causality between well-being and performance remains unclear. For example, it would not necessarily be the case that good work performance is a

direct result of high job satisfaction as the opposite might be true (i.e. good performers might be more satisfied as a result of their effective performance). Indeed, a third factor (or several of them) might bring about high performance and high satisfaction, for instance, managerial style. Further research is required to address these aetiological issues. Figure 10 has, therefore, been modified to reflect this fact.

Finally, West predicts that group task reflexivity will promote group viability over time. Pervasive reflexive thinking within the group will promote prolonged group task effectiveness and positive group member well-being, and hence group viability.

SUMMARY

West maintains that a continuous cycle of reflection and adaptation amongst team members will produce team effectiveness. This circular trend is similar to that proposed by Kolb, Rubin & McIntyre (1974, see chapter 3). Therefore, West's theory of team reflexivity equates to a model of group learning. His theorising also supports the basic premise put forward in this research, namely, that for organisations to develop a learning culture and consequently deal more effectively with constant environmental change, a more unstable and specific attributional style needs to be developed amongst organisational members. This reasoning is similar to West's notion of groups having to continually reflect upon and adapt their objectives, strategies, processes, organisations and environments in light of current or anticipated change.

West (1996) concludes that modern organisations are not very reflexive. He argues that in most cases coaching is required to develop competence in reflexivity, but offers no guidance as to how this coaching might be best achieved. If the potential of work groups is to be realised, reflexivity in group functioning, therefore, requires considerable practical development.

5) COGNITIVE MANAGEMENT: USING COGNITIVE THERAPY TO FACILITATE ORGANISATIONAL CHANGE & LEARNING

The importance of change and learning for organisational survival and growth and the inability of many organisations to develop competency in these areas is evident. Despite recognition of the primacy of people factors in determining the successful implementation of change (Benjamin & Mabey, 1993), current methodologies do not always acknowledge the significance of individual level variables in determining the outcomes of the change process. Furthermore, those interventions that do acknowledge the importance of people in implementing change have been criticised for being reverential and utopian:

Paradise, they would have you believe, is just around the corner...Their focus is high philosophy and grand themes, sweeping metaphors rather than the gritty details of practice...The recommendations are far too abstract, and too many questions remain unanswered (Garvin, 1995, p. 97).

There is potential, therefore, for innovative approaches to be introduced into the organisational arena.

THE THEORETICAL APPLICATION OF COGNITIVE THERAPY WITHIN ORGANISATION

Beck's cognitive model of emotional disorders (see chapter 2) asserts that an individual develops dysfunctional assumptions as a result of their experiences. These assumptions lie dormant until activated by an event that is similar to the circumstances that created the assumption in the first instance. Once operational, the assumption generates a flood of distorted negative automatic thoughts. These thoughts ultimately determine how an individual responds emotionally and behaviourally to their environment.

The model could easily be used to facilitate comprehension of common organisational issues. For example, an employee may have worked hard for some work-related exams but failed them. This might have led to the formation of the dysfunctional assumption 'I'm no good at my job'. This assumption may be dormant until the quality of the employee's work is questioned by management. This event might lead to the generation of negative automatic thoughts like 'I'm no good at my job', 'It's not worth working hard' and 'My work is not good enough'. The consequences of such thoughts might be lowered performance, increased withdrawal from the workplace, increased anxiety and low mood.

There is evidence within the applied organisational literature to support the development of CT formulations to account for various organisational phenomena.

For example, individual perceptions have been found to result in people defining problems very narrowly, having an inability to see problems from more than one perspective and an inability to distinguish relevant information from all the information that is available (Nisbett & Ross, 1980; Simon, 1960; Tversky & Kahneman, 1974).

Schein (1999) states that individuals see and hear more or less what they expect or anticipate based on prior experience, and block out a great deal of information that is potentially available if it does not fit people's expectations, preconceptions and prejudgements. Similarly, Miller (1993, p.119) observed that, while managers generally start out by attempting to learn all they can about their organisation's environment, as they gain experience, they 'form quite definite opinions of what works and why'. As a consequence they tend to limit their search for information and knowledge. In this way experience may actually be a barrier to organisational change and learning as it may be reasonable to assume that employees may neither welcome nor be able to accept approaches to change which require them to challenge and amend their own beliefs, especially where such approaches run counter to their experience of 'what works and why'.

COGNITIVE THERAPY AS AN ORGANISATIONAL INTERVENTION

CT aims to bring about change and learning at an individual level. This operational level is appropriate when attempting to develop an organisation as individual

learning is a prerequisite for organisational learning (see chapter 3). Furthermore, although various contextual factors (e.g. strategy, the environment) have been found to have a reciprocal relationship with learning in that they create and reinforce learning and are created by learning, individuals are depicted at the centre of any cause and effect relationship (see chapter 1). Therefore, beginning at this level provides the greatest propensity for change.

Many organisational scholars maintain that for individual learning to be effective, development must primarily occur at a cognitive level (see chapter 3). Buchanan and Boddy (1992) argue that for change programmes to be successful, employees must first be prepared to challenge their own assumptions, attitudes and mindsets so that they develop an understanding of the emotional and intellectual processes involved in change. Swieringa and Wierdsma (1992) reported that changes in corporate thinking patterns can lead to work-related behaviours that correspond better to the goals of the learner. Furthermore, cognitive change has been shown to increase the range of potential actions available to the employee (Probst & Büchel, 1997). Here, CT is likely to be appropriate as the psychotherapeutic approach attempts to bring about behavioural and emotional change by explicitly focusing upon the individual's cognitions.

At a technical level, there are many similarities between CT strategies and OD methods. According to Garvin (1995), for a company to develop and maintain it's

capacity to learn effectively, organisational members must be competent at a number of activities:

1. *Systematic problem solving*. This activity includes: relying on the scientific method, rather than guesswork, for diagnosing problems; pushing beyond obvious symptoms to assess underlying causes; insisting on evidence, rather than assumptions, to guide decision making.
2. *Experimentation*. This activity involves the systematic searching for and testing of new knowledge.
3. *Learning from past experiences and others*. Systematically reviewing past successes and failures and learning from the successes and failures of others.

The research reviewed so far would add to these activities. Accordingly, organisations must develop the following additional skills:

1. *Deep reflection* (see chapter 4) and *process learning* (see chapter 3): A sustained consideration of how an individual, group or organisation learns; challenging and if necessary modifying organisational assumptions; developing an explicit understanding of organisational objectives, strategies, processes, and representations of the wider environment; and knowing personal cognitive biases.
2. *Planning* (chapter 4). Detailed planning before, as opposed to during action; the generation of alternative plans; breaking up of plans into sub-plans before actions are commenced; and the development of both long and short range plans.

3. *Theories-in-use and espoused theories* (see chapter 3). Recognising discrepancies between what is meant to be happening and what actually is happening, and using this insight to stimulate organisational learning processes.

CT can provide individuals with the skills necessary to engage successfully in most of these activities. Systematic problem solving, planning and experimentation are an integral part of CT. The method is problem-orientated and focuses upon solving clients' problems. CT does not attempt to resolve all the difficulties brought by the client to therapy, rather, the approach teaches strategies to promote self-sufficiency and methods to resolve future problems. Participants are encouraged to plan for any medium to long term difficulties. In addition, CT is based on a scientific framework. Although little time is spent gathering background information or searching for the aetiology of problems, the psychotherapy dictates that decisions are made on the basis of current factual information. Furthermore, clients are taught to consider their beliefs as hypotheses, not as proven; to pay attention to all facts and not to arbitrarily exclude certain ones; to test hypotheses against reality; and to revise hypotheses and experiments according to new incoming data.

CT is able to provide the client with an understanding of their unique learning history. Under the guidance of the cognitive therapist, they are able to reflect upon their past experiences and conceptualise how particular assumptions came into existence. The approach does not explicitly require people to consider the successes and failures of others. Realistically, however, it may not be too difficult to apply the

methods used to evaluate their own experiences to the experiences of others. In this sense, CT partially satisfies the requirements of activity 2 outlined above.

It is arguably in relation to deep reflection and process learning that CT will be most effective when applied to organisations. CT provides the individual with a comprehensive understanding of how humans learn. This understanding begins by demonstrating the significance of automatic thoughts in determining a person's emotional and behavioural responses to events and how these cognitions can be distorted. Various techniques to identify and challenge automatic thoughts are taught to clients. At a later stage in therapy, the individual is educated in the role of assumptions in producing automatic thoughts. He/she then receives instruction in the skills required to identify and, if necessary, modify their assumptions.

COGNITIVE THERAPY, ATTRIBUTIONAL CHANGE AND ORGANISATIONAL PERFORMANCE

CT has been repeatedly found to be effective in producing change and learning at a clinical and non-clinical level (see chapter, 2). Empirical research has suggested that these outcomes are achieved via changes in patients' attributional style (AS). This is potentially significant when considering the application of CT to organisations because the research literature suggests that work-related attributions can be instrumental in determining organisational performance and well-being. Three

empirical studies that have been conducted in the insurance sales industry are reviewed here.

Seligman and Schulman (1986) tested the hypothesis that AS is important in insurance selling by conducting two studies, one concurrent and one predictive. The former study showed that high levels of negative AS impaired sales performance. The latter study illustrated that the difference between positive AS and negative AS correlated with amount of insurance sold and the rate of quitting. These data confirmed that optimistic individuals performed better than their less optimistic colleagues and were more likely to survive in insurance. In another study, Corr and Gray (1991) conducted a concurrent validation study in a large U.K. insurance company. The results demonstrated that positive AS predicted: (1) amount of business sold; (2) ratings of business knowledge and relationships with clients and colleagues; and (3) national rank order of salespeople. The same authors went on to replicate these results in a different U.K. insurance company (Corr & Gray, 1995). Recently, Proudfoot (1996) found AS to significantly effect various organisational performance indices. This study is outlined in detail below.

It would appear then that employees' attributions for work events are causally related to organisational performance and turnover. Given the demonstrated efficacy of CT in producing attributional change within a clinical and non-clinical population, the psychotherapy may be able to improve organisational performance by producing similar cognitive changes amongst employed persons.

COGNITIVE THERAPY AND ORGANISATION DEVELOPMENT

As systems of change, CT and OD share many similarities (Proudfoot, 1996). Both disciplines are based on an educational model and underpinned by self-help principles. Each is grounded in a body of scientific knowledge and informed by theory, which evolves as empirical investigations are conducted (this feature is more established in CT than OD, although it is increasing in the latter). Furthermore, both systems operate as structured process, with several stages in common. Both CP and OD have an assessment stage, which informs the goal-setting procedure for the intervention and is conducted collaboratively between consultant or therapist and client. In both CT and OD, the goals determine the design and process of the intervention. Specific techniques are included to ensure generalisation and maintenance of outcomes. Finally, ongoing evaluation is an integral part of both systems. The transition from the clinical domain into an organisational context may not, therefore, be too difficult given the similarities between CT and OD.

EMPIRICAL SUPPORT FOR THE ORGANISATIONAL APPLICATION OF COGNITIVE THERAPY

The final source of evidence to support the organisational application of CT originates from an unpublished empirical study. Proudfoot (1996) developed a programme based on CT for use with the insurance industry¹. 166 Pearl Assurance

¹ This course is the same as the programme reported in her 1997 study.

Company Sales Representatives, identified by their managers as experiencing stress or failure, were randomly assigned to either an intervention group (n = 81) or waiting list control group (n = 85). The latter group received the course 3 months after the experimental group. The intervention consisted of a 7 week programme based on CT principles and methods called, 'Managing Resilience'. Various outcome measures were taken. These included: attributional style, work-related self-esteem, job satisfaction, psychological strain, intention to quit, employee turnover, sales activity and sales productivity.

With regard to cognitive and affective outcomes, significant positive group differences were reported in positive and negative attributional style, work-self-esteem, job satisfaction, intention to quit and psychological strain. Furthermore, these psychological improvements persisted at 3 months follow-up.

Behaviourally, there were 3 times as many resignations in the control group (10/85, 12%) as in the experimental group (3/81, 4%) from commencement of the programme to 3 months post intervention. Reports from the company 2 years after the completion of training indicated that the original gains in staff retention had been maintained. This result is likely to be significant as the cost of replacing sales staff (recruitment, training, business lost etc.) for the Pearl Assurance Company was estimated to be £25,000 per person in the U.K. According to the company's calculations, the savings associated with the Managing Resilience programme would have been in excess of £4,000,000 when applied to the organisation as a whole. No

significant group differences were recorded in sales activity (defined as number of people approached, number of appointments obtained for sales presentations and number of referrals gained), however.

Performance was measured in terms of sales performance (number of sales made and premium value of policies sold). In the short term, there were no discernible improvements in course participants' sales productivity. The Pearl's Personnel Support Section analysed the long term outcomes from the programme. For the first 12 months after the completion of the courses, they plotted the monthly life assurance sales of the participants with the equivalent sales figures for non-participating Sales Representatives (n = 911), and reported that up to week 24, the sales of course participants were consistently below those of non-participants. Interestingly, however, thereafter their productivity compared favourably with that of non-participants and even exceeded it in some cases. By week 36, course participants were selling an equivalent number of policies to non-participants, and by week 48 they were selling more.

A similar pattern occurred with regard to premium value. Comparisons of the average value of premium sold during the same period, indicated that prior to week 24, non-participants sold higher valued policies, but from that point until the end of the year, the course participants sold higher valued policies than their non-participating colleagues.

The research samples were followed-up two years after the completion of training. In relation to performance, 50% of the sample were found to be performing above the company average, with an additional 15% of the sample performing within 5% of the average. Considering that prior to commencing the programme the delegates were not performing well, these longitudinal results are highly significant.

Preliminary investigations into the efficacy of CT within organisations have, therefore, been very promising. Two shortcomings of Proudfoot's work are worth considering, however. Firstly, her programme was based on individuals and not work groups. Given that groups constitute the foundations of many modern organisations, the validity of her approach might be somewhat limited. The second criticism relates to Proudfoot's measure of attributional change. In adopting the revised learned helplessness model (see chapter 2), she specified that an optimistic AS involves internal attributions for successes and external attributions for failures. This approach has also been utilised by other researchers investigating the relationship between attribution and organisational performance (e.g. Corr & Gray, 1991, 1995; Seligman & Schulman, 1986). However, within an organisational context, it may be neither realistic nor appropriate to attribute a bad outcome to events or people beyond the self. Such reasoning may discourage people from taking responsibility for their actions, a psychological state that could easily have disastrous consequences for the organisation.

It is proposed here that internal and external attributions are less important than stable/unstable and global/specific dimensions when considering the effects of attributional processes upon corporate performance. In environments that change constantly, it is hypothesised that employees will be more effective if they continuously make unstable and specific attributions to account for organisational phenomena (see chapter 3).

DEVELOPMENT OF THE COGNITIVE MANAGEMENT PROGRAMME

The preceding discussion has demonstrated that there is sufficient evidence to support the organisational application of CT. Various theoretical, interventionist, methodological, mechanistic and empirical reasons have been presented to support the introduction of CT based interventions within organisations to promote change and learning.

A programme, called Cognitive Management (CM), was developed for use with CDM groups (see chapter 4). Designed to operate at the interface between clinical psychology and OD, the course integrated CT theory and techniques with OD methods. A copy of the CM programme can be found in Appendix 1. The general aim of CM was to increase the learning potential of group members, thereby, promoting work-related well-being and effectiveness at both an individual and a group level (see chapter 6). Over time, as delegates' used CM techniques to resolve

organisational problems, it was predicted that a learning culture would be created (see chapters 3 and 6).

To achieve these outcomes, delegates' were provided with the cognitive skills to be able to identify and challenge their work-related automatic thoughts and assumptions. In particular, participants were encouraged to use various CM strategies (based on CT methods) in relation to work specific objectives, strategies, processes, and the wider organisation and environment (see chapter 4). Delegates were also provided with the behavioural skills to communicate and problem solve effectively with regard to each of these organisational areas.

The characteristics of CM are as follows:

1. Based on a coherent cognitive model used extensively in psychology to facilitate change and learning.
2. Multi-disciplinary research orientated.
3. Formulated around a general scientific framework.
4. The programme is a 25 hour intervention presented over a 4 month period.
5. CM consists of 7 group sessions and 4 personal consultations. Structured in a graded hierarchy.
6. Educational, presenting techniques as skills to be acquired through practice, reflection and feedback within each participant's work environment.
7. Tailored to the specific needs of the organisation, group or individual.

8. Problem-orientated and task-based in its orientation.
9. Focused upon the generalisation and maintenance of skills within an organisational context.

Scientific Foundations

CM is an integrated training strategy. The core of the programme is based on the principles and methods of Beckian CT, with one modification. In view of recent concerns regarding whether 'reality' can be objectively verified, a constructivist approach was integrated into the programme. Constructivist approaches to CT view reality as socially constructed, rather than objectively verifiable 'truth'. These theories call into question the equation of mental health with the accuracy, rationality or positivity of cognitions, and the corollary assumption that any beliefs that fail to correspond to objective reality are, by definition, dysfunctional (Neimeyer, 1993). Accordingly, CM was based on the premise that the viability of any cognition or theory of action (see chapter 3) is a function of its consequences for the individual or group that adopts it, as well as of its compatibility with the wider organisation of which it forms a part (see Neimeyer & Harter, 1988). Thus, the goal of CM was to foster the broader development of the delegates' work-related cognitions. Using various techniques, team members were encouraged to develop their theories of action from stable and global corporate attributions to more unstable and specific organisational cognitions (see chapters 2, 3, 4, and 6).

In addition to these CT influences, various theories and scientific studies from more diverse academic literatures influenced the design of CM. The main non-clinical influences were: West's work on group task reflexivity (see chapters 4); Schein's theorising on organisational culture and change (see chapter 3) and his conceptualising on communication and problem solving (Schein, 1999); and Lewin's change model (see chapter 3).

The general framework of CM is based on the scientist-practitioner model. This metaperspective has gained recognition within clinical psychology as providing a model to guide the process of clinical work (Dallos & Cullen, 1990). Shapiro (1985) summarises the scientific approach to clinical psychology in this way:

It produces a style which can be described in terms of five features: (1) a continuous and critical assimilation of the relevant general and critical literature; (2) a wholistic awareness of the total context of psychological, social and somatic (biological) influences upon the person's dysfunctions; (3) a critical, i.e. scientific, eclecticism in the selection of explanations and procedures; (4) an attention to the effects of the clinician's own emotional needs upon professional behaviour; and (5) a continuous attention to both idiographic (individual) and nomothetic (general) evaluation of both assessment and treatment procedures (p.10).

The framework of the general scientific method then, involves clear descriptions of problems, the formulation of one or more provisional working hypotheses guided by psychological knowledge and based upon detailed initial observation and information gathering, and the testing of the hypotheses by observation, monitoring and other forms of assessment. According to Dallos and Cullen (1990, p. 753), this approach has to main advantages:

(1) It helps to clarify and to maximise the accuracy of assessment since clinical psychologists have to examine their assumptions repeatedly, including their own preconceptions, needs, prejudices and moral attitudes. Likewise, the continual process of assessment reveals the effectiveness or otherwise of the treatments adopted. (2) It helps the clinician to find his way through the complexities of clinical work. A working hypothesis helps to organise and manage the proliferation of sometimes contradictory information that can otherwise become overwhelming.

CM has sought to apply the scientist-practitioner model to organisational problems. This approach is similar to Action Research (see Rollinson, Broadfield & Edwards, 1998, for an overview). This is a databased method used for the implementation of change within organisations that emphasises collection of data, diagnosis, feedback, action and evaluation.

Content

The CM programme consisted of 7 modules. The content of each session was as follows:

1. *Assessment.* This module was adapted from the assessment framework described by Kirk (1989). Various methods of data collection were utilised during the assessment process. These included: a functional analysis; a stakeholder analysis; one-to-one interviews with each delegate; self-report measures of well-being, attributional style and team functioning (see chapter 9 for a detailed description of each measure) and participant observations. Using these methods, detailed information was sought on the presenting problem(s). This included: the nature, antecedents, consequences and development of the problem(s) and delegates motivation towards and attempts to resolve the difficulty or difficulties. The group's stakeholders were also identified and data collected on: the criteria each of these stakeholders might use to evaluate the effectiveness of the team; and an indication of how well the team felt it was performing in relation to each of these criteria. Throughout the module attempts were made to socialise delegates into CM.
2. *Introduction to Cognitive Management. The ABC model and identifying automatic thoughts.* The characteristics of CM and an overview of the programme were presented, together with a consideration of what constitutes effective teamwork and potential barriers to action. The relationship between

circumstances, reflection and adaptation was outlined and demonstrated by a case study on the Challenger Space Shuttle Disaster. The characteristics of automatic thoughts were described followed by individual and group exercises on each of these areas. To conclude, the rationale behind between-module assignments was introduced and potential problems highlighted.

3. *Challenging automatic thoughts.* Delegates' were taught various distraction techniques and methods to challenge automatic thoughts. Much of the session was devoted to the practical application of these cognitive strategies by getting participants to apply them to various work-related situations. The module concluded with guidelines on how to complete the second homework exercise.
4. *Identifying and modifying assumptions.* The characteristics of functional and dysfunctional assumptions and their relationship to automatic thoughts were presented. Delegates' were introduced to the notion of organisational culture and the role of assumptions in maintaining cultural paradigms. Participants were provided with instruction in how to identify and modify work-related assumptions and time was devoted to evaluating a specific organisational assumption that was familiar to all delegates.
5. *Group problem-solving and decision-making:* The bulk of this module was devoted to discussing the various stages required for effective problem-solving. Participants attention was also drawn to various group processes that can impede effective problem-solving. Attempts were made throughout the session to resolve an organisational problem that was pertinent to delegates.

6. *Group communication.* Various levels of communication were discussed and an overview of communication principles presented. These principles were then elaborated throughout the module. Consideration was also given to how CM techniques could be used to facilitate better communication.
7. *Maintenance and evaluation.* CM theory and techniques were reviewed. An organisational model was presented and methods to enhance the maintenance of CM within the delegate's own organisation were explored. Future problems were identified and discussed. The potential benefits of the programme were reviewed and participant feedback was sought on the success of CM in achieving these outcomes. Positive and negative aspects of the programme in general were also evaluated.

With the exception of the modules on problem-solving and communication, the content of the CM programme was very similar to that used with individual patients receiving CT. These two extra sessions were included for various reasons. Firstly, it appears from consideration of West's domains of reflexivity (see chapter 4) that most of the factors (e.g. strategy) he identifies as contributing towards effective team functioning are dependent upon competency in communication and decision-making. That is to say that a team strategy is the direct product of team members communicating and deciding upon a particular course of action. These two group processes may be regarded, therefore, as fundamental prerequisites to the other domains of reflexivity.

Secondly, it was possible that, once participants had used CM strategies to evaluate and/or modify their thinking, they may have been prevented from taking action. This could have been due to delegates' not having the skills to communicate effectively or decide upon an appropriate course of action. Modules on communication and problem solving were, therefore, incorporated into the programme to address these potential behavioural deficits.

Finally, for learning to develop from an individual to a group level, delegates must be able to expose their thinking to others and conversely challenge the thinking of others (Senge, 1990). This process is dependent upon good communication. It was, therefore, deemed necessary to include a module on this area within the programme.

Structure

The structure of the CM programme was largely synonymous with the conventional delivery of CT. Although an organisational environment is clearly very different from a clinical one, a similar structure was adopted because there was evidence within the applied organisational literature to support its application. This evidence is reported below, together with specific structural details of the course.

Consistent with CT procedures, CM was conducted over a 4 month period (one module every 2/3 weeks) to allow the skills taught during the programme to be practised at work between sessions and thus consolidated. Such an approach is

inconsistent with the conventional delivery of OD training interventions. These are usually undertaken over a continuous period of time (e.g. 1, 2 or 5 days). While massing of practice has been found to produce better performance in the short-term (e.g. during training), it has resulted in much poorer performance in the long-term than spacing of practice (Druckman and Bjork, 1991). By contrast, modules spaced in time have been found to promote longer-term retention of information and skills (Crowder, 1976; Dempster, 1990; Druckman & Bjork, 1991; Lee and Genovese, 1988).

