

"Contemporary Approaches to Communication
Skills Training: A Pre-Training
Investigation"

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Abstract

This study is designed to contribute to the understanding of the theory and practice of communication skills training. The participants are 48 trainee careers advisers following a Postgraduate Diploma in Careers Guidance. The purpose of the research is to investigate the effect of pre-training assessment and feedback on post-training performance. A secondary hypothesis relates to gender differences in communicative competence. The study uses a quasi-experimental, pre- and post-test design in which the independent variables are feedback and training. Dependent variables, applied at Time 1 and Time 2, include four self-report measures (Rotter I-E Scale, Social Situations Questionnaire, PONS Test and a repertory test) and behavioural ratings applied to videotaped interviews by two independent, trained raters. The findings suggest that while neither pre-treatment feedback alone nor training alone has an effect on performance at Time 2, the combination of feedback plus training produces a significant improvement in performance from Time 1 to Time 2. Significant differences between males and females in certain behavioural rating categories were found at Time 2. The results of this study lead the writer to propose that communication skills training could be enhanced by the inclusion of pre-training assessment and feedback, an inclusion which would result in CST being tailored more specifically to individuals even when the training is administered to groups. A second recommendation based on the findings is that there is scope for further investigation into gender differences in communicative behaviour and their implications for training.

Chapter 1 Introduction

The importance of effective interpersonal communication is widely recognised in the training programmes of hundreds of commercial institutions and professional organisations. Learning how to communicate more effectively forms part of the training of supermarket checkout operators, airline cabin crew, doctors and nurses, indeed anyone for whom interpersonal interaction is a fundamental part of their work. Such training may be, at one extreme, short, mechanistic, superficial and concerned only with learning and carrying out a specified range of verbal and non-verbal behaviours; or, at the other extreme, it may be extensive, based on rigorous examination of social psychological paradigms and an active learning process which integrates theory and practice.

Much current practice in communication skills training takes place within specific professional and occupational contexts, resulting in different definitions of communicative competence and making for potential difficulties in fostering the exchange and cross-fertilisation of ideas and in establishing the extent to which such training builds upon common theoretical underpinnings. Furthermore, a survey of the research literature hints at a widening gap between theory and practice, with the latter employing relatively rudimentary strategies of measurement and evaluation and showing little evidence of derivation from theory. It may therefore be timely to attempt to create a new theory from practice.

The writer's interest in the area of communication skills training derives from her work in the Centre for Human Communication at the Manchester Metropolitan University. The academic base of the Centre is the theory and practice of interpersonal communication, particularly in professional settings. For the last ten years members of the staff group have devised and delivered communication skills training to students following undergraduate vocational and postgraduate professional courses, for example careers advisers, occupational health nurses, trading standards officers and public relations practitioners. A desire to strengthen the academic base of the work, in particular to develop research activities, led to the formation of the Centre in 1992. Since then an undergraduate degree in Human Communication has been established and a number of staff and research students have registered for higher degrees.

The writer's particular interest is in the training of careers advisers and counsellors, with whom the fieldwork which forms part of this research was conducted. The focus of the research is to explore the notion of pre-training assessment and feedback and its effect on post-training performance. Although the notion of training tailored to meet individual needs and deficits may seem an obvious strategy of good practice, it is usual in many settings for all trainees to experience the same programme, possibly because such an approach is deemed to be less heavy on resources; it is after all customary in much education and training practice for trainers to require

trainees to experience the same process rather than to risk the gaps which might result from selective experience. The inclusion of pre-training assessment and feedback might be seen as a first step towards the individualising of training.

The extent to which a standard training approach is supported by the theoretical models of communication skills development which underpin training will be explored in greater depth in due course. It is useful at this stage to refer briefly to the theoretical development which informs much of current communication skills training, for which a key starting point was the behaviourist approach developed in the 1960s by, among others, Argyle (1969). Such an orientation held ground until the mid-1980s, when the role of cognition in communicative competence began to be acknowledged (for example by Bandura, 1986 and Trower, 1984). A strong challenge to the behaviourist perspective has come from Trower, who proposes the need to view the individual as an agent of change capable of generating his/her own skilled behaviour. It is the intention in this research, therefore, to further consider and explore the role of cognition in communicative competence.

It is also important at this point to outline the area of communication which is to be the focus of this research. Myers and Myers (1992) suggest that the study of communication falls into four areas: intrapersonal communication, interpersonal communication, group communication and mass communication. Although the writer's primary focus of interest is in

interpersonal communication, in order to accommodate consideration of Trower's cognitive view of communication skills training it will be necessary to explore the notion of intrapersonal communication, defined by Shedelsky (1989) as "the co-ordinated management of meaning" or, more informally, "what goes on inside people". He lists the following psychological concepts as contributing to the process of intrapersonal communication: perception, memories, experience, feelings, interpretations, influences, evaluations, attitudes, ideas and states of consciousness.

Notions of interpersonal interaction can be found in the earliest social psychology texts. William James in his "Talks to Teachers" (1899) says to them in the course of his lecture on "Education and Behaviour":

"It would be quite impossible for me, with my mind technically and professionally organised as it is, and with the optical stimulus which your presence affords, to remain sitting here entirely silent and inactive. Something tells me that I am expected to speak and must speak; something forces me to keep on speaking. My organs of articulation are continuously innervated by outgoing currents, which the currents passing inward at my eyes and through my educated brain have set in motion; and the particular movements which they make have their form and order determined altogether by the training of all my past years of lecturing and reading. Your

conduct, on the other hand, might seem at first sight purely receptive and inactive ... but the very listening which you are carrying on is itself a determinate kind of conduct. All the muscular tensions of your body are distributed in a peculiar way as you listen. Your head, your eyes are fixed characteristically ..."

Taking a broader perspective of the place of interpersonal interaction, William McDougall (1908) in his discourse on the growing usefulness of psychology, asserts that:

"A second very important advance of psychology towards usefulness is due to the increasing recognition of the extent to which the adult human mind is the product of the moulding influence of the social environment, and of the fact that the strictly individual human mind, with which alone the older introspective and descriptive psychology concerned itself, is an abstraction merely and has no real existence."

It is interesting to note the references to cognitive and behavioural elements of communication, and to the wider role of interaction in the psychological development of the individual, in this early work and to consider current definitions, interests and developments against this background.

Myers and Myers (1992) trace the development of definitions of interpersonal communication from the sender-message-receiver

model, through definitions which attend to interpersonal needs and therefore exclude interactions with computers, to Barnlund's 1970 model and definition which emphasises the transitional nature of communication:

"Communication is not a reaction to something, nor an interaction with something, but a transition in which man invents and attributes meanings to realise his purposes."

(Barnlund in Myers and Myers, 1992)

Myers and Myers themselves favour a definition which, they say, summarises a number of ways of looking at communication:

"Interpersonal communication is an ever-present, continuous, predictable, multi-level, dynamic sharing of meaning for the purposes of managing our lives more effectively."

(Myers and Myers, 1992)

Models and definitions of communication and the ways in which they have influenced training will be examined in depth in a later chapter. Detailed consideration will also be given to the evolution of communication skills training. Frederikson and Bull (1992), in their survey of communication skills training in British medical schools, state that many researchers have shown that, even allowing for individual differences in ability and personality, communication skills can be learned and communication style improved. Indeed, the notion of communication as a skill has been the subject of

considerable scrutiny. The evolution of models of communication and the influence of behaviourist and cognitive perspectives will be examined in detail. It is helpful at this stage to note the analysis of Argyle and Kendon (1987), described by Bull (1983), in which they identify the common processes shared by motor skills and social skills, and the subsequent assertion by Trower, Bryant and Argyle (1978) that the four procedures in learning a motor skill, i.e. practice, feedback, demonstration and guidance, are also to be found in social skills training.

Communication skills training can be seen as part of the broader psychological skills training movement which has, according to Larson (1984), gained momentum as a result of two major forces: a receptive social climate and new demands being made in the field of mental health. The first of these can be seen in the growth of humanistic psychology and its applications, in which individuals' awareness of and desire to take control of their psychological well-being is evident in the extent to which the client-centred approach to helping is underpinning so much of current practice in the helping professions.

The second concerns the extent to which the demand for psychological help from mental health services is exceeding available resources. According to Kiesler (1980, cited in Larson, 1984), a number of strategies have been devised, one of which is the development of self-help. Larson uses the term

"psychological coping skills" to refer to the skills learned by clients to help them to adapt to and perform in a variety of social situations. He uses the term "interpersonal helping skills" to describe the techniques learned by professionals to enhance their effectiveness in helping others.

More recent research indicates that the term "social skills training" is used in clinical contexts and "communication skills training" in other settings (Dickson et al., 1989).

A further distinction which is useful to explore is the idea that communication skills used in professional and occupational settings are different and distinct from those used in social settings. Argyle (1994) suggests that, while there is some commonality, for example in the presence of features such as warmth, assertiveness and rewardingness (the extent to which one interactor "rewards" the other and makes him/her "feel good"), in a professional setting it is likely that there will be more deception, more rules, more special moves which are unique to the setting (consider the particular communicative behaviours of, say, lecturers and doctors) and more explicit goals. The writer suggests, therefore, that it is legitimate to focus on one-to-one (dyadic) interaction in professional settings.

It may also be necessary here to justify the use of the term "professional", which has acquired some negative, elitist overtones. Ellis and Whittington (1981) cite the six criteria

identified by Flexner (1914), namely that professions should be based on activities which are "intellectual, learned, practical, teachable, organised and altruistic". Schön (1987) draws on earlier definitions by Everett Hughes and John Dewey in constructing a set of criteria for the professions which include conventions of action, operating in particular institutional settings, having a shared body of explicit, systematically organised professional knowledge and a shared set of values, preferences and norms. He asserts that professional competence consists in:

"...the application of theories and techniques derived from systematic, preferably scientific, research to the solution of instrumental problems of the practice."

(Schön, 1987)

He adds an important additional criterion, namely the ability to deal with both familiar and unfamiliar situations, in the latter case "bringing available knowledge to bear on practice situations where its application is problematic". (It is this key feature which is fundamental to Schön's notion of "reflection in action" in developing professional skills).

In this context Ellis and Whittington view communication skills as:

"...an area of practical knowledge which can be taught as part of professional education and which enables

professionals to work for what they conceive as the good of society".

(Ellis and Whittington, 1981)

The definition of interpersonal communication being adopted by the writer, however, requires still further refinement. For the purposes of this research, while both non-verbal and verbal elements of communication will be considered, verbal elements will be examined for their structure and purpose (for example questioning, summarising) rather than for their semantic or linguistic properties. A further limitation, imposed by the scale of the project and the nature of the sample available for fieldwork, is that the writer will exclude consideration of cross-cultural differences in communication.

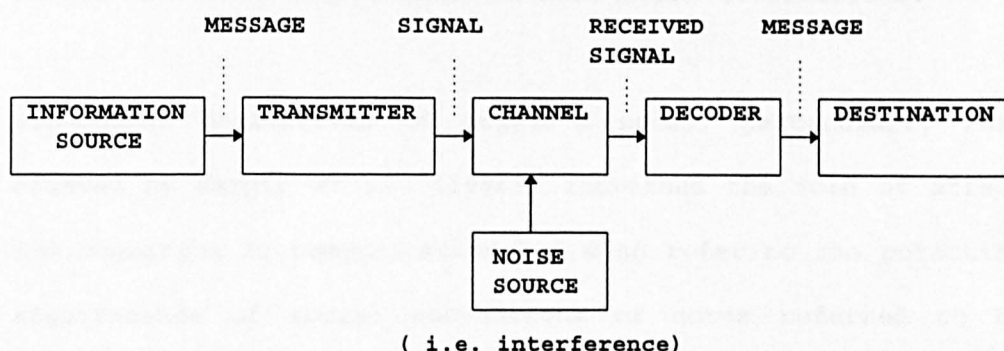
It is, however, the writer's intention to explore gender differences in communicative competence. Argyle (1991) highlights a significant gender difference in non-verbal communication when he cites research carried out by Hall (1984) which indicated that women attend more to faces while men attend more to voices, regarded as a "leakier" channel. Argyle deduces from this that women are "polite decoders", receiving what the sender wants them to receive. Nunnally and May (1989) refer to the need for an effective helper to have a "consciousness" about effective communication with persons of a different gender. Henley (1977) suggests that non-verbal behaviour is used by many males in their interaction with females as a manifestation of power. There is much to be

explored in one-to-one professional settings where any combination of gender may occur, and it is the writer's intention systematically to examine gender differences in communication and in receptiveness to communication skills training.

The next part of this chapter will be concerned with a brief examination of theories of communication; there will be a more extensive discussion in Chapter 2, but a brief overview at this stage may help to set the scene.

Borden and Stone (1976) present an interesting way to examine human communication processes by taking three major psychological perspectives (behaviourist, psychoanalytic and humanistic) and considering how the processes of communication would be understood from each of these perspectives. They favour a humanistic model of communication which emphasises the sharing of meaning through the mutual development of interpersonal relationships. This model also emphasises the whole person, i.e. that the function of human communication is to develop relationships rather than to exchange information. This is a departure from the well-known model of communication developed by Shannon and Weaver (1962), which was originally designed for information flow through electronic equipment but subsequently extended to apply to human communication. It is usually represented in the following diagram (Figure 1.1), in which its origins in electronic communication are clear.

Figure 1.1 A Model of Communication (Shannon and Weaver, 1962)



Such a model does not, however, include reference to elements which may be regarded as fundamental to human communication, namely the existence of goals which direct communicative behaviour, the effect of feedback on the interaction process, the context in which communication takes place, and the "history" of communication between the participants. The first of these was initially addressed by Argyle (1969), who devised a model of interaction which introduced the notion of communication as a skill which could be learned. Key elements identified in his model were that behaviour is goal-directed, and that the selective perception of cues is followed by central "translation" processes which act upon the perceived information and convert it into an appropriate form of action. The individual receives feedback as a consequence of his/her actions which is perceived as a series of cues, and the loop is repeated. This model was subsequently developed by Pendleton and Furnham (1979), based on their work with doctors and patients, to include both interactors in a dyad so that feedback is received both from the individuals' own actions and

those of the other person. They also referred in their model to the existence of potential communication difficulties.

Subsequent derivatives of Argyle's model, particularly that offered by Hargie et al. (1986), increased the role of affect and cognition in communication and also refer to the potential significance of social conventions or norms referred to by Hargie as "situational factors". The acknowledgement of the role of cognition in communicative competence is important. It has been explored particularly by Trower (1984), who challenges the behaviourist paradigm which had dominated models of communicative competence. He suggests instead the need to view the individual not as an "organism" responding to external stimuli but as an "agent" with a variable degree of cognitive or generative skill. Trower proposes that the individual is assumed to be able to generate his own socially skilled behaviour and if failing to do so must be assessed in terms of the relevant cognitive dimensions rather than some observable behavioural skill deficits.

Social learning theory (Bandura, 1986) accommodates this tension between behaviourist and cognitive approaches by acknowledging the role of cognition in forming self-observation generalisations. The writer has already explored an aspect of social learning theory in relation to the communication skills training of careers advisers (Martindale, 1990). As has already been stated, the purpose of this research is to explore the notion of pre-training assessment and the subsequent

tailoring of training to meet identified needs and deficits, in terms of both cognition and overt behaviour; in other words, to explore the potential of assessing and enhancing communicative competence in a guidance context.

Larson (1984) identifies three elements common to all efforts within the skills training movement: the identification of specific skills or competencies, the use of systematic methods for teaching these skills, and the development of programmes for skill dissemination using these methods. He goes on to list eight themes which he maintains are common to all the teaching and learning methods used in communication skills training. They are:

- "1. They all involve the active participation of clients and trainees in the learning process.
2. There is a focus on specific behaviours (internal and external) and the mastery and maintenance of those behaviours.
3. The programs are based on established learning principles of modelling, observing, discriminating, reinforcing and generalising.
4. Each program includes both didactic and experiential emphases.
5. The programs are highly structured.
6. Goals are clear.
7. Progress is monitored.
8. Mystification is minimised."

The writer's own experience of delivering communication skills training and her enquiries in areas diverse as general practitioner training and supermarket checkout operator training supports the existence of these themes, but highlights an area not listed by Larson where there appears to be considerable variation in practice. This is the extent to which communication skills training is based on the knowledge and understanding of a theory or theories of communication. In the training of careers advisers considerable emphasis is placed on a theoretical underpinning of the communication process, including an understanding of relevant psychological concepts such as perception and attribution theory. At the university Department of General Practice visited by the writer, lecturers felt that it was important for trainees to generate their own models of communication and were not in favour of attending to established theories and models. In the pragmatic approach of the supermarket chain, attention was focused entirely on an organisational view of good practice which may have originated in a consideration of research-based evidence but, if so, such a basis was not present when the training was delivered at branch level. The relevance of theory to a learner's skill development is in itself an interesting area for consideration, but if we are to move towards a cognitive view of communicative competence then this implies the desirability of understanding the process. Could it be, however, that communication skills training for professionals is given a stronger theoretical base to put this

element of training on a similar, respectable academic footing to the rest of the learning which the trainee is experiencing? It is clear that advocates of communication skills training sometimes need to make a persuasive case to counter accusations of it being all "common sense", and a theoretical framework is an asset in making such a case. It will be important in the course of this research to explore not only the existing and developing theories and models of communication and communicative competence, but also to trace the development of communication skills training and the extent to which it has evolved from theory, informed theory, or even developed independently of theory.

It is intended that the research undertaken will be innovative and relevant to the current academic debate concerning the composition and acquisition of communication skills. Colleagues working in the fields of education and health services have identified the need for a more agency-based approach to communication skills training. It is hoped that by exploring a number of key issues, including the role of cognition in communicative competence, the validity of pre-training assessment and the effect of gender on interpersonal communication, the findings of this research will help to inform practice in communication skills training.

Chapter 2 of this thesis will consist of a review of recent research and writing in the fields of interpersonal communication and communication skills training. Reference

will also be made to gender and communication, and to the feedback process in communication skills training.

In Chapter 3 the research methodology is described and in Chapter 4 the results are presented.

Chapter 5 consists of a discussion of the results and their implications, and some proposals for further work.

Chapter 2 A Review of the Literature

2.1 Introduction to the Chapter

In Chapter 1 the writer provided a brief overview of the field of interpersonal communication and an introduction to her particular area of interest, communication skills training and its application to professional settings. The purpose of this chapter is to present a summary of the literature, in particular the key research findings relevant to this study. Discussion will focus on definitions, theories and models of interpersonal communication, past and current practice in social skills and communication skills training, and the assessment of communication skills. In view of the research questions under investigation, this will be followed by consideration of two further topics: gender differences in communication and the role of feedback in skill development. The chapter will conclude with a summary of the key issues emerging from the literature review and an indication of how these have formed the basis for the research questions.

2.2 Models of Interpersonal Communication

In Chapter 1 the writer referred briefly to some definitions of interpersonal communication and in particular to Myers and Myers' (1992) distinction between intrapersonal, interpersonal, group and mass communication. The purpose of this section of Chapter 2 is to discuss in detail some of the models of interpersonal communication which form a necessary basis for the exploration of communication skills training.

There are many different starting points for this discussion, particularly when we note the range of influences on the study of interpersonal communication. Although the framework could be said to be primarily psychological, such a broad label itself encompasses a range of perspectives - a good summary of the distinguishing features of behaviourist, psychoanalytic and humanistic models of human communication is given by Borden and Stone (1976). To these can be added models from other disciplines, for example physiology, sociology, engineering and cybernetics, and linguistics. While the writer acknowledges that the study of human communication is enhanced by an approach which draws from many disciplines - indeed, she is closely involved with an undergraduate programme which is built upon such a premise - consideration is here restricted to social psychological models. There is one exception, however, which will be discussed first, because it is regarded by most writers as a major contribution to the study of human communication. This is the mathematical model of Shannon and Weaver (1962), which was reproduced in Chapter 1 (Figure 1.1).

Shannon and Weaver define communication as "all of the procedures by which one mind can affect another", and they identify problems at three levels: technical, concerned with the accuracy of transference from sender to receiver; semantic, concerned with the interpretation of meaning by the receiver, as compared with the intended meaning of the sender; and influential, concerned with the success with which the meaning

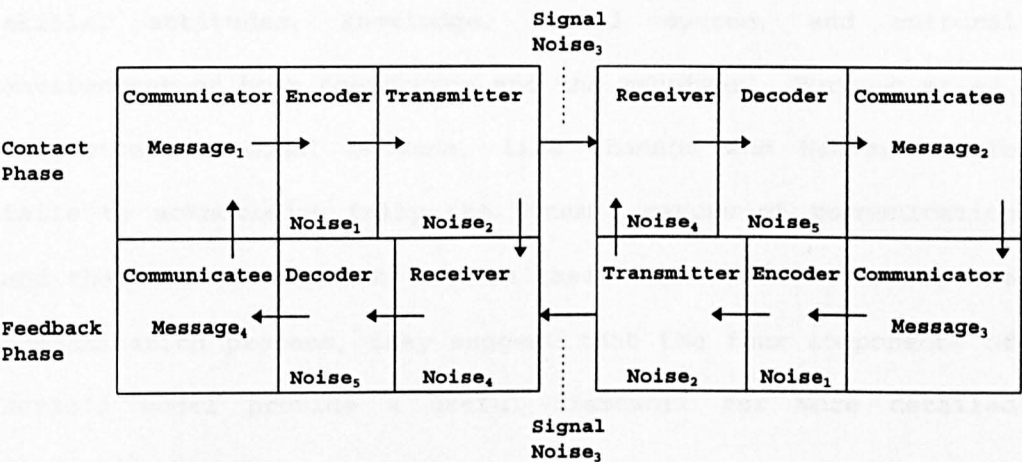
conveyed to the receiver leads to the conduct desired by the sender. Additions to the message which are not intended by the sender are referred to as "noise".

Shannon and Weaver suggest that the issues for consideration in their model relate to the amount of information, the capacity of the communication channel, the coding process that may be used to change a message into a signal, and the effect of noise. It is important to note the particular use of the term "information" in this model, which relates "not so much to what you do say as to what you could say...[it is] a measure of your freedom of choice when you select a message" (Weaver, 1949, in Borden and Stone, 1976). They calculate that, in spoken English, about half of the words are a result of the individual's free choice, and about half are controlled by the statistical structure of the language. While this might suggest that much of the message is redundant, the redundancy helps to counteract the effect of noise.

Borden and Stone (1976) have adapted Shannon and Weaver's model to represent human communication more closely (Figure 2.1 below), and they have also identified at least five different types of noise which might affect a human interaction: physical (a competing sound), neurological (interference in the passage of nerve impulses), psychological (thoughts, memories etc.), cultural (attitudes and prejudices which affect perception), and physiological (interference from faulty muscle action or

physical structure). The numbers in the diagram (Noise₁ etc.) indicate the places where noise may occur.

Figure 2.1 A Humanised Diagram of the Shannon and Weaver Model of Communication



(Borden and Stone, 1976)

The Shannon and Weaver model was initially taken by social psychologists as a starting point for a discussion of the nature of communication, despite the rather limited concept of communication as a linear process between a persuasive communicator and a passive recipient.

Some of the weaknesses of the Shannon and Weaver model are addressed by Berlo (1960, in Burgoon et al., 1994), in a model which emphasises how attributes of the four major elements - source, message, channel and receiver - affect communication. Berlo defines the **source** as the creator of the message, an individual with the intention of communicating. The **message** is the translation of ideas into a symbolic code, for example language. The **channel** is the medium through which the message

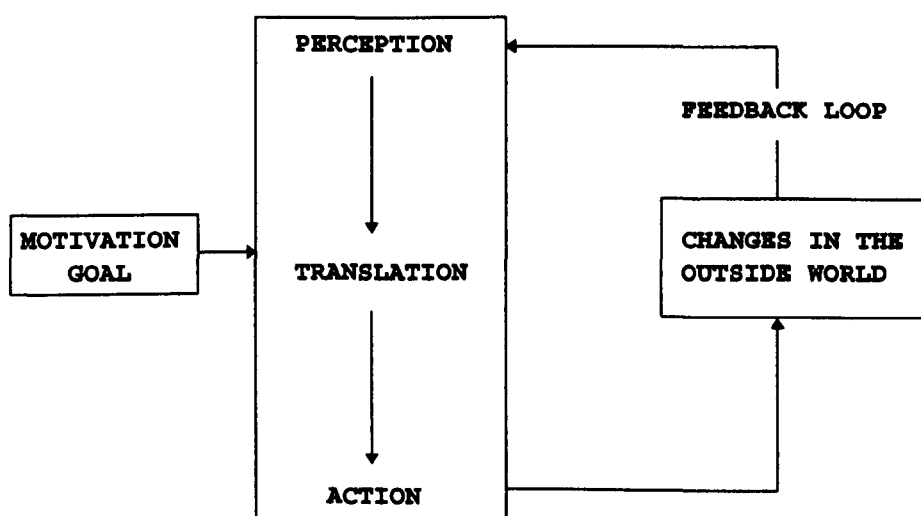
is carried, and the receiver is the target of communication. Berlo's model, known as the SMCR model, introduces the presence of encoders and decoders, and refers to personal factors which may affect the communication process, namely the communication skills, attitudes, knowledge, social system, and cultural environment of both the source and the receiver. Burgoon et al. criticise the model because, like Shannon and Weaver, Berlo fails to acknowledge fully the dynamic nature of communication and the role of feedback, but in their own consideration of the communication process, they suggest that the four components of Berlo's model provide a useful framework for more detailed discussion.

Although this study is concerned with interpersonal rather than intergroup or mass communication, another model described by Burgoon et al. is worthy of mention here. The Westley-Maclean model is distinguishable from others in that it covers both interpersonal and mass communication, and places feedback in a central role as the process which differentiates between the two. In interpersonal communication, there is immediate feedback from the receiver, whereas in mass communication, feedback is usually delayed, minimised, and mediated through a third party, for example an opinion poll. The five elements in this model are: objects of orientation, a message, a source, a receiver, and feedback. The source focuses on a particular object in the environment and creates a message about it which is transmitted to a receiver. The receiver in turn sends feedback about the message to the source. In the mass

communication application, a gatekeeper selects information from sources in the mass media or from objects in the environment, creates a message, and sends it to receivers.

Earlier linear models of communication have given way to a more transactional conceptualisation which stresses the reciprocal influence of communicators upon each other, and in turn to the notion of a skills-based model of communication. Argyle's early work (1969) was referred to in Chapter 1, and will be described briefly here. Building on Welford's (1968) work on the development of motor skill, Argyle proposed that social skills could be learned in a similar way. Communication consists of an individual following a cycle of perceiving the other person, deciding how to act in response, carrying out the action, and obtaining feedback from the other person, which takes the cycle back to the beginning. The model is reproduced in Figure 2.2 below.

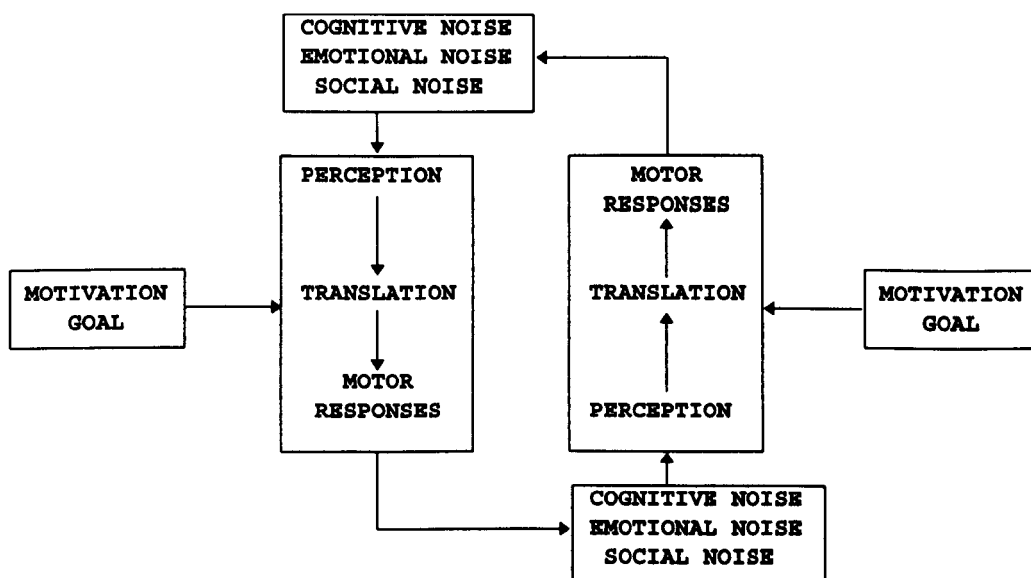
Figure 2.2 A Social Skills Model



(Argyle, 1969)

Pendleton and Furnham (in Purer et al., 1980) point to a number of weaknesses in Argyle's model, including the lack of attention to cognitive processes, and to the role of affect in communication, and the collapsing into one process of three kinds of perception - of the other, of the self, and metaperception. Most significantly, the model does not represent the second person in the interaction, prompting Pendleton and Furnham to produce a derivative which stresses the interactive, dynamic nature of communication. Pendleton and Furnham's model is reproduced in Figure 2.3 below.