The group sessions were 3 hours long and the individual consultations were approximately 30 minutes (see below). This meant that each delegate received an average of 25 hours input. Whilst this is slightly longer than the conventional delivery of CT (see chapter 2), in practice the number of hours in treatment varies considerably (see Hawton, *et al.* 1989).

Several different intervention strategies are used within organisations. Guidelines for the selection of an appropriate intervention are provided by Huse (1980):

- 1) *The shallow level:* interventions at this level are concerned with factors that are external to individuals (e.g. changes in organisational technology, organisational structure and work design).
- 2) *The deep level:* these interventions encourage people to analyse their own behaviour (e.g. job design, role analysis and management by objectives).

- 3) *The deeper level:* interventions here help individuals to discover their own hidden attributes, such as personality, values and attributes, which are not easily uncovered without deep exploration (e.g. process consultation, team building, role negotiation, and inter-group conflict resolution).
- 4) *The deepest level:* interventions at this level deal with fundamental aspects of individual personality (e.g. life and career planning, sensitivity training, personal consultation, and counselling)

CM was designed to operate at the deeper and deepest levels identified by Huse. This is distinct from group and individual CT whereby the former does not usually involve individual sessions and the latter does not normally incorporate group work. All the modules were delivered to the delegates as a group (deeper level). Private consultations with each delegate ran alongside the first 4 modules (deepest levels).

Personal consultations occurred immediately prior to the subsequent module (e.g. assignments from module 2 were reviewed in a one-to-one session with the course leader immediately prior to module 3) to allow delegates the maximum amount of time between the modules to practice the techniques. This structural design element was introduced to control for the social processes that occur within groups (see chapter 3) and to facilitate maintenance and generalisation of effects. With regards to the latter, it was envisaged that greater cognitive, behavioural and emotional changes would be produced by providing: (1) a confidential environment for participants to disclose their cognitions, behaviours and emotions; (2) a psychologically safe setting

(see chapter 3) for delegates' thoughts and assumptions to be challenged by the course leader; and (3) a place where the correct utilisation of CM strategies could be monitored.

The 7 modules were structured in a graded hierarchy so that each session built on the preceding one, thereby, ensuring that prerequisite skills, understandings and abilities were present. Each module followed a standard format (Clark, 1989): (1) agenda setting; (2) weekly items, including a review of events since last session, feedback on previous session and a review of homework; (3) the day's major topic(s), incorporating teaching specific strategies and discussing the presenting problems; (4) between-session assignment(s); and (5) feedback on the module.

Processes

The processes used in the delivery of the programme were based on sound principles of learning and instruction. Cognitive theories (e.g. Anderson, 1987) emphasise that learning occurs through a number of stages. The first stage is the acquisition of declarative knowledge (information about what), the second is knowledge compilation (integration of facts) and the third is the development of procedural knowledge (information about how). Through the processes of practice, feedback and reflection, declarative knowledge becomes compiled and proceduralised. Continued practice and experience facilitates automation (Ford & Kraiger, 1995).

Cognitive constructs such as proceduralisation and automaticity have implications for improving the design of learning experiences for delegates, for it is only when skills are proceduralised or automatised that they provide value to the organisation (Ford & Kraiger, 1995). Accordingly, the CM programme provided many opportunities for practice, feedback and reflection to facilitate the transition between the various learning stages and to promote the transfer of learning to the workplace. These opportunities were created through:

1. focusing upon work-related issues that delegates were currently experiencing difficulties with;
2. considering obstacles to change within participants' work environments.
3. exploring ways of generalising and maintaining the skills delegates had learnt by establishing processes and systems within the organisation that facilitated the communication, integration and transparency of skills (see chapter 3);
4. providing opportunities for personal feedback from the course leader;
5. promoting large and small group discussions of pertinent issues;
6. providing assignments to be completed by delegates within their work environments;
7. using case studies and activities to encourage delegates to reflect upon and practice what they had learnt.

Research on medical consultations suggests that people normally retain only a small proportion of the information given in a consultation (Ley, 1979). Therefore,

delegates were provided with a copy of the overheads for each module to facilitate the longitudinal retention of course information. In addition, each between-module assignment was accompanied by a set of comprehensive guidelines to aid completion.

6) RESEARCH HYPOTHESES AND METHODOLOGY

RESEARCH HYPOTHESES

Given the complexity, turbulence and unpredictability of modern business environments, the ability to successfully manage environmental change has become fundamental to organisational competitiveness and well-being (see chapter 3). For an organisation to be effective in the management of change it must be competent at learning, that is, changing at a cognitive and behavioural level (see chapter 3). Specifically, learning at a group level involves reflecting upon various organisational indices and adapting them in response to current or anticipated endogenous or exogenous circumstances (see chapter 4). The ability of modern organisations to manage this transition from cognition to action as a result of environmental stimuli has been called into question, however (see chapter 3 & 4).

The goal of organisational development (OD) is to increase organisational well-being and effectiveness (see chapter 1). This is achieved by intervening in the organisation's processes so that an organisation can eventually become competent at managing its own development and learning. For this to happen, consideration must be given to the organisation's culture as the primary source of resistance to learning, development and planned change. Ultimately, if the benefits of OD methods are to be maintained and generalised to other parts of the organisation, the company's cultural

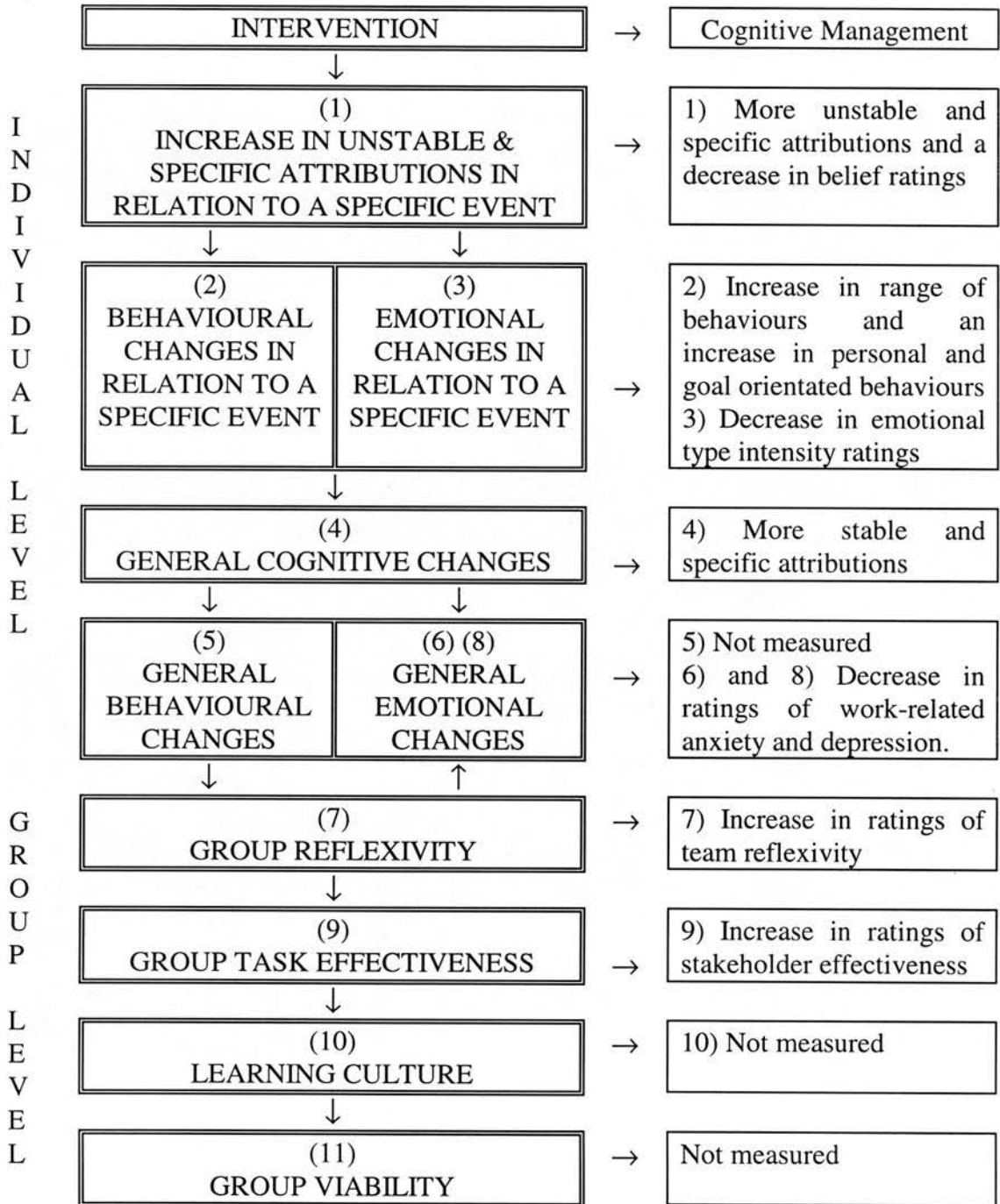
system needs to be restructured (Argyris & Schon, 1978; Burke, 1994; Cameron & Quinn, 1999; Dutton & Duncan, 1982, 1983; Jelinek, 1979; Pitre & Sims, 1995; Shrivastava & Schneider, 1984). Scholars have discussed the notion of a learning culture, that is, a culture whereby learning, adaptation, innovation and perpetual change are stable elements (see chapter 3). A culture that is orientated toward learning and change is likely to be based on unstable and specific assumptions about the organisation's environment (see chapter 3). However, the extent to which contemporary approaches achieve this outcome is debatable (see chapters 3 and 5).

There is increasing recognition that changing an organisation's culture involves making changes to the strategies that employees use to learn (Fiol & Lyles, 1985; Schein, 1992). Therefore, OD initiatives must begin at an individual cognitive level (see chapters 3 and 5). Organisational members must be given the opportunity to develop skills that enable them to identify and evaluate their thinking more effectively (see chapter 5).

Hypothetical Outcomes of Cognitive Management

The hypothetical outcomes of CM are presented in Figure 11. As the research exercise utilised a non-equivalent groups pre-test/post-test design (see below), each of the hypotheses specified below are relative to baseline measures and a non-intervention control group. To avoid repetition, however, this comparison of between groups and over time is not explicitly stated after each prediction.

Figure 11: Hypothetical outcomes of Cognitive Management



For individual work-related learning to be maintained and generalised to other contexts, the learner must be provided with opportunities for practice, reflection and feedback within an organisational context (see chapter 6). Using CT techniques that integrate the various learning activities described in the previous chapter to analyse employees' psychological responses to a given situation, various significant outcomes are predicted. It is hypothesised that participants will report after the utilisation of CM strategies:

1. An increase in unstable and specific attributions in response to an identified situation.

Consistent with Beck's theorising (see chapter 2), it was envisaged that these specific cognitive changes would produce:

2. A reduction in situation-specific emotional intensity

3. An increase in the quality of actions in relation to the identified event.

Following CT theory (see chapter 2), it was argued that the resulting attributional changes would become more generalised. Thus, after completion of the CM programme, participants would report:

4. More unstable and specific attributions in relation to various organisational contexts.

Seligman and Schulman (1986), Corr and Gray (1991, 1995) and Proudfoot (1996, Proudfoot *et al.* 1997) have found that a more optimistic attributional style increases worker effectiveness across a whole host of organisational indices (see chapter 6). Therefore, it was predicted that more unstable and specific work specific attributions would lead to:

5. Greater individual effectiveness compared with a control group and baseline measures.

Furthermore, Proudfoot (1996) has found that general attributional change leads to greater individual well-being (see chapter 5). Therefore, it is hypothesised that at the conclusion of CM, delegates will report:

6. Less job specific anxiety and depression.

There is evidence to suggest that over time a group pattern of thinking emerges that is more than the existence of a simple collection of separate individual minds, particularly for groups involved in decision-making (see chapter 4). The transition from individual to collective learning might be brought about through various mechanisms. Firstly, the transferring of individual learning can be integrated into the fabric of daily operations by creating systems and processes that support the transition. These systems and processes would need to promote communication,

transparency and integration in order for the transition to be successful (see chapter 3).

Secondly, social processes that occur within groups might facilitate the process from learning at an individual to an organisational level (see chapter 5). Three social processes are described here. Social conformity effects result in a tendency by group members to conform to norms established by the group social system. The norm of reciprocity is based on the assumption that humans tend to react to other humans in a manner similar to the way in which those humans behave toward them (Fisher, 1980). This norm can create an effect that accumulates (is amplified) within groups as each person's behaviour reinforces the similar behaviours of other group members. Moreover, status or leadership effects indicate that the nature of the group leader's cognition will significantly influence the nature of the group cognition. Therefore, it is hypothesised that as a result of the CM programme:

7. Group learning (reflexivity) will improve

West (1996) provides empirical and theoretical grounds to argue that group reflexivity will result in increased group task effectiveness and group member well-being (see chapter 4). Accordingly, it is predicted that as a consequence of taking part in the CM course:

8. Group task effectiveness will improve**9. Group member well-being will improve**

On the basis of Schein's (1992, 1995) theorising on the development and maintenance of organisational culture (see chapter 3), it is possible to predict that, as CM skills begin to effectively resolve group problems of internal and external adaptation over time:

10. A learning culture will be developed within the group

Reviews of the empirical literature (e.g. Cameron & Ettington, 1988; Denison, 1990; Kozlowski, Chao, Smith & Hedlund, 1993) have demonstrated that an organisation's culture can have a powerful effect upon long-term effectiveness and well-being (see chapter 3). Thus, it was predicted that:

11. A group culture oriented toward learning would promote the continued survival of the group (group viability) through the maintenance of group effectiveness and well-being.

Hypothesis 6 was not investigated due to a paucity of psychometrically sound instruments to measure individual effectiveness. One has recently become available (Swift & West, 1998), but only came to the attention of the author once the research

had started. Time restrictions also meant that more longitudinal outcomes (i.e. hypotheses 10 and 11) could not be investigated.

Power Analysis

Power calculations for the present study indicated that to achieve the convention of 80% power, with a .05 Type 1 error level and an effect size of 0.5 (based on change in attributional style indicated in Proudfoot's 1996 organisational study), 64 subjects were needed in each of the experimental and control groups for sufficient power to detect a group difference if one existed. Time and resource restrictions prevented this number of subjects from being recruited. Therefore, this research project constitutes an exploratory data analysis of the organisational application of CT.

RESEARCH METHODOLOGY

Design

Utilising a non-equivalent groups pre-test/post-test design, it was hypothesised that Cognitive Management would produce beneficial cognitive, emotional, and behavioural changes at a group and individual level. The sample (n = 26) consisted of two work groups from the private sector and two work groups from the public sector. Using both quantitative and qualitative methodologies, individual measures of

situation specific attributions, emotions and behaviours, and general attributions and well-being, together with group measures of reflexivity and effectiveness were taken.

Participants

A total of 26 participants were invited to take part in the research project. The sample was drawn from 4 work groups, 2 teams from the National Health Service and 2 teams from a major international distillery. When conducting applied research within organisational settings, it is extremely difficult to control for the many variables that might influence the research outcomes. Therefore, attempts were made to recruit teams that were required to perform similar tasks. Two National Health Service psychiatric teams with the same remit but serving different geographical areas were recruited. Unfortunately, it was not possible to invite two similar groups from the private sector to take part in the research because the Product Assurance Department (the team expressing an interest in receiving the intervention) was the only group that functioned in this capacity within the organisation. A control group from the Human Resources Department was, therefore, used. Whilst these two teams performed different tasks, it is likely that they were both exposed to similar organisational influences (e.g. culture, structure, strategy etc).

The public sector teams were multidisciplinary and had the same healthcare disciplines (e.g. psychiatry, social work, community nursing, clinical psychology, occupational therapy) represented in each group. The intervention group consisted of

9 members (8 females and one male) with an average of 2 years and 7 months (range = 1 month to 12 years) experience with the employing organisation. The control group consisted of 7 members (4 females and 3 males) with a mean length of service with the hospital of 5 years (range = 6 months to 19 years).

The Product Assurance Department was made up of 6 employees (1 male manager and 5 female technicians) with an average of 13 years (range = 10 years to 26 years) work experience with the organisation. The human resources team had 4 members (1 male manager, 1 female payroll manager and 2 human resources consultants) who had worked with the organisation for an average of 16 years (range = 14 months to 22 years).

Research Measures

All the research measures were based on self-report. A copy of all the research measures can be found in Appendix 2.

Hypotheses 1, 2 and 3

Research diaries were utilised within this project to investigate the first 3 hypotheses. These research diaries constituted the second between-session assignment that was given to participants to complete between the third and fourth modules (see Appendix 1). Those teams undergoing the CM programme were required to record

their thoughts, emotions and behaviours in response to situations before and after their utilisation of CM strategies. This allowed both quantitative and qualitative analyses to be undertaken. Specific assessments included:

1. Hypothesis 1: Attributional coding (Silvester, 1998) of the content of automatic thoughts using and ratings of the extent to which automatic thoughts were believed.
2. Hypothesis 2: Ratings of emotional type intensity
3. Hypothesis 3: Recordings of action frequency and consistency with personal and organisational goals

Hypothesis 4

A major criticism of the use of attributional theories in organisational contexts, however, has been the failure to develop psychometrically sound instruments for measuring attributions (Illgen & Klein, 1988). Although several measures of attributional style are available (e.g. Peterson, Semmel, von Beyer, Abramson, Metalsky, & Seligman, 1983; Russell, 1982), only two measures of work-related attributions were identified. Furnham, Sadka, and Brewin's (1992) Occupational Attributional Style Questionnaire has received limited use in the field and has several potential shortcomings, such as questionnaire length, marginal reliability and a lack of substantiated construct validity.

Work-related attributional style was measured in this research using the Organisational Attributional Style Questionnaire (OASQ) developed by Kent and Martinko (1995). This instrument has been shown to be reliable and, although additional research is needed to further clarify and confirm its psychometric properties, the authors conclude that the OASQ appears to measure a valid construct. A possible shortcoming of the OASQ is that it is based on a sample of undergraduate and postgraduate students. However, Kent and Markinko state this may not be a major limitation in that every student had held their most recent job for at least 3 months.

Participants are presented with 16 negative work-related situations and instructed to imagine these events happening to them. They are then requested to write down one major cause of the event and answer six questions asking them to identify the causes in terms of six causal dimensions: internality, externality, stability, controllability, globality and intentionality. To reduce the amount of time spent by participants completing the general measures and in accordance with the hypothesised cognitive outcomes, only stability and globality were included here (see chapter 2).

Hypotheses 6 and 8

Warr (1990) has developed instruments for the measurement of well-being and other aspects of mental health. Based on a large sample of British job-holders (n = 1686), these questionnaires appear to be psychometrically acceptable and relatively straight-

forward for employees at all levels within an organisation to complete. The measures used in the present study were: affective well-being and reported job competence and aspiration. All of these questionnaires were designed to address job-related well-being and non-job-related well-being. However, to reduce the amount of time participants spent completing the measures, only items corresponding to job-related well-being were included here.

The anxious-contented and the depressed-enthusiastic axes from Warr's (1990) three principal axes for the measurement of affective well-being were assessed (see chapter 4). Job-related anxiety-contentment was recorded through the adjectives tense, uneasy, worried, calm, contented and relaxed. Job-related depression-enthusiasm was tapped by depressed, gloomy, miserable, cheerful, enthusiastic and optimistic. These adjectives were preceded by the question, 'Thinking of the past few weeks, how much of the time has your job made you feel each of the following?' Responses were: never, occasionally, some of the time, much of the time, most of the time and all of the time; and answers were scored from 1 to 6 respectively (negative emotions were reverse scored). Items covering the two axes were intermingled in the questionnaire.

Hypothesis 7

Self-report questionnaire scales have been constructed to measure reflexivity in work groups (see West, 1994). Early studies of reflexivity in teams tried to establish

relationships between team task and social processes (West, Slater & Kelley, 1995). Thus, two reflexivity scales were developed: the task reflexivity scale and the team reflexivity scale respectively. The task reflexivity scale is currently the preferred scale to measure reflexivity in teams and does not have to be used in conjunction with the social reflexivity scale (Swift & West, 1998). In the present research study, however, the two scales were combined. This was to allow a more comprehensive direct assessment of team functioning to be undertaken. For example, the task reflexivity questionnaire does not include any items on conflict whereas the social reflexivity scale does. Schein (1999), however, argues that conflict can be both task and socially related (see chapter 4). Therefore, to restrict the assessment of reflexivity to West's task specific items would have neglected a potentially significant dimension of team functioning.

The Team Reflexivity Questionnaire is a 16 item scale. The first 8 items examine the extent to which a team actively reviews its objectives, strategies and team processes and is prepared to adapt them as necessary to changing circumstances. The last 8 items address how a team deals with conflicts, reviews member social support and promotes the well-being and development of group members. Example items include: 'In this team we modify our objectives in the light of changing circumstances'; and 'Conflicts are constructively dealt with in this team'. Each participant's response to each statement is measured on a 7 point Likert scale, ranging from 1 = very inaccurate to 7 = very accurate. This measure has been found

to be both reliable and valid and normative data is available on over 300 teams (see Swift & West, 1998).

Hypothesis 9

The effectiveness of the groups in achieving their respective tasks was assessed using a stakeholder approach (West, 1994). This method is similar to the goal model (see chapter 4). Participants were asked to identify the groups or important individuals who have an interest or 'stake' in the work of their team, together with the criteria each of these 'stakeholders' might use to evaluate your team's task effectiveness. Respondents were then asked to give a rating of current team effectiveness in relation to each of these stakeholder criteria using a Likert scale (1 = not at all effective to 7 = highly effective).

The two public sector teams were designed to achieve the same task but served different geographical areas. Therefore, the same effectiveness criteria was used for both teams. Unfortunately, attempts to recruit a control group that was similar in task orientation to the private sector intervention group were unfruitful. Therefore, different effectiveness criteria were developed.

Organisational Culture

The significance of cultural variables in determining the success or failure of OD interventions has been well documented (see chapter 7). In view of the powerful systemic effects that organisations can have upon individuals and groups, an assessment of the dominant culture within the two participating organisations was deemed appropriate. One person from each group completed the Organizational Culture Assessment Instrument (Cameron and Quinn, 1999) (OCAI). The OCAI has been used in well over 1000 companies and has been found to be both reliable and valid (see Cameron & Quinn, 1999 for a review). The instrument is divided into six key dimensions that reflect fundamental cultural values and implicit assumptions about the way the organisation functions. Each dimension has four alternatives. Participants are asked to divide 100 points among these four alternatives depending upon the extent to which each alternative is similar to their own organisation at the present time. Points high in value reflect the alternative that is most similar to their organisation. Team members are then requested to indicate using the same scoring method where their organisation should be in relation to these dimensions in order to be highly successful in the future.

Procedure

The four teams identified to take part in the research completed the questionnaires. Then, two groups (one from the public and one from the private) received the CM

Programme (see chapter 5 for a comprehensive overview of the course) and two groups did not undergo any form of intervention. After completion of the CM course, all the research measures were re-administered and returned within two weeks.

7) RESULTS

Due to the longitudinal nature of the CM programme, it was probable that the membership of the research teams would change over the duration of the project. The hierarchical structure of the course made it imperative for team members to attend all 7 CM modules. Therefore, only those participants who were present at each CM session and returned the baseline and post intervention questionnaires were included in the data analysis. Problems of attendance and poor questionnaire return rates meant that only **18** from a total of 26 people invited to take part in the research were included in the final data analysis.

All the private sector participants who were invited to attend the CM programme completed the course ($n = 6$). Furthermore, the intervention group from the private sector and the control group from the same organisation returned the pre-test and post-test research measures ($n = 10$). In relation to the public sector, only 5 team members out of a total of 9 from the intervention group attended the entire CM programme. This was due to one person leaving the team on account of promotion and 3 group members missing one session or more because of holidays and attendance at conferences or other training courses. This biased the professional composition of the group toward the medical profession (i.e. 4 psychiatrists and 1 occupational therapist). However, the distribution of gender and length of service with the organisation did not change significantly. In relation to the control group,

only 3 people out of 7 returned both sets of questionnaires. These 3 respondents were drawn from the professions of psychiatry, clinical psychology and community nursing. Therefore, social work and occupational therapy were not represented in the final sample, and the male to female ratio changed, although the time employed by the organisation remained approximately the same.

RESEARCH DIARIES

Each delegate was instructed to complete at least 3 research diaries (see Appendix 2) between module 3 and 4. Participants were required to record in response to a particular work-related situation of their choosing: the content of, and belief in, their automatic thoughts; the type and intensity of their spontaneous emotions; and their immediate actions. Team members then evaluated and challenged their automatic thoughts using various CM techniques and generated an alternative cognitive appraisal of the situation. Finally, as a result of this analysis, respondents re-rated their belief in their automatic thoughts and intensity of their emotional experiences, and recorded any secondary behavioural responses to the given situation.

There was considerable variability in the amount of diaries completed by participants. Furthermore, some participants recorded their emotions, cognitions and behaviours in relation to domestic situations rather than work-related events or failed to fill in the form correctly. Therefore, to control for response bias, only **one** research diary from each participant was included in the final data analysis ($n = 11$). It is

interesting to note that although team members were told that the situations that they chose to report on could be either positive or negative, all participants chose to record a **negative** organisational experience.

Hypothesis 1

Two measures of cognitive change were taken pre and post CM evaluation: change in attributions and change in automatic thought belief ratings. As the quantity of thoughts recorded by people differed considerably in response to their specified work-related situation, analysis was undertaken on the **first** thought written down by team members pre and post utilisation of CM techniques.

Attributional change was measured using attributional coding methods (see previous chapter) undertaken by an independent person not directly involved with the research project. Out of 11 diaries, 2 could not be classified along the specific/global or stable/unstable continuum. The remaining **9** records indicated a change in the content of situation specific cognitions before and after using CM methods. Prior to evaluation, 1 out of 9 thoughts were rated unstable and 2 out of 9 were coded as specific. However, after team members had evaluated and challenged their immediate thoughts in relation to a given event, the attributional ratings of their alternative cognitions increased to 7 and 7 respectively.

Participant ratings of the extent to which they believed their automatic thought also changed pre and post CM analysis. Respondents on average had an 83.6% belief in their automatic thought when it first occurred with a standard deviation of 11.2. However, after CM methods were used the average automatic thought belief rating fell to 43.64%. with a standard deviation of 15.67. This difference was found to be significant at $p < 0.001$ ($t = 4.74$, $df = 10$) using an a priori one-tailed t-test.

Hypothesis 2

Two measures of the quality of participant behaviours were taken. Firstly, subjects were asked during their personal consultations with the course leader (see chapter 7) whether their behaviour was consistent with the achievement of both personal and organisational goals. Secondly, the frequency of actions initiated by the subject at each time interval was assessed. On both measures of behavioural quality, increases were found pre and post the utilisation of CM techniques. From a total of 11, consistency with the achievement of personal and organisational goals increased from 3 and 4 to 8 and 10 respectively. The total number of actions initiated by participants after using CM methods increased from 8 to 18, although there individual differences in the range of actions produced (minimum = 0, maximum = 2.00; minimum = 1.00, maximum = 3.00 respectively). The average number of actions initiated by respondents was 0.73 (SD = 0.65) pre CM and 1.64 (SD = 0.81) after CM. This pre and post test difference was found to significant at $p < 0.01$ ($t = 2.9$, $df = 10$) on an a priori one-tailed t-test.

Hypothesis 3

The research diary required team members to group their emotional responses according to type (e.g. affection or love, guilt or shame, sadness or low mood). There were considerable differences in the amount of emotional types reported. For example, some people simply reported feeling sad or low in mood in response to a particular situation. Others, in addition to experiencing sadness or low mood, indicated feeling frustrated and inferior or inadequate. Therefore, the type of emotion rated by each respondent as being the most **intense** was retained for the purposes of data analysis.

All the types of emotions reported by research subjects were **negative** in orientation. The most common emotional type specified by participants was anger, irritation or annoyance. This was recorded by 6 team members. Stress, worry, fear or panic, sadness or low mood, and inferiority or inadequacy were experienced by 3, 1, and 1 delegates respectively.

The average emotional type intensity rated by subjects prior to CM analyses was 74.54 out of 100 with a variance of 16.95. This fell to 29.09 with a similar variance (SD = 17.0) after participants had evaluated and challenged their thoughts. Therefore, participant ratings of emotional type intensity were found to significantly change (a priori one-tailed t-test, $t = 7.12$, $p < 0.005$, $df = 10$) after the utilisation of CM

techniques in comparison with intensity ratings of the same emotional type made immediately after the specified event.

GENERAL INDIVIDUAL MEASURES

This research study used teams from both the public and private sector to explore the efficacy of CM across non-profit making and profit making industries. It was, therefore, not an intention of the project to explicitly analyse differences between these two sectors. Therefore, the results outlined below are reported as aggregate scores (i.e. scores from the private and public sector intervention groups have been combined and scores from the public and private sector control groups have been added together). Scores are not broken down into means of individual questionnaire items but are described as total questionnaire means due to the small sample size ($n = 18$). In addition, a priori t-tests have been used to explore the nature of the results further even though initial analyses of variance may have indicated that the interaction of TIME and GROUP was not significant. This approach was justified on the basis that the research hypotheses were developed prior to the project commencing and were derived from existing research evidence.

Hypothesis 4

The Organisational Attributional Style Questionnaire (OASQ) (Kent & Martinko, 1995) recorded participants' unstable/stable and global/specific attributions in

relation to 16 general negative work-related situations. The maximum score on this questionnaire was 112 with low scores denoting more unstable and specific attributions.

The descriptive statistics for the OASI are shown in Table 1. OASI scores indicated change in the intervention group in the hypothesised direction. The mean specific/global score fell by 8.37 points after completion of the programme compared with baseline measures. Similarly, a reduction of 4.54 points on the unstable/stable attributional dimension was found at pre-test and post-test time intervals.

Combined control group scores did not differ greatly in relation to the causal dimensions of interest. Mean scores on the specific/global dimension increased slightly from 62.6 to 64.5 at pre and post CM respectively. Average scores on the unstable/stable dimension dropped slightly from 67.4 at baseline to 66.7 post intervention.

A repeated measures ANOVA was used to examine the interaction of TIME (pre-test and post-test) and GROUP (intervention and control) for each of these attributional dimensions. A pillai's Trace did not find the interaction between these two variables to be significant for the global/specific dimension ($F 1, 16 = 2.32, p = 0.147$) or the unstable/stable dimension ($F 1, 16 = 0.36, p = 0.557$).

Table 1: Mean Attributional Scores for Both Research Groups at Pre-Test and Post-Test (with Standard Deviations).

CAUSAL DIMENSION	GROUP	BASELINE (Max = 112)	POST CM (Max = 112)
SPECIFIC / GLOBAL	INTERVENTION	75.64 (20.50)	67.27 (18.42)
	CONTROL	62.57 (12.61)	64.57 (15.40)
UNSTABLE/ STABLE	INTERVENTION	78.54 (13.50)	74.0 (09.86)
	CONTROL	67.43 (13.25)	66.71 (15.70)

Further analysis of mean time differences using a priori t-tests revealed some interesting results. The difference in average participant ratings for the intervention group approached significance at $p < 0.10$ ($t = 1.6$, $df = 10$) over time for the specific/global dimension but did not approach significance on the unstable/stable dimension ($t = 1.23$, $df = 10$). Neither of the pre-test/post-test attributional differences were found to be significant for the control group (specific/global: $t = 0.29$, $df = 6$; stable/unstable: $t = 0.2$, $df = 6$).

Hypotheses 6 and 8

Using scales for the measurement of work-related well-being developed by Warr (1990), levels of anxiety/contentment and depression/enthusiasm were assessed in the present sample. The maximum score on these measures was 36, indicating high work-related contentment and enthusiasm, and low anxiety and depression.

The descriptive statistics for affective well-being can be found in Table 2. The mean intervention group score on the anxiety/contentment axis increased at the end of the CM programme relative to the course starting. Similarly, average ratings on the depression/enthusiasm axis also increased pre and post intervention. No large differences were found pre-test/post-test for the control group on either measure of affective well-being.

A repeated measures analysis of variance was used to examine the interaction between TIME and GROUP. The interaction between these two variables did not reach significance on a Pillai's Trace for the anxiety/contentment continuum ($F_{1, 16} = 1.14, p = 0.302$). On the depression/enthusiasm continuum the interaction was greater and approached significance on a Pillai's Trace ($F_{1, 16} = 4.16, p = 0.058$).

Table 2: Mean Affective Well-Being Scores for Both Research Groups at Pre-Test and Post-Test (with Standard Deviations).

AFFECTIVE WELL-BEING	GROUP	BASELINE	POST CM
ANXIETY/ CONTENTMENT	INTERVENTION	21.09 (6.11)	24.54 (3.98)
	CONTROL	21.28 (3.90)	22.43 (4.47)
DEPRESSION/ ENTHUSIASM	INTERVENTION	24.36 (5.50)	27.91 (5.66)
	CONTROL	28.28 (2.36)	27.57 (3.10)

Further analysis of these observed differences using a priori t-tests indicated some significant findings. Mean intervention group pre-test/post-test differences were significant for the anxiety/contentment dimension ($t = 2.63$, $df = 10$, $p < 0.025$) and for depression/enthusiasm ($t = 2.32$, $df = 10$, $p < 0.025$). None of the average scores for the control group were found to significant over time (anxiety/contentment: $t = 1.38$, $df = 6$, NS; depression/enthusiasm: $t = 0.72$, $df = 6$, NS).

GENERAL GROUP EFFECTS

Hypothesis 7

Reflexivity, the extent to which a group learns effectively, was assessed using a 16 item questionnaire developed by West (1994). The highest score on this self-report measure was 112 with high scores indicating high reflexivity. Mean reflexivity scores for the intervention group increased from 64.5 prior to CM to 80.5 after the course had ended. Average reflexivity scores also increased in the control group from 70.6 to 75.3 at pre-test and post-test respectively. An ANOVA of the interaction of TIME and GROUP showed that for Pillai's Trace the interaction was significant at $p = 0.005$ ($F_{1, 16} = 10.88$). A priori one-tailed t-tests found the mean pre-test/post-test differences to be significant for the intervention group ($t = 6.79$, $df = 10$, $p < 0.0005$) but not for the control group ($t = 0.98$; $df = 6$, NS).

Hypothesis 9

Ratings of effectiveness were discerned using a stakeholder approach. Team members were asked to identify the criteria that each stakeholder would use to evaluate their group and then rate the teams current effectiveness against each of these criteria. The same criteria were used for both the public sector intervention and control group because they performed almost identical tasks. Due to the unique nature of the private sector intervention group, however, a different team within the

organisation was identified. Accordingly, separate criteria were developed for each private sector group.

From a total of 49, the average effectiveness rating reported by the public sector intervention group was 26.6 prior to the start of the CM programme. Post CM, this mean rating of effectiveness had increased significantly to 31.4 ($t = 2.8$; $df = 4$, $p < 0.025$). The average rated effectiveness of the public sector control group actually decreased from 25.3 at baseline to 24 after the CM programme had finished but was not significant ($t = 1.51$, $df = 2$).

Similar to the public sector intervention group, the mean ratings of effectiveness recorded by the private sector intervention group increased over the duration of the CM programme. At baseline, team members rated their average effectiveness as 21 out of 35 and 24.2 at the end of the course. This increase in mean effectiveness approached significance at $p < 0.10$ ($t = 1.78$, $df = 5$). The private sector control group rated their effectiveness, on average, as slightly higher at test 2 than test 1 (24 in comparison with 22.5 respectively). This was not significant, however ($t = 1.2$, $df = 3$).

IDENTIFIED PROBLEM

To demonstrate the potential efficacy of the CM techniques, each intervention group was required to identify a problem that the group could work on throughout the

course. The private sector team decided to address issues of conflict whereas the public sector group wanted to address general issues relating to their task functioning. Various items from the team reflexivity questionnaire were used to assess the outcomes of the programme in relation to these identified areas. Questions 11, 15 and 16 and statements 1-8 were used to assess conflict and task functioning respectively.

With regard to conflict, from a total score of 21, the private sector intervention group mean rating went from 6 prior to CM to 10.2 after CM. This difference was significant ($t = 2.45$, $df = 5$, $p < 0.05$). on the same 3 conflict related items, the control group showed very little change (mean 17 pre CM and 17.75 post CM).

Task related functioning of the public sector intervention group increased significantly from an average of 29.8 prior to training to an average of 39.8 post CM out of a total of 56 ($t = 3.0$, $df = 5$, $p < 0.025$). although the average scores for the control group increased slightly, this was not significant ($t = 1.38$, $df = 2$).

ANECDOTAL EVIDENCE

Written feedback from the private sector intervention group stated that the team had found CM to be very valuable. Formal feedback from the group stated:

1. A greater understanding of each other.
2. An increase in the amount of feelings shared with one another.
3. No longer trying to score points against each other.
4. Not being afraid to ask for help.
5. More help being offered by team members before the need to ask.

These outcomes are potentially significant when the nature of the team's presenting problem is taken into consideration (i.e. conflict). With regard to the public sector intervention group, comments included:

1. 'The CM techniques were instrumental in providing me with direction in an extremely difficult situation'.
2. 'I've noticed significant differences in two group members already as a result of the programme'.
3. 'The techniques enable you to think more clearly and respond more appropriately'.

CULTURAL ANALYSIS

The cultural questionnaire completed by one person within each team revealed an interesting finding. The public sector teams indicated a dominant clan culture within their organisation. A clan culture is defined as:

A very friendly place to work where people share a lot of themselves. It is like an extended family. The leaders, or heads of the organization, are considered to be mentors and perhaps even parent figures. The organization is held together by loyalty or tradition. Commitment is high. The organization emphasizes the long-term benefit of human resources development and attaches great importance to cohesion and morale. Success is defined in terms of sensitivity to customers and concern for people. The organization places a premium on teamwork, participation and consensus (Cameron & Quinn, 1999, p. 58).

Interestingly, the private sector sample rated the dominant culture within their organisation as being hierarchical. The main features of this culture as described by Cameron and Quinn (1999, p. 58) pertain to an organisation that is:

A very formalized and structured place to work. Procedures govern what people do. The leaders pride themselves on being good coordinators and organizers who are efficiency-minded. Maintaining a smooth-running organization is most critical. Formal rules and policies hold the organization together. The long-term concern is on stability and performance with efficient, smooth operations.

It would appear then that a hierarchical culture is not conducive to the successful implementation and maintenance of teamwork.

8) DISCUSSION

The outcomes of this small empirical study generally support the model and various hypotheses presented in chapter 6. Relative to baseline measures, change in all the predicted directions was found in the intervention group after undertaking the CM programme. In contrast, no significant differences in pre-test/post-test scores were recorded on any of the research questionnaires for the control group.

Significant attributional (hypothesis 1), behavioural (hypothesis 2) and emotional (hypothesis 3) differences were found in relation to a given situation after the utilisation of CM techniques for the intervention group. The generalisation of these isolated psychological changes was more sporadic, however. On a general measure of work-related attribution (hypothesis 4), no significant findings were reported on an analysis of variance, although using a prior t-test the specific/global dimension did reach significance. This result is inconsistent with previous research (e.g. Proudfoot, 1996). This might have been due to characteristics of the CM programme (see below) or the nature of attributional change. With regards to the latter, attributions may take time to change and develop (see Silvester, Anderson, & Patterson, 1999). This developmental factor was not an issue in the Proudfoot study because her programme was longer than CM in duration.

Generalisation of specific CM effects to individual well-being was mixed (hypotheses 6 and 8). An analysis of variance exploring the interaction of time and group did not reach significance for the anxiety/contentment continuum and approached significance for the depression/enthusiasm dimension. Further analyses using a priori one-tailed t-tests found both affective well-being measures to be significant.

The progression from individual to group effects proved to be successful. Significant improvements in team reflexivity (hypothesis 7) for the public and private sector intervention group and task effectiveness (hypothesis 9) for the public sector intervention group were reported, although the effectiveness of the private sector intervention group only approached significance. This may have been due to the dominant culture within the organisation that was rated as being hierarchical and consequently not conducive to teamwork. It is also possible that any significant increases in performance resulting from the CM programme could be delayed (see chapter 5). Unfortunately, time restrictions in the current research meant that longitudinal outcomes could not be investigated.

METHODOLOGICAL CONSIDERATIONS

When reflecting upon the significance of the results from this small empirical study, consideration needs to be given to various methodological factors.

Self-Report Measures

All the measures utilised in this project were based on self-report. Data generated using this method is phenomenological, that is, based on respondents' perceptions of themselves and their world. Many psychologists (e.g. Harrè, 1974; Kelly, 1955) assert that researchers should ask the participant for his or her own view unless there are compelling reasons not to do so. Furthermore, self-report measures provide access to information that observational methods cannot.

The disadvantages of self-report questionnaires relate to potential validity problems. The data is subjective, therefore, there is the possibility that the data may bear little or no relationship to 'reality' as described by the researcher or significant others. This may be because the person has chosen to deliberately deceive the researcher or they are not able to perceive 'reality' (see chapter 2). The extent to which the latter is a problem for the current research is debatable. It might not matter whether or not a respondent's 'reality' matches that of the researcher or others providing participants act in accordance with their own 'reality'. This is likely to involve: maintaining high levels of consistency between individual thoughts emotions and behaviours; continually striving toward the attainment of organisational and personal goals; recognising discrepancies between their current psychological state and the attainment of these goals; and adapting their psychological state to achieve goals if required. Problems are likely, however, to arise in the achievement of organisational goals. Here the individual must have a clear understanding of what is expected of

them if they are to be effective. However, communication difficulties and the problem of multiple realities generated by numerous various organisational members might make this level of awareness difficult to attain.

Measures of Group Effects

The research measures used to assess effectiveness and team reflexivity were based on individual self-report ratings. Therefore, it was assumed that individual ratings of the group were synonymous with group ratings of effectiveness and reflexivity. This may not be the case however, as an individual may not be aware of all the variables that might effect organisational outcomes. For instance, a team member may not have had any direct experience of a particular part of the team's work but yet still rated the effectiveness of the team in fulfilling this task. Similarly, conflict might exist within the team but an individual group member may have never experienced it and thus rated the team accordingly.

Sample Size

Given the large numbers recommended by the power analysis to produce significance effects, the findings of the current study using a small sample are very encouraging. However, the generalisability of the results is limited. The extent to which the observed effects would be found in other teams or in different industries is not known.

Research Design

This research utilised a non-equivalent groups pretest-posttest design whereby the control group did not receive the experimental intervention or an alternative comparison intervention. There are a number of threats to internal and construct validity inherent in this approach that are worth highlighting.

Internal validity considers whether changes are attributable to the intervention or to something else. The main threat to internal validity in this experiment is uncontrolled selection. The two groups (intervention and control) may systematically differ in ways other than the presence or absence of the independent variable. Although attempts were made to match each group in terms of work tasks, this was not possible in the private sector. In addition, efforts to match participants on variables such as professional background and years service with the organisation were only partially successful.

An additional threat to internal validity originated from the research diaries. Only participants from the intervention group were required to keep the diaries. Therefore, the significant changes in belief ratings and emotional type intensity may have been due simply to time. That is, the more distant participants become from the specified situation, the less they believed their automatic thoughts and the less intense they felt about the situation.

Construct validity accepts that the intervention is producing the observed changes and considers what part or construct of the intervention is producing the change. Using a control group that did not undergo any intervention, makes it difficult to isolate what parts of the CM programme the demonstrated effects are due to. Firstly, participants may have benefited from CM simply because they expected to, rather than as a direct result of the contents of the course. Secondly, the Hawthorne effect may account for the observed changes. This effect takes its name from a study in occupational psychology in which increasing **and** decreasing the level of illumination in a factory were found to increase industrial output (Roethlisberger & Dickson, 1939). Therefore, the nature of the CM programme may not have been important.

It is not clear whether the significant changes in behaviours and cognitions recorded by participants in their research diaries were directly attributable to the utilisation of CM strategies. These changes may have been due to providing the respondent with the opportunity to reflect upon their specified situation. Although reflection is clearly an important part of the CM programme, specific cognitive change techniques constitute the core of CM.

Time restrictions meant that research measures were only taken at two time intervals (before the programme started and once after completion of the course). This meant that the maintenance of effects could not be discerned. Also, with only using job-related measures, potential effects beyond the organisation (e.g. domestic situations) are not known.

RECOMMENDATIONS FOR FUTURE RESEARCH

In view of the above methodological considerations, future research efforts would benefit from using:

1. a randomised experimental design using a standard intervention as a control group. By randomly allocating teams that are matched across numerous variables to either a CM intervention group or a standard team development intervention group, many of the problems of internal and external validity would be reduced. The non-CM intervention group could keep diaries at similar time intervals that did not require the participant to use any CM techniques, thus, controlling for the effects of reflection and time;
2. more pre-tests and post-tests at multiple time intervals to assess the maintenance of effects;
3. more appropriate measures of group effects. For instance, observational methods and/or audio recordings of group meetings could be used to assess team reflexivity. In relation to measuring group task effectiveness, each of the group's stakeholders could be approached to rate the team's effectiveness in satisfying their specific needs. It might also be worth adopting a constituency approach (e.g. Connally, Conlan & Deutsch, 1980; Poulton & West, 1993, 1994). This conceptualisation of team effectiveness is more sophisticated than the current approach because it acknowledges that effectiveness in one area may imply ineffectiveness in another, a situation that is likely to be common amongst CDM

groups. Accordingly, team members are asked to rate the importance they attach to each stakeholder group and the team's effectiveness is then assessed relative to this dimension.

4. a large sample size to confirm and consolidate the findings. A power analysis using the results of this study would provide an indication of the number of participants required.
5. non-specific measures to assess whether the effects are localised or more systemic.

THEORETICAL DEVELOPMENT

The results of this study indicate support for the basic premise of this thesis, namely, that organisations will become more competent at managing change and learning if corporate members make unstable and specific attributions in response to negative and positive environmental circumstances. These attributions can be in response to positive and negative situations. Clearly, however, events might require people to develop stable and global work-related attributions over time. Indeed, the assumption that change in contemporary business environments is widespread and likely to remain constant is a global and stable attribution. Under these circumstances, it is proposed that stable and global attributions should be the end product of a linear progression through various stages. The first stage begins with employees making specific and unstable attributions about each situation they encounter (e.g. at the present time the X department is not very good at answering telephone calls after 4

p.m.). Stage 2 involves making either a stable and specific attribution (e.g. this specific market is likely to be very profitable in the future) or a global and unstable interpretation of occupational situations (e.g. the company is not performing very well at the moment). Finally, stage 3 involves making stable and global evaluations of a corporate situation (e.g. an employee has been under-performing in various areas for several months).

Progression through these 3 stages is dependent upon the individual, group or organisation continuously reflecting upon the nature of their environment and adapting their behaviours accordingly. This symbiotic relationship is likely to be facilitated by the utilisation CM techniques (e.g. scientific inquiry, systematic problem-solving). It is envisaged that the outcomes of this process will be work-related effectiveness and well-being. If the approach is integrated into the culture of the organisation then these outcomes will be maintained over time and generalised to other contexts.

FUTURE DEVELOPMENT OF COGNITIVE MANAGEMENT

Future applications of CM would benefit from minor modifications in order to further the maintenance and generalisation of effects. These changes could incorporate:

1. increasing the time between modules. For example, a month between sessions would provide more opportunities for delegates to practice CM techniques in the workplace and allow participants who were absent from one module to arrange a personal consultation with the course leader to go over the contents of the missed session;
2. utilisation of diaries, additional between-module assignments and personal consultations throughout the programme;
3. greater consideration given to how systems and processes can be created to promote the communication, integration and transparency of CM techniques and theory;
4. booster sessions after completion of the programme to allow maintenance issues and future problems to be addressed.

The research application of CM was designed for use with complex decision-making groups (see chapter 4). The programme could also be adapted for use in other areas of OD. For instance, career counselling, culture change and strategic decision-making. The challenge for CM lies in making the benefits of the programme accessible to the whole organisation.

CONCLUSION

This research has demonstrated that CM is effective at facilitating organisational change and learning. Although further research is required to confirm and clarify the

significance of the results, it would appear that CM can be used to increase organisational effectiveness and well-being.

This research indicated that operating at the interface between clinical psychology and OD is a legitimate activity. It has empirically shown that the theories and methods of CT can be successfully applied to a non-clinical population. Moreover, it has furthered conceptual and empirical work into the symbiotic relationship between the psychology of the individual and the psychology of the organisation and has contributed toward the practical development of group reflexivity.