Figure 2.3 An Interactive Model of Communication

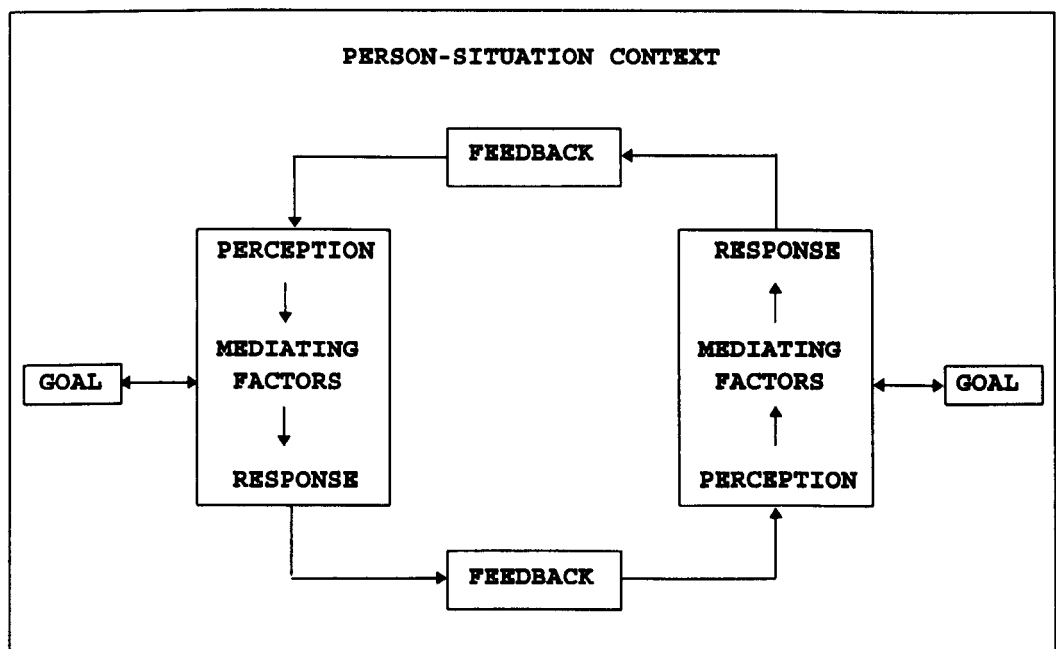


(Adapted from Pendleton and Furnham, in Purer et al., 1980)

Further derivatives were produced by Hargie and Marshall (1986) and by Dickson et al. (1993), and most recently by Hargie (1997). Hargie's model will now be discussed in detail.

The model assumes that, within a person-situation context, people act purposefully, they are sensitive to the effects of their action, and as a consequence they take steps to modify this action. Hargie also develops Pendleton and Furnham's assertion about the affective nature of communication, with particular reference to the need for the communicator to be aware of her/his own feelings. The model is presented in Figure 2.4 below.

Figure 2.4 Skill Model of Interpersonal Communication



(Hargie, 1997)

While the terms used in this model are largely self-explanatory and free from ambiguity, it is useful to note the following points.

The **person-situation context** refers to personal characteristics of the interactors, including motives and attitudes, roles, and the physical setting. Within this context, goals may be short-term (for example to elicit a piece of information) or longer-term (for example to select a candidate for a job).

Mediating factors, or cognitive processes, together with monitoring of self through one of the feedback channels, enable assessment of progress towards the goal to be made. The "mediating factors" component of this model is perhaps the feature which distinguishes it most clearly from its predecessors. Mediating factors may include language, concepts and knowledge base, and where there are differences in these factors, for example in a professional encounter between, say a solicitor and a client, successful sharing of messages may be difficult. Hewes and Planlap (1987, in Hargie et al., 1994) identify the following seven processes as central: focusing, integration, inference, storage, retrieval, selection, and implementation. These could be described as the intrapersonal elements of communication, to use Shedelsky's (1989) term, defined in Chapter 1, and make differing levels of demand on thinking capacity.

Responses are most commonly classified into verbal and non-verbal. The contribution of non-verbal behaviour to communication is widely regarded as highly significant, and is

the subject of a later section in this chapter. The feedback process is also dealt with in a separate section.

Finally, **perception** is central to successful interaction, yet it is selective and inferential, resulting at times in inaccuracy and miscommunication. It is heavily dependent upon the knowledge structures of the perceiver and the attribution of causes of behaviour. A skilled communicator is mindful of influences which distort perception of others, for example expectations based on prior experience or stereotyping. S/he is also aware of how s/he might be perceived; Snyder (1987, in Hargie et al., 1994) refers to this as self-monitoring, and draws attention to the variation in the extent to which individuals seek to regulate and control their public identity.

The notion of control can be extended more widely to the whole process of interpersonal communication if we return to the model and consider the role of mediating factors in enabling the communicator to choose an appropriate response, that is to control the interaction. In seeking to become more competent as a communicator, an individual is seeking to exert more control over her/his environment, even if this is not an explicit goal. It is this notion, together with the mediating factors explicated in the model, which demonstrate most clearly the shift in the skills-based model from behaviourist to cognitive.

The usefulness of a model is that it provides a conceptual framework which enables the process under discussion and the

relationships between component parts to be examined more closely. In particular it offers a starting point for bringing about changes in the process or its components. A model may or may not have a firm theoretical base; the writer is aware of a successful communication skills programme run for trainee general practitioners by a university medical school, in which the starting point is for the group to construct a model of doctor-patient interaction; the model is subsequently used to analyse and evaluate role-plays, a process which may identify weaknesses in the model itself. The next section will trace the development of social skills and communication skills training, and will discuss the extent to which this training has evolved from models of communication.

2.3 Social Skills Training and Communication Skills Training

2.3.1 Introduction

In Chapter 1 the writer referred to the emerging distinction between social skills training (SST) and communication skills training (CST), whereby the former is used in clinical contexts and the latter in other settings, for example as part of occupational or professional training and more recently as a core element in educational programmes. Historically, SST was the first to develop and much of CST derives from it. This section will therefore outline the development of SST, much of

which occurred in the 1970s and 1980s, before examining CST in greater detail.

2.3.2 Social Skills Training

Trower et al. (1978) make a distinction between social **skills** - normative component behaviours or actions - and social **skill** - the process by which the individual generates goal directed, skilled behaviour. Gambrill (in Larson, 1984) suggests that social skills training is typically based on a process model of social behaviour (for example, derivatives of Argyle's 1969 model). She describes SST as a competency-based, in contrast to a deficiency-based approach, which emphasises people's ability to construct competencies and offers them additional skills. (Eisler and Frederiksen, 1980, however, note that the skill deficit model is supported by research which correlates high social skill ratings with certain identifiable behaviours, for example Edelstein and Eisler, 1976, Eisler, Banchard, Fitts and Williams, 1978, and Herson and Bellack, 1976.) Gambrill emphasises the importance of identifying the person's ability to construct effective behaviour and of identifying factors which might interfere with effective social behaviour. In carrying out this assessment process she advocates the use of multiple methods to gather relevant data.

Deficiencies in skilled behaviour may be associated with one or more components of the process of interaction, for example inappropriate goals, inaccurate perception, or with situational

factors which may, for example, raise anxiety to a level which impedes performance. Consequently social skills training programmes need to take account of this range of factors, and usually include behavioural modelling, behaviour rehearsal or role play, and focused feedback, supported by oral and/or written instructional input. Sidney et al. (1983) refer to six principles of SST: mixed mode delivery; skills should be built up from simple to more difficult; trainers themselves should be expert performers since they are modelling social behaviour throughout; role play is relevant; there must be careful briefing; and there should be supplementary written or video material.

Gambrill cites research which indicates the effectiveness of SST in changing behaviour, but suggests that more investigation is needed into the training conditions necessary to promote generalisation and maintenance of socially skilled behaviours. She makes two important points which could apply equally to other kinds of training, perhaps particularly in occupational and professional development: firstly, that training is often conducted away from the setting in which the new behaviours are to be carried out; and secondly there is often a lack of structured follow-up. Both of these factors militate against generalisation and maintenance. Sidney et al. state that evaluation of training relies too heavily on post-training evaluation questionnaires, and that a systematic study involving a matched control group which does not receive training, and

pre-and post-test measures, is desirable. (This is the approach adopted, in part, in this study.)

Gambrill concludes by providing a summary of examples of social skills training, and it is interesting to note that she locates the beginnings of SST with professionals and paraprofessionals (that which would now be termed CST) in the mid-1970s.

Singleton et al. (1979) acknowledge the usefulness of identifying component skills, but stress also the need for individuals to have a range of cognitive structures (for example goals, roles, behaviour sequences) in order to behave appropriately and competently in a social situation.

Ellis and Whittington (1981) suggest that there are four paradigms for the acquisition of social skills, which they identify as: conditioning (based on behaviourism), cybernetic (based on the planned control of behaviour and its modification by feedback, similar to conditioning in some respects but explains learning cognitively and suggests that the knowledge of results is intrinsically motivating), experiential (emphasises individual uniqueness), and teleological (emphasises outcome rather than process). In what they call "specialised" SST, i.e. within professional training, they note that the cybernetic paradigm is favoured (exemplified by microteaching techniques), but that the trainers themselves would identify with the conditioning paradigm. They advocate caution in applying SST to

professional settings before the component skills have been properly identified.

Eisler and Frederiksen (1980) comment that social skill is easy to define intuitively, but difficult to define functionally. They illustrate the difficulty by posing some questions including: Who judges skilfulness - the other participant or an outside observer? Why do certain behaviours work for some individuals and not for others?

Trower (in Curran and Monti, 1982) highlights a number of problems in SST, some of which focus on lack of clarity about what SST is trying to address - molecular or molar deficits, or failures of social perception, or lack of problem-solving skills? He also questions the appropriateness of the norms of social behaviour supplied by the trainer. His major objection is to training which emphasises component skills rather than developing the capability to generate responses. He advocates the use of "new paradigms", for example Harre and Secord's "agency" model (1972, in Curran and Monti, 1982), in which the person acts as an agent, directing his/her own behaviour, rather than as an object responding to external events. He makes connections with social learning theory, in particular citing the five proposals made by Mischel (1973, in Curran and Monti, 1982):

- i) information is acquired through direct and observational learning;

- ii) "encoding strategies and personal constructs" are established;
- iii) behaviour is constructed according to expectancies about consequences;
- iv) individuals have preferences for and aversions to particular stimuli;
- v) self-regulatory systems are in place.

Trower adds two more definitions of key terms: social competence is the capability to generate skilled behaviour, and social performance is the production of skilled behaviour in specific situations. He suggests that training should emphasise the process of generating socially skilled performance rather than emphasising the teaching of elements of social skills. He proposes that techniques of rational emotive therapy and cognitive therapy could be used to assist in the process of monitoring and challenging negative evaluations and invalid inferences, both of which block the acquisition and generation of social skill. The extent to which modifying cognition should form part of SST has been a matter for debate. Dryden (1984, in Hollin and Trower, 1986) argues that both emotions and cognitions should be included in social skills assessment and training.

Dryden and Yankura (1993) discuss this notion further in the context of rational emotive therapy (RET). RET counsellors help clients to become more behaviourally competent by attending to the inferences and evaluations they make about their level of

competence and by helping them to attribute certain outcomes to an improved level of skill.

While Trower (1980) makes the case for two kinds of training, behavioural component skills and process skills, depending on the area of deficiency, Hollin and Trower subsequently argue that skills training based on behavioural change should be accompanied by cognitive techniques (Hollin and Trower, 1986).

A technique for focusing on emotions, cognitions and other covert processes in order to improve interpersonal interaction was developed by Norman Kagan (in Larson, 1984) and is known as interpersonal process recall (IPR). The core of the process is that the trainee makes a video recording of an interaction with another individual and, while watching the replay, recalls and describes the thoughts, feelings, goals, and bodily sensations which s/he was experiencing during the live encounter. The trainee controls the replay, and whenever the tape is stopped the trainer uses prompt questions to help the trainee to elaborate. Kagan suggests that this method is effective because the behaviour under discussion is in the past and is therefore "safe" to discuss. A second recording enables the trainee to act on her/his discoveries during the recall and to choose different behaviours. The video sessions are supplemented by theoretical inputs which provide trainees with a "conceptual map" to assist in learning and transfer. While Kagan claims success for the model, evidenced by a number of evaluation studies, he acknowledges that the individuality of the approach

creates difficulties in attempting to measure improvement. But since so much SST and CST involves the use of video, the cautious introduction of IPR techniques would seem to be a useful step forward.

2.3.3 Communication Skills Training in Professional Settings

The focus of this section will now shift to consideration of communication skills training in professional settings. As the writer has already stated, CST and SST have much in common, including a shared theoretical background, terminology and techniques. But there are important differences in the target populations, some of which will impact upon training. In CST, the situational context is fixed, though it may be wide ranging, and roles are defined, though they may not be understood. The participants in an interaction usually have clear goals, though not always complementary. Members of training groups have a shared profession, or at least belong to the same organisation, and may (though the writer suspects that this is not always borne out by empirical evidence) have been selected for these professions partly on the basis of their ability to communicate effectively face-to-face.

For reasons which are not clear, but are perhaps associated with the growth in the field of health psychology since the mid-1970s (Goldstein and Krasner, 1987, in Dickson, 1989), medical and allied professions have been the subject of the lion's share of

CST research during the last decade. Some examples will be discussed here.

Stewart (1984) conducted an exploratory study to assess whether patient-centred interviews - where the doctor behaves in such a way as to facilitate the patient's expressing her/himself - are related to positive outcomes. 140 doctor-patient interactions were audiotaped and analysed using Bales' Interaction Process Analysis. Patients were visited at home ten days later to assess their satisfaction and their compliance. The results showed that interviews in which doctors demonstrated a high frequency of patient-centred behaviour were related to significantly higher compliance and satisfaction, thus supporting the case for the development of such behaviour in doctors.

An example of an approach to CST in the initial training of doctors is given by Van Dalen et al. (1989) who describe the CST curriculum at Maastricht Medical School. Its key features are its continuity, once per fortnight for six years, and its incremental approach, first through a set of increasingly complex skills, and second through increasingly "real" interactions, from role play with each other, to simulated patients, to real patients.

In devising the programme, the authors ensured that it conformed to the characteristics recommended for the teaching and learning of interpersonal skills outlined by Riccardi and Kurtz (1983, in

Van Dalen et al., 1989), which are reproduced below since they are equally relevant to the training programme used in this study.

- * Isolate the essential elements of the communication skills, define them and teach them systematically.
- * Let students practise the skills in either simulated or actual interpersonal situations.
- * Give immediate descriptive (not normative) feedback on student performance, including self-assessment, patient and peer feedback.
- * Give the training in small groups.
- * Utilise the dynamics of the group process to promote both support and stimulation for learning.
- * Provide for repetition, reinforcement and ongoing assessment as integral parts of the training programme.
- * Carry out assessment by direct observation of students in action and let students know what specific criteria will be used.

Evaluation showed students' and teachers' satisfaction with the programme, but the authors identify a difficulty which arises in a programme spanning six years; this is that as students' medical knowledge increases during the middle years their attention to communication skills diminishes. The authors suggest that the final years of the programme should include

explicit integration of the skills and knowledge elements of doctor-patient interaction.

Dickson (1989) reviews approaches to interpersonal communication and communication skill, and their application by health care professionals, as a precursor to proposing a systematic and structured framework for instruction. He identifies the causes of poor communication as lack of resources (especially time), a deliberate distancing technique used by some workers, and a lack of training based on the view that communication skill is a "natural attribute", or alternatively that it can be developed simply by experience and observation. He advocates an approach which combines "thinking, feeling and doing", using all three in the successive stages of preparation, training and evaluation. This last stage should assess changes in knowledge, attitudes and cognitive processes, in perceptual sensitivity, and in performance. Although measures of skilled performance and of patient satisfaction show a significant increase after training, Dickson acknowledges that the cost-benefits of CST are more difficult to identify and consequently the case for using resources for this purpose cannot properly be made.

In a more content-based analysis of doctor-patient exchanges (Hinckley et al., 1989), the subject matter of which is outside the scope of this review, the authors nevertheless raise some interesting questions about the future direction of research, including the changing nature of doctor-patient communication as

the relationship progresses and the communication preferences of particular groups of patients.

More recently, Frederikson and Bull (1992) carried out an appraisal of the status of CST in British medical schools. The results, disappointingly, indicate that though all respondents provide some form of CST for students, in all but a few cases this is at a minimal level (less than 5% of the course), lacking evidence of formal instruction, assessment and evaluation of the subject within the medical curriculum. In some cases its status is further reduced by being embedded in a behavioural science module which is itself regarded as unimportant. Only one school referred to communication skills as vital for medical practitioners.

Another area where there is evidence of CST and research into its efficacy is within management development. Following earlier research which suggested that up to 80% of a manager's time is spent in communication activities, Papa and Graham (1991) evaluated an organisational programme involving 96 managers in a large chemical manufacturing company. The programme consisted of a diagnostic assessment of managerial communication skills, followed by a training programme for half the sample. In the assessment procedure, written and oral communication behaviours were assessed across 12 behavioural dimensions during nine simulation activities. The dimensions were identified from a job analysis of mid-level manager responsibilities, combined with a literature review of the

dimensions which occur most frequently on assessment centre programmes. Following the assessment, written performance reports were prepared and discussed with trainees. Strengths and weaknesses were identified, on the basis of which instructional programmes were devised for the experimental group which specifically addressed the dimensions which had been assessed. Training methods included both cognitive and experiential aspects.

Follow-up assessment was carried out on three occasions, one year apart, using job performance rating scales by the managers' superiors and subordinates, none of whom knew that the experimental group had undergone a training programme.

Results indicated that those managers who received CST were consistently rated at significantly higher levels than those who did not. The authors attribute this result to, first, the fact that the training was tailored to meet individual trainees' needs, and second, that the programme overall offered ample opportunity, through discussions with line managers, for application of learning to the workplace.

This study could, however, be criticised on two counts: first, of the 12 behavioural dimensions identified, only two could be described as directly observable; written communication and non-verbal communication. The others were all inferred by the assessors from observable behaviour, for example integrity, tolerance and organisational awareness, and, despite well

documented efforts to ensure standardisation between assessors, are likely to be less reliable as measures of communication skill. Secondly, it is not clear whether all participants received feedback from their initial assessment. If only the experimental group received feedback then there may have been an interaction effect between feedback and training which resulted in the higher post-treatment assessment scores for the experimental group, and such an improvement cannot be attributed simply to training.

In another study of CST with managers by Elmes and Costello (1992) the authors conclude that there are serious flaws in the notion of CST, in particular the techniques used to "win trainees over" to the process and the extent to which it is used as a means of bureaucratic control. This latter point arises from their observation that much of CST occurs away from the workplace, in relatively lavish surroundings, engendering a feeling of indebtedness in the trainee, who subsequently repays his employer by conforming. Elmes and Costello used participant observation to study a four day CST seminar delivered by a successful management training organisation. They comment on the excessive use of an overcontrolled style of delivery and a superficial approach to "skill" reinforced by the trainers' own unwillingness to respond to any deeper, more theoretical questions from trainees or to acknowledge the presence in the group of people who were challenging their approach. They cite these features as the reason why they found little evidence of any modification in participants' beliefs about interpersonal

communication. They conclude that this sort of training prevails because organisations believe that it best serves their interests.

In response to Elmes and Costello, Hargie and Tourish (1994) acknowledged the flaws in the kind of CST they experienced, but assert that there are many examples of good practice. They cite a review by Ellis and Whittington (1981, in Hargie and Tourish, 1994) which summarised the benefits of CST as follows:

- i) short term effects are consistently reported;
- ii) trainees' attitudes toward the experience are positive;
- iii) results (short and long term) are at least as positive as most comparable interventions;
- iv) CST engenders debate among theorists, practitioners and trainees about the nature and contexts of interventions;
- v) it is a relatively short, inexpensive intervention strategy which proved valuable across a wide range of trainees and settings;
- vi) the face validity of CST is high.

Hargie and Tourish state that these findings (which have been supported by subsequent reviews, for example Dickson et al., 1989) clearly indicate that CST is an effective intervention strategy in changing trainee behaviour, but that if Elmes and Costello's criticisms are generally applicable, much of CST

could be manipulative and unethical. They examine each of the criticisms in detail, and make the following important points. Firstly, CST which is delivered away from the workplace and not reinforced in the workplace context is unlikely to be successful (a point also made by Larson, 1984, and referred to earlier in this section). Secondly, they offer an alternative underpinning paradigm for CST, deriving from a cognitive-behavioural perspective, in which interpersonal communication is seen as a form of learned performance and training follows the processes of sensitisation, modelling, practice and feedback. Contextual factors determine the appropriateness of communicative behaviours, and there are no absolute rights and wrongs. It can be seen that the programme experienced by Elmes and Costello does not conform to this conceptualisation. Third, they challenge Elmes and Costello's implication that attempts to influence behaviour are always inappropriately manipulative - most people routinely use persuasion and other influencing behaviours (including the subconscious use of non-verbal behaviour) to obtain the co-operation of others.

But Hargie and Tourish acknowledge that there may be a conflict of interest between the organisation's objectives in offering CST and those of the trainer. The writer herself experienced this situation in a different but related area when she was commissioned to deliver a stress management course, and it emerged that the organisation's wish was for the employees to learn how to accept and tolerate stress, while she (and the trainees) believed that it was important to learn how to be

proactive towards the potential causes of stress. Examples abound in the high street of organisations whose approach to CST is the learning of a script rather than understanding the interactive nature of communication.

We can conclude from the review of CST conducted so far, therefore, that while bad practice in CST exists, there is sufficient evidence to suggest that, delivered with care, it can be enriching and beneficial both to the individual and to those with whom they interact.

2.3.4 Evaluation of Communication Skills Training

The final aspect of CST to consider in this section is the range of methods in use for the evaluation of CST. The most comprehensive overview of evaluation methods revealed by a review of the literature was carried out in 1989 by Ford; the writer suggests that the findings and recommendations would hold good if it were repeated with more recent evaluations, (with the possible exception of a greater proliferation of end-of-course questionnaires, sometimes known as "happy sheets" because they are rarely critical) and they are therefore summarised here.

Ford bases her review on Anastasi's (1987) definition of CST:

"[it] should not aim simply to make the participants aware, or sensitive, or even knowledgeable, rather it should leave them with the ability to communicate better."

(Anastasi, 1987 in Ford, 1989)

Ford reviewed 19 published evaluations of CST and concluded that four levels of evaluation should be considered: reaction (how did participants feel about the training?); learning; behaviour (how has the learning been applied at work?); and results (how has the training affected the organisation?).

The reaction level is the most commonly applied, usually through end-of-course questionnaires which are notoriously unreliable and more likely to measure the popularity of the trainer than satisfaction with the programme. She found, however, that relatively few evaluations are conducted, and the majority of respondents have no definite method. She suggests that one reason might be the relative difficulty of measuring effectiveness of CST, particularly if resources are limited. Another reason may be that many trainers do not believe that they have the necessary research skills.

An evaluation of learning might focus on knowledge or behaviours, the latter either directly in terms of the learner's behaviour, or indirectly in terms of the learner's assessment of, for example, a videotape or role play.

Behaviour change in the workplace is most commonly evaluated via questionnaires to the trainee or to their colleagues (see Papa and Graham's study described above), and it may be difficult to isolate the effect of the training from other factors which might impact on behaviour. Ford refers to Kirkpatrick's (1987)

conditions for behaviour change, which state, among others, that the manager must create the right climate and provide support in applying the learning.

In the evaluation of results, Ford gives examples of indices such as sales quotas and appraisal ratings, but draws attention to the difficulty of separating training from other variables.

Ford concluded by referring to the significance and resources being given to CST by large organisations as evidence that it is a growth area where multi-level evaluation can make a major contribution to future development. Evaluation of CST is closely related to the assessment of communication skill, which will be discussed in detail in the next section.

2.4 Assessment of Communication Skills

2.4.1 Introduction

The assessment of communication skill is important for two reasons in particular: it gives the learner and the trainer an insight into current performance, especially skill deficits; and it enables the effectiveness of training to be measured. Two key questions are first, what to assess and second, how to assess.

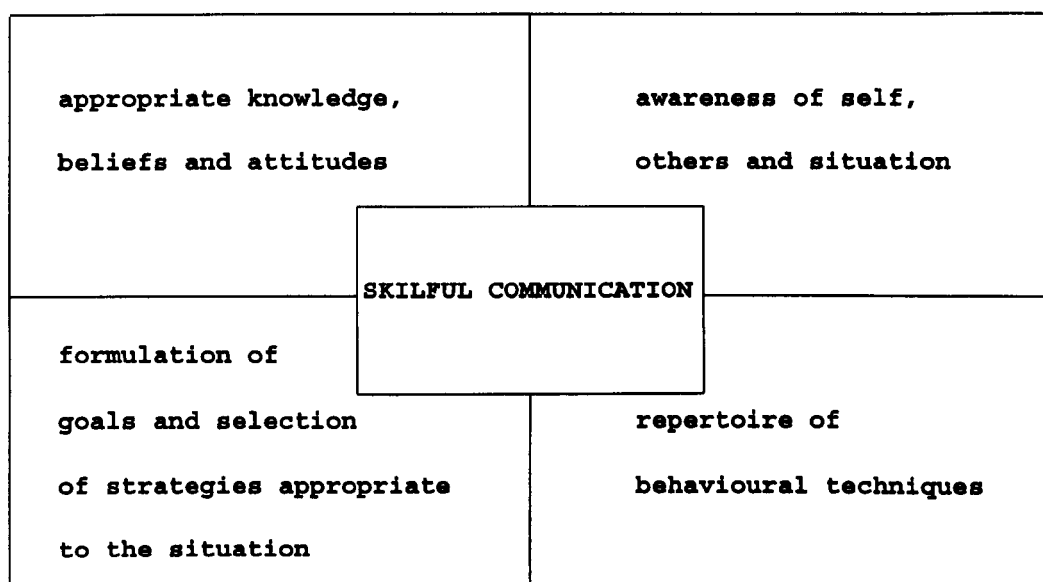
Behavioural assessment is defined by Nelson and Hayes (in Hersen and Bellack (eds.), 1981) as "the identification and measurement

of meaningful response units and their controlling variables (both environmental and organismic) for the purpose of understanding and altering human behaviour". They refer to a range of assessment techniques including observation, self-monitoring, interviews, self-report, ratings, physiological measurement, intelligence and achievement tests.

Eisler and Frederickson (1982) state that assessment of communication skill should include reference to verbal and non-verbal behaviours, cognitive activity, and situational specificity of deficits, and that it should be characterised by reliability (i.e. agreement among observers), and representativeness (i.e. validity). They also suggest two levels of analysis - general impressionistic and specific behavioural.

Dickson et al.'s (1989) analysis of skilful communication, outlined in Figure 2.5 below, provides another useful starting point for a discussion of assessment.

Figure 2.5 Analysis of Skilful Communication



(Dickson et al., 1989)

Using this analysis, it would be possible to design ways of assessing an individual in each of the four components identified, having first established for each component how skilful communication is defined.

Dickson goes on to suggest that in professional settings there are three possible approaches to skill identification: intuitive (trainee's own reflection), analytical (conceptual analysis of the tasks involved, for example listening, questioning, information-giving), and empirical (systematic observation, recording and analysis).

Hollin and Trower (1986) offer an analysis which is perhaps easier to apply to assessment when they suggest that assessment

may be based on a sequential framework of communicative behaviour which refers to:

social antecedents	(accurate discrimination of social cues)
social behaviour	(accurate evaluation of social cues, knowledge of response alternatives, selection of response alternatives, skill level of performance)
social consequences	(accurate discrimination and evaluation of the consequences of own performance, accurate learning of social rules, decision-making for next response)

McFall and Dodge (1982) assert that "assessment efforts are impeded by the tendency to treat social incompetence as though it were a unitary problem", and they offer a model of communication which points towards an assessment of skills at three stages of the communicative process, i.e. decoding skills, decision skills and encoding skills.

If we accept, as discussed earlier in this chapter, that communication skill is the product of an interaction between

relevant cognitive processes and appropriate behaviours, how do we assess these components? An examination of current approaches to assessment suggests that, in general, self-report methods are used for assessment of cognitive processes, and observation is used for behaviours. A brief overview of methods will be given, followed by a more detailed discussion of the literature concerning methods of particular relevance to this study.

2.4.2 Assessment of Cognitive Processes

Eisler and Fredericksen (1982) suggest that relevant cognitive processes might include: **knowledge** of appropriate response alternatives, **beliefs and attitudes** about displaying certain kinds of behaviours, **perceptions** of the other person's intentions and motivations, and **expectations** regarding the probable consequences of displaying certain kinds of behaviour.

There are many examples in recent research of different assessment methods in use which are designed to tap into these processes. A common method is to use inventories measuring specific aspects of skill, dimensions of personality, or perceptions and beliefs about behaviour in a given situation. Examples include Gambrill and Richey's Assertiveness Scale (Gambrill and Richey, 1975), Watson and Friend's Social Avoidance and Distress Scale (Watson and Friend, 1969), Nelson-Jones' Counsellor Attitude Scale (Nelson-Jones, 1989), the Rotter I-E Scale (Rotter, 1972) and Argyle and Trower's Social

Situations Questionnaire (Furnham and Argyle, 1981). The last two of these will be discussed in more detail later in this chapter and in Chapter 3.

A recent example of an instrument designed for the purpose of investigating the extent to which training in interpersonal and counselling skills is applied in professional and personal life is described by Sirin et al. (1995). Although the authors found that the inventory in question (MUISE) was internally consistent, reliable and valid, they warn of the weakness of relying on self-report when participants may be influenced by the desire to produce socially acceptable responses.

Examples can also be found of repertory grids, structures and semi-structured interviews, and interpersonal process recall, and at least one case of the use of essays in the evaluation of the communication training of medical students (Weinman, 1984).

A cautionary word is given by Hollon and Bemis (in Hersen and Bellack (eds.), 1981) who point out that methodological issues involve more than simple questions regarding which scale to use. Consideration must be given to relevant temporal and situational variants and their impact on validity.

Finally, self-report methods which focus on sensitivity to elements of communicative behaviour are used, of which probably the best-known example is the PONS (Profile of Non-verbal Sensitivity) Test (Rosenthal et al., 1979), which will be

discussed in more detail in the section of this chapter which examines non-verbal behaviour.