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APPENDIX 1: THE COGNITIVE MANAGEMENT PROGRAMME

**THE
COGNITIVE MANAGEMENT
PROGRAMME ©**

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CONTENTS

MODULE 1:	ASSESSMENT	3
MODULE 2:	INTRODUCTION TO COGNITIVE MANAGEMENT. THE ABC MODEL AND IDENTIFYING AUTOMATIC THOUGHTS	5
MODULE 3:	CHALLENGING AUTOMATIC THOUGHTS	38
MODULE 4:	IDENTIFYING AND CHALLENGING DYSFUNCTIONAL ASSUMPTIONS	61
MODULE 5:	USING COGNITIVE MANAGEMENT TO FACILITATE GROUP DECISION-MAKING AND PROBLEM- SOLVING	81
MODULE 6:	USING COGNITIVE MANAGEMENT TO FACILITATE GROUP COMMUNICATION (FEEDBACK)	105
MODULE 7:	MAINTENANCE AND EVALUATION	126

KEY

CLI	=	Course Leader Input
SGD	=	Small Group Discussion
LGD	=	Large Group Discussion
SGA	=	Small group Activity
LGA	=	Large Group Activity
OH	=	Overhead(s)
CS	=	Case Study
IA	=	Individual Activity
BMA	=	Between-Module Assignment
ICL	=	Interview with Course Leader

Please note: the handouts given to each participant are an exact reproduction of the module overheads. Therefore, to minimise the space used by the Cognitive Management Programme, handouts have not been included in this thesis copy.

COGNITIVE MANAGEMENT PROGRAMME

MODULE 1: ASSESSMENT

TIME* (min)	CONTENT	PROCESS	AIDS
	1) Complete questionnaires 2) Behavioural Analysis (adapted from Kirk, 1989): 2.1) Detailed analysis of the presenting problem: <ul style="list-style-type: none"> • What? (Related to task or social factors?) • When? • Where? • How often? • With whom? • How distressing? • How disruptive? (Effects on performance) 2.2) Antecedents: <ul style="list-style-type: none"> • Situational • Behavioural • Cognitive • Affective • Interpersonal • Physiological 2.3) Consequences (maintaining factors): <ul style="list-style-type: none"> • Situational • Behavioural • Cognitive • Affective • Interpersonal 2.4) Patterns of avoidance 2.5) Development of the problem: <ul style="list-style-type: none"> • Onset/ Precipitants • Time course • Predisposing factors 2.6) Attempts to resolve or cope with the problem 2.7) Motivation to resolve the problem: <ul style="list-style-type: none"> • Do team members believe the problem can be successfully addressed? • What do team members believe should be done about the problem? 	IA ICL	

<p>3) Confirm CDM characteristics:</p> <ul style="list-style-type: none"> • They operate in uncertain, unpredictable environments. • They often work with complex and unpredictable technology. • Task performance requirements can change daily. • They have high team member interdependence. • They have autonomy over their day to day work. • The nature of the tasks they are required to perform is complex, i.e. there are multiple elements and multiple interactions between elements. • There are multiple components of effectiveness and the team is responsible to many constituents. 	LGD
<p>4) Stakeholder Analysis:</p> <p>4.1) Identify stakeholders</p> <p>4.2) Identify criteria for successful team performance held by the various stakeholders</p> <p>4.3) Identify perceived importance of each stakeholder group relative to other stakeholders</p> <p>4.4) Identify perceived performance of the team in relation to each stakeholder grouping</p>	LGD
<p>5) Socialisation into CM</p>	CLI

* The timings were not included here as delegates differed (as individuals and as a group) considerably in the amount of time they spent elaborating upon the content of the module.

COGNITIVE MANAGEMENT PROGRAMME

MODULE 2: INTRODUCTION, ABC MODEL & AUTOMATIC THOUGHTS

TIME (min)	CONTENT	PROCESS	AIDS
05	1) Agenda setting: <ul style="list-style-type: none"> • Proposed module outline • Any additional items? 	CLI LGD	
05	2) Review: <ul style="list-style-type: none"> • Events since last session • Reactions to previous module 	LGD LGD	
10	3) Sharing of assessment information	CLI/ LGD	
10	4) Characteristics of Cognitive Management: <ul style="list-style-type: none"> • Aims to provide you with the knowledge and strategies to identify and challenge your task-related thoughts and assumptions (positive and negative) • The strategies you will learn can equally be applied to your domestic situation • CM facilitates more rational/ objective thinking. It is not about creating positive thinkers • You will not be asked to share any information that you do not feel comfortable sharing 	CLI	OH
10	5) Overview of the CM Programme: <ul style="list-style-type: none"> • Overview of CM modules • Groundrules (e.g. confidentiality, one speaker at a time, begin on time) • Format of sessions • Between-session assignments • Absence • Role of change agent (if applicable) 	CLI	OH
20	6) What makes an effective team? <ul style="list-style-type: none"> 6.1) Brainstorm 6.2) Team reflexivity 	LGA CLI	OH OH

35	7) Barriers to action: 7.1) Quotes 7.2) Challenger Space Shuttle Disaster (1) 7.3) Brainstorm possible explanations for the above 7.4) Importance of cognitive processes 7.5) Challenger Space Shuttle Disaster (2) 7.6) Model 1	CLI IA SGA CLI SGA CLI	OH CS(1) CS(2) OH
40	8) Relationship between circumstances (Antecedents) reflection (Beliefs) and adaptation (Consequences): 8.1) Model 2 8.2) Differences between thoughts and emotions 8.3) Cognitive Performance Cycle 1 8.4) Cognitive Performance Cycle 2 (systemic effects) 8.5) ABC model for common work-related situation 8.6) ABC model for specific presenting problem	 CLI CLI CLI CLI SGA SGA	 OH OH OH OH OH OH
35	9) Automatic thoughts (characteristics): 9.1) Habitual, automatic/ involuntary, plausible, extensive 9.2) Can be goal congruent or incongruent 9.3) Content: cognitive triad (attribution theory) 9.4) Process: cognitive distortions 9.5) Examples of content and process (common work-related problems) 9.6) Examples of content and process (specific presenting problem)	 CLI CLI CLI CLI LGA LGA	 OH OH OH OH OH OH
10	10) Between-module assignment: 10.1) Task 10.2) Rationale 10.3) Predicted difficulties	 CLI CLI LGD	 OH/ BMA
05	11) Summary of session	CLI	
05	12) Feedback on the understanding of delegates' and their reactions	LGD	

CHARACTERISTICS OF COGNITIVE MANAGEMENT

- Aims to provide you with the knowledge and strategies to identify and challenge your task-related thoughts and assumptions (positive and negative)
- The strategies you will learn can equally be applied to your domestic situation
- CM facilitates more rational/ objective thinking. It is not about creating positive thinkers
- You will not be asked to share any information that you do not feel comfortable sharing

COGNITIVE MANAGEMENT MODULES

1. Assessment
2. Introduction to Cognitive Management. The ABC model and identifying automatic thoughts
3. Challenging automatic thoughts
4. Identifying and modifying assumptions
5. Using Cognitive Management to facilitate group decision-making and problem-solving
6. Using Cognitive Management to facilitate group communication (feedback)
7. Maintenance and evaluation

TEAM REFLEXIVITY

A team will be effective if team members overtly reflect upon the group's objectives, strategies, processes, organisations and environments and adapt them to current or anticipated circumstances within or external to the team.

(West, 1996, 1999)

DOMAINS OF REFLECTION AND ADAPTATION

- *Team objectives* - their appropriateness, clarity, value to stakeholders and to team members, and the group's commitment to them, objectives in team meetings
- *Team strategies or plans for achieving goals* - their detailedness, clarity, value, alternatives, time-span, effectiveness.
- *Team processes* - decision-making; leadership; communication; interaction between members; recruitment and selection; management of controversy and conflict; methods of monitoring performance; ways of seeking and responding to feedback; processes in meetings; self-appraisal; support for innovation; effectiveness

DOMAINS OF REFLECTION AND ADAPTATION

(CONT)

- *Organisation* - goals, practices, supports for the team, information and communication systems, reward systems, appraisal systems, feedback on performance, intra-organisational linkages, cross team collaboration, wider social influence, environmental impacts.
- *Environment* - uncertainty, inter-organisational linkages, social and political context.

INTERNAL AND EXTERNAL CIRCUMSTANCES

- *Leadership*
- *Team member changes*
- *Errors and failures*
- *Successes*
- *Intra-team conflicts*
- *Difficulties over team allocation (e.g. work overload)*

INTERNAL AND EXTERNAL CIRCUMSTANCES

(CONT)

- *Difficulties in synchronising team member activities*
(e.g. to arrange meetings)
- *Interruptions* (e.g. conflicts, crises, shocks, surprises, obstacles and changes)
- *Feedback seeking*
- *Organisational changes*

Many companies have found that they or their consultants can think of new strategies that make sense from a financial, product or marketing point of view, yet they cannot implement those strategies...

(Schein, 1992, p. 381)

One thing all managers know is that many of the best ideas never get put into practice. Brilliant strategies fail to get translated into action. Systematic insights never find their way into operating policies. A pilot experiment may prove to everyone's satisfaction that a new approach leads to better results, but widespread adoption of the approach never occurs.

(Senge, 1990, p.174)

We don't see things as they are, we see things as we are.

(Anaïs Nin, French Author)

*We do not think and talk about what we see; we see what
we are able to think and talk about.*

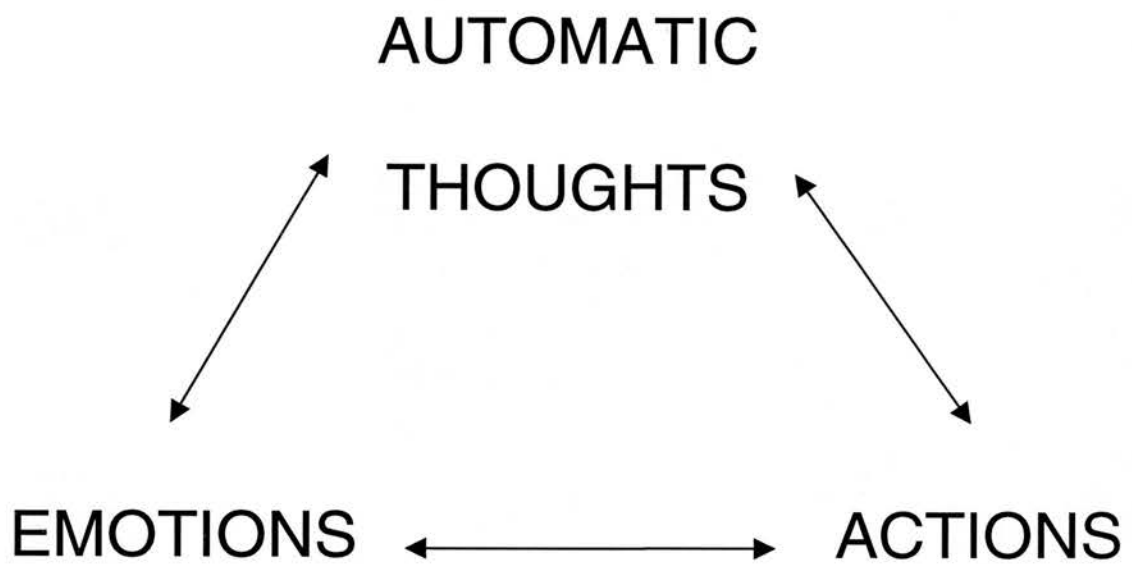
(Schein, 1999, p. 87)

*New insights fail to put into practice because they conflict
with deeply held internal images of how the world works,
images that limit us to familiar ways of thinking and
acting.*

(Senge, 1990, p.174)

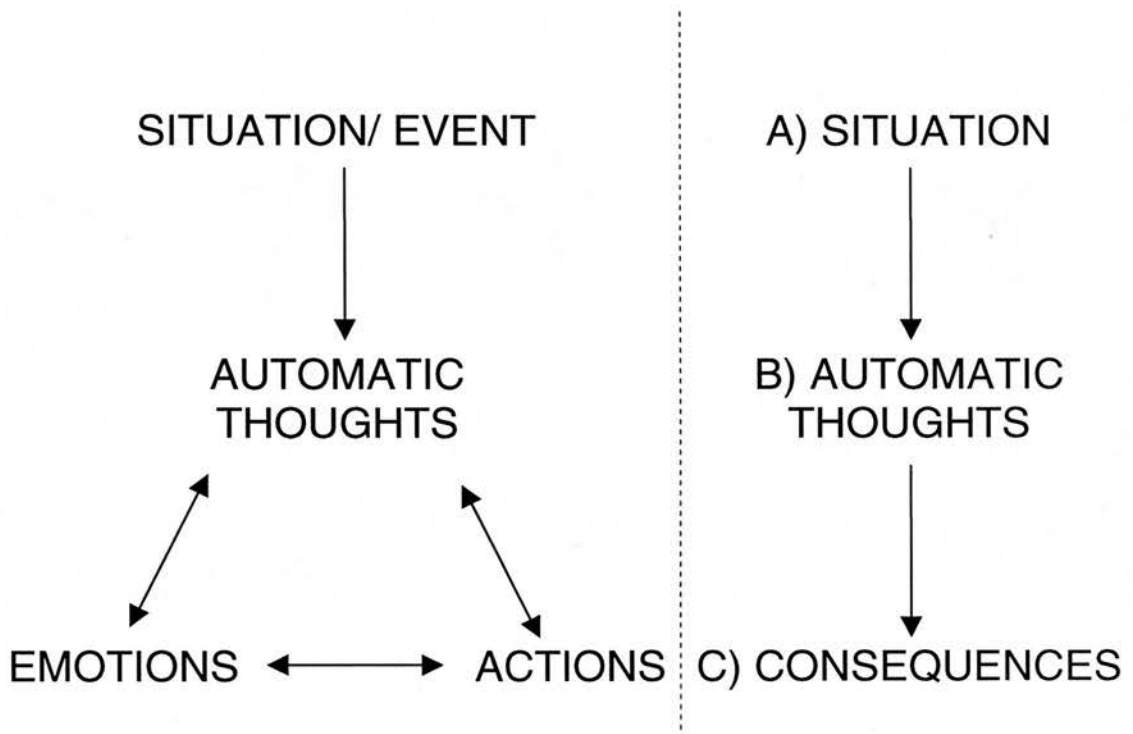
COGNITIVE MANAGEMENT THEORY

MODEL 1



COGNITIVE MANAGEMENT THEORY

MODEL 2



ABC MODEL: COGNITIVE PERFORMANCE CYCLE 1**ANTECEDENT**

E.g. manager questions my work

**BELIEFS**

E.g. *I am not doing well at this job*

It's not worth it to work hard

My work is not good enough

**CONSEQUENCES**

E.g. performance begins to decline

ABC MODEL: COGNITIVE PERFORMANCE CYCLE 2**ANTECEDENT**

manager questions my work

**BELIEFS**

E.g. I am not doing well/ my boss doesn't like me

**CONSEQUENCES/ ANTECEDENTS**

E.g. performance begins to decline/ manager formally
addresses performance problems

**BELIEFS**

E.g. I knew he didn't like me/ I give up

**CONSEQUENCES**

e.g. performance significantly compromised

ABC FOR COMMON WORK-RELATED SITUATION

ANTECEDENTS



BELIEFS



CONSEQUENCES

ABC FOR PRESENTING PROBLEM

ANTECEDENTS



BELIEFS



CONSEQUENCES

CHARACTERISTICS OF AUTOMATIC THOUGHTS

- Habitual
- Automatic and involuntary
- Plausible
- Occur in response to an extensive range of stimuli

CHARACTERISTICS OF AUTOMATIC THOUGHTS

(CONT)

- The content of automatic thoughts reflect:
 - 1) yourself
 - 2) your team and/or organisation
 - 3) the future of yourself, team and/or organisation

CHARACTERISTICS OF AUTOMATIC THOUGHTS

(CONT)

- Common processing (thinking) errors:

1) THINKING IN EXTREMES

- seeing things in all-or-nothing terms and black-and-white categories. Using words like, 'always', 'never', 'everyone', 'no one' and 'everybody'

2) JUMPING TO CONCLUSIONS

- jumping to a negative conclusion when there are no definite facts that convincingly support your negative interpretation

CHARACTERISTICS OF AUTOMATIC THOUGHTS

(CONT)

3) MIND READING

- assuming that you know what other people are thinking, without checking out your hunches

4) MAGNIFYING (CATASTROPHISING) OR MINIMISING

- exaggerating the negative aspects of your experience or discounting the positive aspects of your experience

5) EMOTIONAL REASONING

- taking your emotions as evidence for the truth

CHARACTERISTICS OF AUTOMATIC THOUGHTS

(CONT)

6) PERSONALISING

- taking responsibility for things that have little or nothing to do with yourself or blaming others for things

7) LABELLING AND MISLABELLING

- attaching negative labels to yourself or others

8) SHOULD STATEMENTS

- you believe that you or someone else should have done something. “Musts” and “oughts” are similar, e.g. “I/you must do this”, “I/you ought to have done that”

SELF	TEAM/ ORGAN	FUTURE (SELF/TEAM/ ORGAN)
THINKING IN EXTREMES		
JUMPING TO CONCLUSIONS		
MIND READING		
MAGNIFYING (CATASTROPHISING) OR MINIMISING		

EMOTIONAL REASONING



PERSONALISING



LABELLING & MISLABELLING



SHOULD STATEMENTS



SPECIMAN

A) ANTECEDENTS e.g. situation(s)

- Describe the situation(s) that led to the strong emotion(s):

Team meeting significantly overran

B) AUTOMATIC THOUGHT(S) e.g. perception(s), interpretation(s) or understanding(s)

- Write down your immediate thought(s) about the situation(s) identified in part A.
- How far did you believe your automatic thought(s)? (0% = not at all → 100% = totally)
- What thinking errors are you making? (Tick the appropriate box)
- Indicate by ticking the appropriate column(s) whether your automatic thought(s) related to yourself, your team/ organisation and/or the future?

Description of automatic thought(s)	Belief (%)	Thinking errors	Yourself	Team/ Organisation	Future
1) <i>These meetings are always a waste of time</i>	80	<input checked="" type="checkbox"/> Thinking in extremes <input checked="" type="checkbox"/> Jumping to conclusion <input type="checkbox"/> Mind reading <input checked="" type="checkbox"/> Magnification (catastrophising) or minimisation <input type="checkbox"/> Emotional reasoning <input type="checkbox"/> Personalising <input type="checkbox"/> Labelling and mislabelling <input type="checkbox"/> Should statements	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2) <i>I'll never be able to achieve the work I planned to do today</i>	90		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
3) <i>Nobody else seems to be bothered about the meeting overrunning</i>	70			<input checked="" type="checkbox"/>	

C) CONSEQUENCES e.g. emotion(s) and action(s)

- Tick the box or boxes that best correspond to how you felt during the situation(s) and rate the intensity of the emotion(s) from 1 to 100 in the appropriate bracket(s) (1 = hardly noticeable/ 100 = unbearable).
- | | | | | | |
|--------------------------------|--------|--------------------------------|--------|---------------------------|--------|
| ✓ Anger/ irritation/ annoyance | (60) | ✓ Sadness/ low mood | (40) | • Pride | () |
| • Happiness/ joy | () | • Contentment/ satisfaction | () | • Envy/ jealousy | () |
| ✓ Stress/ worry/ fear/ panic | (80) | • Hopelessness/ discouragement | () | ✓ Frustration | (70) |
| • Affection/ love | () | • Guilt/ shame | () | • Inferiority/ inadequacy | () |
- What was your immediate response to the situation? I attempted to push proceedings along

THE CHALLENGER SPACE SHUTTLE DISASTER (PART 1)

NASA had known for years that the O-rings on the launching rocket were unreliable in cold weather. The rings had consistently shown signs of erosion following flights at temperatures below 61 F (16 C). The evening before the Challenger flight, two of the engineers responsible for the development and production of the launching rockets and the O-rings expressed doubts about the timing of the launch, in view of the low temperature. Their doubts were overruled by management.

Prior to the launch, one of the engineers responsible for the O-rings had put his worries in writing to NASA. Another wrote a memo that started with the word 'HELP', and ended with: 'This is a red flag'. These memos never arrived at the appropriate place. On the morning of the launch, the two engineers of the producers of the O-rings once more drew NASA's attention to the fact that the rings were not guaranteed safe at temperatures below 50F (10C). The outside temperature on the morning of the disaster was 36F (2C). Nevertheless, the flight took off at 11.38, and disaster followed.

THE CHALLENGER SPACE SHUTTLE DISASTER (PART 2)

The investigation showed that NASA had interpreted the doubts expressed by the engineers differently. The manager of the launch had the impression that the engineers were worried, but not that they were suggesting a postponement of the flight. His deputy, however, thought that the engineers were strongly opposed to any take-off and that they were arguing for a postponement to another date.

Another problem was that the concerns of the engineers had not been taken seriously by their superiors because there had been no problems during previous flights. The safety in the past was used to predict the safety of flights in the future. Moreover, postponement of the flight would have had grave financial consequences. Due to these financial implications, NASA did not want to take the engineers' doubts seriously. The warnings were therefore dismissed, because 'the shuttle has flown nineteen times and has come back nineteen times'.

After the engineers had had their concerns rejected by NASA on several occasions, they stopped putting them forward because they thought that nobody was going to listen to them anyway. At a final meeting before the flight, the engineers were asked again if there were any problems. They kept quiet, and their silence was interpreted as agreement by the producers'

management. By remaining silent when the final decision was made, they in effect sanctioned the launch, even though they were aware of the possible consequences.

As a result of these factors the disastrous launch went ahead.

CONFIDENTIAL

COGNITIVE MANAGEMENT

BETWEEN MODULE ASSIGNMENT 1

GUIDELINES FOR COMPLETION

In completing this assignment you are asked to consider a situation during your working day that evoked strong emotion(s) within you, isolate your accompanying automatic thoughts and actions, evaluate and challenge your automatic thoughts and noting down any different outcomes as a result. The following guidelines may help you through this process (see also the specimen diary sheet on the next page):

1. Try to complete a diary sheet as soon as possible after experiencing the strong emotion (realistically, this might mean at the end of your working day).
2. Use one diary sheet for each situation/ event (5 sheets in total are provided, although you can photocopy more if needed).
3. It is often easier to identify the periods during your working day when you have experienced strong emotions (positive or negative) rather than trying to isolate key thoughts at work. Therefore, it may help to begin with part C, the consequences section of the record. Tick the emotion(s) that best describe how you have felt during periods of strong emotion and rate the intensity of the emotion(s) in the brackets provided.
4. Complete part A by briefly describing the actual situation leading to the emotion(s), remembering to fill in the date, time and place at the top of the page. In helping to describe the situation you might like to consider whether it was characterised by: change; conflict; crisis; surprise; obstacles; success; error; failure; feedback; difficulties over work allocation; or difficulties in synchronising activities with others.
5. You are then asked to complete the automatic thoughts section (part B). This part requires you to write down your immediate thought(s) about the situation and estimate the extent to which you actually believe your thought(s) by recording a percentage in the column marked 'Belief'. Indicate what thinking errors you are making from those listed below. Decide whether your automatic thought(s) concern yourself, your team/ organisation and/ or your future and tick the appropriate column accordingly.
 - *Thinking in extremes*: are you seeing things in all-or-nothing terms and black-and-white categories? Are you using words like, 'always', 'never', 'everyone', 'no one' and 'everybody'?
 - *Jumping to conclusions*: are you jumping to a negative conclusion when there are no definite facts that convincingly support your negative interpretation?
 - *Mind reading*: are you assuming that you know what other people are thinking, without checking out your hunches?

- *Magnifying (catastrophising) or minimising*: are you exaggerating the negative aspects of your experience. Are you discounting the positive aspects of your experience?
 - *Emotionally reasoning*: are you taking your emotions as evidence for the truth?
 - *Personalising*: are you taking responsibility for things that have little or nothing to do with yourself or are you blaming others for things?
 - *Labelling and mislabelling*: are you attaching negative labels to yourself or others?
 - *Should statements*: do you believe that you or someone else should have done something? Are you using words like, "must" and "ought" (e.g. "I/you must do this", "I/you ought to have done that")?
6. Return to part C. Complete this section by indicating what you did in response to the situation.