2.4.3 Assessment of Behaviours

Assessment can be molar (the whole process, e.g. did the interaction achieve its objective?), or molecular (examining small components of behaviour) and usually involves the use of video analysis. Farrell et al. (1979) drew attention to the difficulties in establishing consistency in molar assessment when he applied a simulated social interaction test across eight different scenes and found a large situational effect. In the case of molecular assessment, it is necessary to have operational definitions of agreed behaviours - a useful example appears in Ayre's (1989) study of communication apprehension - and trained coders carrying out counting or rating. Much of the work in this area has been based upon the analysis of non-verbal behaviour, but it can be extended to include verbal behaviours, for example questioning, reflecting or summarising. Although this method can be regarded as oversimplistic, Conger and Farrell (1981) suggest that it is relatively objective.

Sillars, (in Montgomery and Duck, 1991), describes behavioural observation as the least developed of the methods of interpersonal research, but providing an invaluable opportunity for rigorous analysis of specific interactions. He recommends that the researcher be as unobtrusive as possible, and that naturally occurring behaviour should, as far as possible, be

preserved. He notes that most observational studies use convenience sampling rather than random sampling and that consequently generalisability is limited. He cites research by Harvey et al. (1983, in Montgomery and Duck, 1991) which suggests that although the process of observation may itself change behaviour, non-verbal behaviour is less susceptible to change than verbal behaviour.

Kadzin (in Hersen and Bellack (eds.), 1981) refers to the need for target behaviour and conditions of assessment to be carefully defined and for assessment strategy to be specified. He discusses the importance of interobserver agreement as a prerequisite for obtaining a clear pattern of performance, and because high interobserver agreement suggests that the target behaviour has been clearly defined. Kadzin also notes the tendency of observers' interpretation of definitions of behaviour to "drift" over time, and the consequent need for either periodic retraining or the assessment period to be kept short.

A recent study by Smit and van der Molen (1996) compared three methods for the assessment of the communication skills of psychology undergraduates being trained to conduct problem-clarifying interviews. The three assessments consisted of a simulation, a video test in which the student is asked first to provide a written response to a client talking to camera, and second to comment upon an interaction between a professional and a client, and a paper and pencil test composed of multiple

choice items. The findings indicated that the test scores for all test forms were reliable in terms of internal consistency and interrater agreement. Secondly, while the results provided support for the construct validity of the tests, the results for content validity were mixed. While simulation provided good coverage of insight and skill, and the video test covered knowledge and skill well and insight reasonably, the paper and pencil test, predictably, covered mainly knowledge. The third aspect of investigation was efficiency, and results showed that the simulation was the most inefficient test in the sense that it was the most time-consuming to administer and score, while the paper and pencil test was the most efficient. It is clear then that each method has advantages and disadvantages, and this has interesting implications for practice. While the simulation does not score highly on efficiency or reliability relative to the other methods, it could be argued that it is the only method which takes an integrated approach and therefore approximates to the "real world". According to Resnick and Resnick (1991, cited in Smit and van der Molen, 1996), assessments based on component skills rather than complex skills are in danger of disregarding the interactions among the components which form part of skilled performance. But Smit and van der Molen make the case for the teaching and assessing of component skills alongside complex skills, especially when tackling poor performance or seeking ways to further develop skilled behaviour. They recommend a two stage process in which students of communication skills are first assessed using a paper and pencil test and video test, focusing on their knowledge, insight, and ability to apply

separate skills. At a later stage in training, assessment should consist of a role-play which assesses the integrated use of skills in an interview.

In summary, assessment must be accurate and representative of the subject's current level of social functioning, sufficiently comprehensive to include verbal and non-verbal behaviours and relevant cognitive activity, and situation-specific. A clear and unambiguous system of assessment is a necessary prerequisite to the design and evaluation of effective training in communication skills.

2.4.4 Assessment of Non-verbal Behaviour

"We respond to gestures with an extreme alertness and, one might almost say, in accordance with an elaborate and secret code that is written nowhere, known by none and understood by all."

Sapir (1949)

The study of non-verbal behaviour forms a major part of the broader area of interpersonal communication, perhaps because it is regarded as relatively stable, difficult to "fake" , or in Argyle's terms, a leakier channel than verbal behaviour (Argyle, 1991), and, as discussed in the previous section, less susceptible than verbal behaviour to change as a consequence of observation. While there are well documented cultural variations in non-verbal behaviour, for example concerning

gesture and proximity, informal observation suggests that an individual's non-verbal behaviour is less context-specific, and therefore more generalisable, than verbal behaviour, and therefore could be said to offer richer possibilities for investigation. (The meaning of the non-verbal behaviour, i.e. the non-verbal communication, will, of course, be determined by the context.)

Bull (1983) states that the extent to which non-verbal cues function as a communication system will vary substantially according to the decoding skills and cultural similarity of the communicators, and that studies have shown that people who are more skilled at decoding non-verbal cues are more confident and socially mature than those who are less skilled.

For all these reasons non-verbal behaviour is the subject of this separate section in this chapter.

Non-verbal behaviour is usually regarded as including all non-vocal behaviour which has a communicative function, for example facial expression, gesture, posture, proximity, eye contact, and all vocal behaviour which is not the language itself. This latter category includes tone, pitch, speed, pauses, and is referred to by Hargie et al. (1994) as "paralanguage". Some writers, for example Knapp (1978, cited in DePaulo, 1992), include physical appearance and environmental factors (where these are in the control of the communicator) on the basis that

both of these elements will communicate information in an interaction before any verbal communication has taken place.

Richmond et al. (1991) refer to three important ways to distinguish non-verbal from verbal behaviour. A distinction which at first appears obvious is that non-verbal behaviour does not depend upon the presence of any language, using the definition of language as an arbitrary system of coded meaning. Exceptions to this are those systems of non-verbal communication which serve to replace the spoken word in situations where the latter is not practicable, for example underwater, in noisy environments, or the sign language used by people who are hearing-impaired.

A second distinction is that non-verbal behaviour is continuous, while verbal messages are discontinuous. It should be noted, however, that this distinction holds only if non-verbal behaviour is treated as a whole - there are clearly interruptions in distinctive elements of non-verbal behaviour.

The third distinction lacks much supporting evidence at present, so is perhaps more properly described as speculation that non-verbal messages are processed by a different part of the brain than verbal messages, suggesting that there are two distinct communicative systems. But without firmer evidence, this distinction is less useful than the others.

Ekman (1957) distinguished between aspects of non-verbal behaviour which are observable and aspects which supply cues only to the actor, for example an increase in heart beat. At this point it is useful to refer to the distinction made by Richmond et al. (1991) between non-verbal behaviour and non-verbal communication. They say that the latter occurs when the receiver interprets the behaviour as a message - non-verbal communication is "the process of one person stimulating meaning in the mind of another by means of non-verbal messages" (Richmond et al., 1991). From the point of view of the sender, there may or may not be intentionality in the sending of the message. The authors suggest that the communicative potential of non-verbal behaviour tends to be underestimated, and that there is an assumption that a high proportion is unintentional and does not result in communication, whereas much non-verbal behaviour conveys accidental messages.

Scherer and Ekman (1982) point out that as early as 1872 Charles Darwin raised two theoretical issues: firstly, the relative influence of genetic inheritance and social learning on the development of non-verbal behaviour; and secondly, the communicative purpose of facial expressions. They go on to refer to the definitive work of Efron (1942, cited in Scherer and Ekman, 1982) and Birdwhistell (1970) in classifying and decoding non-verbal behaviour based on filming behaviour and analysing it in slow motion. The "natural history" approach was developed into the 1950s and 1960s, but divided into two foci: the study of individual behaviour rooted in psychology and

biology, and the study of interaction located in psychology, sociology and anthropology.

In examining the study of interpersonal interaction, Scherer and Ekman explore the ways in which the methodology has developed. They note that it is possible to study non-verbal behaviour without necessarily offering an explanation or linking it to motivation, by looking at the elements of the behaviour itself, their characteristic structure, and the context(s) in which the behaviour appears. They identify five influences on the study of interpersonal interaction: social behaviourism, information theory, linguistics, kinesics (notably Birtwhistell's work), and the techniques of cinematography which made such enquiry possible.

Although Birtwhistell's major research was published almost thirty years ago (Birtwhistell, 1970), his contribution to the field and his influence on subsequent work is such that it is important to refer to some of his findings in this review. Of key importance - and significant for this study - is his demonstration that individuals' sensitivity to non-verbal behaviour can be heightened through training and practice:

"Anyone with some degree of visual acuity and cultural sensitivity can train himself, if he will start with one aspect of the body, accustom himself to its patterning, and gradually enlarge his gestalt to include the total body motion system."

(Birtwhistell, 1970)

He identifies a number of pitfalls in the study of non-verbal behaviour, which he refer to as "temptations". Examples include assuming that each gesture has an intrinsic meaning, that body movement is innate, and that verbal communication is the most important mode for which other systems are subordinate modifiers. Perhaps most importantly, he warns of the tendency to draw conclusions from observation rather than to simply record -it is interesting to note that this tendency can affect both day-to-day communication and more rigorous academic study! Birtwhistell refers to non-verbal behaviour as a central component of interaction within (and presumably between) species. He suggests that a member of any social group must recognise and emit certain signals in order to sustain associations with that group.

Patterson (in Giles and Robinson, 1990) offers firstly a model of non-verbal exchange (presented in Figure 2.6 below) and then develops the discussion of the purpose of non-verbal behaviour by providing a classification of functions of non-verbal behaviour, the first three of which he attributes to earlier work by Argyle and others. These are: providing information, regulating interaction, and expressing intimacy. He then proposes four additional categories: social control, presenting identities and images, affect management, and facilitating service and task goals.

Figure 2.6 The Functional Model of Non-Verbal Exchange

Hargie et al. (1994) list eight functions non-verbal behaviour can perform, of which some concur with Patterson's list. They can be summarised as: replacing speech, complementing speech or contradicting speech (for example by the tone of voice with which someone says "I'm alright"), illustrating speech, emphasising meaning, regulating the flow of communication between speakers, providing feedback to speakers, defining relationships, and defining patterns of behaviour appropriate to different social settings. Richmond et al.'s (1991) classification is similar to Hargie's: contradicting, repeating, regulating, substituting, and accenting.

For ease of comparison, the three classifications are presented in Figure 2.7 below.

Figure 2.7 A Comparison of Three Classifications of the Functions of Non-Verbal Behaviour

Patterson	Hargie	Richmond
Providing information	Replacing speech Complementing speech Contradicting speech Illustrating speech Emphasising meaning	Substituting Complementing Contradicting Repeating Accenting
Regulating interaction	Regulating flow	Regulating
Expressing intimacy		
Social control	Defining relationships Defining behaviour patterns	
Presenting identities		
Affect management		
Facilitating service and task goals		

Patterson suggests that most interactive sequences are likely to serve more than one function, and that a variety of background variables influence the interaction, including culture, gender, personality, setting, and pre-existing relationship. He emphasises the need to study verbal and non-verbal behaviour alongside each other for a complete understanding of interaction, and advocates a functional approach to verbal

behaviour as a step towards understanding the interplay between it and non-verbal behaviour.

In the light of the multiplicity of functions of non-verbal behaviour, and particularly in relation to Patterson's function of "presenting identities", it is interesting to consider the study by DePaulo (1992) which examines the extent to which individuals can "manage" their non-verbal behaviour for self-presentational purposes.

DePaulo defines the process of self-presentation as a matter of regulating one's own behaviours - verbal and non-verbal - in order to create a particular impression on others. She suggests that non-verbal behaviour is of particular interest in this context because it is difficult or impossible to repress (an attempt at "no non-verbal behaviour" usually results in the individual being interpreted as inhibited or tense), and because non-verbal behaviour is believed to be linked to emotion, with evidence of cross-cultural consistency in the expression of key emotions. Furthermore, non-verbal behaviour is less accessible to actors themselves than to observers, it is elusive to define, describe or replicate, and it is usually instantaneous compared with a comparable verbal response. It should be noted that these characteristics have implications both for the topic under discussion by DePaulo and for the inclusion of non-verbal behaviour in any agenda of change which is incorporated into a training programme.

DePaulo suggests that there are important constraints on people's success at translating their self-presentational intentions into the appropriate non-verbal behaviours. The emotion attached to the situation may act as a constraint, as may cultural and situational norms, and individuals may lack the physical makeup or level of expressiveness necessary to convey particular impressions. There may also be variations in the accuracy with which individuals can assess the effectiveness of their own non-verbal behaviour and modify it accordingly.

An issue related to that of regulating one's own self-presentation is the extent to which such strategies are detectable in others, and much attention is given during communication skill training to the process of heightening awareness and sensitivity in the perceiver. DePaulo suggests, however, that these two goals are complementary rather than opposed in the sense that both are contributing to the richness of social interaction.

The study of non-verbal behaviour as part of communication skills training is made more challenging by the interplay of gender and cultural differences and by the ambiguity of the behaviours themselves. Another complication is the "received wisdom" about the ways in which non-verbal behaviour can be used to facilitate communication. Research by Beattie (1981) provides just one example of the need for caution. Textbooks and training courses frequently refer to the importance of eye contact as an indication of interest. Beattie tested the

hypothesis that continuous gaze at the face of another person inhibits the production of spontaneous speech, and found evidence that this is indeed the case, with a marked increase in hesitations and false starts on the part of the speaker. He challenges the explanation of "cognitive overload" proposed by Argyle and Cook (1976, cited in Beattie, 1981) and suggests instead that eye contact may lead to greater levels of emotional arousal in participants in an interaction, and that it is the arousal which interferes with the production of speech.

It can be seen from the discussion so far that the contribution of non-verbal behaviour to the communicative process can be examined from two related perspectives: the extent to which non-verbal behaviour contributes to the message sent, and the accuracy or sensitivity with which the non-verbal component of the message is received.

A major contribution to the assessment of sensitivity to non-verbal behaviour was made by Rosenthal et al. (1979), culminating in the construction of an instrument known as the PONS (Profile of Non-verbal Sensitivity) Test. Since the writer chose to use this instrument in her research, attention will be given here to the background and theoretical underpinning of the instrument (technical characteristics are discussed in Chapter 3).

In common with many writers in the field of non-verbal behaviour, Rosenthal attributes to Charles Darwin the beginnings

of the scientific study of decoding. Rosenthal's particular focus is on the decoding of emotion expressed via the face, the body and the voice, and he devised the PONS test in order to have a means of addressing a number of questions related to non-verbal sensitivity, including gender differences, the correlation between non-verbal decoding and other cognitive skills, and the potential for training in non-verbal sensitivity. He notes that almost all decoding studies prior to his own have been limited to a single channel, but claims that the following generalised statements can be supported in the literature:

"Some emotions can be accurately decoded from samples of non-verbal behaviour in the face, body, and voice; these non-verbal channels probably differ in their decodability, probably with the face easier to decode than the body; emotions differ in decodability, with some emotions relatively unmistakable and others relatively indistinguishable from similar emotions; and people definitely differ in their ability to decode emotions from non-verbal behaviour, with good decoders tending to perform uniformly better than poor decoders"

(Rosenthal 1979)

The PONS test represents an advance on previous measures of decoding by, in its full version, presenting non-verbal behaviour in eleven different channels, presenting movement in both face and body channels, and utilising a wide range of

emotional expression, with a greater emphasis on the identification of situations and emotional contexts than on the identification of specific emotions. Although for reasons of expediency the writer chose to use the still photo version rather than the full PONS, the technical data presented in Chapter 3 indicates that correlation with the full PONS is high and the second and third of the three points just listed are equally valid for the still photo version.

The PONS test makes a valuable contribution to the study of non-verbal decoding skills, but Rosenthal himself emphasises its limitations by drawing attention to situational and motivational factors affecting both the sender and the decoder which contribute to non-verbal sensitivity, for example the perceived consequences of good or bad judging, the relationship between the sender and the decoder, and the decoder's willingness to pay attention.

In concluding this discussion of the research into non-verbal behaviour it is useful to note Knapp and Hall's (1992) statement that information about other people's characteristics, attributes, attitudes and values is both given and received through the medium of non-verbal behaviour, and that its potency cannot be overestimated. Skilled communicators need both an awareness of the messages likely to be conveyed by their own non-verbal behaviour, and a heightened sensitivity to the non-verbal behaviour of others.

2.4.5 Self-Report Methods

2.4.5.1 Assessment of Difficulty in Social Situations

The notion of social skill and social skill training has been discussed earlier in this chapter. It is appropriate to return to this topic briefly in order to discuss the background to another of the self-report instruments chosen for use in this study, the Social Situations Questionnaire of Trower, Bryant and Argyle (1978). The structure of the questionnaire is described in Chapter 3 of this thesis. The questionnaire was devised because of the authors' belief that a situation-specific concept of social skills is more meaningful and relevant, especially when skill deficits are being addressed. They note that some participants in social skills training refer to their difficulties in particular situations, rather than difficulties with social behaviour in general. They propose that, in order to be able to respond skilfully, a number of features of the situation need to be understood, and they list these features as follows: goal structure, repertoire of elements, rules, sequence of behaviour, concepts, environmental setting, roles, and skills and difficulties. In the context of social skills training, each of these features can be examined and addressed. While self-report measures indicate how comfortable or anxious a person feels rather than how effectively they would behave, the writer believes that it is reasonable to assume a relationship between these two aspects, particularly among individuals who have been identified, via a selection process, as having good

communication skills, as is the case for the sample in this study. In order to establish common areas of difficulty, Argyle and Furnham (1981) carried out cluster analyses using the Social Situations Questionnaire with a number of different populations, which indicated that the most common clusters were situations involving: assertiveness, intimacy, counselling, public performance, and parties. The writer has updated this exercise with a sample of university students; the results are discussed in Chapter 3.

2.4.5.2 Locus of Control

In the discussion of skill models of interpersonal communication which took place at the beginning of this chapter, attention was paid to the process of person perception. Central to this is attribution theory, which is based on the belief that people are motivated to make sense of experienced events by attributing causes. A successful outcome of a piece of behaviour can be attributed to effort, ability, or external factors.

Attribution theory is usually traced to the work of Rotter (1966), but some writers, for example Tajfel (1978) regard Heider's work (1944, 1958, cited in Tajfel, 1978) on phenomenal causality as the origin. Heider's requirement that there should be intentionality for there to be personal causality is certainly central to the debate.

The question of whether success or failure should be internally or externally attributed is basic to social learning theory approaches to personality (Eiser, 1980).

Building on the notion expressed in expectancy value theory that the degree of motivation to perform an act is determined by the reinforcement value of the goal and the expectation that the goal will be achieved, Rotter concluded that there were distinct individual differences in the perception of causality. He named this construct locus of control, and defined it thus:

"When a reinforcement is perceived by a subject as following some action of his own but not entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of forces surrounding him. When the event is interpreted in this way by an individual, we have labelled this a belief in external control. If a person perceives that the event is contingent upon his own behaviour, or his relatively permanent characteristics, we have termed this a belief in internal control."

(Rotter, 1966)

To paraphrase, locus of control refers to whether individuals believe that reinforcements or rewards follow from their actions (internal control), or are the results of the actions of more

powerful others. Rotter devised his I-E (internality-externality) scale to measure individual differences in generalised expectancy for internal-external control. Whereas attributional measures are concerned with the causes of past events, locus of control measures are concerned mainly with the expectation of future events.

Rotter's I-E scale is still probably the best known measure of the construct, and the most widely used according to Furnham and Steels (1993), and the writer has chosen to use it in this study. Rotter attributes its popularity to four factors (Rotter, 1990, cited in Furnham and Steele, 1993): the variable is precisely defined; the construct is embedded in a broader theory (social learning theory); the scale developed to measure the variable was derived from social learning theory, providing good construct validity; and the construct was widely disseminated in a research monograph.

Rotter (1972) refers to correlational studies which support the hypothesis that the individual who has a strong belief that he can control his own destiny

"...is likely to: (a) be more alert to those aspects of the environment which provide useful information for his future behaviour; (b) take steps to improve his environmental condition; (c) place greater value on skill or achievement reinforcements and be generally more

concerned with his ability, particularly his failures; and
(d) be resistive to subtle attempts to influence him."

(Rotter, 1972)

Furnham and Steele (1993), in their critique of locus of control questionnaires, refer to some of the conceptual problems associated with the I-E scale to which Rotter himself drew attention, but which have, they say, been disregarded by developers of new scales. For example, measures need to take into account both expectancy value and reinforcement value, but the latter is often ignored. Secondly, the I-E scale is a measure of general expectancy, and caution should be used in applying the findings to specific situations. Related to this is the need to be aware, as for any self-report scale, of the difference between reported and actual behaviour. Rotter also warns of the dangers of associating only positive attributes and actions with internality. He notes, for example, that internals may be less inclined to help others, since they may believe that the difficulties being experienced are self-inflicted.

Methodological issues, again addressed by Rotter and discussed by Furnham and Steele, include dimensionality (is the I-E scale uni- or multi-dimensional?) and domain-specificity. Weiner (1985, cited in Dickson, Saunders and Stringer, 1993) contributed to the debate on dimensionality by proposing and identifying experimentally three dimensions of causality: locus, which defines the location of a cause as internal (e.g. effort, ability) or external (e.g. luck, task difficulty); stability,

which refers to whether causes continue or vary over time; and controllability, which refers to whether the individual senses responsibility for the cause. Using this framework, ability is regarded as internal, stable and uncontrollable (presumably the implication is that ability is innate), whereas effort is described as internal, unstable and controllable. Dickson et al. suggest that in seeking an explanation or cause for a perceived failure, the locus dimension may be related to the individual's self-esteem, the stability dimension to future expectations (where consistent failure leads to a state of learned helplessness), and the controllability dimension to emotions such as guilt and shame.

Domain-specificity is important because attitudes are better predictors of behaviour when both are specifically defined and measured. Paulhus and Christie (in Lefcourt, 1981) propose a "spheres of control" model in which the individual's life space is divided into three components relating to personal efficacy, interpersonal control, and socio-political control. Paulhus (1983) takes this model further by testing three scales for measuring control in each of the component spheres. The scales are shown to have "impressive convergent and discriminant validity in relation to other individual difference measures" (Paulhus, 1983) and there is evidence from field studies to support the predictive validity of the scales.

Furnham and Steele identified and reviewed over 50 self-report measures of locus of control. In some cases the motivation was

to produce a more domain-specific scale, for example Paulhus and Christie's spheres of control, discussed above. In others it was to develop a particular measure for a specific population. Many used Rotter's original scale to test concurrent validity, which was in every case positive and significant. Furnham and Steele suggest that there is scope for an examination of the comparison between general and specific locus of control scales in terms of their ability to predict specific behaviour. Unless specific scales are demonstrably better predictors, they suggest their only advantage is in higher face validity. They also warn of the possibility of a gradual departure from the original construct as more and more scales are developed.

One of their concluding points is of particular relevance to this study, when they ask whether locus of control beliefs can be altered by educational or therapeutic interventions. If so, the scales could be used as before and after measures of intervention efficacy. They comment with interest that few researchers have attempted to address this issue. The writer intends to do so as a part of this study.

A final point in relation to this study and the locus of control construct is that evidence from research into learning in educational settings (for example Brickman et al., 1982, cited in Dickson, Saunders and Stringer, 1993) supports the use of models for improving competence in which responsibility for improvement is attributed to internal factors, and emphasises the increasing role of self-motivation in the management of

learning in the progression from primary to secondary to higher education. It follows from this that individuals with a high internal locus of control will respond more positively to training delivered in this way.

2.4.5.3 Personal Construct Theory and Repertory Grid Technique

In this study the writer is interested in exploring individuals' perceptions of communicative behaviour and in particular their interpretations of what behaviours are helpful and unhelpful. She believes that this notion is fundamental to communication skills training for a number of reasons, three of which are given here. Firstly, it enables a comparison between an individual's understanding of effective communicative behaviour and the optimum behaviours which may be advocated in a training programme. Secondly, the process of exploring one's own perceptions of others is one way to heighten awareness of and sensitivity to their communicative behaviour. Thirdly, a repertory test before and after a training intervention may provide one measure of the efficacy of the intervention.

In order to provide a background to this part of the study, the next section of this chapter will consist of a brief summary of the literature and a discussion of relevant applications of repertory grid technique.

Repertory grid technique derives from an approach to the study of personality devised by Kelly (1955) which states that an individual's interactions with the world are governed by a collection of implicit theories, or personal constructs. These constructs form a system which provide a "personal network of action pathways" (Kelly, 1969, cited in Fransella and Bannister, 1977). The personal construct system provides an individual and unique theoretical framework within which hypotheses are tested, results evaluated and theories modified in a continuous process.

A construct is usually defined as "a way in which two or more things are alike and thereby different from a third or more things" (Fransella and Bannister, 1977), and is essentially bipolar. Elements are the subject matter to which constructs are applied, and can be, for example, people, objects, situations, places. Repertory tests are methods devised by Kelly to help individuals to explore their personal construct systems and to facilitate the process of seeing the world as another person sees it. It is important to note that they are not standardised tests, but they are considered to yield valuable data in a variety of contexts. Fransella and Bannister (1977) describe repertory grid technique as "more akin to conversation than to standard psychological procedures."

Slater (1965) outlines the key differences in the psychological evidence that can be investigated by repertory grid technique and by standard mental tests. He challenges attempts to attribute reliability (in the psychometric sense) to repertory

grids by pointing out that they are designed to measure a variable state of mind, and that large scale test-retest experiments can be applied only to a grid designed for general use, not to one designed for an individual. He suggests that internal consistency, in the sense that an individual's constructs are related to one another, is self-evident - "a trivial [hypothesis] not worth testing".

Yorke, however (in Beail, 1985), argues that questions about validity do need to be answered, and grid users need to ascertain that the information they collect is congruent with that which is sought. The aspect of the writer's pilot study which deals with repertory lists and is described in Chapter 3 addresses this question.

The detail of constructing repertory tests is well documented in, for example, Fransella and Bannister (1977), Hall (1978), Beail (1985) and Fransella and Thomas (1988), and will not be repeated here, except to provide a list of the five stages of administration, which are: eliciting elements, eliciting constructs, completing the grid, analysis, and interpretation. An explication of these stages applied to this study is given in the relevant sections of Chapters 3 and 4. Consideration will be given in this chapter to some of the applications of repertory tests.

Beail discusses a number of applications in educational and clinical settings, one of which will be referred to here.

In Chapter 16, "Teaching and learning as the negotiation of personal meaning", Thomas and Harri-Augstein argue that learning is not the reception of teaching, but a change of construing which happens inside the learner. It involves "simultaneous changes in perceiving, thinking and feeling which inevitably produce changes in behaviour". If this point of view is valid, it supports the proposition expressed at the beginning of this section that the use of a repertory test before and after a training intervention (or learning experience) may be a useful indicator of change.

A clinical application described by Winter in Fransella and Thomas (1988) concerns the use of constructs in social skills training. Winter draws parallels between the "agency approach" to human interaction described by Trower (1984) and discussed earlier in this chapter, and Kelly's personal construct theory. He points out that although Trower makes no explicit reference to Kelly, he defines the agency approach as "conceptualising man as a social agent who actively constructs his own experiences and generates his own goal-directed behaviour on the basis of those constructs". In Winter's research, repertory grid and questionnaire assessments were carried out pre- and post-treatment on a group of clients undergoing a form of social skills training based on the skill-deficit model. Although therapists' ratings of their clients improved, no change was evident on clients' own ratings on their constructs of social competence or on questionnaire measures, suggesting that

therapists and clients may have construed social competence differently. (A follow-up programme of personal construct psychotherapy with one of the group produced more positive results for that individual.)

A more recent example of the application of the generalised grid technique is given by Puddifoot (1996), who examined its utility in measuring intercultural distance in a sample of English adolescents. Eight cultural groups formed the elements, and a common pool of constructs was generated from response words to photographs. Analysis of results demonstrated evidence of systematic clustering and of the relative perceived distances between major clusters. Although the results are of themselves interesting, the author ascribes equal significance to the confirmation from this study that the repertory grid is a research technique that is easily understood by participants across a wide age range and readily accessible to researchers.

2.5 Gender and Communication

Gender differences in behaviour have been attributed to a range of causes and influences from biological to social and cultural. The notion of biological difference is particularly controversial, perhaps because such evidence has often been used to exclude women, and also because innate differences are regarded as unchangeable and therefore limiting. But it is possible - and useful - to discuss observable differences in

behaviour and their implications for men and women without having a clear view of the causes of difference.

Tannen (1995) uses evidence from anthropological research, and from literature and cinema, to illustrate that males and females can adopt the conversational style of the other gender if they choose to - but in general, they choose not to. She offers her work on gender and conversational style to promote understanding, not to assert that one is right and the other wrong. In the context of the business world, she stresses the importance of language as a tool of influence and, by implication, power, and other writers discussed in this chapter, for example Henley (1977) and McFadyen (1996), develop the theme of the relationship of influence, power and gender.

It may be helpful to the reader to note three points before proceeding with this section. First, the research selected for discussion in this section does not include consideration of the interaction of gender and cultural differences, which is outside the scope of this thesis. Second, it should be noted also that research on gender differences is heavily focused on non-verbal behaviour for reasons which are discussed below. The assessment of non-verbal behaviour has been the subject of a separate section in this chapter, and while there is inevitably some overlap, the writer has tried to avoid repetition. The third explanatory note concerns the use of the terms "sex" and "gender". The interchangeability of these terms is the subject of fierce debate in feminist literature; the convention is that

sex refers to a biological construct, whereas gender is socially constructed. In discussing existing research, the writer has used whichever term was used by the researcher her/himself, and has otherwise used the term "gender".

Before proceeding with a review of the literature on gender and communication, it is important to consider the need for caution in sex difference research expressed by Crawford (1995), who asks what purpose is served by accounts of difference, particularly when many findings turn out to be applicable only to the specific group who took part in the research and not generalisable; she cites as an example a comparison of performance on a standardised mathematics test carried out by Hyde et al. (1990, in Crawford, 1995). She refers to the illogicality of treating women, or men, as a homogeneous group, an approach which derives from an "essentialist" approach, where gender is a fundamental, essential part of the individual to which differences can be attributed.

In common with Tannen, the writer has attempted to focus on difference rather than on any kind of value judgement of better/worse; she notes, however, that much of the research is presented in a way which "favours" men rather than women or vice versa. A striking example is the title given by Bugental (cited in Halberstadt et al., 1988) to her article about lack of consistency in the verbal and non-verbal behaviour of females, "Perfidious Feminine Faces". An opposite example occurs in Hall's (1984) work, when she summarises her findings in terms of

women displaying "more of" behaviours which are likely to be perceived as positive, e.g. smiling, and "less of" negative behaviours such as restlessness. Crawford (1995) notes that much of the self-help material concerned with interpersonal communication which was offered to women in the 1980s used a deficit, "problem" model, which exaggerated and reinforced gender differences. More recent, two-culture models, for example Tannen (1995), propose the development of mutual understanding, rather than trying to change the communicative style of either sex.

DePaulo (1992) provides a useful summary of gender differences in the use of non-verbal behaviour for self-presentational purposes. She notes that as early as 3 months, infant girls show more facial expressions that look like interest than do boys, and that by adulthood women have more expressive and more legible faces than do men. She concludes that "If women were purposefully trying to convey the impression of being sociable, likeable, and interested in the other person, they could hardly do better than this." (DePaulo, 1992) but that it is not clear whether this is deliberate, initially deliberate and subsequently habitual, or simply more comfortable. And DePaulo's earlier research indicates that the drawback to women of their greater expressiveness and legibility is the greater detectability of lying from non-verbal cues.

Richmond et al. (1991) explore the ways in which males and females develop different patterns of non-verbal behaviour, and

the implications of these emergent differences for the ways in which men and women communicate with each other. They refer to three theoretical explanations of the different development of non-verbal behaviour of males and females, based on genetics, modelling and reinforcement. They emphasise the importance of understanding gender role expectations in order to understand differential non-verbal behaviours. There is a societal expectation that women in Western culture are sensitive, responsive, emotionally expressive, and supportive, while men are supposed to be independent, self-assured, confident and decisive. Richmond et al. suggest that differences between male and female communication behaviours are based on these societal roles.

Rosenthal (1979) suggests that, since males typically dominate social situations by talking more and commanding more attention, females consequently have more time to watch and listen, and hence to develop and refine their non-verbal decoding skills via a practice effect rather than as a result of societal expectations about the interpersonal sensitivity of females. Rosenthal reviewed all known studies relating to gender difference and decoding accuracy, and conducted further studies using his own PONS test (discussed earlier in this chapter). All of these studies concluded that females obtained higher levels of decoding accuracy overall than males, and that in the PONS test the difference became even greater when body cues are used. (Rosenthal speculates that this may be due to the inhibiting effect on male judges of a female sender's body.)

If it is true that differences exist in the communicative styles and levels of decoding accuracy of males and females, then it is possible that such differences have implications for training, for a number of reasons. Firstly, differences in communicative behaviour will result in different "starting points" at the beginning of training. Second, a logical, if not rational, extension to this is that there may be a case for a different assessment of what is regarded as skilled behaviour, post-training, depending upon the gender of the trainee. A third issue is the relevance to the debate of the origins and causes of differences. These questions will be revisited in Chapter 5; the purpose of this section is to consider the evidence for gender differences in communication.

Much of the research in the area of gender and communication has examined differences in non-verbal behaviour. Richmond et al. (1991) note that research into gaze behaviour has concluded that women engage in more looking behaviour than men, during both speaking and listening. They point out, however, that much of the research was carried out before 1970, and therefore before significant changes in gender roles began to take place. They argue that the needs of females for inclusion, affiliation and affection are less in the 1990s than in the 1960s, and that dominance and assertiveness are now more acceptable for women - all factors which affect gaze behaviour. They suggest that differences in non-verbal behaviour derive from differences in social roles, where men are encouraged to be assertive and women

to be responsive. Bernard (1968, in Richmond et al., 1991) refers to the expectation that women will "stroke" others, using reassuring smiles and silent applause.

A study by Halberstadt et al. (1988) attempted to replicate the widely supported finding that women smile more than men, and discussed the extent to which gender roles account for this difference. College students' conversations were videotaped and analysed for smiling frequency and duration and for positive content. The findings indicated that women smiled more than men, and that women were more consistent across communication channels, i.e. facial and verbal, than men. The latter finding contradicted earlier research by Bugental et al. (1971, cited in Halberstadt et al., 1988) - and the authors state that they were tempted to entitle their findings "Perfidious Masculine Faces"! - but the authors attribute the different findings to situational determinants which in turn could have made the later experiment less stressful for the participants than Bugental's earlier work. They conclude that the finding that men and women are differentially consistent in their use of verbal and non-verbal communication channels has greater potential for further work than gender differences in non-verbal behaviour *per se*.

Chesler (1972, cited in Richmond et al., 1991) suggests that women are socialised into smiling when sending negative messages, and that consequently children respond differently to male and female smiles. Since males smile primarily when amused or happy, and females smile even when sending negative messages,

children perceive male smiles as friendly, whereas in the case of females they may have to have a broader understanding of the whole situation in order to respond.

In one of the key texts on non-verbal behaviour, Birtwhistell describes females talking to males as follows:

"[they] take up less space, shrink or pull in their bodies, cock or tilt head while talking or listening, arrange or play with hair more often than males, put hands on lap or on hips, tap hands, cross legs, cross ankles, yield space, lower eyes, blink more and keep legs and feet together while sitting"

while males talking to females

"stare more, take up more space, keep head straight, stretch hands, stand with legs apart and sit with legs stretched out with ankles apart, knees spread while sitting, stroke chin more, use longer, more sweeping gestures, more leg and foot movements and hold arms away from body more".

(Birtwhistell, 1970)

A summary, based on a review of research, of the non-verbal behaviours of males and females when communicating in a male/female dyad is given below in Figure 2.8.

Figure 2.8 Non-Verbal Behaviour of Males and Females When Communicating With Each Other

Performed primarily by males	Performed primarily by females
Stares	Lowers eyes
Interrupts	Listens/allows interruptions
Frowns	Smiles
Holds head erect	Tilts head
Points	Doesn't point
Takes more space	Takes less space
Moves in on other's space	Yields space
Initiates touch	Accepts touch
Has erect posture	Pulls body in
Legs apart	Legs together
Initiates looks	Bats eyelashes
Hands on hips	Hands at side or in lap
Strokes	Cuddles

This figure is included with some reservations; in the writer's view it demonstrates the point that although a summary of key findings is often useful, there is a danger that reduction to this level and the consequent generalisation can reinforce and perpetuate stereotypical notions about behaviour.

Hall (1984) in her book "Non-verbal Sex Differences: Communication Accuracy and Expressive Style" justifies her focus

on non-verbal behaviour by pointing out that a study of gender differences for other psychological variables, for example verbal ability, empathy, behaviour in groups, indicates that gender differences are largest for non-verbal variables. From her survey of 26 studies in encoding through non-verbal behaviour, she concludes that females are better than males at encoding and decoding non-verbal cues, recognising faces, and expressing emotions via non-verbal communication. They have more expressive faces, smile and gaze more, receive more gaze, stand and sit closer to others, and are less restless. She emphasises, however, that the size of most of these differences is "moderate". Her analyses of same-sex and mixed-sex dyads indicate that non-verbal sex differences are more pronounced when comparing interactions between two people of the same sex - possibly because in mixed-sex dyads people moderate their behaviour to approach the other sex's norms. This explanation is supported by recent research carried out by Reid (1995) who examined gender differences in communicative competence of speakers with respect to their use of minimal responses (mm's, head nods etc.). Her results indicated that women used more minimal responses than did men in same sex dyads. In mixed sex dyads both males and females modified their use of minimal responses in such a way that they converged at a central point.

Argyle (1991) in his exploration of gender differences in communication in the context of co-operative behaviour, refers to Hall's findings as evidence of a positive social approach adopted by females. In the same context he notes that females

engage in verbal behaviour which more actively keeps conversations going, for example by asking questions and emitting back channel signals (defined by Ayres, 1989, as "brief vocal comments of acknowledgement which confirm the partner's right to continue talking"), and by adopting a more co-operative tone of voice.

Bull (1983) examines in more detail the process of decoding, i.e. accurately interpreting the communicator's intentions from his/her non-verbal behaviour. He concurs with Hall's view that females are more accurate decoders than males, and refers to her search for an explanation. No correlation could be found between decoding performance and scores on empathy scales, although scores on the three chosen scales (Mehrabian, Jacobsen and Hogan scales of empathy) correlated with each other (Hall, 1979, in Bull, 1983). She concluded that the socialisation process contributes to girls' earlier empathic awareness which in turn leads to the development of superior encoding and decoding skills. Rosenthal and DePaulo (1979, cited in Bull, 1983) make a related point about socialisation when they say that women are socialised to be accommodating towards others, wanting to understand and to be easy to understand. Finally, Bull refers to the role of power differences between males and females; he suggests that because females are typically restricted in the overt exercise of power, they become more alert to the behaviour of more powerful others.

This notion was explored in detail by Henley (1977), who describes the role of non-verbal behaviour in maintaining power relationships. The role of a subordinate is often emphasised by being ignored or interrupted, towered over or forced to move. Superiors in business settings emphasise their role by means of non-verbal signals of environment and style and placement of furniture, and in some cases by the use of touch (for example the arm around the shoulder). The roles are reinforced when the subordinate responds in accordance with the expectations implied by the superior's behaviour, leading to a form of self-fulfilling prophesy.

Henley's question in relation to gender differences is: since males are more likely to have power than women, is a particular behaviour associated with males, or females, a sex difference or a power difference? If the behaviour can be shown to generalise to relationships where the source of power is something other than sex, for example wealth or race, then there is evidence that dominance is the underlying factor, and she summarises the available research evidence to conclude that the behaviours expressing dominance and subordination between non-equals parallel those used by males and females in relating to each other. However, the lack of significance ascribed to non-verbal behaviour makes its interpretation susceptible to social influence, for example sex stereotypes. Henley suggests that non-verbal control is of particular importance to women, who are both more sensitive to its cues and more likely to be the targets of such control. While gestures which differentiate

males from females may be inconsequential in themselves, Henley argues that they emphasise difference, usually at the expense of the less powerful. She delineates a spectrum of power from covert to overt control and locates non-verbal behaviour at a crucial, central position.

While it must be said that Henley's key text was published in 1977, and that in certain settings, for example the workplace, the balance of power has shifted in the direction of greater equality, her work, and the ideas which have developed from it, is quoted extensively in a much more recent text by Crawford (1995). "Talking Difference" is primarily concerned with gender and language but raises interesting questions about the origin and meaning of differences in communication.

In order to explore the relationship between gender, power and verbal behaviour, McFadyen (1996) built upon work previously done on gender or status and powerless speech* by simultaneously examining the effects of speaker's gender, relative occupational role status and addressee's gender upon the use of powerless speech. McFadyen believes that to attribute the occurrence of powerless speech to gender alone is an oversimplification, and that status insofar as it confers agentic (controlling) behaviour is a significant influence. Gender is a factor because women have typically held positions of lower status than

*The term "powerless speech" was first used by Erickson et al. (1978, cited in McFadyen, 1996) to refer to ten features of talk including hesitations, hedges (e.g. "sort of"), tag questions ("isn't it?"), and minimal responses. It has been identified by a number of researchers with a speech style which is typically female and which derives from the subordinate social status held by women relative to men.

men, and this in turn produces gender-role expectations of behaviour.

In McFadyen's study, same-sex and mixed-sex dyads of one lecturer and one student, two lecturers, and two students were videotaped during a 15-minute discussion of five questions related to leadership. The tapes were analysed quantitatively and qualitatively. The findings for "hedges" (fillers, qualifiers and "sort ofs") did not support the hypothesis that powerless speech would be related to role status and that gender differences would only occur in same status dyads. For hesitations, males hesitated more frequently than females but this behaviour was not directly linked to low status individuals. McFadyen suggests that different findings might have emerged if the interactions had taken place in a more role-related context, for example a tutorial.

In an earlier study, Ayres (1989) examined the impact of communication apprehension and interaction structure on participants' perceptions and behaviour during initial interactions. Although the study focuses on male participants, the results do include a comparison of the perceptions of the male participants and their female partners, and there are some interesting implications for training from the results overall which make the study relevant to this discussion.

Male participants identified as having low or high communication apprehension (CA) were paired with female partners for a five

minute videotaped interaction involving either a structured or an unstructured task. The tapes were analysed by raters using agreed operational definitions of verbal, non-verbal and turn-taking behaviours. Participants' and partners perceptions of each other were recorded using scales of trust (Wheelless and Grotz, 1977), satisfaction (Hecht, 1978) and attraction (McCroskey and McCain, 1974). The hypothesis was that high CA males would differ from low CA males in their perceptions and in their communication behaviour. The findings indicated that high CA males perceived their interaction partners to be less trustworthy, less physically attractive and less satisfying to interact with than did low CA males. Interaction structure did not produce any significant effect. Females, however, did not report any difference in trust, attractiveness or satisfaction between high and low CA males, but did report less satisfying interactions in the structured compared with the unstructured circumstance. Ayres suggests that the effect of high CA on the perceptions of males is due in part to general social anxiety.

In terms of verbal behaviour, the findings indicated that high CA males self-disclosed more in structured than in unstructured circumstances - an important finding with clear implications for the training of the helping professions. However, other significant effects of structuring were less back-channelling, less eye contact, less head-nodding and fewer questions, and while Ayres argues that structuring "reduces the need for these conversational management devices", an alternative

interpretation may be that structuring inhibits these behaviours by creating an imbalance between the participants.

With respect to non-verbal behaviour, only two categories were differentially affected by CA: high CA males produced fewer disfluencies (hesitations, prolongations, repetitions and errors) and nodded their heads less than low CA males.

Overall, Ayres' results draw attention to both perceptual and behavioural aspects of initial interaction, and suggest that communication apprehension has a large impact on perceptual data, some impact on verbal and non-verbal behaviour, and little impact on turn-taking. While it is not clear to what extent these findings would maintain in more prolonged interactions, there is scope for further work to explore this possibility and also to examine the nature and origins of communication apprehension in greater depth, given its impact on perception.

In summary, the limited research evidence available suggests that gender differences in communicative behaviour do exist, and, given that the writer has the opportunity to include gender as a variable in her investigation, it is her intention to contribute to the debate by including a subhypothesis which proposes the existence of gender differences in the measures to be used.

2.6 The Feedback Process and Communication Skills Training

Reference has already been made in this chapter to the role of feedback in the development of skilled behaviour, and to the feedback component in Argyle's model of social interaction and its derivatives.

A key question in this study concerns the effect of pre-training assessment and feedback on post-training performance, and for this reason the subject of feedback will now receive more detailed consideration.

Feedback has been defined as:

"information about performance or behaviour that leads to an action to affirm or develop that performance or behaviour"

(Thatcher, 1994, in Bee and Bee, 1996)

and:

"letting trainees know what they have done that has reached the standard, so that they can reproduce that behaviour, and what they have done that has not reached the standard, so that plans can be agreed with them on how to prevent a recurrence of that behaviour and how to progress to the required standard"

(Russell, 1994, in Bee and Bee, 1996)

These definitions are based on the assumption that feedback is constructive, that is, the individual is building on present behaviour to reach a required standard.

There are many sets of guidelines to giving and receiving feedback; those typically used by the writer and her colleagues with students and trainees are attached as Appendix 1. In Chapter 3 the writer describes the process by which feedback was offered to two groups of participants in the course of this study, a process which was designed in accordance with good practice guidelines.

An example of the key principles of giving feedback is to be found in Bee and Bee (1996), which can be summarised as: give feedback close to the event, ensure that the giver has the time and feels sufficiently relaxed and confident, and take into account the recipient's ability to handle the feedback. Elsewhere in the text the authors refer to the importance of non-verbal communication in the feedback process; the giver must ensure that the non-verbal and verbal components of the message are consistent, and must be sensitive to the non-verbal behaviour of the recipient as he/she listens to the feedback.

Eraut (1994) refers frequently to the role of feedback in the development of professional knowledge and competence. In discussing headteachers learning about management, he creates six categories of knowledge which can be generalised without

difficulty to other professions. Two of these categories, process knowledge and control knowledge, will be discussed here.

Process knowledge is described as a combination of knowing how things should be done, for example knowledge of systems and procedures, and having the practical skills necessary to carry them out. Eraut argues that while the former can be acquired intellectually, practical skills can only be acquired through practice with feedback - an opportunity not readily available in professional training. Although it is true to say that feedback is obtained partly from the results of one's actions on others, feedback based on the observations of a more experienced tutor or colleague may be less readily available, and variable in quality.

Control knowledge is described in the following way:

"Control knowledge covers all of the following areas: self-awareness and sensitivity; self-knowledge about one's strengths and weaknesses; the gap between what one says and what one does, and what one knows and does not know; the ability to reflect and self-evaluate, that is, to provide oneself with feedback."

(Eraut, 1994)

Control knowledge, therefore, refers to the ability to give feedback to oneself which comes from self-awareness and reflection. But Argyris and Schön (1974, cited in Eraut, 1994)

also include feedback from others as central to the development of control knowledge. They assert that there is a gap between the theories espoused by professionals and their "theories-in-use". They suggest that the gap occurs for two reasons: first, peoples' perceptual frameworks are determined by what they expect or want to see; and second, subordinates report to managers what they think they want to hear. For these reasons, Argyris and Schön stress the importance of being prepared to receive and actively seek good quality feedback.

Much of the research into feedback-seeking has focused on outcomes, but Levy et al. (1995) conducted a study which investigated the effects of situational and individual determinants on the feedback-seeking process. They attribute three motives to the feedback-seeking process: first, the desire for feedback resulting from the need to reduce uncertainty; second, the desire to protect one's ego in order to maintain a level of self-esteem; and third, a desire to make a positive self-presentation. The last two of these can act against the proactive seeking of feedback. Earlier research had indicated that feedback is sought less frequently in a public than in a private context, and while Levy et al. were interested in repeating this investigation, they added the hypothesis that frequency of reconsidering and modifying behaviour as a result of feedback will be inversely affected by the context, i.e. that participants in a public context will tend to reconsider and modify more often than those in a private context.

The second focus of their work was the impact of individual differences on feedback-seeking and reconsidering/modifying. They chose two variables of individual difference which were felt to be relevant to feedback-seeking: public self-consciousness, measured by Fenigstein's (1975) Public Self Consciousness (PSC) Scale; and self-esteem measured by the Rosenberg Self-Esteem (SE) Inventory (1965).

192 participants were divided into groups according to the feedback context (public or private) and given a computer-simulated time management task. The findings indicated that the likelihood of seeking frequency was a direct function of the perceived privacy of the feedback-seeking context, and that individuals who reconsidered and modified did so for impression management and/or ego enhancement concerns. In terms of individual differences, the findings indicated that high PSC leads to greater feedback-seeking than does low PSC, and that public contexts will inhibit feedback-seeking by high SE individuals (a finding which has implications for many large organisations typically using public settings, where high SE individuals may never get the feedback they need and want). The authors suggest that there is scope for further research into preferred sources of feedback.

Fitts and Posner (1973, cited in Dickson, Saunders and Stringer, 1993) identify three ways in which feedback can operate to influence future behaviour: firstly by contributing knowledge about the results of performance; secondly by motivating the

recipient to persist with a course of action; and thirdly by reinforcing the behaviour that led to the feedback, thus increasing the chances that it will be repeated. Dickson, Saunders and Stringer distinguish between feedback from self and feedback from others, either of which may fulfil these three functions of informing, motivating and reinforcing. They point out that in a practical setting it may be difficult to distinguish between these functions, suggesting that it acts in many ways simultaneously. In Chapter 5 the writer will return to a discussion of these functions in the light of her own findings.

2.7 The Research Questions

The purpose of this chapter has been to present the key ideas and findings emerging from a review of the literature in the fields relevant to this study. The principal focus has been on the process of interpersonal communication and the related areas of communication skills training and the assessment of communication skills. It is hoped that the reader has detected some unfinished business and questions for further enquiry from what has gone before; the purpose of this final section of the chapter is to make these explicit, thus pointing the way to the research questions and methodology described in the next chapter.

It is clear that models of interpersonal communication have moved from mathematical, to behaviourist, to cognitive-

behaviourist, and that a multidisciplinary approach to human communication is not only possible, but desirable.

The changing nature of models of communication has influenced the development of communication skills training, although it could be argued that some of the training currently being delivered still clings to stimulus-response theory - and still more is atheoretical in its approach. A review of current and recent practice in communication skills training in professional settings reveals wide variations in levels of activity and enormous scope for development. An emphasis on the person-situation context in the communicative process has the potential to enrich training and increase its benefits, and the writer is interested in using a range of pre-and post-training assessment methods partly to assess the efficacy of training but also to offer greater self-insight to trainees about their communicative behaviour.

The study also provides the writer with an opportunity to put a tried and tested CST programme, which conforms to the "good practice guidelines" already discussed, under the microscope in a context where there is continuing opportunity for its implementation, review and development.

The exploration of gender differences in this study is controversial if one subscribes to either of the views discussed earlier in this chapter, i.e. that gender differences are irrelevant, or alternatively that they are identified for the

sole purpose of discriminating against women. The writer takes the pragmatic view that, in her experience, differences in communicative behaviour do exist, and that it would be interesting to know more about these differences.

The writer believes that the introduction of a formal feedback process, in the way in which it happens in this study, is novel. It should not, however, be surprising, given the central role of feedback in almost all models of communication, and increasingly in the debate about the development of professional competence. Her specific question concerns how the feedback process can be used more extensively to enhance training.

For the purposes of this study, these lines of enquiry are formalised into four research hypotheses, which are presented at the beginning of the next chapter.

Chapter 3 Methodology

3.1 The Hypotheses

The study is concerned with two principal research hypotheses:

- (i) as a result of exposure to feedback on interpersonal competence, there will be a statistically significant improvement in the subjects' communication skills during the experimental period;
- (ii) there will be statistically significant differences between males and females in pre- and post-treatment assessment and in the degree of improvement during the experimental period.

The hypotheses were examined simultaneously using a cohort of students undergoing postgraduate professional training in careers guidance (n = 48).

Secondary hypotheses which were explored arising from the second principal hypothesis are as follows:

- (i) males and females will differ in the extent to which they estimate difficulty in social situations;
- (ii) males and females will differ in the extent to which they demonstrate selected components of communicative behaviour.

3.2 **The Research Design**

The research design conforms to Cook and Campbell's (1979) definition of a quasi-experimental, non-equivalent group design. The theory of quasi-experimental design evolved because of the growing view that laboratory settings were of limited relevance in many areas of theory and practice related to the study of human behaviour, and the known difficulties of applying control to field settings. Cook and Campbell emphasise that the researcher using a quasi-experimental design must make explicit any pre-existing differences between groups, and must try to establish that such differences are not responsible for any differences in outcome. They state also that, for a non-equivalent group design, where measures are taken before and after treatment to test the existence of a causal relationship between variables, the researcher must consider the threats to internal validity which may be inherent in the research design, and examine the extent to which each of these threats may have influenced the data. This issue will be explored later in the chapter, after the research design has been described in more detail.

The experimental design has to take into account the requirements of the established teaching and training programme carried out with this cohort of students, in which initial communication skills training is carried out over seven half-day sessions, with groups of eight to twelve students, during the first four weeks of the Autumn Term.

The research intervention differs from normal practice in four respects. First, each group completed the training programme within one week. Second, an initial theoretical background session, usually delivered to the entire cohort in a lecture setting, was delivered to each group individually at the start of the training programme. Third, pre- and post-treatment assessment was carried out. Fourth, for two of the experimental groups, structured feedback based on pre-treatment assessment was given.

The research intervention conforms to normal practice in the content of the training programme, the size of the training groups, and the completion of training for all students by the end of Week 4 of the term.

The research design is presented in Table 3.1 below.

Table 3.1 Research Design

GROUP 1 TRAINING ONLY (TO)	PRE-TREATMENT ASSESSMENT	NO FEEDBACK	TRAINING	POST-TREATMENT ASSESSMENT
GROUP 2 TRAINING AND FEEDBACK (TF)	PRE-TREATMENT ASSESSMENT	FEEDBACK	TRAINING	POST-TREATMENT ASSESSMENT
GROUP 3 FEEDBACK ONLY (FO)	PRE-TREATMENT ASSESSMENT	FEEDBACK	NO TRAINING	POST-TREATMENT ASSESSMENT
GROUP 4 CONTROL (C)	PRE-TREATMENT ASSESSMENT	NO FEEDBACK	NO TRAINING	POST-TREATMENT ASSESSMENT

It should be noted that "feedback" in the above design refers to that which is given on pre-treatment assessment, not to feedback given as part of, or after, training. It therefore appears before training in the design.

The research schedule is presented in Table 3.2 below.

Table 3.2 Research Schedule

WEEK NUMBER	GROUP 1 (TO)	GROUP 2 (TF)	GROUP 3 (FO)	GROUP 4 (C)
1	P R E - T R E A T M E N T A S S E S S M E N T			
2	TRAINING	FEEDBACK	FEEDBACK	-
3	-	TRAINING	-	-
4	P O S T - T R E A T M E N T A S S E S S M E N T			

(N.B. Training for Group 3 (FO) and Group 4 (C) took place in Week 4, after the post-treatment assessment.)

The writer asked the students to volunteer to take part in the research. Experience with previous cohorts suggested that they would agree to participate, but it was recognised that, at such an early stage in the course, they may have felt under some pressure to take part. They were therefore asked, later in the course when they would be likely to respond more openly, to recall their reactions to the invitation to volunteer. The outcome of this enquiry is presented in the final section of Chapter 4.

The characteristics of the cohort are described in some detail later in this chapter. Subjects were assigned to experimental groups in a way which ensured, as far as possible, that each group was representative of the cohort in the following respects: age distribution, percentage male, percentage non-white, percentage with previous careers adviser experience.

The experimental groups were also the training groups within which students worked for the duration of the one-year course. The training groups were formed by dividing the geographical catchment area into four segments; students who lived in the same segment were placed together in order to facilitate travel arrangements, with those living close to the University distributed across the groups in order to balance the numbers. Allocation was otherwise random. Training groups are usually formed in this way; the writer and her colleagues in the course team believe that this maximises the opportunities for students to learn from one another's experiences and perspectives. For the purposes of this research, such a procedure makes comparability between groups more legitimate and any conclusions more widely applicable. It is recognised, however, that useful data may have been obtained by forming homogeneous subgroups.

In order to test the hypotheses, a mixture of quantitative and qualitative methods were used. Central to both hypotheses is the requirement to describe and measure communicative competence and other dimensions of the person which may be related to this area of behaviour. In Chapter 2 the writer reviewed a number of

approaches to the assessment of communication skill, and concluded that the most comprehensive and potentially useful research design would involve a combination of self-report scales and behavioural ratings. Also, on the basis of previous research in this and related areas, for example Campbell (1990), she felt that there was merit in incorporating the eliciting of personal constructs associated with communicative competence through the use of repertory grids (Hall, 1978).

Miles and Huberman (1994) draw attention to the shift in the past decade to a greater use of qualitative data which, they say, "offer rich descriptions and explanations of processes in identifiable local contexts" and help researchers to "generate or revise conceptual frameworks" despite limitations in labour-intensiveness of collection, adequacy of sampling and generalisability of findings. While multi-method approaches are becoming more common, there is still a lack of explicit methods for qualitative analysis, and it is necessary to establish a clear link between data and conclusion.

It is relevant at this point to explore some related questions which underlie both the statements contained in the hypotheses and the experiences undergone by the experimental groups.

It was the intention that all groups would have the opportunity for self-insight with respect to aspects of their attitudes and behaviours which may be considered relevant to communication. In addition, experimental Groups 2 (TF) and 3 (FO) had the opportunity for external feedback concerning aspects of their

communicative behaviour. In response to the question "to what extent does increased self-awareness influence the effectiveness of training?", one possibility is that subjects will become more perceptually sensitive to certain aspects of the training programme, i.e. will "attend" more than subjects without this experience. The possibility must also be considered that subjects who experience **any** treatment additional to the training programme itself may be more highly motivated to participate in the training (the "Hawthorne Effect"). The writer attempted to address this possibility by issuing each group with a schedule without making explicit the differences between the groups. In any event, it is likely that subjects drawn from a population which is already selected for professional training will be positively disposed to the training process; it is expected, therefore, that differences between the experimental groups and the control group in this respect are likely to be minor.

The second hypothesis refers to gender. The relevance of gender to interpersonal communication has been discussed in an earlier chapter. Three questions may be posed. Do males and females differ in their sensitivity to non-verbal cues? Do males and females differ in the extent to which they estimate difficulty in social situations? Do males and females differ in the ratings they receive for identified components of communicative behaviour? It is the writer's intention to explore these subsidiary questions alongside the main hypotheses.

Before describing the measures used in the research, it is useful at this point to return to consideration of the potential threats to internal validity identified by Cook and Campbell.

While it is recognised that the effect of **history**, (i.e. events outside the research treatment being experienced by the participants between pre- and post-test) can be more easily controlled in laboratory than in field settings, it is believed that the effect is minimised by the relatively short time scale (a maximum of three weeks between pre- and post-test), and by the equivalence of course activities other than the research intervention for all groups. What cannot be controlled for, of course, is the experience of participants when they are away from the University; and although there will be similarities in lifestyle, interests and activities arising from the fact that all participants are students on the same course, there will also be differences, for example between the mature, home-based students with families and the younger participants living in shared student accommodation. It is reasonable to assume, however, that such differences will balance out across the groups.