EXAMPLE

- A) ANTECEDENTS e.g. situation(s)**
- Describe the situation(s) that led to the strong emotion(s): Team meeting significantly overran

B) AUTOMATIC THOUGHT(S) e.g. perception(s), interpretation(s) or understanding(s)

- Write down your immediate thought(s) about the situation(s) identified in part A.
- How far did you believe your automatic thought(s)? (0% = not at all → 100% = totally)
- What thinking errors are you making? (Tick the appropriate box)
- Indicate by ticking the appropriate column(s) whether your automatic thought(s) related to yourself, your team/ organisation and/or the future?

Description of automatic thought(s)	Belief (%)	Thinking errors	Yourself	Team/ Organisation	Future
1) <i>These meetings are always a waste of time</i>	80	<input checked="" type="checkbox"/> Thinking in extremes <input checked="" type="checkbox"/> Jumping to conclusion Mind reading <input checked="" type="checkbox"/> Magnification (catastrophising) or minimisation Emotional reasoning Personalising Labelling and mislabelling Should statements	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
2) <i>I'll never be able to achieve the work I planned to do today</i>	90		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
3) <i>Nobody else seems to be bothered about the meeting overrunning</i>	70			<input checked="" type="checkbox"/>	

C) CONSEQUENCES e.g. emotion(s) and action(s)

- Tick the box or boxes that best correspond to how you felt during the situation(s) and rate the intensity of the emotion(s) from 1 to 100 in the appropriate bracket(s) (1 = hardly noticeable/ 100 = unbearable).
- Anger/ irritation/ annoyance (60) Sadness/ low mood (40) • Pride ()
- Happiness/ joy () • Contentment/ satisfaction () • Envy/ jealousy ()
- Stress/ worry/ fear/ panic (80) • Hopelessness/ discouragement () Frustration (70)
- Affection/ love () • Guilt/ shame () • Inferiority/ inadequacy ()
- What was your immediate response to the situation? I attempted to push proceedings along

Date:

Time (approx):

Place:

A) ANTECEDENTS e.g. situation(s)

- Describe the situation(s) that led to the strong emotion(s):

B) AUTOMATIC THOUGHT(S) e.g. perception(s), interpretation(s) or understanding(s)

- Write down your immediate thought(s) about the situation(s) identified in part A.
- How far did you believe your automatic thought(s)? (0% = not at all → 100% = totally)
- What thinking errors are you making? (Tick the appropriate box)
- Indicate by ticking the appropriate column(s) whether your automatic thought(s) related to yourself, your team/ organisation and/or the future?

Description of automatic thought(s)	Belief (%)	Thinking errors	Yourself	Team/ Organisation	Future
1)		Thinking in extremes Jumping to conclusions Mind reading Magnification (catastrophising) or minimisation Emotional reasoning Personalising Labelling and mislabelling Should statements			
2)					
3)					

C) CONSEQUENCES e.g. emotion(s) and action(s)

- Tick the box or boxes that best correspond to how you felt during the situation(s) and rate the intensity of the emotion(s) from 1 to 100 in the appropriate bracket(s) (1 = hardly noticeable/ 100 = unbearable).
- Anger/ irritation/ annoyance () • Sadness/ low mood () • Pride ()
- Happiness/ joy () • Contentment/ satisfaction () • Envy/ jealousy ()
- Stress/ worry/ fear/ panic () • Hopelessness/ discouragement () • Frustration ()
- Affection/ love () • Guilt/ shame () • Inferiority/ inadequacy ()
- Other emotion(s) (not specified): _____
- What was your immediate response to the situation? _____

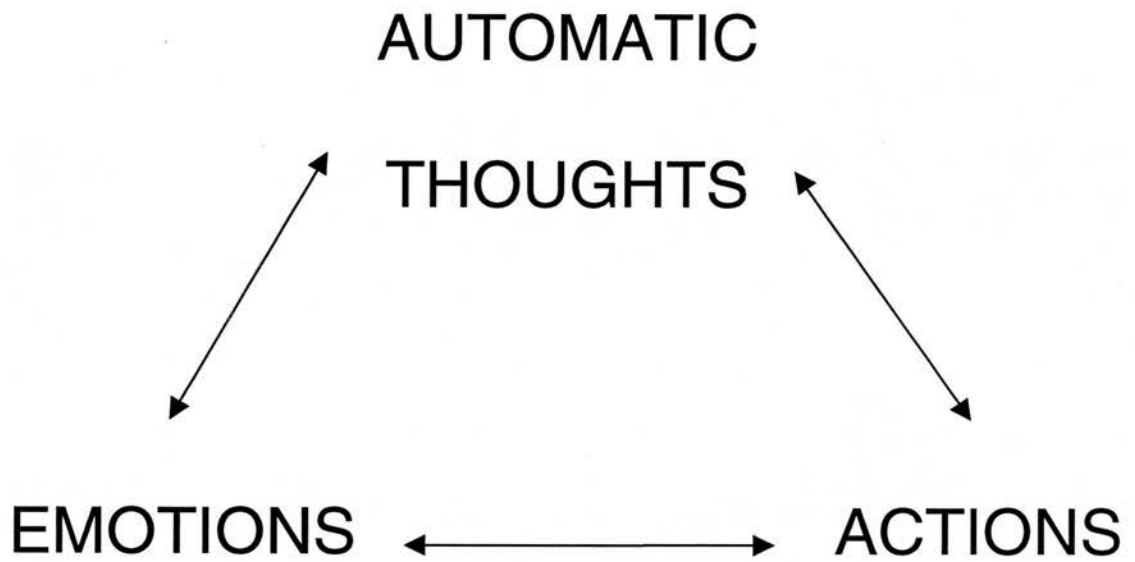
COGNITIVE MANAGEMENT PROGRAMME

MODULE 3: EVALUATING AND CHALLENGING AUTOMATIC THOUGHTS

TIME (min)	CONTENT	PROCESS	AIDS
05	1) Agenda setting: <ul style="list-style-type: none"> • Proposed module outline • Any additional items? 	CLI LGD	
05	2) Review: <ul style="list-style-type: none"> • Events since last session • Content of previous module • Reactions to previous module • Difficulties with between-session assignment? 	LGD LGD LGD LGD	OH
15	3) Distraction techniques 3.1) Overview 3.2) Techniques	CLI	OH OH
50	4) Challenging automatic thoughts: 4.1) Strategies (thinking errors, evidence, adv/ disadvan, alternatives)	CLI	OH
10	4.2) Thought might be realistic	CLI	
30	4.3) Challenging common work-related auto thoughts	SGA	
30	4.4) Challenging auto thoughts in relation to the presenting problem	SGA	
20	5) Between-module assignment: 5.1) Task 5.2) Rationale 5.3) Predicted difficulties	CLI CLI LGD	OH/ BMA
05	6) Summary of session	CLI	
10	7) Feedback on the understanding of delegates' and their reactions	LGD	

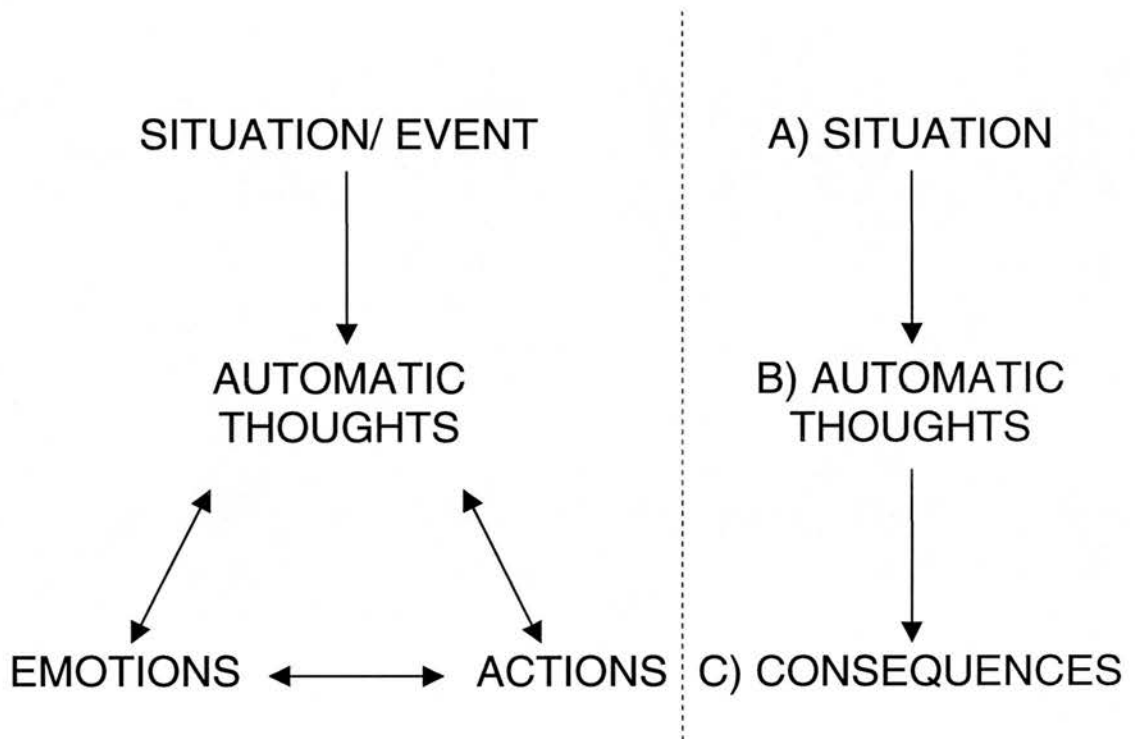
COGNITIVE MANAGEMENT THEORY

MODEL 1



COGNITIVE MANAGEMENT THEORY

MODEL 2



DISTRACTION TECHNIQUES

- These techniques can be used as a way of cutting down on time spent thinking where this is clearly leading to increased emotional arousal and negative outcomes rather than to constructive problem-solving.
- They do not produce fundamental changes in thinking but, by reducing the frequency of negative thinking, facilitate problem-solving and lead to better emotions and actions.

DISTRACTION TECHNIQUES

1. Mental exercises (e.g. counting backwards in 3s, using the first letter of the alphabet to go through places, clubs, names)
2. Describe an object in detail
3. Describe your environment using all the senses
4. Counting thoughts (note the occurrence of negative thoughts and put them to one side)
5. Engage in absorbing activities (e.g. crosswords)

CHALLENGING AND EVALUATING AUTOMATIC THOUGHTS

1) Reality testing: What is the evidence for and against your thoughts?

- Are you confusing a thought with a fact? The fact that you believe something to be true, does not necessarily mean that it is. Does what you think fit the facts? Would it be accepted as correct by other people? Would it stand up in court, or be dismissed as circumstantial? What objective evidence do you have to back up your thoughts, and to contradict them?
- Are you jumping to conclusions? This is the result of basing what you think on poor evidence. Stick to what you can be sure of. If you do not have enough evidence to make a sound judgment, see if you can find out more of the facts. Are you asking questions that have no answers?

CHALLENGING AND EVALUATING AUTOMATIC THOUGHTS (CONT)

2) Brainstorming: what alternative views are there?

- Are you assuming that your view of things is the only one possible. There is more than one way of seeing any situation. How might another person see things? What would your reaction be if a colleague told you about the same situation? Would your thinking be the same if another person was in the situation instead of you? Generate some alternatives and then rate how much you believe each of these alternatives (0% = not at all → 100% = totally).

CHALLENGING AND EVALUATING AUTOMATIC THOUGHTS (CONT)

3) Scientific investigation: how can you test your automatic thought(s) and alternative thought(s) of the situation?

- Work as a scientist and use your thoughts as hypotheses, that is a prediction. Devise a way to test your thoughts, undertake the experiment and evaluate the results.

CHALLENGING AND EVALUATING AUTOMATIC THOUGHTS (CONT)

4) Cost-benefit analysis: what are the advantages and disadvantages of thinking in this way?

- Many distorted thought patterns do have some pay-off (e.g. avoiding situations you find difficult). But do the disadvantages outweigh the advantages? Consider the advantages and disadvantages of thinking in this way and rate the importance of each of these advantages and disadvantages (1 = not at all important → 100 extremely important).

CHALLENGING AND EVALUATING AUTOMATIC THOUGHTS (CONT)

5) Causal analysis: are there other situations or factors that might explain your automatic thought(s), emotion(s) and action(s)?

- Are your thoughts, feelings and actions determined by other situations? For example, what happened yesterday, what occurred just before the situation or what might happen tomorrow.

CHALLENGING AND EVALUATING AUTOMATIC THOUGHTS (CONT)

6) Logical analysis: what thinking errors are you making?

- *Thinking in extremes*: are you seeing things in all-or-nothing terms and black-and-white categories? Are you using words like, 'always', 'never', 'everyone', 'no one' and 'everybody'?
- *Jumping to conclusions*: are you jumping to a negative conclusion when there are no definite facts that convincingly support your negative interpretation?
- *Mind reading*: are you assuming that you know what other people are thinking, without checking out your hunches?

CHALLENGING AND EVALUATING AUTOMATIC THOUGHTS (CONT)

- *Magnifying (catastrophising) or minimising:* are you exaggerating the negative aspects of your experience. Are you discounting the positive aspects of your experience?
- *Emotionally reasoning:* are you taking your emotions as evidence for the truth?
- *Personalising:* are you taking responsibility for things that have little or nothing to do with yourself or are you blaming others for things?

CHALLENGING AND EVALUATING AUTOMATIC THOUGHTS (CONT)

- *Labelling and mislabelling*: are you attaching negative labels to yourself or others?
- *Should statements*: do you believe that you or someone else should have done something? Are you using words like, “must” and “ought” (e.g. “I/you must do this”, “I/you ought to have done that”)?

CHALLENGING AND EVALUATING AUTOMATIC THOUGHTS (CONT)

7) *Semantic analysis*: what do you mean by some of the terms you are using?

- Examine the terms you are using. What is the meaning behind using words like 'never' and 'always'. Explore the semantics behind the labels you are using.

EXAMPLE

A) ANTECEDENTS e.g. situation(s)

- Describe the situation(s) that led to the strong emotion(s): Team meeting significantly overran

B) AUTOMATIC THOUGHT(S) e.g. perception(s), interpretation(s) or understanding(s)

- Write down your immediate thought(s) about the situation(s) identified in part A.
- How far did you believe your automatic thought(s)? (0% = not at all → 100% = totally)
- Indicate by ticking the appropriate column(s) whether your automatic thought(s) related to yourself, your team/ organisation and/or the future?

Description of automatic thought(s)	Belief (%)	Yourself	Team/ Organisation	Future
1) <i>These meetings are always a waste of time</i>	80		✓	
2) <i>I'll never be able to achieve the work I planned to do today</i>	90	✓		✓
3) <i>Nobody else seems to be bothered about the meeting overrunning</i>	70		✓	

C) CONSEQUENCES e.g. emotion(s) and action(s)

- Tick the box or boxes that best correspond to how you felt during the situation(s) and rate the intensity of the emotion(s) from 1 to 100 in the appropriate bracket(s) (1 = hardly noticeable/ 100 = unbearable).
- | | | | | | |
|-------------------------------------|--------|--------------------------------|--------|---------------------------|--------|
| ✓ Anger/ irritation/ annoyance | (60) | ✓ Sadness/ low mood | (40) | • Pride | () |
| Happiness/ joy | () | • Contentment/ satisfaction | () | • Envy/ jealousy | () |
| ✓ Stress/ worry/ fear/ panic | (80) | • Hopelessness/ discouragement | () | ✓ Frustration | (70) |
| • Affection/ love | () | • Guilt/ shame | () | • Inferiority/ inadequacy | () |
| • Other emotion(s) (not specified): | () | | | | |
- What was your immediate response to the situation? I attempted to push proceedings along

EXAMPLE

D) EVALUATING & CHALLENGING YOUR AUTOMATIC THOUGHTS USING COGNITIVE MANAGEMENT TECHNIQUES

- Use the space below to evaluate and challenge your automatic thought(s). Continue on the reverse side of this sheet if necessary. It might help to ask yourself some (or all) of the following questions:

- What thinking errors am I making? (See completion guidelines for descriptions of thinking errors) (Logical analysis)
- What is the evidence for and against my automatic thought(s)? (Reality testing)
- What alternative views are there of the situation and how far do I believe each of them? (0% = not at all → 100% = totally) (Brainstorming)
- How can I test the accuracy of my automatic thought(s) and my alternative views of the situation? (Scientific investigation)
- What are the advantages and disadvantages of my automatic thought(s)? Rate the importance of each of these pros and cons. (Cost-benefit analysis)
- Are there other situations or factors that might explain my automatic thought(s), emotion(s) and action(s)? (Causal analysis)
- What do I mean by the key terms used in my automatic thought(s)? (Semantic analysis)

1) *Reality testing: Out of the last 3 meetings, the previous 2 have been quite useful.*

Brainstorming: These meetings are not always a waste of time. Today we are discussing something very important.

2) *Causal analysis: I'm stressed because I was on holiday last week and I have come back to a mountain of work.*

Semantic analysis: When I say never I mean that I will not be able to achieve anything. This cannot be correct because even if I didn't achieve everything I planned to do today, I will still achieve something.

3) *Logical analysis: mind reading and thinking in extremes*

Scientific investigation: I am going to check out if other people are bothered by these meetings overrunning.

E) OUTCOMES e.g. emotion(s) and action(s)

- As a result of your answers to the question(s) in part D, how far do you now believe the automatic thought(s) you recorded in B? (0-100%):

1) Belief rating = 30 %

2) Belief rating = 20 %

3) Belief rating = 50 %

- Tick and re-rate the intensity of the emotion(s) you specified in part C according to how you feel now. If you are now experiencing additional feelings to the ones you indicated previously, then tick the box or boxes that best describe the new emotion(s) and rate the intensity of the new emotion(s) in the brackets.

- | | | | | | |
|-------------------------------------|--------|--------------------------------|--------|---------------------------|--------|
| ✓ Anger/ irritation/ annoyance | (20) | ✓ Sadness/ low mood | (10) | • Pride | () |
| • Happiness/ joy | () | • Contentment/ satisfaction | () | • Envy/ jealousy | () |
| ✓ Stress/ worry/ fear/ panic | (30) | • Hopelessness/ discouragement | () | ✓ Frustration | (30) |
| • Affection/ love | () | • Guilt/ shame | () | • Inferiority/ inadequacy | () |
| • Other emotion(s) (not specified): | () | | () | | () |

Prioritise tasks. Speak to my colleagues. If they agree, introduce an agenda.

CONFIDENTIAL

COGNITIVE MANAGEMENT

BETWEEN MODULE ASSIGNMENT 2

GUIDELINES FOR COMPLETION

In completing this assignment you are asked to consider a situation during your working day that evoked strong emotion(s) within you, isolate your accompanying automatic thoughts and actions, evaluate and challenge your automatic thoughts and noting down any different outcomes as a result. The following guidelines may help you through this process (see also the specimen diary sheet on the next page):

1. Try to complete a diary sheet as soon as possible after experiencing the strong emotion (realistically, this might mean at the end of your working day).
2. Use one diary sheet for each situation/ event (5 sheets in total are provided, although you can photocopy more if needed).
3. It is often easier to identify the periods during your working day when you have experienced strong emotions (positive or negative) rather than trying to isolate key thoughts at work. Therefore, it may help to begin with part C, the consequences section of the record. Tick the emotion(s) that best describe how you have felt during periods of strong emotion and rate the intensity of the emotion(s) in the brackets provided.
4. Complete part A by briefly describing the actual situation leading to the emotion(s), remembering to fill in the date, time and place at the top of the page. In helping to describe the situation you might like to consider whether it was characterised by: change; conflict; crisis; surprise; obstacles; success; error; failure; feedback; difficulties over work allocation; or difficulties in synchronising activities with others.
5. You are then asked to complete the automatic thoughts section (part B). This part requires you to write down your immediate thought(s) about the situation and estimate the extent to which you actually believe your thought(s) by recording a percentage in the column marked 'Belief'. Decide whether your automatic thought(s) concern yourself, your team/ organisation and/ or your future and tick the appropriate column accordingly.
6. Return to part C. Complete this section by indicating what you did in response to the situation.
7. Part D requires you to use the techniques you have learnt to evaluate and challenge the automatic thought(s) you identified in part B (e.g. logical analysis, reality testing, brainstorming, cost-benefit analysis, scientific investigation, causal analysis and semantic analysis). Three techniques are especially important here: reality testing, brainstorming and scientific investigation. Descriptions of each of the thinking errors (for use in the logical analysis) are given below:

- *Thinking in extremes*: are you seeing things in all-or-nothing terms and black-and-white categories? Are you using words like, 'always', 'never', 'everyone', 'no one' and 'everybody'?
 - *Jumping to conclusions*: are you jumping to a negative conclusion when there are no definite facts that convincingly support your negative interpretation?
 - *Mind reading*: are you assuming that you know what other people are thinking, without checking out your hunches?
 - *Magnifying (catastrophising) or minimising*: are you exaggerating the negative aspects of your experience. Are you discounting the positive aspects of your experience?
 - *Emotionally reasoning*: are you taking your emotions as evidence for the truth?
 - *Personalising*: are you taking responsibility for things that have little or nothing to do with yourself or are you blaming others for things?
 - *Labelling and mislabelling*: are you attaching negative labels to yourself or others?
 - *Should statements*: do you believe that you or someone else should have done something? Are you using words like, "must" and "ought" (e.g. "I/you must do this", "I/you ought to have done that")?
1. Turn to the outcomes section (part E). Re-rate your belief in the automatic thought(s) you wrote down in Part B. Tick and re-rate the intensity of the emotion(s) you specified in part C according to how you feel now. If you are now experiencing additional feelings to the ones you indicated in part C, then tick the box or boxes that best describe the new emotion(s) and rate the intensity of the new emotion(s) in the brackets.
 2. Finally, work out an action plan and note it down at the bottom of part E. Consider what can you do, either to change the situation for the better, or to test out the answers to your negative thoughts? How would you like to handle the situation differently next time if it occurs? What will you do if you find yourself thinking and feeling this way again? Try to work out a strategy you can use in future, whenever you find yourself facing a similar difficulty.

EXAMPLE

A) ANTECEDENTS e.g. situation(s)

- Describe the situation(s) that led to the strong emotion(s): Team meeting significantly overran

B) AUTOMATIC THOUGHT(S) e.g. perception(s), interpretation(s) or understanding(s)

- Write down your immediate thought(s) about the situation(s) identified in part A.
- How far did you believe your automatic thought(s)? (0% = not at all → 100% = totally)
- Indicate by ticking the appropriate column(s) whether your automatic thought(s) related to yourself, your team/ organisation and/or the future?

Description of automatic thought(s)	Belief (%)	Yourself	Team/ Organisation	Future
1) <i>These meetings are always a waste of time</i>	80		✓	
2) <i>I'll never be able to achieve the work I planned to do today</i>	90	✓		✓
3) <i>Nobody else seems to be bothered about the meeting overrunning</i>	70		✓	

C) CONSEQUENCES e.g. emotion(s) and action(s)

- Tick the box or boxes that best correspond to how you felt during the situation(s) and rate the intensity of the emotion(s) from 1 to 100 in the appropriate bracket(s) (1 = hardly noticeable/ 100 = unbearable).
 - ✓ Anger/ irritation/ annoyance (60) ✓ Sadness/ low mood (40) • Pride ()
 - Happiness/ joy () • Contentment/ satisfaction () • Envy/ jealousy ()
 - ✓ Stress/ worry/ fear/ panic (80) • Hopelessness/ discouragement () ✓ Frustration (70)
 - Affection/ love () • Guilt/ shame () • Inferiority/ inadequacy ()
 - Other emotion(s) (not specified): ()
- What was your immediate response to the situation? I attempted to push proceedings along

D) EVALUATING & CHALLENGING YOUR AUTOMATIC THOUGHTS USING COGNITIVE MANAGEMENT TECHNIQUES

- Use the space below to evaluate and challenge your automatic thought(s). Continue on the reverse side of this sheet if necessary. It might help to ask yourself some (or all) of the following questions:
 1. What thinking errors am I making? (See completion guidelines for descriptions of thinking errors) (Logical analysis)
 2. What is the evidence for and against my automatic thought(s)? (Reality testing)
 3. What alternative views are there of the situation and how far do I believe each of them? (0% = not at all → 100% = totally) (Brainstorming)
 4. How can I test the accuracy of my automatic thought(s) and my alternative views of the situation? (Scientific investigation)
 5. What are the advantages and disadvantages of my automatic thought(s)? Rate the importance of each of these pros and cons. (Cost-benefit analysis)
 6. Are there other situations or factors that might explain my automatic thought(s), emotion(s) and action(s)? (Causal analysis)
 7. What do I mean by the key terms used in my automatic thought(s)? (Semantic analysis)
- 1) *Reality testing: Out of the last 3 meetings, the previous 2 have been quite useful.*
Brainstorming: These meetings are not always a waste of time. Today we are discussing something very important.
- 2) *Causal analysis: I'm stressed because I was on holiday last week and I have come back to a mountain of work.*
Semantic analysis: When I say never I mean that I will not be able to achieve anything. This cannot be correct because even if I didn't achieve everything I planned to do today, I will still achieve something.
- 3) *Logical analysis: mind reading and thinking in extremes*
Scientific investigation: I am going to check out if other people are bothered by these meetings overrunning.