The effect of **testing**, i.e. familiarity when particular responses are measured a number of times, is minimised by the requirement that each measure is used only twice with each participant.

For the same reason the effect of **instrumentation**, i.e. changes in the measuring instrument due to the observers or raters becoming more experienced, is minimised.

Statistical regression of scores should not occur, since participants are not classified into experimental groups on the basis of their pre-test scores.

The effects of **selection** are reduced by the methods of forming the groups outlined above. There do not appear to be any secondary differences between groups arising from the geographical split already described.

The threat of **diffusion or imitation of treatments**, when experimental groups can communicate with each other, is clearly a possibility in field research. It is addressed in this research design by avoiding drawing attention to the differences in treatment between the groups, while giving an undertaking to describe and discuss the whole process when the fieldwork was complete. (During this follow-up session it was apparent that only to a very limited extent had some participants "guessed" elements of the research design). This also enables the threat of **compensatory rivalry** by the control group, where they might strive to reduce or reverse the expected difference, to be eliminated.

The threat of **compensatory equalisation of treatments**, when people in a position to do so apply some compensatory treatment to, say, the control group, based on a belief that members of

this groups have been deprived in some way, does not arise. This is for two reasons. First, no group was excluded from any treatment which they would normally receive; only the timing is different. That is, all training was completed by the end of the fourth week of term as usual, but for the purposes of the research, groups were trained successively by the same tutor rather than concurrently by several. Second, the writer's colleagues, who are the only people in a position to apply any compensatory treatment, were aware of, supporting and co-operating with the research.

In summary, therefore, the research design can be seen to address satisfactorily the threats to internal validity identified by Cook and Campbell.

3.3 The Sample

The subjects for the research were drawn from the Postgraduate Diploma in Careers Guidance cohort at the Manchester Metropolitan University. Consent was sought and obtained from the entire full-time cohort of fifty students before their course started. In the event forty-nine students began the course, forming three groups of 12 and one of 13. The scores of one female participant, selected at random from the group of 13, were excluded from the data in order to create four groups of equal size.

The gender and age breakdown of the groups was as follows:

Table 3.3 Gender and Age Distribution of Groups

	GROUP 1 (TO)		GROUP 2 (TF)		GROUP 3 (FO)		GROUP 4 (C)		TOTAL
	M	F	M	F	M	F	M	F	
21-30	1	3	2	4	3	6	1	6	26 (54%)
31-40	2	4	2	1	-	1	1	2	13 (27%)
41+	2	-	1	2	1	1	-	2	9 (19%)
TOTAL	5	7	5	7	4	8	2	10	48

The gender and age distribution of this cohort is typical of the make-up of the Postgraduate Diploma in Careers Guidance (see Appendix 2 for equivalent data from 1990 - 1994 cohorts). It can be seen that for this cohort, males are under-represented in Group 4 (C) - a situation which could not be avoided if the geographical condition for allocating participants to groups described above was to be met - but that the gender distribution in Groups 1 (TO), 2 (TF) and 3 (FO) is similar, as is the age distribution across all four groups with the exception of a higher proportion of participants aged 30 and under in Group 3 (FO).

It is important to note that one of the selection criteria for this course is "evidence of adequate personal presentation and communication skills". In this respect, therefore, the subjects are atypical in comparison with the population as a whole. This is felt to be justifiable in view of the fact that much of the training in communication skills in professional settings is carried out with individuals who are already pre-selected for communication skills, and it is with these individuals that any findings emerging from this research may be applied. However, it must be noted that a likely consequence for this research is

that differences between subjects which emerge during and after training are unlikely to be large.

The writer recognised that more clarity in the way in which this criterion is interpreted was desirable. She therefore asked a sample of seven judges (four course tutors, three careers service managers) involved in the selection process to provide clarification by asking them to list behaviours which, in their view, have provided evidence that this criterion is met, and behaviours which have led the judges to the view that that applicant does not meet the criterion (Appendix 3). In order to collate the responses, each judge's comments were scrutinised and negative statements which were opposites of positive statements already given by that judge were disregarded. Other negative statements were changed so that they were expressed positively, for example "interrupts" became "does not interrupt". Then all responses were listed (see Appendix 4) and examined for consistency and repetition. Of the nineteen statements identified, there were none which, in the opinion of the writer, were inconsistent with any other.

Seven of the nineteen behaviours were identified by at least four of the judges, and a further eight by at least two. The seven most commonly occurring statements referred to:

- * demonstrating listening non-verbally and
verbally (7 judges)
- * clarity of expression (5 judges)
- * keeping to the point (4 judges)

- * smiling to establish and retain rapport (4 judges)
- * using language appropriate to the situation (4 judges)
- * maintaining appropriate eye contact (4 judges)
- * speaking clearly (4 judges)

This exercise, although small scale, provides useful clarification of the "communication skill" characteristics of the sample, and reassurance about the consistency with which the selectors interpret the criterion. It did suggest, however, that a clearer specification of the criterion was desirable, and as a result of the exercise the selection process for the course was amended so that the criterion "evidence of adequate personal presentation and communication skills" was replaced by four separate criteria as follows: "appropriate personal presentation", "demonstrates listening", "gives focused responses to questions", "communicates clearly".

This more detailed consideration of the characteristics of participants, and the discussion of measures which follows, reinforces the arguments advanced earlier in this chapter concerning the extent to which the research design addresses potential threats to internal validity.

3.4 Measures and Procedures

The measures used in the research will now be discussed in more detail. The choice of measures was made after detailed scrutiny of a range of methods of assessing communication skill, the key

findings of which were discussed in Chapter 2. A significant conclusion to be drawn from this work indicates that assessment must be accurate and representative of the individual's current level of social functioning, sufficiently comprehensive to include verbal and non-verbal behaviours and relevant cognitive activity, and situation-specific. Assessment is a necessary prerequisite to the design and evaluation of effective training in communication skills.

It was decided therefore to include a combination of self-report measures and behavioural ratings for both pre- and post-treatment assessment.

3.4.1 Self-Report Measures

Five measures were chosen initially, later reduced to four as a result of the pilot study described below. These were: the Rotter I-E Scale; the Social Situations Questionnaire (Trower, Bryant and Argyle, 1978; Furnham and Argyle, 1981); the PONS (Profile of Non-verbal Sensitivity) Test (Rosenthal, 1979); and a Repertory Test based on the work of Kelly (1955). A fifth scale, the Nelson-Jones Counsellor Attitude Scale, was discarded as a result of the pilot study described below. Copies of the tests are included in Appendix 5.

3.4.1.1 The Rotter I-E Scale

The relevance of the concept of locus of control to professional communication skills in the guidance context has been discussed

in Chapter 2. Reference has been made to Furnham and Steele's (1993) exploration of the extent to which locus of control levels can be altered by educational and therapeutic interventions. The writer has also examined Paulus' (1993) proposal of a multi-dimensional model of locus of control in which an individual may have different expectancies of control in different behavioural spheres, one of which is the interpersonal sphere. The Rotter I-E Scale, which derives from his exposition of social learning theory, is a 29-item forced choice test including 6 filler items. The test is a measure of "generalised expectancy" recording the extent to which an individual is in control of his/her life. The items are designed to address the individual's **beliefs** about the nature of the world: people who believe that the events that occur in their lives are as a result of their own behaviour/personality are said to have an "expectancy of internal control" while people who believe events in their lives to be a function of change, fate, powers beyond their control or powerful others are said to have an "expectancy of external control".

The Rotter I-E Scale evolved from work begun by Phares (1957, cited in Rotter, 1972) who developed a Likert-type scale using 13 items identified as external attitudes and 13 as internal attitudes. James (1957, cited in Rotter, 1972) revised Phares' test using 26 items plus fillers, and found small but significant predictions of behaviour in a task situation.

The final version of the scale consists of 29 forced-choice items including six filler items. Each item contains one

statement expressing an "internal" attitude and one expressing an "external" attitude, for example:

4a In the long run people get the respect they deserve
in this world (internal)

4b Unfortunately, an individual's value in society
often passes unrecognised no matter how hard s/he tries
(external)

An individual's score is expressed as the total number of "internal" statements chosen.

The **reliability** of the Rotter I-E scale has been calculated using a series of samples; a summary of the data is presented in Table 3.4 below.

Table 3.4 Reliability of the Rotter I-E Scale

(Rotter, 1972)

The table indicates that internal consistency estimates can be seen as relatively stable, although Rotter (1963) acknowledges that these are only reasonably high for a scale of this length. He points out, however, that items are not arranged in a difficulty hierarchy but rather are samples of attitudes in a wide variety of situations. He emphasises that the test is an

additive one and the items are not comparable. Consequently, he points out that split half or matched half reliability is likely to underestimate the internal consistency. It can be seen that test-retest reliability for a one-month period appears consistent in two different samples.

Two studies of non-questionnaire approaches in the measurement of internal-external control have been made with the Rotter I-E Scale. Adams-Webber (1979) compared the forced choice I-E scores with scores from a story completion test. The story involved a central character who initiates an "immoral" course of action. Scoring was based on whether the consequence of this act in the story appeared to follow from the individual's behaviour and was caused by it, or was primarily a function of external conditions. Judges rated story endings from a manual. Adams-Webber analysed his data by dividing his 103 subjects into groups based on the number of "external" endings for the three story completions. The "projective" test of tendency to see punishment for moral transgression as being externally imposed or as being the result of the immoral behaviour was significantly related to I-E scores. Analysis of variance indicated a highly significant difference between groups ($p < .001$).

Cardi (1962, cited in Rotter, 1972) developed a measure of internal-external control from a semi-structured interview. Judges' ratings following a manual were correlated with I-E scores obtained at an earlier time and independently of the

interview. A biserial correlation of .61 ($p < .002$) was obtained.

Rotter (1972) presents a summary of studies which investigate the robustness of the I-E Scale, and concludes that there is good evidence of internal consistency and test-retest reliability, and that the scale correlates satisfactorily with other methods of assessing the same variable such as questionnaire, Likert scale, interview assessments, and ratings from a story-completion technique. Discriminant validity is indicated by low relationships with variables such as intelligence, social desirability and political liberalism. He advises caution, however, in the extent to which the test can be used with college students for individual prediction - particularly with the middle 50% of the distribution - and advises that for populations like this the test is more suitable for investigations of group difference.

For this research the writer has used an anglicised version of the Rotter I-E Scale (Campbell, 1990) used in her earlier research (Martindale, 1990). The amendments made to the original questionnaire are listed in Appendix 6.

3.4.1.2 The Social Situations Questionnaire

As Argyle (1986) notes, most techniques developed to assess social skills involve some form of assessment of behaviour in difficult social situations, either role play or self report. Trower, Bryant and Argyle (1978) devised a Social Situations

Questionnaire in which 30 situations are listed, and respondents indicate, on a four point scale, the degree of difficulty they experience in coping with each situation.

Evidence of reliability and validity of the questionnaire is offered by Bryant and Trower's (1974) study in which they examined the extent, degree and type of difficulty experienced in social situations by a random sample of Oxford University students. They employed the Social Situations Questionnaire and discovered that nearly 10 per cent of the subjects had great difficulty in, or tried to avoid, approximately six of the social situations described in the questionnaire. These students were found to be from a lower social class and from smaller families than the rest of the sample. The self ratings covered two time periods, the present and one year earlier. The mean scores for the present time and for one year ago for men and women are shown in Table 3.5.

Table 3.5 Mean Scores of Difficulties for All Respondents and for Men and Women Separately on the Social Situations Questionnaire

PRESENT TIME			A YEAR AGO			SIGNIFICANCE LEVEL
MEAN	RANGE	SD	MEAN	RANGE	SD	
17.48	0-48	11.69	24.21	0-66	13.96	.001
16.97	0-48	11.48	23.59	0-59	13.41	.001
19.31	0-44	12.23	26.44	0-66	15.56	.001

(Significance levels were calculated using the Wilcoxon matched-pairs signed ranks test.)

It can be seen that the scores for the present time were significantly lower than for a year earlier. Bryant and Trower

suggest that this trend is expected and likely to reflect a real difference as people become more familiar with, and less stressed in, their environment. Ratings of moderate difficulty or worse were made by 75% of the respondents in, on average, five to six situations at the "present" time. Ratings of great difficulty or avoidance were made by 40% in, on average, two to three situations.

The 30 situations in this original version of the questionnaire are shown in Table 3.6, rank ordered according to the percentage of respondents who rated moderate difficulty or worse in them.

Table 3.6 Percentage of Respondents Scoring Moderate Difficulty or Worse in Each Situation on the Social Situations Questionnaire

SITUATION	PRESENT	A YEAR AGO	P
Approach others	36	51	.001
Go to dances	35	45	.01
Taking initiative	26	44	.001
Go to parties	25	42	.001
Meet people you don't know	22	37	.001
Going out	21	38	.001
Being in a group	21	35	.001
Getting to know someone	21	29	.001
Talking about self	19	26	.001
Looking at people	18	26	.001
Making decisions	17	30	.001
Going into a room	17	30	.001
People looking at you	16	26	.001
Meeting strangers	13	28	.001
Being with young people	13	28	.001
Being with friends	11	20	.001
Disagreeing with others	9	23	.001
Going into pubs	9	23	.001
Being in a same-sex group	9	15	.01
People standing close	9	14	.001
Being in a mixed group	8	18	.001
Being at work	8	16	.001
Entertaining on your own	7	19	.001
Being with older people	5	8	n.s.
Being with one another	4	9	.01
Going to restaurants	3	10	.01
Going into shops	1	5	.05
Walking down street	1	4	n.s.
Being with friends	1	1	n.s.

(Significance tested using McNemar's formula for correlated data.)

Bryant and Trower suggest that Table 3.6 demonstrates that the situations cannot be considered as representing equal forms of stress. More difficulty was reported in situations demanding a more complex level of interaction, often with people of the opposite sex.

The questionnaire was designed originally for diagnostic use with clients seeking help in overcoming difficulties in social situations. Furnham and Argyle (1981) subsequently added a further 15 more difficult situations which, when added to the original 30 items, created a scale more suitable for use with the general population.

The writer's discussions with Argyle in 1994 indicated that the questionnaire was still in current use and regarded by him as suitable for the purpose.

As a result of her pilot study (see below) the writer removed three items. Since there were still 42 items remaining, she was interested to discover whether subscales existed, in other words to assess the degree to which items are tapping into the same concept. She therefore administered the questionnaire to 138 individuals and carried out an exploratory analysis of the responses using SPSS principal components analysis with oblique rotation.

Two points should be made about this procedure. Firstly, the sample size meets Gorsuch's requirement (in Bryman and Cramer, 1993) of a minimum of 100 individuals per analysis, but does not meet his suggested five subjects per variable. He does suggest, however, that a small sample size does enable the relationships between variables to be examined, which is the purpose of this analysis. Secondly, oblique rather than orthogonal rotation was chosen because the writer was interested in examining correlations between factors and because oblique rotation is

recommended for eliciting scales from inventories or questionnaires (Youngman, 1979).

The results of the analysis indicated that, using Kaiser's criterion, which selects factors with an eigenvalue of greater than one, six factors emerge from 42 items. The factor pattern matrix is presented in Appendix 7. The grouping of items into factors is presented in Table 3.7.

Table 3.7 Social Situations Questionnaire: Grouping of Items into Six Factors

Factor 1	
Item Number	Item
19	Approaching others - making the first move in starting a friendship
23	Taking the initiative in keeping a conversation going
15	Going into a room full of people
22	Getting to know people in depth
17	Being with people you don't know very well
16	Meeting strangers
13	Being with older people
25	Disagreeing with what other people are saying and putting forward your views
3	Going on public transport
20	Making ordinary decisions affecting others
8	Going out with someone you are sexually attracted to
41	Attending the wedding of a distant relative where you know few people

Factor 2	
Item Number	Item
32	Going to a close relative's funeral
30	Going for a job interview
33	Going round to cheer up a depressed friend who asked you to call
42	Apologising to a superior for forgetting an important task
35	Giving a short formal speech to about fifty people whom you don't know
29	Complaining to a neighbour that you know well about constant noisy disturbances
37	Going across to introduce yourself to new neighbours
34	Hosting a large party
39	Going to functions with many people from a different culture

Factor 3	
Item Number	Item
5	Going to parties
4	Going to pubs
12	Going to dances, dance halls or discotheques

Factor 4	
Item Number	Item
1	Walking down the street
2	Going into shops
18	Being with friends
9	Being with a group containing both men and women of roughly the same age as you
7	Making friends of your own age

Factor 5	
Item Number	Item
28	People looking at you
40	Playing a party game, e.g. charades
26	People standing or sitting very close to you
27	Talking about yourself and your feelings in conversation
36	Taking an unsatisfactory article back to a shop

Factor 6	
Item Number	Item
14	Being with younger people
6	Mixing with people at work
10	Entertaining people in your home, lodgings etc.
24	Looking at people directly in the eyes
21	Being with only one other person rather than in a group
38	Dealing with a difficult and disobedient child
31	Visiting the doctor when unwell
11	Going into restaurants or cafes

Inspection of these groupings suggests that the following labels might be given to the first five factors:

- Factor 1 settings requiring assertiveness and/or confidence
- Factor 2 potentially unpleasant or risky situations
- Factor 3 lively social settings
- Factor 4 everyday, low stress situations
- Factor 5 situations in which the self is the focus of attention

The sixth factor is more difficult to label; there is little obvious commonality among the items, other than that they are not included in the other five factors. In Argyle and Furnham's

original cluster analysis, referred to in Chapter 2, the most common clusters were situations involving: assertiveness, intimacy, counselling, public performance and parties.

The factor correlation matrix is presented in Table 3.8 below.

Table 3.8 Social Situation Questionnaire: Factor Correlation Matrix

Factor	1	2	3	4	5	6
1	1.0000					
2	-.2235	1.0000				
3	.1325	-.1241	1.0000			
4	.1593	-.1324	.1459	1.0000		
5	-.2270	.2701	-.1547	-.0966	1.0000	
6	-.2411	.1857	-.0747	-.1382	.2369	1.0000

It can be seen from the above table that there are small positive correlations between Factor 1 and Factors 3 and 4; Factor 2 and Factors 5 and 6; Factor 3 and Factor 4; and Factor 5 and Factor 6. There are small negative correlations between Factor 1 and Factors 2, 5 and 6; between Factor 2 and Factors 3 and 4; between Factor 3 and Factor 4, and between Factor 4 and Factors 5 and 6.

In summary the results of the factor analysis suggest that the 42 items of the Social Situations Questionnaire used in this study form six subscales, but there is only limited evidence of correlation between the subscales, possibly due to the small sample size.

3.4.1.3 The Repertory Test

As the writer has already stated, she was interested in exploring the participants' perception of communicative behaviour. What do they notice about the way in which others communicate? What do they regard as important? Is there any relationship between their own perceptions and their own performance as communicators?

It was decided that an effective way to explore these questions would be by means of a repertory test (Kelly, 1955, described in Hall, 1978). Participants would first be presented with a Role Title List (see Appendix 5, iv) and would then be given a list of twelve "sorts" or random combinations of three role titles. Using the technique usually referred to as triadic elicitation, for each "sort" they would be asked to consider the following question: In terms of their interpersonal communication, in what important way are two of these three people alike and, at the same time, essentially different from the third? (see Appendix 5, iv).

Although a limited qualitative analysis could be carried out on the data generated, for example by searching for recurring words, in order to facilitate a more thorough analysis using quantitative methods, during the post-test assessment a subsample of participants would be asked to complete a ranked repertory grid, in which the role title holders are ranked in order for each of the constructs generated in the repertory test.

3.4.1.4 The PONS Test

As the literature review has indicated, the ability effectively to send and decode non-verbal messages is a key component of communicative competence. A review of recent and current research led the writer to believe that the most suitable method of assessment of sensitivity to non-verbal behaviour which the writer had at her disposal was the Profile of Non-verbal Sensitivity (PONS test) devised by Rosenthal et al. (1979), and obtained by contacting him at Harvard University.

Earlier research by Rosenthal had examined the extent to which an individual's expectations of another can influence behaviour, and the particular contribution of non-verbal communication to this process.

He was interested, therefore, in devising a method of obtaining accurate measurements for an individual which would describe his or her ability to send and to receive in each of a variety of channels of non-verbal communication. The full PONS test is a 47 minute black and white 16mm film and soundtrack composed of 220 numbered auditory and visual segments. The 220 segments are a randomised presentation of 20 short scenes portrayed by a young woman, each scene represented in 11 different modes or channels of non-verbal communication. Several short forms of the full PONS have been developed, providing good evidence of validity and correlation with the full PONS. The writer favoured use of the self-administered still photo booklet version, which

includes the 20 face-only and 20 body-only items from the full PONS. The completion time for this version is about 20 minutes, and responses are given by circling the chosen answer from a choice of two for each item. The administration of the test would therefore fit well with the other measures to be used. Data from the test manual showed that the correlation of this test with the full PONS for a sample of 62 teachers (45 females, 17 males) was .64 ($p < .001$). Table 3.9 indicates the correlation of the total score on the full PONS with the channel scores of the booklet form and of the full PONS. Among the sample, each channel of the booklet PONS showed a strong relationship to the full PONS.

Table 3.9 Correlation of Full PONS Test with Channels of Booklet Form PONS and Full PONS for a Sample of Teachers (n = 62)

TEST	CHANNEL	r
BOOKLET PONS	FACE 20	.49 ($p < .001$)
	BODY 20	.60 ($p < .001$)
	TOTAL 40	.64 ($p < .001$)
FULL PONS	FACE 20	.79 ($p < .001$)
	BODY 20	.80 ($p < .001$)
	VIDEO 60	.91 ($p < .001$)

The writer concluded from this data that her use of the photo booklet form was appropriate in view of the high correlation with scores from the full PONS.

A fifth instrument, the Nelson-Jones Counsellor Attitude Scale, was initially considered for inclusion, but was discarded after the Pilot Study (see below).

3.4.2 Pilot Study of Self-Report Measures

The purpose of the pilot study was to test the chosen self-report measures for face validity, clarity of instructions and of individual test items, and timing, and to establish a suitable order for administration to the main sample. The pilot study would also provide a small sample of data for inspection, enabling the writer to confirm suitable methods of analysis.

The sample for the pilot study was obtained by seeking nine volunteers (six female, three male) from the cohort of careers guidance students which preceded the research cohort. This sample would represent 20% of the main sample, and would resemble it in three respects: both groups had been selected for training on the basis of the criteria already discussed in the previous section, and the gender balance and age range were comparable. However, a key difference was that members of the pilot group were at the end of training, whereas the main sample would be at the beginning. For this reason, and because the use of behavioural ratings was already well established (as described in Chapter 2, Section 2.4.3), it was decided not to pilot the behavioural measures with this group. A further factor was that the logistics of the behavioural measures were felt to be straightforward and therefore not needing a trial run.

The following instruments were administered to the pilot group in this order, with maximum completion time given in brackets:

Rotter I-E Scale	(12 minutes)
Nelson-Jones Counsellor Attitude Scale	(7 minutes)
Trower Social Situations Questionnaire	(10 minutes)
break	
Repertory Grid	(45 minutes)

The Profile of Non-verbal Sensitivity (PONS) test was not available to the writer at the time that the pilot study was carried out.

After all instruments were completed, subjects were asked for their comments on each in turn. The writer decided against structured written feedback; the subjects were known to her and she predicted that they would all contribute freely to a semi-structured discussion. Key points which emerged concerning each instrument were as follows.

Rotter I-E Scale

Some resistance to forced-choice structure but no negative comments. Instructions and items clearly understood.

Nelson-Jones Counsellor Attitude Scale

Three items were felt to be ambiguous or difficult to understand (Q.35, 4 subjects, Q.48, 1 subject, Q.50, 2 subjects). All subjects had difficulty deciding whether to respond in the context of careers counselling or in the context of counselling in general; it was felt that responses would be different according to which position was adopted.

Trower Social Situations Questionnaire

In general, subjects were happy with the instructions and items, with the exception of items 4 and 5 ("going into pubs" and "going to parties") where it was felt that more context was needed. One subject felt that items 9 - 11, which asked questions about situations involving same sex/opposite sex, assumed heterosexuality and would have different connotations for homosexuals.

Repertory Grid

Some subjects sought clarification of the instructions for this exercise but were then able to follow what was required. All subjects felt that 20 "sorts" was too many, and that they were beginning to repeat themselves.

Overall, all subjects felt that, in terms of their concentration span, three instruments would be preferable to four, and they questioned the relevance of the Counsellor Attitude Scale in terms of its "fit" with the other instruments. They felt that with three instruments altogether it would be possible and preferable to go through without a break. They felt that, while the instructions for the Rotter I-E Scale and the Trower Social Situations Questionnaire were clear, it would be necessary for the writer to present the Repertory Grid instructions orally and in writing, and to check for understanding.

Inspection of the raw data indicated that all answer sheets had been completed in accordance with the instructions, but that the

constructs elicited in the Repertory Grid exercise were not always confined to aspects of communicative behaviour, but included constructs such as "organised" and "knowledgeable".

As a result of the pilot study it was decided that the self-report component of the main study would consist of, in this order:

- Rotter I-E Scale;
- Trower Social Situations Questionnaire omitting items 9-11;
- Repertory Grid with 12 instead of 20 sorts, more explicit instructions, given orally and in writing, directing subjects to consider communicative behaviours rather than more general characteristics.

Although the writer did not at this stage have a copy of the PONS test, she knew that it took, typically, 20 minutes to complete (Rosenthal, 1979). In view of the feedback from the pilot sample, she therefore decided that subjects in the main sample would be asked to complete this test after completing the video recording for the behavioural ratings.

3.4.3 Behavioural Ratings

The theory and practice of the assessment of behaviours have been discussed in Chapter 2, where reference was made in

particular to the work of Conger and Farrell (1981), Frederickson and Bull (1992) and others in this area. Eisler and Frederickson (1982) state that behavioural assessment should be characterised by: reliability (i.e. agreement among observers), consistency, representativeness (i.e. validity) and the existence of two levels of analysis: general impressionistic and specific behavioural. The elements of behaviour chosen for rating were based on an earlier review of research, summarised in Hargie et al. (1994), which forms a part of the training programme described later in this chapter. They were felt to be elements which were generalisable to any one-to one professional interaction, i.e. not situation-specific; elements of content e.g. relevance of questions were deliberately excluded. In order to create standard conditions, the room and style and position of the furniture were predetermined and therefore environmental elements were excluded since these were not under the control of the participants. The list of elements was as follows:

- eye contact;
- facial expression;
- posture / orientation;
- gesture;
- active listening;
- pausing;
- tone;
- questioning style.

Raters were asked to rate each element for appropriateness on a scale of 1 - 4, and to add verbal comments for each element. (see Appendix 8 for a copy of the rating sheet). The participants were not made aware of the elements to be rated before the pre-test assessment; however, it is possible that those in Groups 2 (TF) and 3 (FO), all of whom received feedback, may have retained some awareness of the rating categories for the post-test assessment.

While it is recognised that the process of being video-recorded might render behaviour untypical, the writer believes that the particular conditions in which the recordings took place reduced the potentially adverse effect. Specifically, participants were made familiar with the room before the recordings took place. The cameras were wall-mounted, discreet, and operated from outside the room. The writer deliberately avoided role-play in the interactions; her experience of using role play in training has led her to the view that it increases the likelihood of untypical behaviour.

For the purposes of this research the following procedure was devised.

Within experimental groups, participants were paired randomly. The pairs were given the following instructions:

"Open the interview as if you don't know this person, ask them about their previous employment/education experience. Keep going for about five minutes, then change roles."

For the post-test the pairs remained the same, and the following additional instruction was given:

"Interviewees - it doesn't matter if you discuss the job you talked about last time, or choose a different one".

The instructions were given to the whole group immediately before the recordings began, in the room where they were to take place. It was emphasised to participants that they should interact as themselves, but that the interaction should follow an interview format (one questions, the other replies) rather than an informal conversation with interruptions, comments and turn-taking. All the recording sessions were managed by the writer.

Pairs chose their own order for the pre-test and kept to the same order for the post-test. Interviews were allowed to "run their course" unless they exceeded 10 minutes in total, in which case the writer intervened and concluded the recording. Tapes were subsequently edited so that the raters observed only the first three minutes of each interaction (i.e. six minutes per pair).

Two former colleagues of the writer who were familiar with the categories used in the rating from their involvement with the teaching of interpersonal skills were chosen to rate the tapes. To check for consistency and to test the feasibility of the rating proforma, the raters were given a practice tape to rate

independently and then discuss jointly with the writer. As predicted, they demonstrated a high degree of consistency and common understanding of the terms used and their application to observable behaviour. Reference has been made in Chapter 2 to the tendency for observers' interpretations to 'drift' over time from the agreed definition. For this reason the assessment period was kept to the minimum practicable.

In the next part of this chapter the two research interventions are described; these are the interpersonal skills training programme, and the process of giving feedback on the videotaped interactions.

3.4.4 The Training Programme

Approaches to the theory and practice of communication skills training have been discussed in Chapter 2. The programme used in this research is an introductory programme designed and developed over several years by the writer and her colleagues and used with students and practitioners from a wide range of professions. It is based on Welford's (1978) framework of skill attainment and uses the microtraining format, a process of breaking down a skill into subskills and working on them one at a time. The analysis of communication skill used in the programme draws from the work of Hargie et al. (1995), and focuses on three skill areas: non-verbal behaviour, questioning, and set induction and closure (these last two terms are those used by Hargie for opening and closing the interaction).

The programme takes place over eight half-day sessions (see Appendix 9). After an introductory session in which students are introduced to the contributions of perception, cognition and behaviour to the interaction process, and a video familiarisation session, the rest of the programme follows a pattern of theoretical input, practice on video, and feedback/analysis of videotapes. This sequence occurs three times, once for each of the three skill areas listed above. Tutors delivering the programme use a manual written by members of the training team which is in the process of being revised and updated for publication (Centre for Human Communication, the Manchester Metropolitan University: Interpersonal Skills Training Programme).

3.4.4.1 Theoretical Inputs

The theoretical input session is a tutor-led lecture/discussion in which the nature and function of the skill area is elicited, stimulated by the use of short videotaped vignettes. The input on non-verbal behaviour identifies the purposes served by non-verbal communication (e.g. replacing, supporting or contradicting verbal communication), and the nature of non-verbal communication (e.g. eye contact, posture, gesture). For the questioning input, the question "Why do we ask questions" is discussed, followed by consideration of the different ways in which questions are structured (closed, open etc.) and the appropriateness of each structure for different situations. The sequencing of questions is also covered, as is the use of verbal following (prompting and probing). In the final input session

covering set induction and closure, the rationale for the development of these skills is discussed and the components of effective opening and closing are identified. Each input session is supported by a handout (see Appendix 9).

3.4.4.2 Recording

Video practice sessions follow each input; students are asked to make short recordings, in pairs, for subsequent analysis. In order to reassure students who may be anxious or sceptical, it is emphasised that these recordings are unlikely to display "typical" behaviour, especially at the beginning of training. Their primary purpose is to provide material for discussion, but they do provide an opportunity for students to explore and monitor their own behaviour as they progress through the training.

Before any recording takes place, students are shown how to use the video equipment and they organise and take responsibility for the recordings, including erasing a sequence and re-recording if they wish. (It is interesting to note that this rarely happens, but that students report at the end of training that it was helpful and reassuring to know that it was possible.)

For the first recording, which is used to analyse non-verbal communication, students are usually given a free choice of topic, on the basis that content is not important. If they ask for ideas, the tutor might suggest discussing favourite

holidays, or first impressions of the course. For the second recording, used to examine questioning, an "interviewing" format is required, and a suggested topic is for one participant to question the other about a previous job, and then to reverse roles.

The third recording examines set induction and closure and it is helpful to introduce an element of role play here, where one participant will be the "professional" and the other a client. Brief details and "scene setting" are discussed before the recordings begin, but no rehearsal or scripting takes place.

3.4.4.3 Playback

The playback sessions are tutor-led, but students are invited (and encouraged) to stop the tapes at any point for discussion of what has occurred. In the first playback particularly, the tutor usually has to engage in a question and answer style with the group to elicit specific feedback related to observable behaviour. A typical statement from a student might be "she looks very confident". The tutor will ask the student to identify the **behaviours** which led him or her to that conclusion, thus reinforcing the introductory session by drawing attention to the perceptual process and inference from observable behaviour.

In the second and third playback sessions, the students are encouraged to consider the skill areas already discussed as well

as the area covered in the immediately preceding input, thus assisting them to build up their skill repertoire in steps.

It is useful to note that participants in programmes conducted in the suite of rooms designed for the purpose and used in this research report that, contrary to their initial expectations, they quickly become unaware of the video camera or the artificiality of the interactions.

3.4.4.4 The Research Training Programme

For the purposes of this research, in order to minimise external influences on performance the training programme was delivered to experimental Groups 1 (TO) and 2 (TF) in eight continuous half-day sessions, beginning after lunch on Monday and concluding at lunch on Friday. In each case the training was delivered by the same tutor, whose help had been enlisted because he had played a key role in designing the programme, was the most experienced in the training team, and received consistently positive feedback from students and trainees for the effectiveness and clarity of his approach. In other words, the writer endeavoured to ensure that the training programme was delivered as effectively as possible.

It should be noted, however, that the decision to use one tutor removed the opportunity to explore the effect of the gender of the tutor on the research outcomes - potentially a useful area of enquiry.

3.4.5 **The Feedback Process**

As shown in Table 3.1, participants in experimental Groups 2 (TF) and 3 (FO) received feedback on their pre-treatment assessment. The rationale for examining the role of feedback in communication skills training was explored in Chapter 2. What follows is an outline of the procedure followed in this research.

Feedback was given on an individual basis within a half-day session designated for the purpose. At the beginning of the session the writer described the self-report measures and the scoring systems to the whole group, to avoid unnecessary repetition in the individual sessions. She avoided too much detail (for example, discussion of specific test items) in order to avoid contamination of the post-test assessment, but endeavoured to give participants sufficient understanding to "make sense" of the feedback. As an illustrative example, the description of the Rotter I-E Scale was as follows:

"The first questionnaire you completed, which looked like this (holds up a blank form) tries to assess the extent to which you regard yourself as in control of, or responsible for, what happens around you. The range of scores goes from 23 to 46. A score towards 23 suggests that the person has a strong belief that they can influence what happens to them. A score towards 46 suggests a more "fatalistic" approach, where the individual believes that

s/he has less control. Neither is right or wrong; it's simply a way to describe one aspect of your personality."

In the individual sessions, the self-report measures were discussed first. For each measure, participants were:

- (i) reminded of the possible range of scores;
- (ii) asked where they think they might be on the scale;
- (iii) given their own score orally;
- (iv) given the average score for the group;
- (v) asked how they felt about the score and the questionnaire (this question was felt to be important where there was a discrepancy between the expected and the actual score).

For the recorded interactions, participants were given the ratings awarded by the judges in terms of the extent to which the aspects of behaviour examined were appropriate. The writer felt that a key issue was that these participants were at an early and vulnerable stage in a professional training course. She avoided comparisons with the "norm" and a typical process would be:

- (i) ask participant how they found making the recording;
- (ii) offer feedback from raters, e.g. "you were felt to have good eye contact with your partner; most of the time you sat quite still and didn't distract her with gestures, and your facial expression showed interest. Sometimes you interrupted before she had finished, or didn't give her long enough to start

answering your question before you asked her another one. Your tone of voice showed interest in your conversation.";

(iii) show the video, asking the participant what they noticed about themselves;

(iv) ask the participant for comments, in particular if he/she thinks there are any areas to "work on".

The individual sessions concluded by asking the participant if he/she had any questions or comments, and thanking them for their participation.

3.5 The Fieldwork Programme Overall

The fieldwork followed the outline described in Table 3.2 without any unforeseen problems. The participants were co-operative and enthusiastic, the time allowed for sessions was sufficient, and there were no absentees except for two members of Group 1 (T0), who were absent from the post-treatment video-recording session.

The tutor responsible for delivering the training programme found that two successive weeks of intensive training was demanding, but there was no evidence to suggest that the quality of training was affected. The writer found that conducting the fieldwork within a four week timescale was also demanding in terms of volume of work, particularly the need to process the self-report questionnaires in time for the feedback sessions. It was, however, possible, and there was no evidence of a

deterioration in performance as the fieldwork programme progressed.

Students' reactions to participating in the fieldwork were sought several months later, and are presented in the next chapter.

3.6 Data Analysis

In terms of the scale scores on each of the self-report measures, the writer was concerned with identifying differences between the four groups (three experimental, one control). She also wished to identify gender differences within groups. The performance of all groups was considered at Time 1 and Time 2 (pre- and post-test) and one-way, two-way and three-way analyses of variance were employed for performance on all scales. The resulting values were interpreted for significance at the five per cent level. This level of significance was felt to be justified due to the likely difficulty of establishing detectable differences in a sample which has already been selected for "good" communication skills. Repertory grids were analysed quantitatively using a form of rank-order correlation, and qualitatively using inspection of generated constructs to identify common themes.

The experimental programmes aimed to increase the communicative competence of the participants. "Improvement" can be measured in terms of: increases in the use of skilled behaviour (Dickson, 1981), and increases in the measurement of perceived competence

as perceived by independent judges (Crute, 1986, cited in Campbell, 1990). The writer employed a category system whereby a range of behaviours representing categories of a certain response were identified and rated on a four-point scale. Pre- and post-test ratings were then analysed in terms of significance and direction of changes in behaviour from pre- to post-test for each subject, using the Wilcoxon Matched Pairs signed rank test. The resultant values were interpreted for significance at the five per cent and one per cent levels.

Qualitative data was obtained by questionnaire from a stratified purposeful sample. This sampling strategy was adopted because it "illustrates subgroups and facilitates comparisons" (Miles and Huberman, 1994). Responses were examined for evidence of common themes within and across subgroups, and for evidence of relationships with quantitative data.

The results are presented in Chapter 4.

Chapter 4 Presentation of Results

4.1 Introduction

In the previous chapter the writer described the approach she had taken and the ways in which it conformed to accepted definitions of quasi-experimental, non-equivalent group design. The chosen approach was consistent with Robson's (1994) notion of "real world research"; it was opportunistic because it is built around an existing teaching programme which staff have an interest in developing, and it was multi-method with respect to the collection and analysis of data.

The focus of this chapter is on the presentation and analysis of results, beginning with behavioural ratings obtained from short videotaped interactions. The second section will examine the results from the three self-report measures, and will include between-group comparisons using one-way analysis of variance, an exploration of interaction effects using two-way and three-way analysis of variance, and pre- and post-test comparisons using t-tests. Data relating to gender differences will also be presented. The third section will focus on outcomes of the repertory lists and grids generated by the participants, using qualitative and quantitative methods. After a summary of findings, the chapter will conclude with a presentation of the outcomes of a small study of participants' reactions to taking part in the research.

4.2 Behavioural Ratings

The purpose of this analysis is to establish whether ratings of communicative behaviour, based on eight categories, change as a function of experimental treatment. Ratings will be compared between groups and between genders before and after treatment, and for each group before and after treatment. The extent to which some rating categories are more susceptible to change than others will also be explored.

As described in Chapter 3, the ratings were derived from 3 minute extracts from videotaped interviews. Two raters viewed the tapes independently, without knowledge of the experimental groups to which the participants belonged. They rated communicative behaviour in eight categories, on the following scale:

- 4 always appropriate
- 3 mostly appropriate
- 2 mostly inappropriate
- 1 always inappropriate

The eight categories were:

- C1 eye contact
- C2 facial expression
- C3 posture/orientation
- C4 gesture

- C5 active listening
- C6 pausing
- C7 tone
- C8 questioning style

The raters agreed in 504 cases out of a total of 736. In all but ten cases where there was disagreement, the two ratings were one point apart. In these cases the writer took the lower rating. Where the ratings were two points apart, she took the middle rating. A statistical analysis using t-tests for paired samples indicated that the mean difference between the ratings of the two observers was 0.06 points.

4.2.1 Differences Between Groups at Time 1

In Chapter 3 the writer described the steps she had taken to ensure, as far as possible, that each group was representative of the total cohort and therefore as similar to each other as availability permitted. The analysis begins with a comparison of the four groups before treatment, on each of the eight categories and on all categories taken together, to establish whether any statistically significant differences existed. The test used is the Kruskal-Wallis H test which is suitable for comparing scores in three or more unrelated samples (Bryman and Cramer, 1990, p.130).

Table 4.1 Time 1, Kruskal-Wallis 1-Way ANOVA, Presence of Component Skills (n = 46)

GROUP MEAN RANK CORRECTED FOR TIES								
CATEGORY	GROUP 1 (TO)	GROUP 2 (TF)	GROUP 3 (FO)	GROUP 4 (C)	CHI-SQUARE	df	SIGNIFICANCE	
C1	21.90	24.58	22.67	24.58	1.0125	3	.7982	n.s.
C2	16.75	23.50	29.13	23.50	6.9609	3	.0732	n.s.
C3	23.35	24.33	20.04	26.25	1.6758	3	.6423	n.s.
C4	28.10	17.75	23.50	25.42	4.8261	3	.1850	n.s.
C5	15.85	28.13	26.25	22.50	8.5490	3	.0359	< .05
C6	20.00	24.13	23.29	26.00	1.5490	3	.6819	n.s.
C7	25.40	22.33	26.17	20.42	2.2972	3	.5131	n.s.
C8	23.55	20.17	20.46	29.83	5.6403	3	.1305	n.s.
All	20.35	21.50	25.50	26.63	1.6827	3	.6408	n.s.

Table 4.1 indicates that:

- (i) There is no significant difference in ratings between the four groups in any category with the exception of Category C5, active listening, where inspection of the mean rank scores indicates that Group 1 (TO) has a significantly lower mean rank score at 15.85 than Groups 2 (TF), 3 (FO) and 4 (C), at 28.13, 26.25 and 22.50 respectively. That is, in the judgement of the raters Group 1 has performed less well than the other three groups in demonstrating the compound skill of active listening.
- (ii) When all categories are taken together, however, there is no significant difference in behavioural ratings between the groups at Time 1 (pre-treatment).

4.2.2 Change from Time 1 to Time 2

The next part of this analysis is concerned with establishing for each group whether there is a significant change in ratings, and if so, in which direction, for each category separately and overall, from Time 1 to Time 2.

While the data is clearly ordinal in nature, consisting of four points on a scale from "always appropriate" to "always inappropriate", the intervals between the points cannot be assumed to be equal to each other. The test used, therefore, is the Wilcoxon Matched-Pairs Signed-Ranks Test, which is suitable for use with raw data consisting of pairs of ranked scores for each subject. The results are presented in Tables 4.2 to 4.5.

**Table 4.2 Group 1 (T0), Wilcoxon Matched-Pairs Signed-Ranks
Test Comparing Presence of Component Skills at Time
1 and Time 2 (n = 10)**

CATEGORY	MEAN RANK	CASES	Z	2-TAILED P
C1	1.50 .00	2 T1 < T2 0 T1 > T2 8 ties	-1.3416	.1797 n.s.
C2	2.50 .00	4 T1 < T2 0 T1 > T2 6 ties	-1.8267	.0679 n.s.
C3	3.00 .00	5 T1 < T2 0 T1 > T2 5 ties	-2.0226	.0431 < .05
C4	2.50 2.50	2 T1 < T2 2 T1 > T2 6 ties	.0000	1.0000 n.s.
C5	2.00 2.00	2 T1 < T2 2 T1 > T2 6 ties	-.5345	.5930 n.s.
C6	2.00 3.00	2 T1 < T2 2 T1 > T2 6 ties	-.3651	.7150 n.s.
C7	1.00 2.00	1 T1 < T2 1 T1 > T2 8 ties	-.4472	.6547 n.s.
C8	3.50 3.50	3 T1 < T2 3 T1 > T2 4 ties	.0000	1.0000 n.s.
All	3.67 6.00	6 T1 < T2 1 T1 > T2 3 ties	-1.3522	.1763 n.s.

**Table 4.3 Group 2 (TF), Wilcoxon Matched-Pairs Signed-Ranks
Test Comparing Presence of Component Skills at Time
1 and Time 2 (n = 12)**

CATEGORY	MEAN RANK	CASES	Z	2-TAILED P
C1	.00 .00	0 T1 < T2 0 T1 > T2 12 ties	.0000	1.0000 n.s.
C2	1.50 .00	2 T1 < T2 0 T1 > T2 10 ties	-1.3416	.1797 n.s.
C3	2.25 1.50	2 T1 < T2 1 T1 > T2 9 ties	-.8018	.4227 n.s.
C4	3.00 .00	5 T1 < T2 0 T1 > T2 7 ties	-2.0226	.0431 p < .05
C5	2.50 2.50	1 T1 < T2 3 T1 > T2 8 ties	-.9129	.3613 n.s.
C6	1.50 .00	2 T1 < T2 0 T1 > T2 10 ties	-1.3416	.1797 n.s.
C7	2.50 2.50	2 T1 < T2 2 T1 > T2 8 ties	.0000	1.0000 n.s.
C8	3.50 3.50	5 T1 < T2 1 T1 > T2 6 ties	-1.4676	.1422 n.s.
All	4.94 5.50	8 T1 < T2 1 T1 > T2 3 ties	-2.0140	.0440 p < .05

**Table 4.4 Group 3 (FO), Wilcoxon Matched-Pairs Signed-Ranks
Test Comparing Presence of Component Skills at Time
1 and Time 2 (n = 12)**

CATEGORY	MEAN RANK	CASES	Z	2-TAILED P
C1	1.50 .00	2 T1 < T2 0 T1 > T2 10 ties	-1.3416	.1797 n.s.
C2	1.50 1.50	1 T1 < T2 1 T1 > T2 10 ties	.0000	1.0000 n.s.
C3	4.08 3.50	6 T1 < T2 1 T1 > T2 5 ties	-1.7748	.0759 n.s.
C4	3.50 3.50	4 T1 < T2 2 T1 > T2 6 ties	-.7338	.4631 n.s.
C5	2.50 3.33	2 T1 < T2 3 T1 > T2 7 ties	-.6742	.5002 n.s.
C6	4.00 4.00	3 T1 < T2 4 T1 > T2 5 ties	-.3381	.7353 n.s.
C7	2.00 2.00	1 T1 < T2 2 T1 > T2 9 ties	-.5345	.5930 n.s.
C8	4.00 4.00	4 T1 < T2 3 T1 > T2 5 ties	-.3381	.7353 n.s.
All	5.29 6.00	7 T1 < T2 3 T1 > T2 2 ties	-.9683	.3329 n.s.

**Table 4.5 Group 4 (C), Wilcoxon Matched-Pairs Signed-Ranks
Test Comparing Presence of Component Skills at Time
1 and Time 2 (n = 12)**

CATEGORY	MEAN RANK	CASES	Z	2-TAILED P
C1	1.50	1 T1 < T2	.0000	1.0000 n.s.
	1.50	1 T1 > T2		
		10 ties		
C2	3.00	3 T1 < T2	-.4045	.6858 n.s.
	3.00	2 T1 > T2		
		7 ties		
C3	3.50	3 T1 < T2	.0000	1.0000 n.s.
	3.50	3 T1 > T2		
		6 ties		
C4	3.50	3 T1 < T2	.0000	1.0000 n.s.
	3.50	3 T1 > T2		
		6 ties		
C5	3.50	3 T1 < T2	.0000	1.0000 n.s.
	3.50	3 T1 > T2		
		6 ties		
C6	3.50	1 T1 < T2	-1.4676	.1422 n.s.
	3.50	5 T1 > T2		
		6 ties		
C7	2.00	3 T1 < T2	-.3651	.7150 n.s.
	4.00	1 T1 > T2		
		8 ties		
C8	4.50	2 T1 < T2	-1.5993	.1097 n.s.
	5.14	7 T1 > T2		
		3 ties		
All	7.00	3 T1 < T2	-1.0669	.2860 n.s.
	5.63	8 T1 > T2		
		1 tie		

Tables 4.2 to 4.5 indicate that:

- (i) For Group 1 (TO), an increase in ratings from Time 1 to Time 2, significant at the .05 level, occurred for Category C3 (posture/orientation). There was no significant difference in ratings for any other category, or for all categories taken together.

(ii) For Group 2 (TF), an increase in ratings from Time 1 to Time 2, significant at the .05 level, occurred for Category C4 (gesture) and for all categories taken together.

(iii) For Group 3 (FO) there was no significant difference in ratings for any individual category or for all categories taken together.

(iv) For Group 4 (C) there was no significant difference in ratings for any individual category or for all categories taken together.

Thus Group 2 shows a greater increase in behavioural ratings overall from Time 1 to Time 2 than any other group.

4.2.3 Gender Differences

For the next part of this analysis, the groups are combined and divided into two new subgroups, female (n = 31) and male (n = 15). For each category, differences between ratings of male and female subgroups are examined at Time 1 and at Time 2, using the Mann-Whitney U Test for two unrelated samples. The results are presented in Tables 4.6 and 4.7.

Table 4.6 Mann-Whitney U Test Comparing Behavioural Ratings for Males and Females at Time 1 (n = 46)

CORRECTED FOR TIES					
CATEGORY	MEAN RANK	CASES	U	Z	2-TAILED P
C1	20.37	15 (m)	185.5	-1.8876	.0591 n.s.
	25.02	31 (f)			
C2	22.00	15 (m)	210.0	-.6460	.5183 n.s.
	24.23	31 (f)			
C3	20.87	15 (m)	193.0	-1.0321	.3020 n.s.
	24.77	31 (f)			
C4	19.67	15 (m)	175.0	-1.5554	.1198 n.s.
	25.35	31 (f)			
C5	21.00	15 (m)	195.0	-1.1220	.2619 n.s.
	24.71	31 (f)			
C6	22.33	15 (m)	215.0	-.4737	.6357 n.s.
	24.06	31 (f)			
C7	23.87	15 (m)	227.0	-.1652	.8688 n.s.
	23.32	31 (f)			
C8	21.10	15 (m)	196.5	-.9982	.3182 n.s.
	24.66	31 (f)			
All	18.07	15 (m)	151.0	-1.9479	0.514 n.s.
	26.13	31 (f)			

Table 4.7 Mann-Whitney U Test Comparing Behavioural Ratings for Males and Females at Time 2 (n = 46)

CORRECTED FOR TIES					
CATEGORY	MEAN RANK	CASES	U	Z	2-TAILED P
C1	21.43	15 (m)	201.5	-2.0560	.0398 < .05
	24.50	31 (f)			
C2	21.87	15 (m)	208.0	-.8353	.4035 n.s.
	24.29	31 (f)			
C3	20.57	15 (m)	188.5	-1.3165	.1880 n.s.
	24.92	31 (f)			
C4	23.00	15 (m)	225.0	-.2153	.8295 n.s.
	23.74	31 (f)			
C5	18.57	15 (m)	158.5	-2.1512	.0315 < .05
	25.89	31 (f)			
C6	24.20	15 (m)	222.0	-.2763	.7823 n.s.
	23.16	31 (f)			
C7	22.90	15 (m)	223.5	-.2833	.7770 n.s.
	23.79	31 (f)			
C8	16.80	15 (m)	132.0	-2.5572	.0106 < .05
	26.74	31 (f)			
All	16.07	15 (m)	121.0	-2.6571	.0079 < .01
	27.10	31 (f)			

Tables 4.6 and 4.7 indicate that:

- (i) At Time 1, there is no significant difference between the ratings of females and males on the eight separate categories, or on all categories taken together.
- (ii) At Time 2, the difference between the ratings of females and males is significant at the .05 level for Category C1 (eye contact), Category C5 (active listening), and Category C8 (questioning style). For all categories taken together at Time 2, the difference between the ratings of females and males is significant at the .01 level. Inspection of the mean rank scores indicates the direction of difference, and shows that ratings obtained by females are higher than those obtained by males, viz.:

C1 (eye contact)	Females	24.50
	Males	21.43
C5 (active listening)	Females	25.89
	Males	18.57
C8 (questioning style)	Females	26.74
	Males	16.80
All categories	Females	27.10
	Males	16.10

4.2.4 Change by Category

Finally, in considering the question of whether certain categories are more susceptible to change than others it is necessary to return to Tables 4.2 to 4.5, which present the results of comparing ratings from Time 1 to Time 2 for each category. It can be seen that a significant increase in ratings occurs in the following categories:

- (i) C3 posture/orientation for Group 1 (TO); inspection of the mean raw scores (Appendix 10) shows an increase from 3.4000 to 3.9000.
- (ii) C4 gesture for Group 2 (TF); inspection of the mean raw scores (Appendix 10) shows an increase from 3.2500 to 3.6667.

4.3 Self-Report Measures

Four self-report measures were used, described in detail in Chapter 3; these were the Rotter I-E Scale, the Social Situations Questionnaire, the PONS (Profile of Non-verbal Sensitivity Test), and a Repertory Test. The following section is concerned with the analysis of scores from the first three measures only; the fourth measure is discussed in a separate section.

Each of the three measures generates a single raw score. For the Rotter I-E Scale, scores can be in the range 23 to 46 (the actual range for this sample was 24 to 45); the lower the score, the more "internal" the subject's locus of control, while a higher score indicates greater "externality". For the Social Situations Questionnaire the range is, theoretically, 0 to 168 (the actual range for this sample was 5 to 75), where a higher score represents greater anxiety in social situations. For the PONS Test the range is 0 to 40 (the actual range for this sample was 22 to 35) where higher score represents greater sensitivity to non-verbal cues in communication. For this test two further scores are analysed; these are the number of errors attributable to "body" items and "face" items respectively.

4.3.1 One-way Analysis of Variance

The first stage of analysis was to establish the variance between groups for each measure, at Time 1 and at Time 2, using one-way analysis of variance. The results are presented in Tables 4.8 to 4.17. Where a significant difference between groups is found, the Scheffe Test (Youngman, 1979, p.83) is applied in order to locate the difference.

Table 4.8 Time 1, ANOVA, Rotter I-E Scale (n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	3	230.8958	76.9753
Within	44	701.0833	15.9337
Total	47	931.9792	

F = 4.8303

p = .0054

significant at < .01 level

The mean scores for the four groups are as follows:

Group 1 (TO)	34.7500
Group 2 (TF)	35.5833
Group 3 (FO)	32.7500
Group 4 (C)	38.8333

The Scheffe Test with significance level .05 applied to the means indicates that scores for Group 4 at 38.8333 are significantly greater than scores for Group 3 at 32.7500.

**Table 4.9 Time 1, ANOVA, Social Situations Questionnaire
(n = 48)**

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	3	2020.5625	673.5208
Within	44	9897.4167	224.9413
Total	47	11917.9792	

F = 2.9942 p = .0408 significant at < .05 level

The mean scores for the four groups are as follows:

Group 1 (TO)	29.2500
Group 2 (TF)	30.2500
Group 3 (FO)	27.9167
Group 4 (C)	44.0000

The Scheffe test with significance level .05 applied to the means shows no significant difference; this test is, however, described by Youngman and by Bryman and Cramer (1990, p.141) as the most conservative of the post hoc tests of significance, since it compares all possible arrangements. This suggests that it is therefore appropriate to interpret at significance level $p < 0.1$. Inspection of the means indicates that the greatest

difference is between Group 4 (C) at 44.0000 and Group 3 (FO) at 27.9167.

Table 4.10 Time 1, ANOVA, PONS Test (n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	3	18.7500	6.2500
Within	44	495.1667	11.2538
Total	47	513.9167	

F = .5554 p = .6473 not significant

Table 4.11 Time 1, ANOVA, PONS Test - Body Errors (n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	3	18.0833	6.0278
Within	44	189.1667	4.2992
Total	47	207.25500	

F = 1.4021 p = .2549 not significant

Table 4.12 Time 1, ANOVA, PONS Test - Face Errors (n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	3	13.0625	4.3542
Within	44	188.9167	4.2936
Total	47	201.9792	

F = 1.0141 p = .3955 not significant

Table 4.13 Time 2, ANOVA, Rotter I-E Scale (n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	3	346.5625	115.5208
Within	44	945.9167	21.4981
Total	47	1292.4792	

F = 5.3735 p = .0031 significant at < .01 level

The mean scores for the four groups are as follows:

Group 1 (TO)	35.0000
Group 2 (TF)	33.2500
Group 3 (FO)	31.8333
Group 4 (C)	39.0000

Application of the Scheffe Test with significance level .05 to the means indicates that scores for Group 4 (C), 39.0000, are significantly greater than for Group 3 (FO) and Group 2 (TF), at 31.8333 and 33.2500 respectively.

Table 4.14 Time 2, ANOVA, Social Situations Questionnaire
(n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	3	1761.0625	587.0208
Within	44	9748.9167	221.5663
Total	47	11509.9792	

F = 2.6494 p = .0605 not significant

Table 4.15 Time 2, ANOVA, PONS Test (n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	3	23.4167	7.8056
Within	44	377.8333	8.5871
Total	47	401.2500	

F = .9090 p = .4444 not significant

Table 4.16 Time 2, ANOVA, PONS Test - Body Errors (n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	3	4.0625	1.3542
Within	44	129.2500	2.9375
Total	47	133.3125	

F = .4610 p = .7109 not significant

Table 4.17 Time 2, ANOVA, PONS Test - Face Errors (n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	3	10.5000	3.5000
Within	44	162.1667	3.6856
Total	47	172.6667	

F = .9496 p = .4249 not significant

Tables 4.8 to 4.17 indicate the following:

- (i) At Time 1, scores on the Rotter I-E Scale for Group 4 (C) were significantly higher, i.e. demonstrating greater externality, than scores for Group 3 (FO).
- (ii) There were no significant differences between pairs of groups for any other measure at Time 1.
- (iii) At Time 2, scores on the Rotter I-E Scale for Group 4 (C) were significantly higher, i.e. demonstrating greater externality, than scores for Group 3 (FO) and Group 2 (TF).
- (iv) There were no significant differences between groups for any other measure at Time 2.

In the next stage of the analysis, the extent to which the predicted score at Time 2 differs from the actual score at Time 2 is established, using residual scores computed from multiple regression procedure in SPSS for Microsoft® Windows™ 6.0. The results for each measure, for all groups taken together, are presented in Tables 4.18 to 4.20.

Table 4.18 ANOVA, Time 1 to Time 2, Rotter I-E Scale (n = 48)

	df	SUM OF SQUARES	MEAN SQUARE
Regression	1	875.44682	875.44682
Residual	46	417.03235	9.06592

F = 96.56458 not significant

Table 4.19 ANOVA, Time 1 to Time 2, Social Situations Questionnaire (n = 48)

	df	SUM OF SQUARES	MEAN SQUARE
Regression	1	8265.88585	8265.88585
Residual	46	3244.09332	70.52377

F = 117.20709 not significant

Table 4.20 ANOVA, Time 1 to Time 2, PONS Test (n = 48)

	df	SUM OF SQUARES	MEAN SQUARE
Regression	1	65.34243	65.34243
Residual	46	335.90757	7.30234

F = 8.94815 significance < .01

Tables 4.18 to 4.20 indicate that, for the PONS test only, the mean of the actual Time 2 scores at 27.8750 is significantly greater than the mean of the predicted Time 2 scores.