E) OUTCOMES e.g. emotion(s) and action(s)

- As a result of your answers to the question(s) in part D, how far do you now believe the automatic thought(s) you recorded in B? (0-100%):
 - 1) Belief rating = 30 %
 - 2) Belief rating = 20 %
 - 3) Belief rating = 50 %
- Tick and re-rate the intensity of the emotion(s) you specified in part C according to how you feel now. If you are now experiencing additional feelings to the ones you indicated previously, then tick the box or boxes that best describe the new emotion(s) and rate the intensity of the new emotion(s) in the brackets.

✓ Anger/ irritation/ annoyance	(20)	✓ Sadness/ low mood	(10)	• Pride	()
• Happiness/ joy	()	• Contentment/ satisfaction	()	• Envy/ jealousy	()
✓ Stress/ worry/ fear/ panic	(30)	• Hopelessness/ discouragement	()	✓ Frustration	(30)
• Affection/ love	()	• Guilt/ shame	()	• Inferiority/ inadequacy	()
• Other emotion(s) (not specified):	()		()		
- Work out an action plan (see notes):
Prioritise tasks. Speak to my colleagues. If they agree, introduce an agenda.

Date:

Time (approx):

Place:

A) ANTECEDENTS e.g. situation(s)

- Describe the situation(s) that led to the strong emotion(s):

B) AUTOMATIC THOUGHT(S) e.g. perception(s), interpretation(s) or understanding(s)

- Write down your immediate thought(s) about the situation(s) identified in part A.
- How far did you believe your automatic thought(s)? (0% = not at all → 100% = totally)
- Indicate by ticking the appropriate column(s) whether your automatic thought(s) related to yourself, your team/ organisation and/or the future?

	Description of automatic thought(s)	Belief (%)	Yourself	Team/ Organisation	Future
1)					
2)					
3)					

C) CONSEQUENCES e.g. emotion(s) and action(s)

- Tick the box or boxes that best correspond to how you felt during the situation(s) and rate the intensity of the emotion(s) from 1 to 100 in the appropriate bracket(s) (1 = hardly noticeable/ 100 = unbearable).
- Anger/ irritation/ annoyance () • Sadness/ low mood () • Pride ()
- Happiness/ joy () • Contentment/ satisfaction () • Envy/ jealousy ()
- Stress/ worry/ fear/ panic () • Hopelessness/ discouragement () • Frustration ()
- Affection/ love () • Guilt/ shame () • Inferiority/ inadequacy ()
- Other emotion(s) (not specified): _____ ()
- What was your immediate response to the situation? _____ ()

D) EVALUATING & CHALLENGING YOUR AUTOMATIC THOUGHTS USING COGNITIVE MANAGEMENT TECHNIQUES

- Use the space below to evaluate and challenge your automatic thought(s). Continue on the reverse side of this sheet if necessary. It might help to ask yourself some (or all) of the following questions:
 1. What thinking errors am I making? (See completion guidelines for descriptions of thinking errors) (Logical analysis)
 2. What is the evidence for and against my automatic thought(s)? (Reality testing)
 3. What alternative views are there of the situation and how far do I believe each of them? (0% = not at all → 100% = totally) (Brainstorming)
 4. How can I test the accuracy of my automatic thought(s) and my alternative views of the situation? (Scientific investigation)
 5. What are the advantages and disadvantages of my automatic thought(s)? Rate the importance of each of these pros and cons. (Cost-benefit analysis)
 6. Are there other situations or factors that might explain my automatic thought(s), emotion(s) and action(s)? (Causal analysis)
 7. What do I mean by the key terms used in my automatic thought(s)? (Semantic analysis)

1)

2)

3)

E) OUTCOMES e.g. emotion(s) and action(s)

- As a result of your answers to the question(s) in part D, how far do you now believe the automatic thought(s) you recorded in B? (0-100%):
 - 1) Belief rating = %
 - 2) Belief rating = %
 - 3) Belief rating = %
- Tick and re-rate the intensity of the emotion(s) you specified in part C according to how you feel now. If you are now experiencing additional feelings to the ones you indicated previously, then tick the box or boxes that best describe the new emotion(s) and rate the intensity of the new emotion(s) in the brackets.

• Anger/ irritation/ annoyance ()	• Sadness/ low mood ()	• Pride ()
• Happiness/ joy ()	• Contentment/ satisfaction ()	• Envy/ jealousy ()
• Stress/ worry/ fear/ panic ()	• Hopelessness/ discouragement ()	• Frustration ()
• Affection/ love ()	• Guilt/ shame ()	• Inferiority/ inadequacy ()
• Other emotion(s) (not specified): _____	()	()
- Work out an action plan (see notes): _____

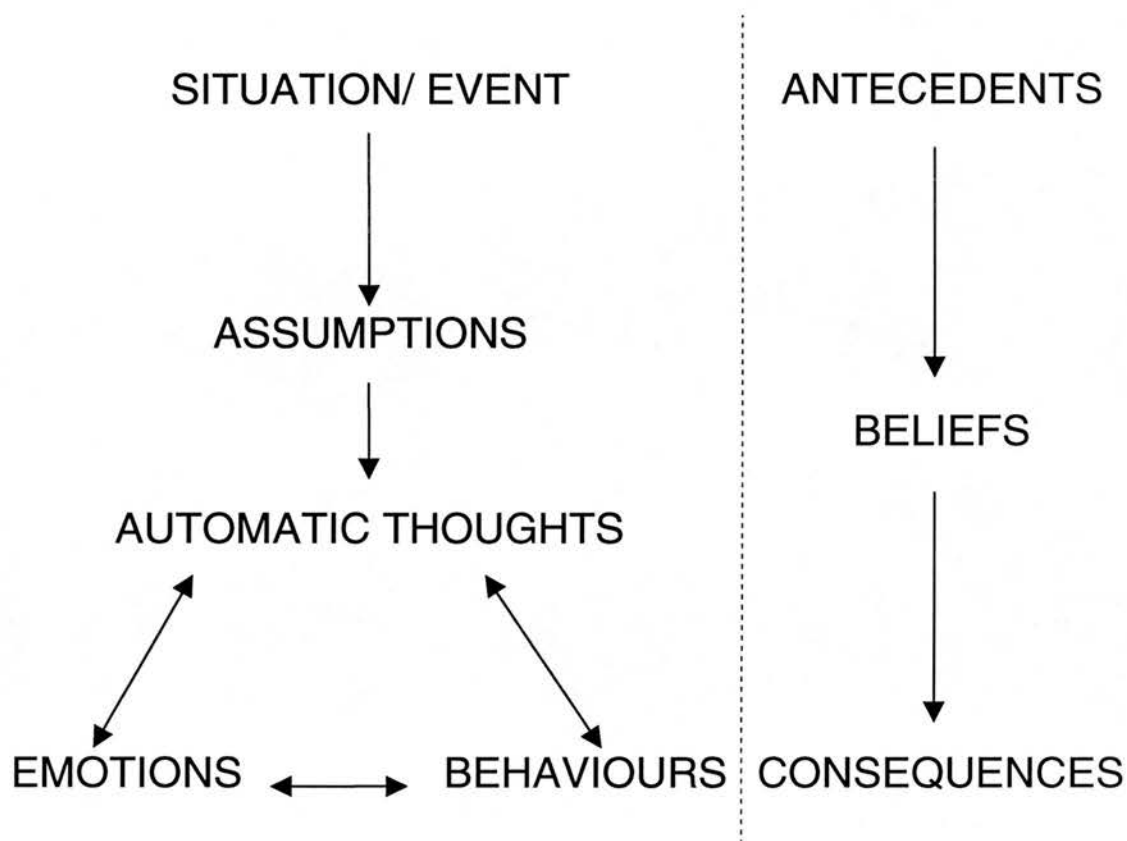
COGNITIVE MANAGEMENT PROGRAMME

MODULE 4: IDENTIFYING AND MODIFYING ASSUMPTIONS

TIME (min)	CONTENT	PROCESS	AIDS
05	1) Agenda setting: <ul style="list-style-type: none"> • Proposed module outline • Any additional items? 	CLI LGD	
10	2) Review: <ul style="list-style-type: none"> • Events since last session • Content of previous module • Reactions to previous module • Difficulties with between-session assignment 	LGD LGD LGD LGD	
45	3) Characteristics of assumptions (mental models/ attitudes/ beliefs): <ul style="list-style-type: none"> 3.1) Auto thoughts and assumptions (model 3). 3.2) Definitions (mental models) 3.3) Origin of assumptions (model 4) 3.4) Can be dysfunctional 3.5) Can be functional 3.6) Organisational Culture: what has worked well in the past but conditions may have changed. 3.7) Problems of external adaptation 3.8) Problems of internal integration 	CLI	OH
55	4) Identifying assumptions: <ul style="list-style-type: none"> 4.1) Techniques 4.2) Identifying assumptions pertaining to the presenting problem 	CLI LGD	OH
55	5) Modifying assumptions (altered in degree rather than change completely): <ul style="list-style-type: none"> 5.1) Techniques 5.2) Modifying assumptions pertaining to the presenting problem 	CLI LGD	OH
05	6) Summary of session	CLI	
10	7) Feedback on the understanding of delegates' and their reactions	LGD	

COGNITIVE MANAGEMENT THEORY

MODEL 3



Mental models are deeply ingrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action. Very often we are not consciously aware of our models or the effects they have on our behavior.

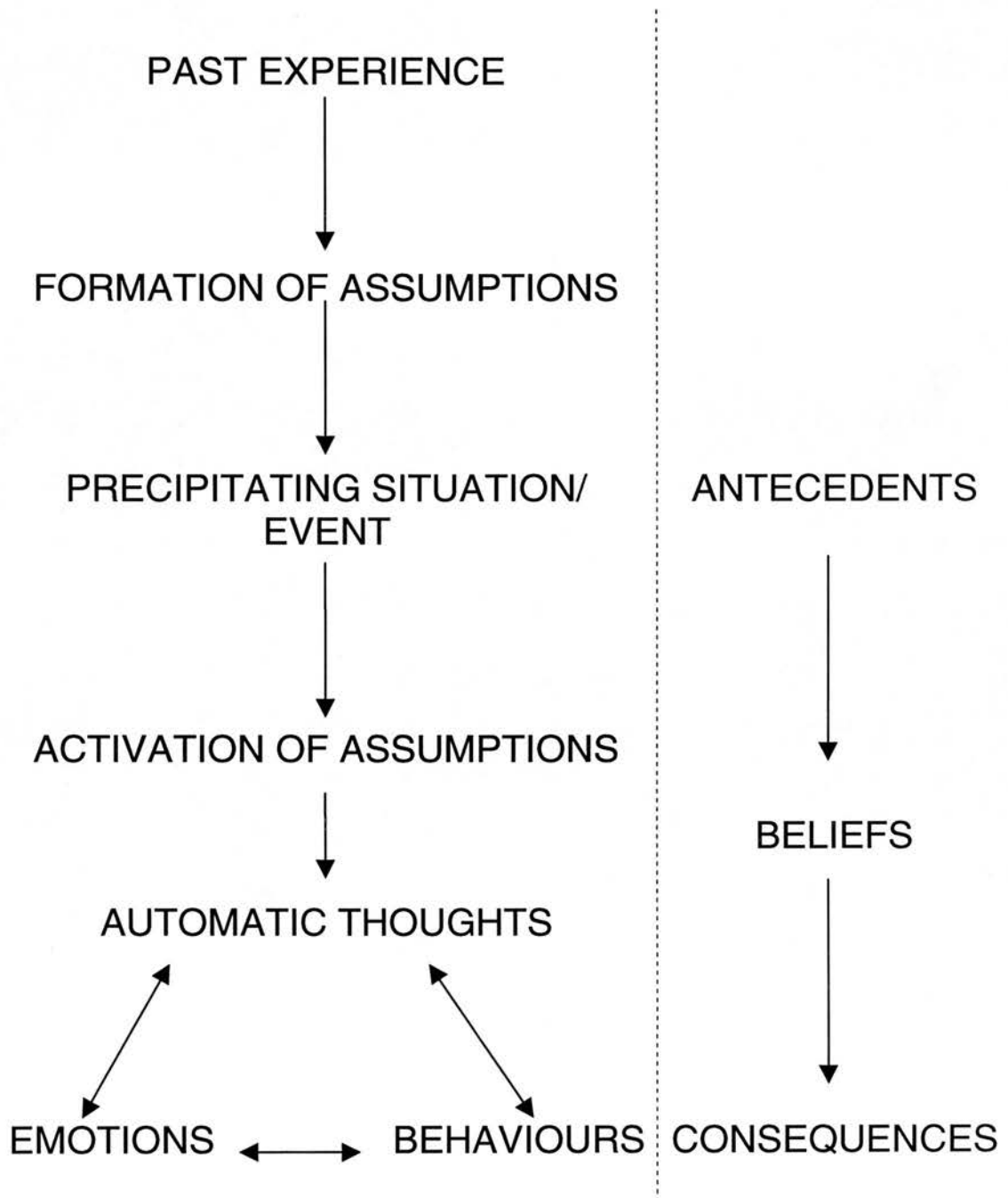
(Senge, 1990, p. 8)

Like a pane of glass framing and subtly distorting our vision, mental models determine what we see. Human beings cannot navigate through the complex environments of our world without cognitive “mental maps”; and all of these maps, by definition, are flawed in some way.

(Senge et al, 1994, p. 235)

COGNITIVE MANAGEMENT THEORY

MODEL 4



CHARACTERISTICS OF DYSFUNCTIONAL ASSUMPTIONS

- They prevent rather than facilitate goal attainment:

Many companies have found that they or their consultants can think of new strategies that make sense from a financial, product or marketing point of view, yet they cannot implement those strategies because such implementation requires assumptions, values, and ways of working that are too far out of line with the organization's existing assumptions. In some cases, the organization cannot even conceive of certain strategic options because they are too out of line with shared assumptions about the mission of the organization and its way of working. (Schein, 1992, p. 381)

CHARACTERISTICS OF DYSFUNCTIONAL ASSUMPTIONS

- Their content is stable (past-present-future) and global (individual-team-organisation)
- They are not easily modified by ordinary experience
- They do not reflect the reality of human experience
- Their violation is associated with extreme and excessive emotions

CHARACTERISTICS OF FUNCTIONAL ASSUMPTIONS

- They facilitate rather than prevent goal attainment:

In the early 1970s Shell was the weakest of the big seven oil producers. By the late 1980s it was the strongest. This extraordinary success was predominantly due to learning how to surface and challenge manager's mental models. Shell discovered that, by helping managers clarify their assumptions, discover internal contradictions in those assumptions, and think through new strategies based on new assumptions they gained a unique source of competitive advantage (Senge, 1990).

CHARACTERISTICS OF FUNCTIONAL ASSUMPTIONS

- Their content is unstable (past-present-future) and specific (individual-team-organisation)
- They are flexible and readily modified by ordinary experience
- They do reflect the reality of human experience
- Their violation is associated with moderate emotions

ORGANISATIONAL CULTURE

A pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems.

(Schein, 1992, p. 12)

PROBLEMS OF EXTERNAL ADAPTATION

- *Mission*: Obtaining a shared understanding of the core mission, primary task, and manifest and latent functions.
- *Goals*: Developing a consensus on goals, as derived from the core mission.
- *Means (strategy)*: Developing a consensus on the means to be used to attain the goals.
- *Correction*: Developing a consensus on the appropriate remedial or repair strategies to be used if goals are not being met.

PROBLEMS OF EXTERNAL ADAPTATION (CONT)

- *Team processes*: Developing a consensus on how things are done rather than what is done (e.g. decision-making, communication and methods of monitoring performance).
- *Organisation*: Developing a consensus on the wider organisation within which the team functions (e.g. goals, practices, supports for the team, information and communication systems, reward systems, appraisal systems, feedback on performance)
- *Environment*: Developing a consensus on the wider environment within which the organisation functions (e.g. uncertainty, inter-organisational linkages, social and political context).

PROBLEMS OF INTERNAL INTEGRATION

- *Common language and conceptual categories:* The fundamental need to understand and communicate with each other.
- *Group boundaries and criteria for inclusion and exclusion:* Shared consensus on who is in and who is out of the group and by what criteria one determines membership.
- *Power and status:* pecking order, its criteria, and rules for how one gets and loses power.

PROBLEMS OF INTERNAL INTEGRATION (CONT)

- *Intimacy, friendship and love*: The rules of the game for peer relationships, for relationships between the sexes, and for the manner in which openness and intimacy are to be handled in the context of managing the organisation's tasks.
- *Rewards and punishments*: what the heroic and sinful behaviours of the group are; what gets rewarded and what gets punished.
- *Ideology and "religion"*: the way the organisation makes sense of unexplainable and inexplicable events.

IDENTIFYING ASSUMPTIONS

- *Themes* across assignments as demonstrated by:
 - General rules (i.e. recurring thinking errors)
 - Recurring content of thought (self, team/organ, future)
- *Downward arrow technique*: ‘What does that mean to you?’
- *Vivid memories* of past experiences which seem to match current beliefs
- *Fluctuations in mood* associated with violation of the assumption or, conversely, terms of the assumption being met

IDENTIFYING ASSUMPTIONS (CONT)

- *Seeing through the eyes of the newcomer:* New employees experience the culture of the organisation with directness and freshness. They are particularly sensitive to the existence of unwritten rules, and therefore, can articulate cultural norms that are no longer apparent to longer serving employees
- *Breaking the code:* Cultural norms go unnoticed until they are broken. One way of learning about a culture, then, is to look at recent incidents when the rules have been broken or disrupted

IDENTIFYING ASSUMPTIONS (CONT)

- *Exemplification:* Key features of a culture are sometimes emphasised through a particular incident or event. Jokes and stories are one form of exemplification, and can express aspects of the culture in encapsulated form
- *The organisation's 'who's who':* Often within organisations, groups or individuals can be identified who exemplify particular aspects of the culture. They are frequently labelled heroes, heroines, villains and fools, or combinations of these roles. Heroes and heroines are typically exemplars of commitment to the culture who have gone beyond the call of duty. Villains are generally those who have gone against the core beliefs of a culture, and fools are those who unwittingly disregard or break the cultural rules.

IDENTIFYING ASSUMPTIONS (CONT)

- *Observation of day-to-day events:* Cultures are more readily apparent when people face unusual or unclear situations. The ways in which they make sense of the situations, how they define them and what courses of action they follow, or fail to follow, reveal their familiar and habitual ways of operating. New situations are fitted into existing frameworks, and culture is the medium through which this translation takes place. Culture can thus be glimpsed in employees' responses to novelty and uncertainty

IDENTIFYING ASSUMPTIONS (CONT)

- *Making comparisons:* Noticing what is unusual about another organisation helps to raise awareness about what is considered normal in one's own organisation. Therefore, highlighting differences between this and another organisation is a useful way of becoming aware of aspects taken for granted in one's own company
- *Adopting a detachment:* Standing back and viewing the organisation as a stranger enables one to perceive taken-for-granted assumptions more clearly. Glimpses of such detachment can be gained upon returning from a business trip or a holiday. At these times, one is less enmeshed in the culture, and therefore able to see things more clearly.

MODIFYING ASSUMPTIONS

- Examine the evidence for and against the assumption.
How far is the assumption based upon fact?
- Examine whether the goals/ reasons behind your assumption are valid (i.e. if X then Y)
- List the costs and the benefits of holding the assumption and attach ratings of importance (in %) to each. Do they enable you to achieve what you want to achieve or hinder you?
- Contrast the short and long term utility of the assumption

MODIFYING ASSUMPTIONS (CONT)

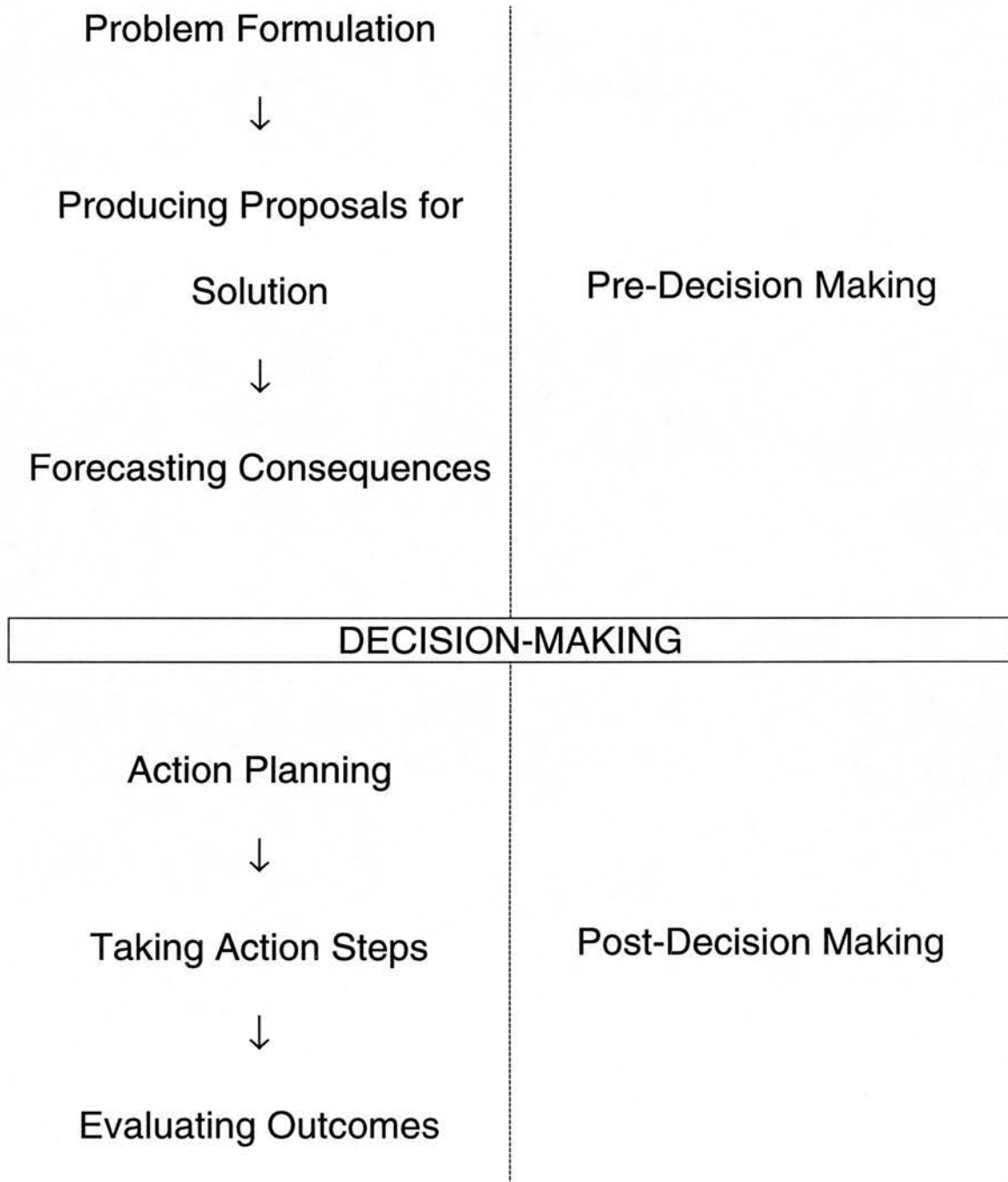
- Take a historical perspective and isolate whether the circumstances that lead to the formation of the assumption are still relevant now
- Consider how you can reality test the assumption (e.g. response prevention)

COGNITIVE MANAGEMENT PROGRAMME

MODULE 5: DECISION MAKING AND PROBLEM SOLVING

TIME (min)	CONTENT	PROCESS	AIDS
05	1) Agenda setting: <ul style="list-style-type: none"> • Proposed module outline • Any additional items? 	CLI LGD	
10	2) Review: <ul style="list-style-type: none"> • Events since last session • Content of previous module • Reactions to previous module 	LGD LGD LGD	
10	3) Stages in problem-solving	CLI	OH
20	4) Social processes in groups: 4.1) Barriers to effective problem-solving 4.2) Overcoming barriers to effective problem-solv	CLI/LGD	OH
20	5) Problem formulation	CLI/LGD	OH
20	6) Producing proposals for solution	CLI/LGD	OH
20	7) Forecasting consequences	CLI/LGD	OH
20	8) Decision-making: 8.1) Methods 8.2) Decision-making matrix 8.3) Methods used at present within the group	CLI CLI LGD	OH OH
25	9) Action planning and taking action steps	CLI/LGD	OH
20	10) Evaluating Outcomes	CLI/LGD	OH
05	11) Summary of session	CLI	
05	12) Feedback on the understanding of delegates' and their reactions	LGD	

STAGES IN PROBLEM SOLVING



SOCIAL PROCESSES WHICH UNDERMINE GROUP PROBLEM SOLVING EFFECTIVENESS

- *Personality factors* such as introversion can cause some group members to hesitate in offering their opinions and knowledge assertively
- Group members are also subject to *social conformity effects*, causing them to withhold opinions and information contrary to the majority view
- Members of work groups may lack *communication skills* and so be unable to present their views and knowledge successfully. Conversely, persons who have mastered impression management may disproportionately influence group decisions even in the absence of expertise

SOCIAL PROCESSES WHICH UNDERMINE GROUP PROBLEM SOLVING EFFECTIVENESS (CONT)

- There may be domination by particular individuals who take up disproportionate *'air time'* or argue so vigorously with the opinion of others that their own views prevail. It is noteworthy that *'air time'* and expertise are correlated in high-performing teams and uncorrelated in groups that perform poorly
- *Status, gender and hierarchy effects* can also cause some members' contributions to be valued and attended to disproportionately.