Finally, application of the procedure for standardised residuals provides an indication of actual change relative to predicted change for each measure, for each group. Results are presented in Tables 4.21 to 4.23 below.

Table 4.21 ANOVA, Residuals, Rotter I-E Scale (n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	3	6.0208	2.0069
Within	44	39.9792	.9086
Total	47	46.0000	

F = 2.2088 p = .1005 not significant

Table 4.22 ANOVA, Residuals, Social Situations Questionnaire (n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	3	11.4149	3.8050
Within	44	34.5851	.7860
Total	47	46.0000	

F = 4.8408 p = .0054 significance < .01

The mean scores for the four groups are as follows:

Group 1 (TO)	.8362
Group 2 (TF)	.3744
Group 3 (FO)	.2819
Group 4 (C)	.1800

Inspection of the means reveals that the score for Group 1 (TO) is higher than predicted (i.e. more anxiety), whereas scores for Groups 2 (TF), 3 (FO) and 4 (C) are lower than predicted (i.e. less anxiety).

Table 4.23 ANOVA, Residuals, PONS Test (n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	3	4.6563	1.5521
Within	44	41.3437	.9396
Total	47	46.0000	

F = 1.6518 p = .1912 not significant

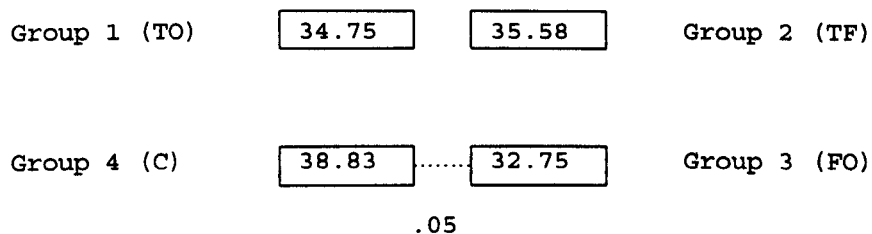
4.3.2 Two-way Analysis of Variance

The writer has used a mixed between-within design where dependent variables are measured before and after treatment, making it possible to discern whether any change has taken place as a result of the treatment and whether the extent of change is greater for one group than for another. Since, however, two independent variables (training and feedback) are introduced, it is important to explore the interaction effect, which occurs when the effect of one variable is not the same under all conditions of the other variable. Where a significant interaction effect is found it is necessary to be more cautious about any significant main effect of an independent variable. The interaction effect was therefore measured using a two-way analysis of variance. The results are presented in Tables 4.24 to 4.33.

Table 4.24 Time 1, 2-way ANOVA, Rotter I-E Scale (n = 48)

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
MAIN EFFECTS	43.688	2	2.742	.075
TRAINING	4.688	1	.294	.590
FEEDBACK	82.688	1	5.189	.028
2-WAY INTERACTIONS TRAINING/ FEEDBACK	143.521	1	9.007	.004
TOTAL	19.829	47		

The interaction effect is significant at $< .01$; the means and significant differences are presented below:



The main effect of feedback is significant at $< .05$. Inspection of the means reveals that groups who receive feedback on the pre-treatment assessment obtain lower scores than groups who do not receive feedback (34.1667 compared with 36.7917), demonstrating greater internality. However, the interaction effect indicates that the main effect applies only to the Feedback Only Group compared with the Control Group.

**Table 4.25 Time 1, 2-way ANOVA, Social Situations Questionnaire
(n = 48)**

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
MAIN EFFECTS	572.521	2	2.545	.09
TRAINING	462.521	1	2.056	.159 n.s.
FEEDBACK	682.521	1	3.034	.089 n.s.
2-WAY INTERACTIONS TRAINING/FEEDBACK	875.521	1	3.892	.055 n.s.
TOTAL	253.574	47		

Table 4.26 Time 1, 2-way ANOVA, PONS Test (n = 48)

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
MAIN EFFECTS	6.000	2	.533	.590 n.s.
TRAINING	.000	1	.000	1.000 n.s.
FEEDBACK	12.000	1	1.066	.307 n.s.
2-WAY INTERACTIONS	6.750	1	.600	.433 n.s.
TOTAL	10.934	47		

**Table 4.27 Time 1, 2-way ANOVA, PONS Test - Body Errors
(n = 48)**

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
MAIN EFFECTS	5.667	2	1.318	.278 n.s.
TRAINING	8.333	1	1.938	.171 n.s.
FEEDBACK	3.000	1	.698	.217 n.s.
2-WAY INTERACTIONS	6.750	1	6.750	.255 n.s.
TOTAL	4.410	47		

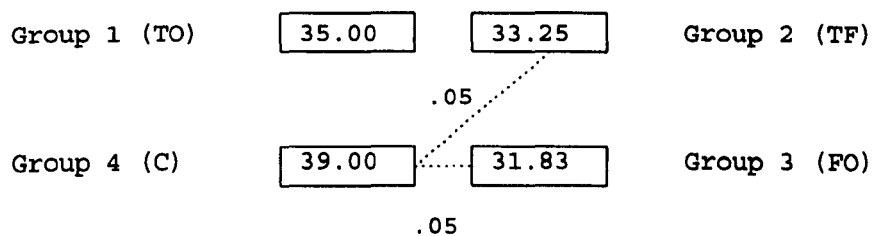
**Table 4.28 Time 1, 2-way ANOVA, PONS Test - Face Errors
(n = 48)**

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
MAIN EFFECTS	4.771	2	1.111	.338 n.s.
TRAINING	6.021	1	1.402	.243 n.s.
FEEDBACK	3.521	1	.820	.370 n.s.
2-WAY INTERACTIONS	3.521	1	.820	.370 n.s.
TOTAL	4.297	47		

Table 4.29 Time 2, 2-way ANOVA, Rotter I-E Scale (n = 48)

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
MAIN EFFECTS	129.271	2	6.013	.005
TRAINING	20.021	1	.931	.340 n.s.
FEEDBACK	238.521	1	11.095	.002
2-WAY INTERACTIONS	88.021	1	4.094	.049
TOTAL	27.500			

The interaction effect is significant at the $< .05$ level; the means and significant differences are presented below:



The main effect of feedback is significant. Inspection of the means reveals that groups who receive feedback obtain lower scores on the post-treatment assessment than groups who do not receive feedback (32.54 compared with 37.00), thus demonstrating greater internality. The interaction effect indicates that the main effect applies only to the Feedback Only and Training plus Feedback Groups compared with the Control Group.

Table 4.30 Time 2, 2-way ANOVA, Social Situations Questionnaire (n = 48)

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
MAIN EFFECTS	844.271	2	3.810	.03
TRAINING	20.021	1	.090	.765 n.s.
FEEDBACK	1668.521	1	7.531	.009
2-WAY INTERACTIONS	72.521	1	72.521	.570
TOTAL	244.893	47		

While there is no significant interaction effect, the main effect of feedback is significant. Inspection of the means reveals that the groups receiving feedback obtain lower scores on the post-treatment assessment than the groups which do not (22.58 compared with 34.37), thus demonstrating a lower level of anxiety in social situations.

Table 4.31 Time 2, 2-way ANOVA, PONS Test (n = 48)

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
MAIN EFFECTS	10.208	2	1.189	.314 n.s.
TRAINING	16.333	1	1.902	.175 n.s.
FEEDBACK	4.083	1	.476	.494 n.s.
2-WAY INTERACTIONS	3.000	1	.349	.557
TOTAL	8.537			

Table 4.32 Time 2, 2-way ANOVA, PONS Test - Body Errors (n = 48)

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
MAIN EFFECTS	1.771	2	.603	.552 n.s.
TRAINING	3.521	1	1.199	.280 n.s.
FEEDBACK	.021	1	.007	.933 n.s.
2-WAY INTERACTIONS	.521	1	.177	.676 n.s.
TOTAL	2.836			

Table 4.33 Time 2, 2-way ANOVA, PONS Test - Face Errors (n = 48)

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
MAIN EFFECTS	5.208	2	1.413	.254 n.s.
TRAINING	8.333	1	2.261	.140 n.s.
FEEDBACK	2.083	1	.565	.456 n.s.
2-WAY INTERACTIONS	.083	1	.023	.881 n.s.
TOTAL	3.674			

In summary, the results of a two-way analysis of variance measuring the interaction of training and feedback indicated the following:

- (i) There is a significant difference in scores at Time 1 on the Rotter I-E Scale between Group 3 (FO) and Group 4 (C), where Group 3 (FO) scores indicate greater internality.
- (ii) There is a significant difference in scores at Time 2 on the Rotter I-E Scale between Group 2 (TF) and Group 4 (C) and between Group 3 (FO) and Group 4 (C), where Group 2 (TF) and Group 3 (FO) demonstrate greater internality.

4.3.3 Three-way Analysis of Variance

In order to assess the effect of the independent variables (training and feedback) on the dependent variables (the three self-report measures) before and after treatment, a three-way analysis of variance was applied to the data. The results are presented in Tables 4.34 to 4.40.

Table 4.34 3-way ANOVA, Rotter I-E Scale (n = 48)

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
TIME	12.04	1	2.90	.096 n.s.
TRAINING x TIME	2.67	1	.64	.427 n.s.
FEEDBACK x TIME	20.17	1	4.86	.033
TRAINING x FEEDBACK	3.38	1	.81	.372 N.S.

These results indicate that the effect of feedback is significant from Time 1 to Time 2 ($p < .05$). Inspection of the means reveals that groups who receive feedback obtain lower scores, i.e. display greater internality, on the post-treatment assessment than groups who do not receive feedback (mean 32.54 compared with 37.00).

Table 4.35 3-way ANOVA, Social Situations Questionnaire (n = 48)

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
TIME	459.38	1	15.39	.000
TRAINING x TIME	145.04	1	4.86	.033
FEEDBACK x TIME	108.38	1	3.63	.063 n.s.
TRAINING x FEEDBACK	222.04	1	7.44	.009

These results indicate that scores at Time 2 are significantly different from scores at Time 1 for all groups taken together ($p < .01$), for groups who receive training ($p < .05$) and for groups who receive training and feedback ($p < .01$). Inspection of the means (Table 4.36) reveals that in each case the direction of difference shows a decrease in scores from Time 1 to Time 2, indicating a reduction in level of social anxiety.

Table 4.36 Social Situations Questionnaire, Mean Scores by Group at Time 1 and Time 2 (n = 48)

GROUP	TIME 1	TIME 2
1 (TO)	29.2500	32.5000
2 (TF)	30.2500	23.1667
3 (FO)	27.9167	22.0000
4 (C)	44.0000	36.2500
1 + 2 (TRAINING)	29.7500	27.8333
2 + 3 (FEEDBACK)	29.0833	27.5833
TOTAL ALL GROUPS	32.8542	28.4792

Table 4.37 3-way ANOVA, PONS Test (n = 48)

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
TIME	16.67	1	3.03	.089 n.s.
TRAINING x TIME	8.17	1	1.49	.229 n.s.
FEEDBACK x TIME	15.04	1	2.74	.105 n.s.
TRAINING x FEEDBACK	9.38	1	1.71	.198 n.s.

Table 4.38 3-way ANOVA, PONS Test - Body Errors (n = 48)

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
TIME	7.59	1	3.38	.073 n.s.
TRAINING x TIME	11.34	1	5.05	.030
FEEDBACK x TIME	1.26	1	.56	.458 n.s.
TRAINING x FEEDBACK	5.51	1	2.45	.124 n.s.

These results indicate that the effect of training is significant from Time 1 to Time 2 ($p < .05$). Inspection of the means (Table 4.39) reveals that groups who receive training make more errors at Time 2 than groups who do not receive training (6.46 compared with 5.21).

Table 4.39 PONS Test - Body Errors, Mean Scores by Group at Time 1 and Time 2 (n = 48)

GROUP	TIME 1	TIME 2
1 (TO)	5.3333	6.3333
2 (TF)	5.0833	6.5833
3 (FO)	6.6667	5.8333
4 (C)	5.4167	6.0000
1 + 2 (TRAINING)	5.2083	6.4583
2 + 3 (FEEDBACK)	5.8750	6.2083
TOTAL ALL GROUPS	5.6250	6.1875

Table 4.40 3-way ANOVA, PONS Test - Face Errors (n = 48)

SOURCE OF VARIATION	MEAN SQUARE	df	F	SIGNIFICANCE
TIME	3.01	1	1.42	.239 n.s.
TRAINING x TIME	.09	1	.04	.834 n.s.
FEEDBACK x TIME	.09	1	.04	.444 n.s.
TRAINING x FEEDBACK	1.26	1	.60	.444 n.s.

In summary, the results of a three-way analysis of variance measuring the interaction of training, feedback and time indicated the following:

- (i) For the Rotter I-E Scale, the effect of feedback is significant from Time 1 to Time 2, in the direction predicted by the first research hypothesis, i.e. greater internality.
- (ii) For the Social Situations Questionnaire, the effect of training, and of training plus feedback is significant from Time 1 to Time 2 in the direction predicted by the first research hypothesis, i.e. reduction in social anxiety. However, since a significant change in scores occurred for all groups taken together, it is necessary to take into account

the results of the t-tests presented in the following section for a group-by-group analysis of changes from Time 1 to Time 2.

- (iii) For the PONS Test - Body Errors measure, the effect of training is significant from Time 1 to Time 2, but in the opposite direction to that predicted by the research hypothesis, i.e. at Time 2 more errors are made by groups who have received training than by groups who have not.

4.3.4 T-tests

For the next part of the data analysis, one-tailed t-tests for paired samples are applied in order to establish whether there is any significant change in scores from Time 1 to Time 2. One-tailed tests are appropriate because there is an expectation, stated in the first research hypothesis, that change, if it occurs, will be in one direction. For the Rotter I-E Scale and the Social Situations Questionnaire, scores are expected to **decrease** from Time 1 to Time 2. For the PONS Test, scores are expected to **increase** from Time 1 to Time 2, and the number of errors is expected to **decrease** from Time 1 to Time 2.

In Tables 4.41 to 4.60 which follow, t-tests are applied to each group, for each measure.

Table 4.41 Group 1 (TO), t-test for Paired Samples, Rotter I-E Scale (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	34.7500	4.938	.42	11	.681 n.s.
TIME 2	35.0000	4.431			

Table 4.42 Group 1 (TO), t-test for Paired Samples, Social Situations Questionnaire (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	29.2500	21.889	1.61	11	.136 n.s.
TIME 2	32.5000	19.686			

Table 4.43 Group 1 (TO), t-test for Paired Samples, PONS Test (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	28.8333	3.563	-1.51	11	.159 n.s.
TIME 2	27.2500	4.115			

Table 4.44 Group 1 (TO), t-test for Paired Samples, PONS Test - Face Errors (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	5.8333	2.125	.89	11	.393 n.s.
TIME 2	6.4167	2.134			

Table 4.45 Group 1 (TO), t-test for Paired Samples, PONS Test - Body Errors (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	5.3333	1.826	1.62	11	.132 n.s.
TIME 2	6.3333	2.060			

Table 4.46 Group 2 (TF), t-test for Paired Samples, Rotter I-E Scale (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	35.5833	3.704	-2.04	11	.066 < .05
TIME 2	33.2500	4.731			

Inspection of the means indicates that the direction of change is consistent with the first research hypothesis.

Table 4.47 Group 2 (TF), t-test for Paired Samples, Social Situations Questionnaire (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	30.2500	10.906	-3.02	11	.12 < .05
TIME 2	23.1667	13.550			

Inspection of the means indicates that the direction of change is consistent with the first research hypothesis.

Table 4.48 Group 2 (TF), t-test for Paired Samples, PONS Test (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	28.5833	3.423	-1.53	11	.155 n.s.
TIME 2	27.3333	2.229			

Table 4.49 Group 2 (TF), t-test for Paired Samples, PONS Test - Face Errors (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	5.833	2.125	.52	11	.612 n.s.
TIME 2	6.0833	2.065			

Table 4.50 Group 2 (TF), t-test for Paired Samples, PONS Test - Body Errors (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	5.0833	1.730	3.10	11	.010 n.s.
TIME 2	6.5833	1.379			

(Direction of change not consistent with first research hypothesis.)

Table 4.51 Group 3 (FO), t-test for Paired Samples, Rotter I-E Scale (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	32.7500	3.621	-.96	11	.359 n.s.
TIME 2	31.8333	5.237			

Table 4.52 Group 3 (FO), t-test for Paired Samples, Social Situations Questionnaire (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	27.9167	9.150	-2.91	11	.014 < .05
TIME 2	22.0000	8.954			

Inspection of the means indicates that the direction of change is consistent with the first research hypothesis.

Table 4.53 Group 3 (FO), t-test for Paired Samples, PONS Test (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	27.8333	3.243	1.17	11	.267 n.s.
TIME 2	29.0000	2.000			

Table 4.54 Group 3 (FO), t-test for Paired Samples, PONS Test - Face Errors (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	4.5833	1.564	1.07	11	.306 n.s.
TIME 2	5.1667	1.467			

Table 4.55 Group 3 (FO), t-test for Paired Samples, PONS Test - Body Errors (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	6.6667	2.871	-1.10	11	.295 n.s.
TIME 2	5.8333	1.115			

Table 4.56 Group 4 (C), t-test for Paired Samples, Rotter I-E Scale (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	38.8333	3.538	.38	11	.713 n.s.
TIME 2	39.0000	4.068			

Table 4.57 Group 4 (C), t-test for Paired Samples, Social Situations Questionnaire (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	44.0000	14.765	-3.12	11	.010 < .01
TIME 2	36.2500	15.327			

Inspection of the means indicates that the direction of change is consistent with the first research hypothesis.

Table 4.58 Group 4 (C), t-test for Paired Samples, PONS Test (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	29.5833	3.175	-1.76	11	.107 n.s.
TIME 2	27.9167	2.9167			

Table 4.59 Group 4 (C), t-test for Paired Samples, PONS Test - Face Errors (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	5.6667	2.387	.00	11	1.00 n.s.
TIME 2	5.6667	1.723			

Table 4.60 Group 4 (C), t-test for Paired Samples, PONS Test - Body Errors (n = 12)

	MEAN	SD	t	df	SIGNIFICANCE
TIME 1	5.4167	1.621	1.05	11	.317 n.s.
TIME 2	6.0000	2.089			

Tables 4.39 to 4.60 indicate that, when each group is taken separately:

- (i) For Group 1 (TO), there were no significant changes in mean scores for any measure from Time 1 to Time 2.

- (ii) For Group 2 (TF):

for the Rotter I-E Scale, mean scores at Time 2 (33.2500) are significantly lower than at Time 1 (35.5833), indicating a movement towards greater

internality, consistent with the first research hypothesis;

for the Social Situations Questionnaire, mean scores at Time 2 (23.1667) are significantly lower than at Time 1 (30.2500) indicating a reduction in anxiety in social situations, consistent with the first research hypothesis.

(iii) For Group 3 (FO), in the Social Situations Questionnaire, mean scores at Time 2 (22.0000) are significantly lower than at Time 1 (27.9167), indicating a reduction in anxiety in social situations, consistent with the first research hypothesis.

(iv) For Group 4, in the Social Situations Questionnaire, mean scores at Time 2 (36.2500) are significantly lower than at Time 1 (44.0000), indicating a reduction in anxiety in social situations, consistent with the first research hypothesis.

4.3.5 Correlation Between Scores at Time 1 and Time 2

The correlation coefficients for each measure at Time 1 and Time 2 are presented in Table 4.59 below.

Table 4.61 Correlation Between Scores at Time 1 and Time 2

TIME 1	TIME 2				
	ROTTER I-E SCALE	SOCIAL SITUATIONS QUESTIONNAIRE	PONS TEST	PONS TEST - BODY ERRORS	PONS TEST - FACE ERRORS
ROTTER I-E SCALE	.9287 P = .000 *				
SOCIAL SITUATIONS QUESTIONNAIRE		.8372 P = .001 *			
PONS TEST			.4195 P = .175		
PONS TEST - BODY ERRORS				.4831 P = .112	
PONS TEST - FACE ERRORS					.3905 P = .210

From this table it can be seen that for the Rotter I-E Scale and the Social Situations Questionnaire there is a strong positive correlation between scores at Time 1 and scores at Time 2, for all groups taken together.

4.4 Effect of Gender

In the next part of the analysis the effect of **gender** on scores obtained on the measures will be examined. Females and males in each of the four groups will be combined to form two new subgroups, Group 1(m) (n = 16) and Group 2(f) (n = 32). One-way analysis of variance will be used to establish the variance between groups, for each measure, at Time 1 and Time 2. The results are presented in Tables 4.62 to 4.71.

Table 4.62 Time 1, ANOVA, Rotter I-E Scale (n = 48)

GROUP	MEAN	SD	
1 (m)	34.8125	5.7297	
2 (f)	35.8125	3.7195	
SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	1	10.6667	10.6667
Within	46	921.3125	20.0285
Total	47	931.9792	

F = .5326 p = .4692 not significant

Table 4.63 Time 1, ANOVA, Social Situations Questionnaire (n = 48)

GROUP	MEAN	SD	
1 (m)	33.5625	17.0566	
2 (f)	32.5000	15.5978	
SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	1	12.0417	12.0417
Within	46	11905.9792	258.8247
Total	47	11917.9792	

F = .0465 p = .8302 not significant

Table 4.64 Time 1, ANOVA, PONS Test (n = 48)

GROUP	MEAN	SD	
1 (m)	27.4375	2.7072	
2 (f)	29.3438	3.4324	
SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	1	38.7604	38.7604
Within	46	475.1563	10.3295
Total	47	513.9167	

F = 3.7524 p = .0589 not significant

Table 4.65 Time 1, ANOVA, PONS Test - Face Errors (n = 48)

GROUP	MEAN	SD	
1 (m)	6.5000	1.9322	
2 (f)	4.9688	1.9754	
SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	1	25.0104	25.0104
Within	46	176.9688	3.8471
Total	47	201.9792	

F = 6.5010 p = .0142 significance < .05

Mean scores: Group 1 (m) 6.5000

 Group 2 (f) 4.9688

Table 4.66 Time 1, ANOVA, PONS Test - Body Errors (n = 48)

GROUP	MEAN	SD	
1 (m)	6.0625	2.1125	
2 (f)	5.4063	2.0924	
SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	1	4.5938	4.5938
Within	46	202.6563	4.4056
Total	47	207.2500	

F = 1.0427 p = .3125 not significant

Table 4.67 Time 2, ANOVA, Rotter I-E Scale (n = 48)

GROUP	MEAN	SD	
1 (m)	32.9375	6.1478	
2 (f)	35.6875	4.5610	
SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	1	80.6667	80.6667
Within	46	1211.8125	26.3438
Total	47	1292.4792	

F = 3.0621 p = .0868 not significant

**Table 4.68 Time 2, ANOVA, Social Situations Questionnaire
(n = 48)**

GROUP	MEAN	SD	
1 (m)	27.7500	17.3340	
2 (f)	28.8438	15.0164	
SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	1	12.7604	12.7604
Within	46	11497.2188	249.9395
Total	47	11509.9792	

F = .0511 p = .8222 not significant

Table 4.69 Time 2, ANOVA, PONS Test (n = 48)

GROUP	MEAN	SD	
1 (m)	27.2500	2.6957	
2 (f)	28.1875	3.0208	
SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	1	9.3750	9.3750
Within	46	391.8750	8.5190
Total	47	401.2500	

F = 1.1005 p = .2996 not significant

Table 4.70 Time 2, ANOVA, PONS Test - Face Errors (n = 48)

GROUP	MEAN	SD	
1 (m)	6.6875	1.7405	
2 (f)	5.4063	1.8813	
SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	1	17.5104	17.5104
Within	46	155.1563	3.3730
Total	47	172.6667	

$F = 5.1914$ $p = .0274$ significance $< .05$

Mean scores: Group 1 (m) 6.6875

Group 2 (f) 5.4063

Table 4.71 Time 2, ANOVA, PONS Test - Body Errors (n = 48)

GROUP	MEAN	SD	
1 (m)	6.0625	1.3401	
2 (f)	6.2500	1.8491	
SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	1	.3750	.3750
Within	46	132.9375	2.8899
Total	47	133.3125	

F = .1298

p = .7203

not significant

Tables 4.62 to 4.71 indicate that:

(i) At Time 1,

- a) there is no significant difference between the scores of females and males on any of the three measures; however
- b) in the PONS test there is a significant difference, consistent with the second research hypothesis, between females and males in the number of errors based on "face" cues: females make significantly fewer errors of this type than males (mean score 4.9688 compared with 6.5000).

(ii) at Time 2,

- a) in the Rotter I-E Scale, females obtain significantly higher scores than males (mean score 35.6875 compared with 32.9375), indicating greater externality, and

b) in the PONS test, there is a significant difference between females and males in the number of errors based on "face" cues: females make significantly fewer errors of this type than males (mean score 5.4063 compared with 6.6875).

These results are consistent with the second research hypothesis.

Finally, for each measure, one-way analysis of variance was applied to the standardised residuals in order to assess changes in scores relative to the initial positions. The results are presented in Tables 4.72 to 4.74 below.

Table 4.72 Time 2, ANOVA, Residuals, Rotter I-E Scale (n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	1	3.7312	3.7312
Within	46	42.2688	
Total	47	46.0000	

F = 4.0606 p = .0498 significance < .05

Mean scores:

Group 1 (m)	-.3943
Group 2 (f)	.1971
Total	.0000

Inspection of the means reveals that the extent of change in Group 1(m) is significantly greater than in Group 2(f); the direction of change shows that the scores for Group 1(m) are lower than expected, i.e. displaying greater internality.

Table 4.73 Time 2, ANOVA, Residuals, Social Situations Questionnaire (n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	1	.5921	.5921
Within	46	45.4079	.9871
Total	47	46.0000	

F = .5998 p = .4426 not significant

Table 4.74 Time 2, ANOVA, Residuals, PONS Test (n = 48)

SOURCE	df	SUM OF SQUARES	MEAN SQUARES
Between	1	.0971	.0971
Within	46	45.9029	.9979
Total	47	46.0000	

F = .0973 p = .7565 not significant

Tables 4.72 to 4.74 indicate that, for the Rotter I-E Scale only, the extent of change from Time 1 to Time 2 is significantly greater for Group 1(m) than for Group 2(f), and that scores for Group 1(m) at Time 2 are lower than expected.

4.5 Analysis of Repertory Grids

The rationale for the use of repertory grids has been discussed in an earlier chapter; it may be helpful briefly to restate the methodology.

All participants (n = 48) were provided with a list of twenty role titles (elements) and were presented with a list of twelve randomly generated triadic combinations of these elements. They were asked: "In terms of their interpersonal communication, in

what important way are two of these people alike and, at the same time, essentially different from the third? What is the opposite of this characteristic?" This process was carried out twice, at Time 1 and at Time 2.

Next, a subsample of 20 participants was formed, five selected at random from each of the experimental groups. Each participant was given a blank grid in which the role titles (elements) and the constructs which he/she had generated at Time 2 were provided. They were asked to rank order the elements for each construct generated at Time 2., assigning Rank 1 to the element most related to the construct, and so on to Rank 12. Ties were permitted. Two grids were discarded; one was incorrectly completed and the other had used the same construct six times. The subsample (n = 18) then consisted of five participants from Group 1 (4f, 1m), five from Group 2 (3f, 2m), four participants from Group 3 (2f, 2m) and four from Group 4 (3f, 1m).

The analysis of the data contained both qualitative and quantitative methods. Methods of analysing grid data are described by, among others, Stewart et al.(1981), and three of the methods they identify are used here: frequency count analysis, content analysis and principal component analysis.

The theoretical basis of repertory grid technique emphasises the uniqueness of the construct system to the individual, and while it is necessary to be cautious in drawing conclusions from

apparent similarities between people, the first two of these methods have been chosen because they are used more often on groups than on data taken from single subjects.

For the whole sample, frequency counts were applied to the construct lists in order to identify commonly occurring constructs and to look for consistency in defining the contrast. Then a content analysis was performed in order to examine the extent to which the constructs could be categorised into groups.

For the subsample, the repertory grids were subjected to the INGRID program of principal component analysis (Slater, 1964) which enables both the content of the grid and the interrelationships between the elements, constructs and contrasts to be examined. (It should be noted that the INGRID program makes an implicit assumption that the rankings assigned in the grid are equal-interval in character, an assumption challenged by Yorke, 1983.) For each participant, the program extracts the two main independent dimensions which between them account for most of the variance among the elements and constructs. Appendix 11 indicates, for the sample in this study, the percentage of variance accounted for by the first and second principal components. If a graph is plotted using the first principal component as the horizontal axis and the second principal component as the vertical axis, elements and/or constructs can be plotted against these axes. In this case, graphs for each member of the subsample were plotted which included elements, constructs and contrasts. The interpretation

of this output typically involves looking at the relative positions of the elements and/or constructs. Since the primary focus in this research was to examine themes and patterns within and across groups in the way in which interpersonal communication is perceived, interpretation was confined to constructs and contrasts. It is recognised, however, that consideration of both elements and constructs would be a central feature of interpretation and discussion of grids with individual participants. The potential for such discussion is explored in Chapter 5.

The inclusion of contrasts as well as constructs in the grids was deliberate. Bannister and Fransella (1977) urge caution in making inferences about the opposites of constructs. Research by Epting (1971), cited by Bannister and Fransella, found that the method of eliciting the opposite used in this study i.e. "what is the opposite (of the stated likeness between two elements)?" produces more explicit bipolarity than the alternative method, i.e. "how is the third element different from the other two?"

4.5.1 Repertory Lists

In the next section the outcomes from the scrutiny of the repertory lists (reproduced in full in Appendix 12) are discussed.

4.5.1.1 Frequency of Occurrence of Constructs

From a maximum possible number of 1,158 constructs, (this number assumes that the participants offer different constructs at Time 1 and Time 2), 270 separate constructs were identified and listed, and frequency of occurrence at Time 1, Time 2 and in total was recorded (please refer to Appendix 13). 27 constructs occurred 10 times or more. They are presented, in descending order of frequency, in the following table.