SOCIAL PROCESSES WHICH UNDERMINE GROUP PROBLEM SOLVING EFFECTIVENESS (CONT)

- *Group polarisation* is the tendency of work groups to make more extreme decisions (more risky or more conservative) than the average of the members' decisions.
- *Diffusion of responsibility* can also inhibit individuals from taking responsibility for action(s) when working with others because they assume that responsibility will be shouldered by others who are present
- *Satisficing* refers to the preoccupation with making decisions immediately acceptable to the group rather than making the best decisions

SOCIAL PROCESSES WHICH UNDERMINE GROUP PROBLEM SOLVING EFFECTIVENESS (CONT)

- When people are speaking in groups, others (temporarily) cannot put ideas forward (*Production-blocking*). Moreover, because they may be holding ideas in memories, their ability to produce more is impaired by these competing verbalisations.
- The *social loafing effect* is the tendency of individuals in group situations to work less hard than they do when individual contributions can be identified and evaluated. In organisations, individuals may put less effort into achieving quality decisions in meetings if they perceive that their contribution is hidden in overall group performance.

SOCIAL PROCESSES WHICH UNDERMINE GROUP PROBLEM SOLVING EFFECTIVENESS (CONT)

- *Groupthink* is a group syndrome whereby groups may make errors in decision-making as a result of being more concerned with achieving agreement than with quality of decisions. This can be especially threatening to organisational functioning where different departments see themselves as competing with one another, thereby, promoting 'in-group' favouritism and groupthink
- Individuals may defensively deny problems if they feel *psychological unsafe*. Defences may arise from a belief that problem solving will evoke a loss of identity or integrity and consequent loss of self-esteem

SOCIAL PROCESSES WHICH UNDERMINE GROUP PROBLEM SOLVING EFFECTIVENESS (CONT)

- *The norm of reciprocity* is based on the assumption that humans tend to react to other humans in a manner similar to the way in which those humans behave towards them. This norm can create an effect that accumulates within groups as each person's behaviour reinforces the similar behaviours of other group members.

THE STEP-LADDER TECHNIQUE

- This technique improves the quality and controls for the social processes which undermine group problem solving
- Use the following technique at each stage of the problem solving process:
 1. Reflect upon each of the stages individually
 2. Do the same but in pairs of individuals
 3. Do the same but in two pairs of individuals
 4. Continue this process until the whole group comes together

PROBLEM FORMULATION

- Is there a problem?:
 1. Disconfirming data: are you experiencing a discrepancy between what actions you would like to see happening but are not happening or actions you would not like to see happening that are happening?
 2. Is the disconfirming data related to important goals and ideals causing concern, anxiety and/or guilt?

PROBLEM FORMULATION (CONT)

- Describe the problem - provide a full and complete description of the problem and its logical boundaries (i.e. what else it might be but is not): who, what, how much, where, when?
- Consider the evidence: is the problem based on facts or assumptions? It is easier to work with fact rather than assumptions
- Functional analysis: consider whether the problem has any benefits

PROBLEM FORMULATION (CONT)

- Distinguish between symptoms and the cause or causes of the problem by undertaking a causal analysis. Consider whether the important goals and ideals that you are trying to achieve are causing the problem. Use the downward arrow technique by asking 'Why?'
- Develop criteria that any solution to the cause or causes must meet in order to be viable (i.e. the specific results required). Consider positive outcomes to self, team and other stakeholders, and what is reasonable in terms of impact, time, practicality, cost etc....

PRODUCING PROPOSALS FOR SOLUTION

- Brainstorm potential solutions to each cause identified in the problem formulation stage
- The use of proven idea generating techniques allows you to overcome the many barriers to creative thinking that have built up in the past. These barriers include:
 1. Premature evaluation of ideas
 2. A tendency to rely on habit and patterned thought
 3. Poor information processing skills

FORECASTING CONSEQUENCES AND TESTING PROPOSALS

- Forecast the consequences of each solution
- Forecasting might be based upon personal experience, expert opinion, surveying of existing data or information (i.e. has this problem been solved elsewhere?) and/or planned tests or research (pilot experiments).
- Personal experience and expert opinion are the easiest to fall back upon but can be unreliable and invalid. Surveying of existing data or information and/or planned tests or research are more valid and reliable but are time consuming and expensive

DECISION MAKING

- Make process discussions a legitimate activity. Become aware of the decisions you have made, the methods employed and whether these were appropriate.
- Review different decision making methods. Each method has its use at the appropriate time and each method has certain consequences for future group operations. The group must understand these consequences well enough to choose a decision making method that will be appropriate given the amount of time available, the past history of the group, the kind of task being worked out, and the kind of climate within the group

DECISION MAKING METHODS

- *Decision by lack of response*: ideas are suggested one after another without any detailed discussion. Here the tacit assumption is that silence means lack of agreement (mind reading), therefore, bypassing ideas is assumed to indicate a decision not to support them.
- *Decision by self-authorisation or minority*: one, two or three people produce actions without the consent of the group. Here silence is taken to mean consent (mind reading). At extremes, groupthink can occur. May be appropriate if time is short and a decision is, therefore, needed quickly.

DECISION MAKING METHODS (CONT)

- *Decision by formal authority:* decisions are made on the basis of the power structure existing within the group (e.g. the leader or chair). This method is highly efficient but its efficacy depends upon the competency of the chair. Also, in producing a minimum amount of group involvement, this method can undermine the potential quality of the decision as those implementing the decision may neither understand it or agree with it.

DECISION MAKING METHODS (CONT)

- *Decision by majority rule* (voting and/or polling): these kind of decisions are not always well implemented. Voting creates coalitions and preoccupations amongst the losing coalition with how to win the next battle (win-lose). Need a climate where minority members feel they have had sufficient opportunities to put their point across and where they feel obligated to go along with the majority decision.

DECISION MAKING MATRIX

- Can be time consuming but of great benefit when important and complex decisions need to be made and when team members are required to demonstrate the reasoning behind their decision

- Guidelines for completing a decision making matrix:
 1. Weight each criteria in order of importance (i.e. extremely important = 5 and 1 = of no importance)
 2. Evaluate the probable outcomes of each solution against each criteria (High Benefit = 6; Medium Benefit = 4; Low Benefit = 2; No benefit or risk = 0; Low risk = -2; Medium risk = -4; High risk = -6)
 3. Total the scores
 4. Highest score represents the most viable solution

ACTION PLANNING AND TAKING ACTION STEPS

- Groups that undertake comprehensive action planning do very little causal analysis
- This stage involves:

Involve the same people who were involved in the decision making process in the action planning stage



Outline what you are trying to achieve in a goal statement.

Ensure that this is clear and concise



Consider how outcomes can be evaluated

(see Evaluating Outcomes)

ACTION PLANNING AND TAKING ACTION STEPS

(CONT)



Determine whether the goal has been addressed elsewhere and seek out information on the experience



Identify existing and potential barriers to action, both internal (e.g. a lack of skills or poor skills) and external (e.g. restrictions on time, lack of resources and resistance from significant others)



Identify existing and potential facilitators of action, both internal (e.g. established skills) and external (e.g. opportunities and resources available, support from significant others)

ACTION PLANNING AND TAKING ACTION STEPS

(CONT)



Identify the key action steps required to achieve your goal, include how facilitators can be maintained and/or increased and how barriers can be prevented and/or minimised. Ensure that each action step is specific, measurable, attainable and relevant



Determine the sequence of action steps by establishing priorities in terms of importance and ease of implementation and considering the logical sequence of activities



ACTION PLANNING AND TAKING ACTION STEPS

(CONT)

Assign responsibilities and establish a realistic time frame
for each action step



Determine the means of communicating the potential
benefits of each action step, thereby, increasing the
likelihood that future action steps will be accepted
(reinforcement)

EVALUATING OUTCOMES

- This should be an integral part of the action planning and taking action steps stage of the problem solving process
- This stage involves:

Consider initial solution criteria



Determine the means of measurement for each criteria



Establish who and when the criteria should be reviewed



Record outcomes



Repeat problem solving stages if necessary

COGNITIVE MANAGEMENT PROGRAMME

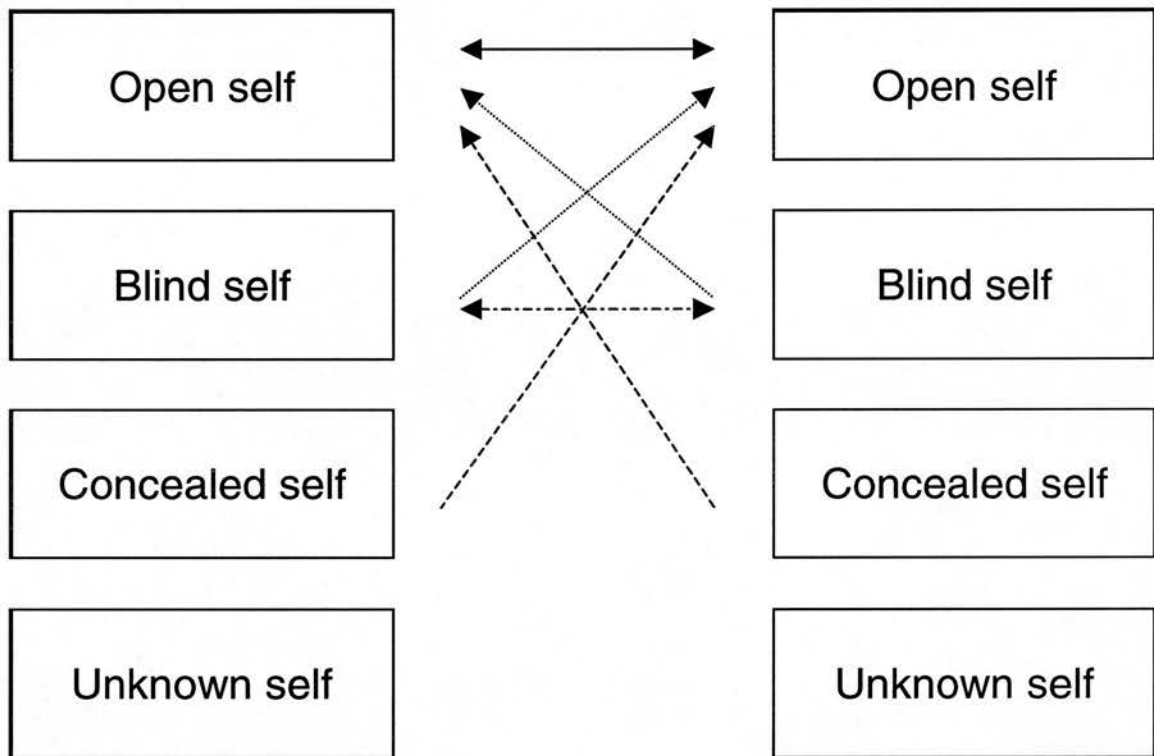
MODULE 6: COMMUNICATION

TIME (min)	CONTENT	PROCESS	AIDS
10	1) Agenda setting: <ul style="list-style-type: none"> • Proposed module outline • Any additional items? 	CLI LGD	
10	2) Review: <ul style="list-style-type: none"> • Events since last session • Content of previous module • Reactions to previous module 	LGD LGD LGD	
10	3) The Johari Window	CLI/ LGD	OH
10	4) Levels of communication	CLI/LGD	OH
10	5) Principles of communication	CLI/LGD	OH
20	6) CM techniques: <ul style="list-style-type: none"> 6.1) Socratic questioning 6.2) Identifying AT 6.3) Challenging AT 6.4) Identifying assumptions 6.5) Modifying assumptions 	CLI	OH
20	7) Always stay in touch with current reality	CLI/LGD	OH
20	8) Seek first to understand...	CLI/LGD	OH
20	9) ...and then to be understood	CLI/LGD	OH
20	10) Think win-win	CLI/LGD	OH
20	11) Differences between espoused theories and theories in use	CLI/LGD	OH
05	9) Summary of session	CLI	
05	10) Feedback on the understanding of delegates' and their reactions	LGD	

THE JOHARI WINDOW

Open self	Known to others and known to self
Blind self	Known to others but unknown to self
Concealed self	Unknown to others but known to self
Unknown self	Unknown to self and unknown to others

LEVELS OF COMMUNICATION



- ▶ Open communication
-▶ Leakage or unwitting revelations
- ▶ Confiding or 'levelling'
- .-.-.-▶ Emotional contagion

PRINCIPLES OF EFFECTIVE COMMUNICATION

- Always stay in touch with reality (Schein, 1999)
- Seek first to understand and then to be understood (Covey, 1992)
- Think win-win (Covey, 1992)
- Be aware of differences between what is said (espoused theories) and what is done (theories in use) (Senge, 1990, 1994)

COGNITIVE MANAGEMENT TECHNIQUES

- Cognitive management techniques can be used to help realise the various communication principles
- Use socratic questioning (confrontative inquiry) - this simply means using cognitive management techniques in the form of questions. This form of questioning enables you to identify the other person's thoughts and assumptions, thereby, furthering your understanding, and enables other people to challenge their thoughts and modify their assumptions if necessary

IDENTIFYING AUTOMATIC THOUGHTS

- Are you seeing things in all-or-nothing terms and black-and-white categories?
- Are you jumping to a negative conclusion when there are no definite facts that convincingly support your negative interpretation?
- Are you assuming that you know what other people are thinking, without checking out your hunches?
- Are you exaggerating the negative aspects of your experience or discounting the positive aspects of your experience?
- Are you taking your emotions as evidence for the truth?

IDENTIFYING AUTOMATIC THOUGHTS (CONT)

- Are you taking responsibility for things that have little or nothing to do with yourself or are you blaming others for things?
- Are you attaching negative labels to yourself or others?
- Do you believe that you or someone else should have done something?

CHALLENGING AUTOMATIC THOUGHTS

- What is the evidence for and against your thoughts?
- What alternative views are there?
- How can you test your automatic thought(s) and alternative thought(s) of the situation?
- What are the advantages and disadvantages of thinking in this way?
- Are there other situations or factors that might explain your automatic thought(s), emotion(s) and action(s)?

CHALLENGING AUTOMATIC THOUGHTS (CONT)

- What do you mean by some of the terms you are using?

- What thinking errors are you making?

IDENTIFYING ASSUMPTIONS

- What does this mean to you?
- Has anything happened in the past to account for your current beliefs?
- How did you feel when that happened (or did not happen)?
- As a new member of this organisation, how did you find X?
- Have any organisational rules been violated?
- Can you give me a specific example of this cultural assumption?

IDENTIFYING ASSUMPTIONS (CONT)

- Who are the heroes, heroines, villains and fools within this organisation?
- How do people in this organisation make sense of unusual or unclear situations?
- What are the differences between this and other organisations?
- What would you think about this situation if you has just returned from a business trip or a holiday?

MODIFYING ASSUMPTIONS

- How far is the assumption based upon fact?
- Are the goals or reasons behind your assumption valid?
- Does the assumption enable you to achieve what you want to achieve or hinder you?
- What is the short and long term utility of your assumption?
- Are the circumstances that lead to the formation of the assumption still relevant now?
- How can you reality test the assumption?

ALWAYS STAY IN TOUCH WITH THE CURRENT REALITY

- Define the here-and-now state of the realities within yourself, your recipient(s) and the relationship between yourself and your recipient(s)
- Access your ignorance - learn to distinguish what you know, from what you assume to know from what you truly do not know
- Learn from your errors - when you say things that produce unexpected or undesirable reactions in others, learn from them and avoid defensiveness, shame or guilt
- Go with the flow in any given situation

SEEK FIRST TO UNDERSTAND...

- Begin with pure inquiry (open ended questions) - the goal is not to structure how the recipient tells his/her story, but to stimulate full disclosure of the story in order to remove your ignorance and enhance your understanding. The recipient, therefore, controls both the process and the content of the conversation. Appropriate questions might include: 'What is the situation?', 'Can you tell me what is going on?', 'What is happening?'
- Maintain a spirit of inquiry - maintain a desire to decipher what is really going on and a commitment to listening and helping instead of actively displaying your own impulses and feelings before knowing whether or not they are appropriate

SEEK FIRST TO UNDERSTAND... (CONT)

- Be aware of and maintain good verbal and non-verbal communication skills by:
 - reflecting back what the person has said
 - provide occasional summaries to aid clarity
 - avoid leading and multiple questions
 - maintain comfortable eye contact
 - don't interrupt or finish people's sentences
 - acknowledge emotions
 - use silence as an intervention

SEEK FIRST TO UNDERSTAND... (CONT)

- Exploratory diagnostic inquiry (closed questions) - After pure inquiry, begin to influence the client's mental processes by deliberately focusing on issues other than the ones the client chose to report in telling their story. Whilst you are beginning to manage the process of how the content is analysed and elaborated (the focus of attention) you are not inserting ideas, suggestions, advice, or options relating to the content. Begin to explore the recipients emotional responses, thoughts and actions (taken or contemplated) to the story. Appropriate questions might include: 'How did you feel about that?', 'Why do you think that happened?', and 'What did you do?'

...AND THEN TO BE UNDERSTOOD

- Clarify the goals of the conversation at the beginning
e.g. 'We are meeting today to discuss X'
- Emphasise description and appreciation - use detail
and try to be positive
- Be concrete and specific - isolate specific examples
and focus upon the behavioural aspects of the
experience primarily

...AND THEN TO BE UNDERSTOOD (CONT)

- Timing is crucial - it is best to discuss a situation as near to when it occurred as possible. Moreover, individual feedback may be better in a private and confidential environment to maximise psychological safety and minimise defensive behaviours
- Don't withhold negative feedback if it is relevant. The solution here is to avoid vague generalities and focus on clear, specific behavioural examples of what led to the negative evaluation
- Be consistent in what you are advocating. If you change your mind then state this explicitly

...AND THEN TO BE UNDERSTOOD (CONT)

- Attribute observations, actions, emotional reactions and thoughts to yourself
- Be assertive
- Use humour appropriately

THINK WIN-WIN

- Ensure that all parties communicating have constructive motives - always try to be helpful
- Consider the potential positive outcomes for both parties
- Seek to identify areas of common ground

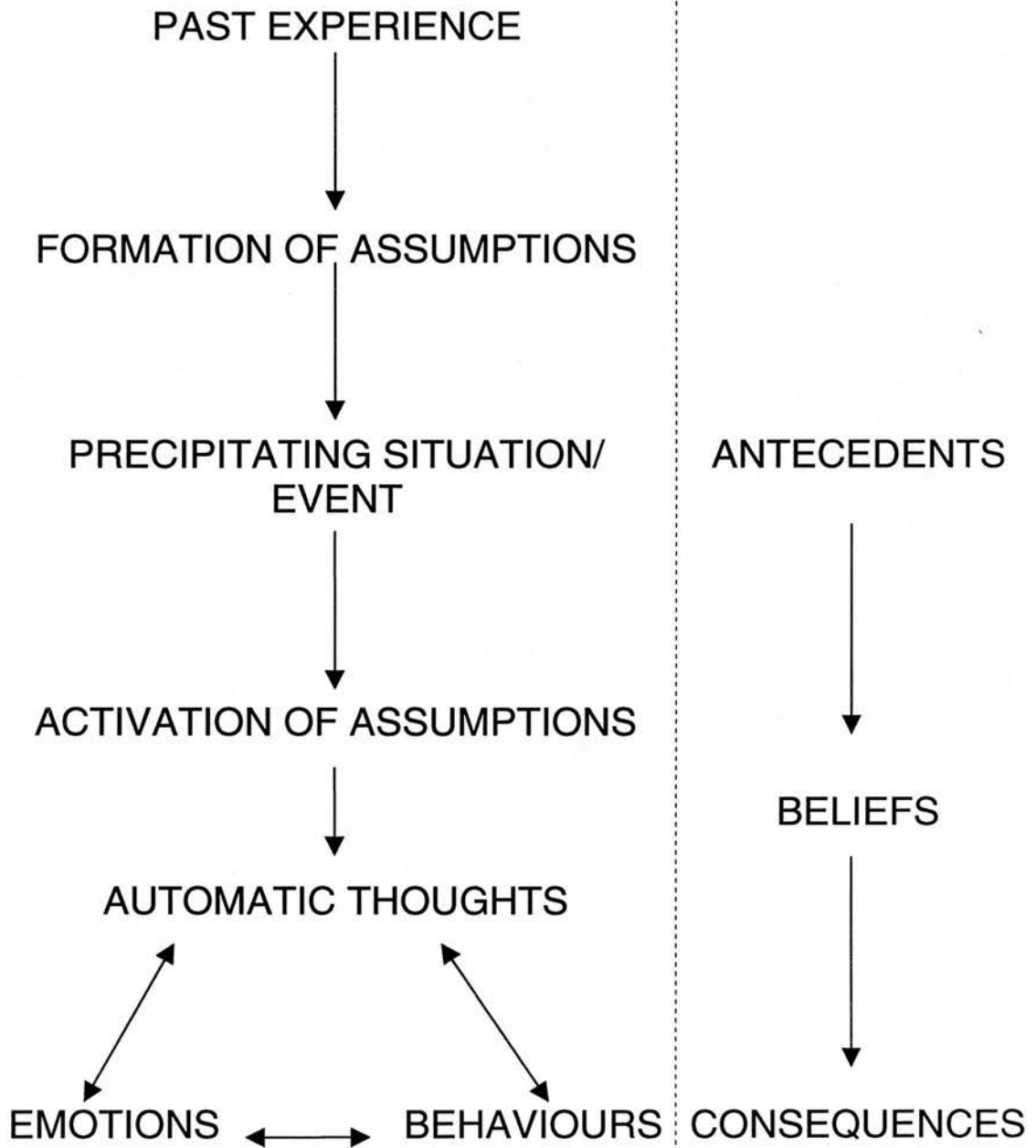
DIFFERENCES BETWEEN ESPOUSED THEORIES AND THEORIES IN USE

- Identify the differences between what is said and what is done and if necessary and appropriate, communicate these differences
- Use the skills mentioned previously and cognitive management techniques

COGNITIVE MANAGEMENT PROGRAMME

MODULE 7: MAINTENANCE AND EVALUATION

TIME (min)	CONTENT	PROCESS	AIDS
10	1) Agenda setting: <ul style="list-style-type: none"> • Proposed module outline • Any additional items? 	CLI LGD	
10	2) Review: <ul style="list-style-type: none"> • Events since last session • Content of previous module • Reactions to previous module 	LGD LGD LGD	
20	3) Review model 4	CLI	HO
20	4) Review potential benefits of CM	CLI/LGD	HO
10	5) Model of an organisation	CLI/LGD	HO
40	6) Methods to enhance the maintenance of CM: <ul style="list-style-type: none"> 6.1) Communication 6.2) Transparency 6.3) Integration 	LGD	
40	7) Anticipation of future problems	LGD	
30	8) Feedback on the programme: <ul style="list-style-type: none"> 8.1) Positive 8.2) Negative 	LGD	

COGNITIVE MANAGEMENT THEORY**MODEL 4**

THE POTENTIAL BENEFITS OF COGNITIVE MANAGEMENT

CM Techniques



More objective, rational thinking



Moderate emotional
reactions to events



Increased well-being



Increase in more
constructive actions

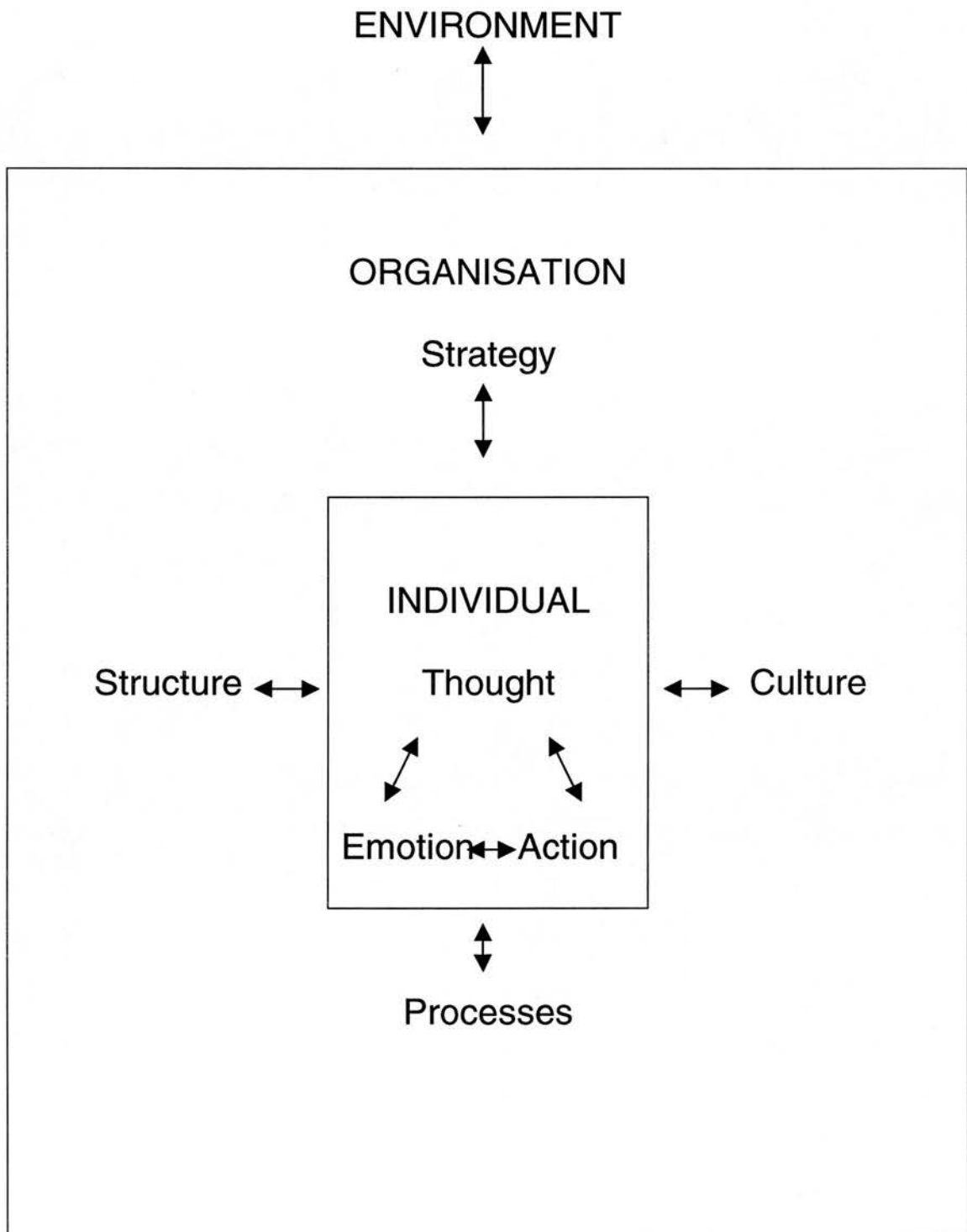


Improved inter-personal and
intra-team skills:
communication, decision-
making and problem-solving



Team Effectiveness

MODEL OF AN ORGANISATION



APPENDIX 2: RESEARCH MEASURES

LIST OF CONTENTS

Cover Page	2
Occupational Attributional Style Questionnaire	3
Team Reflexivity Questionnaire	8
Affective Well-Being	11
Group Task Effectiveness:	
Public Sector Control & Intervention Group	12
Private Sector Intervention Group	13
Private Sector Control Group	14
Organisational Culture Assessment Instrument	15
Research Diary	17

**COGNITIVE MANAGEMENT: A PROGRAMME
DESIGNED TO FACILITATE
ORGANISATIONAL CHANGE AND LEARNING**

RESEARCH PROJECT

TO ASSIST

[NAME OF ORGANISATION]

QUESTIONNAIRES

ALL YOUR RESPONSES ARE STRICTLY CONFIDENTIAL

IT IS IMPORTANT THAT YOUR RESPONSES TO EACH
QUESTION ARE ACCURATE AND HONEST

DO NOT SPEND TOO LONG ON ANY ONE QUESTION

TO ENSURE CONFIDENTIALITY, PLEASE RETURN THIS
DOCUMENT TO:

JASON BEVINGTON

[ADDRESS]

Name: _____

Job title: _____

Team name: _____

Date: _____

Length of time in current position: _____

Length of service with the organisation: _____

**OCCUPATIONAL ATTRIBUTIONAL STYLE QUESTIONNAIRE
(KENT & MARTINKO, 1995)**

Below is a list of 16 hypothetical situations which are commonly experienced by, or particularly relevant to, employed people. For each event you are asked to vividly imagine yourself in the situation and to write down the single most likely cause of the event. Then rate this cause on the 4 separate seven-point scales.

1. You recently received a below average performance evaluation from your supervisor.

A. Major cause:

B. Will this cause be present in future situations which are similar?

Never present 1 2 3 4 5 6 7 Always present

C. Is this cause something that affects just this type of situation or does it affect other situations at work?

Just this type of situation 1 2 3 4 5 6 7 All types of situations

2. Today, you were informed that suggestions you made to your boss in a recent meeting would not be implemented.

A. Major cause:

B. Will this cause be present in future situations which are similar?

Never present 1 2 3 4 5 6 7 Always present

C. Is this cause something that affects just this type of situation or does it affect other situations at work?

Just this type of situation 1 2 3 4 5 6 7 All types of situations

3. You recently learned that you will not receive a promotion that you have wanted for a long time.

A. Major cause:

B. Will this cause be present in future situations which are similar?

Never present 1 2 3 4 5 6 7 Always present

C. Is this cause something that affects just this type of situation or does it affect other situations at work?

Just this type of situation 1 2 3 4 5 6 7 All types of situations

4. You recently discovered that you are being paid considerably less than another employee holding a position similar to yours.

A. Major cause:

B. Will this cause be present in future situations which are similar?

Never present 1 2 3 4 5 6 7 Always present

C. Is this cause something that affects just this type of situation or does it affect other situations at work?

Just this type of situation 1 2 3 4 5 6 7 All types of situations

5. You recently received information that you failed to achieve all of your goals for the last period.

A. Major cause:

B. Will this cause be present in future situations which are similar?

Never present 1 2 3 4 5 6 7 Always present

C. Is this cause something that affects just this type of situation or does it affect other situations at work?

Just this type of situation 1 2 3 4 5 6 7 All types of situations

6. You have a great deal of difficulty getting along with your co-workers.

A. Major cause:

B. Will this cause be present in future situations which are similar?

Never present 1 2 3 4 5 6 7 Always present

C. Is this cause something that affects just this type of situation or does it affect other situations at work?

Just this type of situation 1 2 3 4 5 6 7 All types of situations

7. You just discovered a customer recently complained about the service you provided them.

A. Major cause:

B. Will this cause be present in future situations which are similar?

Never present 1 2 3 4 5 6 7 Always present

C. Is this cause something that affects just this type of situation or does it affect other situations at work?

Just this type of situation 1 2 3 4 5 6 7 All types of situations

8. You were not selected for advanced training which you wanted to attend.

A. Major cause:

B. Will this cause be present in future situations which are similar?

Never present 1 2 3 4 5 6 7 Always present

C. Is this cause something that affects just this type of situation or does it affect other situations at work?

Just this type of situation 1 2 3 4 5 6 7 All types of situations

9. A large layoff has been announced at your company and you are told that you will be one of those laid off.

A. Major cause:

B. Will this cause be present in future situations which are similar?

Never present 1 2 3 4 5 6 7 Always present

C. Is this cause something that affects just this type of situation or does it affect other situations at work?

Just this type of situation 1 2 3 4 5 6 7 All types of situations

10. You just learned that you will not be reimbursed for expenses you recently submitted.

A. Major cause:

B. Will this cause be present in future situations which are similar?

Never present 1 2 3 4 5 6 7 Always present

C. Is this cause something that affects just this type of situation or does it affect other situations at work?

Just this type of situation 1 2 3 4 5 6 7 All types of situations

11. You are having a great deal of difficulty learning how to use the new computers at work.

A. Major cause:

B. Will this cause be present in future situations which are similar?

Never present 1 2 3 4 5 6 7 Always present

C. Is this cause something that affects just this type of situation or does it affect other situations at work?

Just this type of situation 1 2 3 4 5 6 7 All types of situations

12. You recently received a below average raise.

- A. Major cause:
- B. Will this cause be present in future situations which are similar?
 Never present 1 2 3 4 5 6 7 Always present
- C. Is this cause something that affects just this type of situation or does it affect other situations at work?
 Just this type of situation 1 2 3 4 5 6 7 All types of situations

13. All of the feedback you have received lately from your boss concerning your performance has been negative.

- A. Major cause:
- B. Will this cause be present in future situations which are similar?
 Never present 1 2 3 4 5 6 7 Always present
- C. Is this cause something that affects just this type of situation or does it affect other situations at work?
 Just this type of situation 1 2 3 4 5 6 7 All types of situations

14. Your co-workers (peers) failed to nominate you for a special award which you would like to receive.

- A. Major cause:
- B. Will this cause be present in future situations which are similar?
 Never present 1 2 3 4 5 6 7 Always present
- C. Is this cause something that affects just this type of situation or does it affect other situations at work?
 Just this type of situation 1 2 3 4 5 6 7 All types of situations

15. You feel your boss doesn't take you seriously.

- A. Major cause:
- B. Will this cause be present in future situations which are similar?
 Never present 1 2 3 4 5 6 7 Always present
- C. Is this cause something that affects just this type of situation or does it affect other situations at work?
 Just this type of situation 1 2 3 4 5 6 7 All types of situations

16. You are involved in a serious accident at work.

A. Major cause:

B. Will this cause be present in future situations which are similar?

Never present 1 2 3 4 5 6 7 Always present

C. Is this cause something that affects just this type of situation or does it affect other situations at work?

Just this type of situation 1 2 3 4 5 6 7 All types of situations

**TEAM REFLEXIVITY QUESTIONNAIRE
(WEST, 1994)**

Please indicate on the 7-point scale the extent to which you perceive the 16 statements to be an accurate reflection of the functioning of your team.

1. The team often reviews its objectives.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

2. We regularly discuss whether the team is working effectively together.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

3. The methods used by the team to get the job done are often discussed.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

4. In this team we modify our objectives in light of changing circumstances.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

5. Team strategies are rarely changed

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

6. How well we communicate information is often discussed.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

7. This team often reviews its approach to getting the job done.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

8. The way decisions are made in this team is rarely altered.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

9. Team members provide each other with support when times are difficult.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

10. When things at work are stressful the team is not very supportive.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

11. Conflict tends to linger in this team.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

12. People in this team often teach each other new skills.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

13. When things at work are stressful, we pull together as a team.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

14. Team members are often unfriendly.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

15. Conflicts are constructively dealt with in this team.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

16. People in this team are slow to resolve arguments.

Very inaccurate			Undecided			Very accurate
1	2	3	4	5	6	7

**AFFECTIVE WELL-BEING
(WARR, 1990)**

A. Thinking of the past few weeks, how much of the time has your job made you feel each of the following?

Adjective	Never	Occasionally	Some of the time	Much of the time	Most of the time	All of the time
1. Tense	1	2	3	4	5	6
2. Cheerful	1	2	3	4	5	6
3. Uneasy	1	2	3	4	5	6
4. Enthusiastic	1	2	3	4	5	6
5. Worried	1	2	3	4	5	6
6. Optimistic	1	2	3	4	5	6
7. Calm	1	2	3	4	5	6
8. Depressed	1	2	3	4	5	6
9. Contented	1	2	3	4	5	6
10. Gloomy	1	2	3	4	5	6
11. Relaxed	1	2	3	4	5	6
12. Miserable	1	2	3	4	5	6

**GROUP TASK EFFECTIVENESS
(PUBLIC SECTOR CONTROL GROUP AND INTERVENTION GROUP)**

Below is a list of groups or important individuals who have an interest or 'stake' in the work of your team, together with the criteria each of these 'stakeholders' might use to evaluate your team's task effectiveness. Give a rating from 1 (not at all effective) to 7 (highly effective) on each criterion in terms of how well you feel the team is performing in each area at the present time.

STAKEHOLDER & EFFECTIVENESS CRITERIA	EFFECTIVE
<ul style="list-style-type: none"> • <i>Team Members</i> Having a good quality of working life and experiencing a sense of growth and development. • <i>Service Recipients</i> (Patients, Carers etc.) A high quality service responding to individual needs quickly and effectively. • <i>Referring Agents</i> (GP's, Other Prof.) A high quality, equitable and clinically relevant service responding to the needs of the local population quickly and effectively. • <i>Managers/ Purchasers</i> A service that is efficient and makes the most productive use of resources to meet consumer needs within limits and directives set by higher authority. • <i>Voluntary Sector</i> An accessible service that is able to provide information and consultation, and address training needs if necessary. • <i>General Public</i> Providing a service of value to society in an ethical and equitable way. • <i>Other Teams</i> Co-operating effectively with one another 	

**GROUP TASK EFFECTIVENESS
(PRIVATE SECTOR INTERVENTION GROUP)**

Below is a list of groups or important individuals who have an interest or 'stake' in the work of your team, together with the criteria each of these 'stakeholders' might use to evaluate your team's task effectiveness. Give a rating from 1 (not at all effective) to 7 (highly effective) on each criterion in terms of how well you feel the team is performing in each area at the present time.

STAKEHOLDER & EFFECTIVENESS CRITERIA	EFFECTIVE
<ul style="list-style-type: none"> • <i>Team members</i> Improve communication, knowledge and learning through team work and thereby improving the efficiency of the department. To improve team performance. To gain knowledge and skills to help us towards our full potential. • <i>Projects</i> Supporting other departments and ensuring that goods are right first time and on time to the market at the right cost and quality. • <i>Customer complaints</i> To improve service to customer by reducing response times. Identify trends and defects and ensure corrective/preventative action is taken. • <i>Suppliers</i> Monitor suppliers' performance through audits and vendor rating to identify trends and defects and to ensure corrective/preventive action is taken. • <i>Specifications</i> Introduce new data based system and review current specifications with suppliers. 	

**GROUP TASK EFFECTIVENESS
(PRIVATE SECTOR CONTROL GROUP)**

Below is a list of groups or important individuals who have an interest or 'stake' in the work of your team, together with the criteria each of these 'stakeholders' might use to evaluate your team's task effectiveness. Give a rating from 1 (not at all effective) to 7 (highly effective) on each criterion in terms of how well you feel the team is performing in each area at the present time.

STAKEHOLDER & EFFECTIVENESS CRITERIA	EFFECTIVE
<ul style="list-style-type: none"> • <i>Employees in general</i> The correct amount of pay provided on time; access to benefit information; fast and effective response to grievances; confidential and correct advice; and change management. 	
<ul style="list-style-type: none"> • <i>Senior managers</i> All of the above as individuals plus: specific needs (e.g. employment law advice); accurate and fast reports; an internal consultancy function that is knowledgeable, confidential, facilitates, fast and based on trust with regard to recruitment, discipline issues, employment law, training and development, cash and rewards, employee relations, termination and change management. 	
<ul style="list-style-type: none"> • <i>Human Resources Director</i> Same criteria as senior managers plus: high quality service; improvement of employee relations; cost-effective; fast, accurate response; and being proactive. 	
<ul style="list-style-type: none"> • <i>Team Members</i> Shared vision and values; team focus; working in partnership; commitment to improving performance; professional and personal support; knowledge sharing; career development; openness; and leadership. 	
<ul style="list-style-type: none"> • <i>Unions</i> Trust and partnership; treating employees in a fair and consistent way; continued personal and professional development; best practice in terms and conditions; and pay negotiations 	

THE ORGANISATIONAL CULTURE ASSESSMENT INSTRUMENT (CAMERON & QUINN, 1999)

This questionnaire is divided into six key dimensions. Each dimension has four alternatives. In the 'Now' column, divide 100 points among these four alternatives depending upon the extent to which each alternative is similar to your own organisation at the present time. In the 'Preferred' column, divide 100 points among these four alternatives depending upon how your organisation should be in 5 years in order to be highly successful. For both columns give a higher number of points to the alternative that is most similar to your organisation.

- | | Now | Preferred |
|---|-----|-----------|
| 1. Dominant Characteristics | | |
| A The organisation is a very personal place. It is like an extended family. People seem to share a lot of themselves | | |
| B The organisation is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks. | | |
| C The organisation is very results orientated. A major concern is with getting the job done. People are very competitive and achievement oriented. | | |
| D The organisation is a very controlled and structured place. Formal procedures generally govern what people do. | | |
| 2. Organisational Leadership | | |
| A The leadership in the organisation is generally considered to exemplify mentoring, facilitating, or nurturing. | | |
| B The leadership in the organisation is generally considered to exemplify entrepreneurship, innovating, or risk taking. | | |
| C The leadership in the organisation is generally considered to exemplify a no-nonsense, aggressive, results-orientated focus. | | |
| D The leadership in the organisation is generally considered to exemplify coordinating, organising, or smooth-running efficiency. | | |
| 3. Management of Employees | | |
| A The management style in the organisation is characterised by teamwork, consensus, and participation. | | |
| B The management style in the organisation is characterised by individual risk-taking, innovation, freedom and uniqueness. | | |
| C The management style in the organisation is characterised by hard-driving competitiveness, high demands and achievement. | | |
| D The management style in the organisation is characterised by security of employment, conformity, predictability and stability in relationships. | | |

4. Organisation Glue

Now Preferred

- A The glue that holds the organisation together is loyalty and mutual trust. Commitment to this organisation runs high.
- B The glue that holds the organisation together is commitment to innovation and development. There is an emphasis on being on the cutting edge.
- C The glue that holds the organisation together is the emphasis on achievement and goal accomplishment. Aggressiveness and winning are common themes.
- D The glue that holds the organisation together is formal rules and policies. Maintaining a smooth running organisation is important.

5. Strategic Emphasis

Now Preferred

- A The organisation emphasises human development. High trust, openness and participation persist.
- B The organisation emphasises acquiring new resources and creating new challenges. Trying new things and prospecting for opportunities are valued.
- C The organisation emphasises competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant.
- D The organisation emphasises permanence and stability. Efficiency, control and smooth operations are important.

6. Criteria for Success

Now Preferred

- A The organisation defines success on the basis of the development of human resources, teamwork, employee commitment and concern for people.
- B The organisation defines success on the basis of having the most unique or newest products. It is a product leader and innovator.
- C The organisation defines success on the basis of winning in the marketplace and outpacing the competition. Competitive market leadership is key.
- D The organisation defines success on the basis of efficiency. Dependable delivery, smooth scheduling and low-cost production are critical.

Date:

Time (approx):

Place:

A) ANTECEDENTS e.g. situation(s)

- Describe the situation(s) that led to the strong emotion(s):

B) AUTOMATIC THOUGHT(S) e.g. perception(s), interpretation(s) or understanding(s)

- Write down your immediate thought(s) about the situation(s) identified in part A.
- How far did you believe your automatic thought(s)? (0% = not at all → 100% = totally)
- Indicate by ticking the appropriate column(s) whether your automatic thought(s) related to yourself, your team/ organisation and/or the future?

	Description of automatic thought(s)	Belief (%)	Yourselves	Team/ Organisation	Future
1)					
2)					
3)					

C) CONSEQUENCES e.g. emotion(s) and action(s)

- Tick the box or boxes that best correspond to how you felt during the situation(s) and rate the intensity of the emotion(s) from 1 to 100 in the appropriate bracket(s) (1 = hardly noticeable/ 100 = unbearable).
- Anger/ irritation/ annoyance ()) • Sadness/ low mood ()) • Pride ())
- Happiness/ joy ()) • Contentment/ satisfaction ()) • Envy/ jealousy ())
- Stress/ worry/ fear/ panic ()) • Hopelessness/ discouragement ()) • Frustration ())
- Affection/ love ()) • Guilt/ shame ()) • Inferiority/ inadequacy ())
- Other emotion(s) (not specified). Please state: _____ ())
- What was your immediate response to the situation? _____ ())

D) EVALUATING & CHALLENGING YOUR AUTOMATIC THOUGHTS USING COGNITIVE MANAGEMENT TECHNIQUES

- Use the space below to evaluate and challenge your automatic thought(s) and record some additional thoughts.
- It might help to ask yourself some (or all) of the following questions:
 1. What thinking errors am I making? (See completion guidelines for descriptions of thinking errors) (Logical analysis)
 2. What is the evidence for and against my automatic thought(s)? (Reality testing)
 3. What alternative views are there of the situation and how far do I believe each of them? (0% = not at all → 100% = totally) (Brainstorming)
 4. How can I test the accuracy of my automatic thought(s) and my alternative views of the situation? (Scientific investigation)
 5. What are the advantages and disadvantages of my automatic thought(s)? Rate the importance of each of these pros and cons. (Cost-benefit analysis)
 6. Are there other situations or factors that might explain my automatic thought(s)? (Causal analysis)
 7. What do I mean by the key terms used in my automatic thought(s)? (Semantic analysis)

1)

2)

3)

E) OUTCOMES e.g. emotion(s) and action(s)

- As a result of your answers to the question(s) in part D, how far do you now believe the automatic thought(s) you recorded in B? (0-100%):

1) Belief rating = _____ %	2) Belief rating = _____ %	3) Belief rating = _____ %
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- Tick and re-rate the intensity of the emotion(s) you specified in part C according to how you feel now. If you are now experiencing additional feelings to the ones you indicated previously, then tick the box or boxes that best describe the new emotion(s) and rate the intensity of the new emotion(s) in the brackets.

• Anger/ irritation/ annoyance ()	• Sadness/ low mood ()	• Pride ()
• Happiness/ joy ()	• Contentment/ satisfaction ()	• Envy/ jealousy ()
• Stress/ worry/ fear/ panic ()	• Hopelessness/ discouragement ()	• Frustration ()
• Affection/ love ()	• Guilt/ shame ()	• Inferiority/ inadequacy ()
- Other emotion(s) (not specified). Please state: _____ ()
- Work out an action plan (see completion notes): _____ ()