Table 4.75 Most Frequently Occurring Constructs

Construct	Time 1	Time 2	Total
friendly	26	32	58
closed	30	20	50
approachable	13	22	35
confident	12	18	30
humorous	13	11	24
extrovert	11	12	23
uncommunicative	18	5	23
doesn't listen	9	12	21
articulate	8	12	20
interesting	10	10	20
relaxed	8	12	20
cold	8	11	19
easy going	10	9	19
quiet	6	12	18
aggressive	9	7	16

Construct	Time 1	Time 2	Total
chatty	8	8	16
talkative	11	5	16
caring	8	7	15
interested	10	4	14
domineering	4	10	14
clear speech	5	8	13
helpful	6	7	13
shy	5	7	12
sincere	6	5	11
encouraging	3	7	10
honest	3	7	10
thoughtful	3	7	10

27 constructs (10%) are elicited at least 10 times altogether.

11 constructs (4%) are elicited at least 20 times altogether.

130 constructs (48%) are elicited only once altogether.

4.5.1.2 Consistency in Naming of Contrasts

The eleven most commonly occurring constructs were examined and the contrasts listed (Appendix 14). Inspection of the lists suggests variable consistency in naming contrasts; two illustrative examples are given below. In the first example twelve different terms are offered in 35 cases; in the second example, five terms are offered in 20 cases.

Table 4.76 Consistency in Naming of Constructs

Construct	Contrast
approachable	defensive distant unapproachable opinionated overpowering stand-offish difficult to talk to selfish closed reserved unfriendly superior
relaxed	tense unrelaxed stressed uptight nervous

4.5.1.3 Content Analysis of Constructs

in reporting this aspect of the data, it may be useful to restate the question put to the participants to elicit the constructs from the elements: "In terms of their interpersonal

communication, in what important way are two of these three people alike and at the same time different from the third?"

Inspection of the lists suggests that constructs can be divided into three categories:

- (i) behavioural, i.e. words/phrases which describe overt communicative behaviours, for example "mumbles", "direct eye contact" (note that constructs in this category, although describing overt behaviour, may still include an element of subjectivity);
- (ii) inferred, i.e. words/phrases which represent a conclusion which has been reached about an aspect of interpersonal communication, for example "closed", "friendly";
- (iii) more generalised personality characteristics which are likely to apply to other aspects of human behaviour besides interpersonal communication, for example "paternalistic", "ambitious", "perfectionist".

In view of the emphasis during the training programme on increasing the trainees' sensitivity to, and ability to discriminate between, overt behavioural components of communication, the writer was interested in establishing whether, at Time 2, the groups who had received training (Groups 1 and 2) elicited a greater number of constructs in category (i) above than the groups who had not received training (Groups 3

and 4). Inspection of the lists (Appendix 12) revealed the following.

First, the lists for Groups 1 and 2 were examined, at Time 1 and Time 2, for the presence of "behavioural" constructs, including compound skills such as listening. It should be noted that some references to listening are expressed in attitudinal rather than behavioural terms, e.g. unwilling to ... unable to ...; these are included, however, since the construct will have been inferred from the presence or absence of the behavioural components of active listening.

In Group 1, seven out of twelve participants used such constructs at Time 2, compared with four at Time 1. The number of individual constructs elicited was five at Time 2 and four at Time 1.

In Group 2, however, the presence of behavioural constructs at Time 2 was much more evident. Although only three out of twelve participants used them, these three used them almost exclusively at Time 2, compared with five individual constructs elicited by three participants at Time 1. This result is illustrated in the following table which presents the constructs elicited at Time 1 and Time 2 by the three participants. (N.B. It is not meaningful to make comparisons between pairs of constructs at Time 1 and Time 2, because the participants may, in some cases, have assigned a different person at Time 2 to a role, or element.) Behavioural constructs are presented in **bold**.

**Table 4.77 Constructs Elicited at Time 1 and Time 2 by
Participants 2.2, 2.8 and 2.12**

Participant	Construct T1	Construct T2
2.2	nastiness open personality willing to listen relaxed fair well spoken rude able to listen straightforwardness able to move conversation on good eye-contact unsmiling	slow speech unable to listen low volume speech unsmiling upright posture head movements good eye-contact sense of humour few pauses rhetorical skill little body movement twitching facial movements

Participant	Construct T1	Construct T2
2.8	arrogant easy to talk to outgoing lack of tolerance loving likeable talk about anything	male egotist good listener limited topics frowning good eye-contact stands at distance superficial

Participant	Construct T1	Construct T2
2.8	quiet confidence unpretentious sexually uninhibited open to persuasion ready smile	poor listener encouraging attends lack of empathy smiling eye-contact

Participant	Construct T1	Construct T2
2.12	cannot listen good teacher interested in others kind positive/cheerful judgmental humorous kind generous perfectionist intolerant humourless	interrupts quick speech comfortable eye-contact rigid body smiling eyes fast speech assertive non-judgmental good eye-contact lots body movement interrupts no smile

Next, the same scrutiny was applied to Groups 3 and 4, neither of which received training between Time 1 and Time 2.

At Time 1, none of the participants in Group 3 used any behavioural constructs, while in Group 4 two behavioural

constructs were used ("listens", "looks at you") by two participants.

At Time 2, two participants in Group 3 used two constructs ("bad listener", "mumbles"). In Group 4, three participants used three constructs ("clear pronunciation", "good listener", "direct eye contact").

It can be seen, therefore, that constructs which describe observable behaviours occur most frequently in Group 2 (TF), at Time 2.

4.5.2 Principal Component Analysis

In the next section the results of the INGRID analysis of a subsample of 18 rank-order grids are presented. A sample graph is included here (Figure 4.1); entries in black are elements, in green are constructs and in red are contrasts. The rest of the graphs are presented in Appendix 15. For ease of reference, the constructs and contrasts which appear on (i) the first principal component and (ii) the second principal component are listed for each member of the subsample (Appendix 16).

Although the data generated is used in this research to identify themes across groups and subgroups rather than to gain insight into individuals' perceptions and experiences, there are some aspects of individual graphs which are worthy of comment.

SIMPLISTIC

NARROW-MINDED

UNINTELLIGENT

SELF-INVOLVED

SHY

RESISTES HELP

DIFFICULT COLLECTIVE

DISORGANISED

STANDARD

DISORGANISED

PRESCRIPTIVE

DIFFICULT NEIGHBOUR

DISLIKED TEACHER

DISLIKED EMPLOYEE

SELF-CENTRED

SELF-CENTRED

LIKE TO HELP

SISTER

SISTER

ENJOY NEIGHBOUR

MOTHER

UNDERSTANDING

CALM

UNDERSTANDING

ORGANISED

FIXABLE

OPEN

ANALYST, GOOD

PREVIOUS

RESEARCH

GOOD

GOOD HUMORED

LIKED TEACHER

GOOD LISTENER

INTERESTING

INTELLIGENT

LIKED EMPLOYEE

SUCCESSFUL

INTELLIGENT

WIDELY EXPERIENCED

COMPLEX

FIGURE 4.1

Graph 1.1 shows a tight cluster of one construct and three contrasts: **calm, understanding, organised, flexible.**

Graph 1.2 clusters **honest, jovial, encouraging, approachable.**

In Graph 1.3 it is interesting to note that the term **approachable** appears three times, each with a different opposite - **unresponsive, unapproachable** and **inarticulate.** This is encouraging because it implies that when the constructs were generated by this individual, the contrasts derived from a perceived difference in one of the elements compared with the other two, rather than from the most common semantic opposites of the construct.

In Graph 1.4 the clustering is clearly around the horizontal axis, representing the first principal component. This graph contains a cluster of contrasts which might be described as "hard" - **aggressive, bombastic, critical, argumentative, authoritarian.**

In comparison, the pattern in Graph 1.5 is much more widely dispersed. This graph provides a further example of the same construct - **sensitive** - having two opposites - **arrogant, overpowering** - while the term **insensitive** is given as the opposite to **thoughtful.**

In Graph 2.1 the constructs and contrasts, with two exceptions, are fairly widely spread along the first principal component.

In Graph 2.2, and to a lesser extent in Graph 2.3, it is interesting to note the nature of the constructs and contrasts, which are largely behavioural descriptors. These participants were both from the group which received training and feedback.

In Graph 2.4 the constructs and contrasts are clustered around the intersection of the axes, and terms which might be described as "positive" are located alongside those which might be described as "negative". There is no clear pattern along either the first or the second principal component.

The pattern of Graph 2.5 resembles that of Graph 1.4, where the constructs and contrasts are clearly clustered at either end of the horizontal axis. It is interesting to note that a contrast which the observer might perceive to be negative - **uncommunicative** - is grouped with terms such as **loving, loyal**; the logic becomes clearer when it is noted that the opposite is **selfish**.

In Graph 3.1 again the constructs and contrasts, with four exceptions, are clustered at either end of the horizontal axis. It is interesting to note here that the contrast **professional** is opposite to the construct **sociable**, and is clustered with **distant, overwrought, uptight** and **withdrawn**. It may be relevant that the subject is a former teacher who sought a career change after a difference of opinion with his headteacher.

In Graph 3.2 the constructs and contrasts are widely dispersed along both axes; there is, however, some consistency in that all but one of the negative terms are placed to the left of the vertical axis, and vice versa.

Graphs 3.3 and 3.4 show a similar dispersal.

In Graphs 4.1, 4.2 and 4.3, clustering is at either end of the horizontal axis, while Graph 4.4 shows a dispersed pattern similar to Graphs 3.2, 3.3 and 3.4.

Turning to themes and patterns within groups, the following can be observed from scrutiny of the grids.

In Subgroup 1 (TO) ($n = 5$) constructs and contrasts are dispersed about both axes, but predominantly the horizontal axis, in all but one case. The exception is Graph 1.4, discussed above.

Subgroup 2 (TF) ($n = 5$) is similar to Subgroup 1, again with one exception, Graph 2.4, discussed above. This subgroup is the only one to contain graphs in which behavioural constructs and contrasts predominate.

Subgroup 3 (FO) ($n = 4$) shows more dispersal along the vertical axis than either Subgroup 1 or Subgroup 2.

Subgroup 4 (C) (n = 4) contains three graphs which resemble the predominant pattern in Subgroup 1, and one in which the constructs and contrasts are widely scattered across the field.

It appears, therefore, that the pattern of constructs and contrasts generated by principal component analysis is broadly consistent across Subgroups 1 (TO), 2 (TF) and 4 (C), but different for Subgroup 3 (FO).

When the subsample is divided into two new subgroups based on gender, the following is observed.

In new Subgroup 1(m) (n = 6), five graphs out of six showed constructs and contrasts dispersed along both axes, while in new Subgroup 2(f) (n = 12), only six out of twelve graphs followed this pattern.

4.6 Summary of Findings

4.6.1 Behavioural Ratings

- (i) There is no significant difference in ratings between the four groups at Time 1 in any behavioural category with the exception of Category C5 (active listening), where inspection of the mean rank scores indicates that Group 1 (TO) has a significantly lower mean rank score than Groups 2 (TF), 3 (FO) and 4 (C). That is, in the judgement of the raters,

Group 1 (TO) has performed less well than the other three groups in demonstrating the compound skill of active listening.

- (ii) When all categories are taken together, however, there is no significant difference in behavioural ratings between the groups at Time 1 (pre-treatment).
- (iii) For Group 1 (TO), an increase in ratings from Time 1 to Time 2, significant at the .05 level, occurred for Category C3 (posture/orientation). There was no significant difference in ratings for any other category, or for all categories taken together.
- (iv) For Group 2 (TF), an increase in ratings from Time 1 to Time 2, significant at the .05 level, occurred for Category C4 (gesture) and for all categories taken together.
- (v) For Group 3 (FO), there was no significant difference in ratings from Time 1 to Time 2 for any individual category or for all categories taken together.
- (vi) For Group 4 (C), there was no significant difference in ratings from Time 1 to Time 2 for any individual category or for all categories taken together.

(vii) Thus Group 2 (TF) shows a greater increase in behavioural ratings overall from Time 1 to Time 2 than any other group.

(viii) A significant increase in ratings from Time 1 to Time 2 occurs in the following categories: C3 (posture/orientation) for Group 1 (TO); C4 (gesture) for Group 2 (TF).

4.6.2 Self-Report Measures

(i) At Time 1, scores on the Rotter I-E Scale for Group 3 (FO) were significantly lower, i.e. demonstrating greater internality, than scores for Group 4 (C).

(ii) There were no significant differences between groups for any other measure at Time 1.

(iii) At Time 2, scores on the Rotter I-E Scale for Group 2 (TF) and Group 3 (FO) were significantly lower, i.e. demonstrating greater internality, than scores for Group 4 (C).

(iv) There were no significant differences between groups for any other measure at Time 2.

- (v) There is a significant difference in scores at Time 1 on the Rotter I-E Scale between Group 3 (FO) and Group 4 (C), where Group 3 (FO) scores indicate greater internality than Group 4 (C) scores.
- (vi) There is a significant difference in scores at Time 2 on the Rotter I-E Scale between Group 2 (TF) and Group 4 (C) and between Group 3 (FO) and Group 4 (C), where Group 2 (TF) and Group 3 (FO) demonstrate greater internality than Group 4 (C).
- (vii) For the Rotter I-E Scale, the effect of feedback is significant from Time 1 to Time 2 in the direction predicted by the first research hypothesis, i.e. greater internality.
- (viii) For the Social Situations Questionnaire, the effect of training, and of training plus feedback, is significant from Time 1 to Time 2 in the direction predicted by the first research hypothesis, i.e. reduction in social anxiety.
- (ix) For the PONS Test - Body Errors measure, the effect of training is significant from Time 1 to Time 2, but in the opposite direction to that predicted by the research hypothesis, i.e. at Time 2 more errors are made by groups who have received training than by groups who have not.

- (x) For Group 1 (TO), there were no significant changes in mean scores for any measure from Time 1 to Time 2.
- (xi) For Group 2 (TF), for the Rotter I-E Scale, mean scores at Time 2 are significantly lower than at Time 1, indicating a movement towards greater internality, consistent with the research hypothesis; and for the Social Situations Questionnaire mean scores at Time 2 are significantly lower than at Time 1, indicating a reduction in anxiety in social situations consistent with the research hypothesis.
- (xii) For Group 3 (FO) in the Social Situations Questionnaire, mean scores at Time 2 are significantly lower than at Time 1, indicating a reduction in anxiety in social situations consistent with the research hypothesis.
- (xiii) For Group 4 (C) mean scores on the Social Situations Questionnaire at Time 2 are significantly lower than at Time 1, indicating a reduction in anxiety in social situations consistent with the research hypothesis.

- (xiv) There is a strong positive correlation between scores at Time 1 and Time 2 for the Rotter I-E Scale and the Social Situations Questionnaire.

4.6.3 Gender Differences in Behavioural Ratings and Self-Report Measures

- (i) At Time 1 there is no significant difference between the ratings of males and females on the eight separate categories or on all categories taken together.
- (ii) At Time 2 the difference between the ratings of females and males is significant at the .05 level for Category C1 (eye contact), Category C5 (active listening) and Category C8 (questioning style). For all categories taken together at Time 2, the difference between the ratings of females and males is significant at the .01 level. Inspection of the mean rank scores indicates the direction of the difference, and shows that ratings obtained by females are higher than those obtained by males.
- (iii) At Time 1 there is no significant difference between the scores of females and males on any of the three self-report measures. However, in the PONS Test there is a significant difference between males and females in the number of errors based on "face"

cues: females make significantly fewer errors of this type than males.

- (iv) At Time 2, on the Rotter I-E Scale, males obtain significantly lower scores than females, indicating greater internality, and in the PONS Test there is a significant difference in the number of errors based on "face" cues: females make significantly fewer errors than males.

These results and their implications will be discussed in Chapter 5.

4.6.4 Repertory Grids

- (i) A frequency count of constructs indicated some agreement across the sample of choice of constructs related to communicative behaviour: the total number of individual constructs elicited was 270 from a possible 1,158.
- (ii) Scrutiny of the eleven most commonly occurring constructs indicated variability in naming contrasts.
- (iii) A content analysis of the constructs suggested three categories, defined as "behavioural", "inferred" and "more generalised personality characteristics".

Inspection of constructs at Time 1 and Time 2 revealed that Group 2 (TF) showed a marked increase in the use of behavioural constructs, which are terms used in the training programme.

- (iv) A principal component analysis of a subsample containing participants from all four groups indicated similarities in the dispersal of constructs and contrasts along the first and second principal components between Groups 1 (TO), 2 (TF) and 4 (C), but a different pattern for Group 3 (FO).
- (v) The principal component analysis also indicated gender differences: almost all the males' constructs and contrasts were dispersed along the first and second principal component, while only half the females displayed this pattern.

4.7 Participants' Reactions to Research

A questionnaire (Appendix 17) was sent to a subsample of 12 participants, 3 chosen at random from each experimental group and 3 chosen at random from the control group. The questionnaire had the following aims: to establish how the participants felt about being asked to take part in the research; to ask those who had received feedback how helpful this was; and to obtain some overall reactions to the interview

training programme of which the research treatment formed a part.

The first question asked the participants to describe briefly how they felt at the time about being asked to take part in the research. As discussed in Chapter 3, the writer was concerned that they might have felt under pressure because they were new students and the request was coming from the course leader, but she was confident that by the end of the course they would feel sufficiently at ease to give an honest response.

None of the replies indicated any antipathy to participation, although three participants expressed anxiety about practical issues such as travel and time commitment. Responses ranged from "not bothered - happy to help" (S2) to statements referring to "feeling valued" (S12) and being "part of developments in the Department" (S8). Five responses included references to interest in the research itself, e.g. "We were all very curious as to what it was all about" (S5), and two made connections with the participants' own study of research methods: "I didn't mind taking part in your research but the Research Methods course was a total nightmare" (S3) and "...it made me more aware of my own research proposal and, with hindsight, now I can appreciate the amount of work involved" (S12).

Overall, therefore, there appeared to be no discomfort about taking part in the research, and some positive outcomes linked to intrinsic interest in the research or in research *per se*.

The second question was addressed to two subgroups only (n = 6) and asked the participants how helpful it had been to receive feedback about their interpersonal skills as demonstrated in the pre-treatment video recordings.

Four respondents included the words "very helpful" in their response; a sample response was "very helpful - helped build confidence and boost belief in my ability - good **constructive** feedback" (S9). Of the remaining two respondents, one said that s/he "would have liked to see the initial tape again to evaluate personal development throughout the course - apart from that it was fairly helpful" (S5). The other responded as follows: "Being a videophobic at the beginning of the course when receiving feedback I spent most of my time cringing. However, I can remember you telling me to try and **look** relaxed, and that gradually I would **feel** relaxed - so something useful did come out of it" (S7).

The rest of the questionnaire was designed primarily as an opportunity to obtain some more detailed feedback, additional to the normal student evaluation process, which would inform the future development of the course as a whole. The questions followed a standard format for evaluation: What was good? What should have been added? What could have been left out? How clear were the links between theory and practice? While the responses are not all strictly relevant to this research study, it is useful to note the following.

Firstly, the participants were overwhelmingly positive in their comments: "nothing" could have been added; the only additions were more of the same - video work, feedback and practice. While some weaknesses were identified in the way in which links between theory and practice are presented to the students, these focused on theories of guidance rather than on theories and models of interpersonal communication. Six participants referred specifically to the benefits of the "microskills" approach, e.g.: "the microskills training approach was useful in that it provided a range of components on which one could assess one's interview technique"; "learning bit by bit made me feel more confident". Eight participants commented on the usefulness of feedback, from the video, from other students and from tutors, e.g.: "the feedback from the assessor helped me build on and develop skills"; "video recording ensures you rectify obvious faults/bad habits"; "I personally found the feedback from fellow students extremely useful".

A summary of results from the questionnaire is presented at Appendix 18.

**Chapter 5 Discussion of Results,
Conclusion and
Recommendations**

5.1 Introduction to the Chapter

The purpose of this final chapter is to consider in more detail the results summarised on pages 212 to 219 of Chapter 4, and their implications. The first question is to consider the extent to which the findings support - or disprove - the research hypotheses. Secondly, methodological issues concerning the strengths and limitations of this study, which have been discussed in Chapter 3, will be returned to in the context of evaluating the study, to consider the lessons learned from its execution. Next, the wider implications of the findings for communication skills training will be discussed. Finally, the key conclusions will be presented and proposals made for further research in the area.

5.2 Discussion of Results

This section will begin with consideration of the implications of the results for each of the principal hypotheses in turn.

5.2.1 The First Principal Hypothesis

The first principal hypothesis states that:

as a result of exposure to feedback on interpersonal competence, there will be a statistically significant improvement in the subjects' communication skills during the experimental period.

As discussed in Chapters 3 and 4, improvement in communication skills in this study is measured by an increase in behavioural ratings, and by changes in scores in three self-report measures: the Rotter I-E Scale (improvement indicated by decrease in score), the Social Situations Questionnaire (improvement indicated by decrease in score) and the PONS Test (improvement indicated by increase in score). The assumption that changes in scores in the direction stated is consistent with improved communication skills is based on the rationale and theoretical basis of each of the measures and on previous studies which have used these measures in this way, topics which were discussed in Chapter 2. Repertory grids were also used, but as an exploratory rather than a confirmatory measure, and will be discussed in this and a subsequent section.

Results indicated that, for the group who received feedback and training, there was a significant increase in behavioural ratings from Time 1 to Time 2, consistent with the research hypothesis. Since this improvement did not occur for either the feedback only or the training only group, it is suggested that the increase is due to the combined effect of feedback and training, perhaps because feedback increases "preparedness" for training and heightens the trainees' sensitivity.

An examination of the extent to which certain behavioural categories are more susceptible to change than others shows limited results, affecting one category in each of two groups. "Posture/orientation" scores increased significantly for the training only group; and "gesture" scores increased for the training plus feedback group.

Results for the three self-report measures show that:

(i) For the Rotter I-E Scale, at Time 2 the scores for the feedback only and feedback plus training groups are significantly lower than for the control group.

The impact of this finding is lessened, however, by the comparison of scores at Time 1, when scores for the feedback only group were significantly lower than for the control group; therefore any difference at Time 2 for the feedback only group cannot be attributed to the intervention. For the training plus feedback group, however, the results suggest that, as for the behavioural ratings, there is an interaction between feedback and training. This may arise because for some people the process of receiving constructive feedback is seen (rightly, in the writer's view), as self-empowering, and the training provides an opportunity to "test out" the feedback, hence the effect is more evident in this group than in the feedback only group.

A three-way analysis of variance which investigated the interrelationship between feedback, training and time indicated that the effect of feedback is significant from Time 1 to Time 2 in the direction predicted by the first research hypothesis, i.e. greater internality.

The extent and direction of change in Rotter I-E scores, measured by one-tailed t-tests, indicated that, for the training plus feedback

group only, there was a significant difference in scores from Time 1 to Time 2, indicating movement towards greater internality, consistent with the research hypothesis.

(ii) For the Social Situations Questionnaire, scores at Time 2 were shown to be significantly lower for the feedback only and the training and feedback group than for the control group, consistent with the research hypothesis.

But, as was the case for the Rotter I-E scale, inspection of the Time 1 scores shows that scores for the feedback only group were significantly lower than scores for the control group. The difference between these two groups at Time 2, therefore, cannot be attributed to the intervention alone, and only the training plus feedback group is significantly different from the control group in a direction consistent with the research hypothesis.

A two-way analysis of variance which investigated the interaction effect between the two independent variables showed that, while there is no significant interaction effect, the main effect of feedback is significant, with groups receiving feedback obtaining lower scores than those which do not. This finding is consistent with the research hypothesis.

A three-way analysis of variance indicated that the effect of training, and of training plus feedback, is significant from Time 1 to Time 2, in the direction predicted by the first research hypothesis, i.e. reduction in social anxiety.

One-tailed t-tests, used to measure the extent and direction of change from Time 1 to Time 2, show that scores for the training plus feedback, feedback only and control groups reduce significantly from Time 1 to Time 2, a change which cannot be attributed to either of the independent variables since it affects the control group also.

But for the fact that the scores for the training only group did not change significantly, the reduction in anxiety as measured by this questionnaire may have been due to greater familiarity with the course and with the environment from Time 1 to Time 2.

In summary, while for this measure there is no evidence of significant change in scores from Time 1 to Time 2 as a result of either or both of the independent variables, there is evidence of a significant difference between the scores of the groups at Time 2 which is attributable to the one of the independent variables, i.e. feedback.

(iii) For the PONS Test, there were no significant differences between groups at Time 1 or at Time 2, and there was no significant change from Time 1 to Time 2 for any group. For all groups taken together, however, scores at Time 2 were higher than predicted, but since this finding cannot be linked specifically with any of the treatment groups, the results from the PONS Test do not support the first hypothesis.

For the PONS test - body errors measure, a three-way analysis of variance indicated that the effect of training is significant from Time 1 to Time 2, but in the opposite direction to that predicted by the research hypothesis, i.e. at Time 2, more "body" errors were made by groups who received training than by groups who did not.

(iv) With regard to the analysis of repertory lists, as stated in Chapter 4, a content analysis of the constructs generated suggested three categories which the writer has labelled "behavioural", "inferred" and "more generalised personality characteristics". Inspection of constructs at Time 1 and Time 2 revealed that only the training plus feedback group demonstrated a marked increase in the use of behavioural constructs. Since this involved the incorporation of many of the terms used in the training programme, it is interesting to note that the training only group did not make the same shift. Again it appears that it is the combined effect of training and feedback which is significant.

5.2.2 The Second Principal Hypothesis

The second principal hypothesis states that:

there will be statistically significant differences between males and females in pre- and post-treatment assessment and in the degree of improvement during the experimental period.

Related to this hypothesis are two secondary hypotheses, as follows:

- (i) males and females will differ in the extent to which they estimate difficulty in social situations;
- (ii) males and females will differ in the extent to which they demonstrate selected components of communicative behaviour.

It is important to note here that there is no prediction made about the direction of difference. Although the writer had hunches, based upon her experience of delivering CST programmes, about what the findings might reveal, she believed that the interests of the study overall would be better served by taking a neutral position and simply seeking, as a first step, to identify and describe differences, if they are found to exist. She was also constrained by the relatively low proportion of males in the sample, rendering impossible the consideration of gender differences within the four subgroups, one of which contained only two males. It is therefore not possible in this study to examine the interaction between gender and the two independent variables of training and feedback. The writer believed, however, that there was value in forming two new subgroups, as described in Chapter 4, in order to examine this second principal hypothesis.

The results for behavioural ratings indicated that at Time 2, for all rating categories taken together, scores obtained by females are significantly higher than those obtained by males, but that no difference existed at Time 1. This finding does not support the research hypothesis, which predicted that difference would exist at Time 1 and at Time 2. While it is possible that the Time 2

difference might be due to the independent variables acting differentially on males and females, the sample size and makeup does not permit statistical investigation of this possibility.

When the ratings for separate behavioural categories are examined, the results show that females obtain significantly higher ratings than males in three categories: eye contact, active listening, and questioning style. Again this difference emerges at Time 2 only and therefore does not support the second subhypothesis as it is expressed. For reasons just described, this difference cannot be assumed to be attributable to the effect of the independent variables, although this is a possibility.

Results for the three self-report measures showed that for the Rotter I-E Scale, there was no significant difference between males and females at Time 1 but that at Time 2 females obtained significantly higher (i.e. more external) scores than males. This result is not consistent with the research hypothesis, which predicts difference at both Time 1 and Time 2, and, again, the Time 2 difference cannot necessarily be attributed to the effect of the independent variables.

For the Social Situations Questionnaire, there was no significant difference between males and females at Time 1 or at Time 2, and the first subhypothesis is therefore not supported. For the PONS test, however, an interesting difference emerges.

As described in Chapter 3, the PONS test consists of 40 photographs, half of which portray facial expression, the other half of which portray whole-body posture. The subject is required to select from a choice of options the situation which s/he believes matches the picture. The score is a simple count of the number of correct answers. The writer created two subsidiary scores by counting the number of errors associated with "face" and "body" pictures respectively and subjecting these scores to the same statistical tests as the main score. She did this because she was interested to know if it would reveal any differences, both among the four main subgroups and between males and females. The latter was of particular interest in view of the research, reviewed in Chapter 2, which examines differences in non-verbal sensitivity. While no differences emerged in this measure between the four subgroups, a comparison of males and females shows that, at both Time 1 and Time 2, females make significantly fewer errors based on "face" cues than do males.

This result is consistent with the first part of the research hypothesis, but challenges Rosenthal's (1979) original findings discussed in Chapter 2, Section 2.5, that gender differences are more pronounced with "body" cues than with "face" cues. The result could, however, be linked to Richmond's (1991) finding that females engage in more looking behaviour than males and are therefore in a stronger position to detect facial cues in the first place, and Hall's (1984) finding that females are better than males at decoding non-verbal cues. This result can also be linked to the "behavioural ratings" results discussed above, specifically that at Time 2

ratings for eye contact are significantly higher for females than for males.

Finally, there was limited evidence of gender difference from the repertory grid analysis. A principal component analysis was carried out of a subsample containing participants from all four main subgroups. The subsample contained twelve females and six males. Comparison of the graphs on which constructs and contrasts were plotted shows that almost all the males' constructs and contrasts were dispersed along the first and second principal component, while only half the females displayed this pattern. This implies that the males' constructs are more highly interrelated than are the constructs of the females.

5.2.3 Summary

To summarise this discussion of the results and their relationship to the hypotheses, there is some evidence to support the notion that pre-training assessment and feedback increases the efficacy of communication skills training. Feedback alone does not produce any significant change in communicative behaviour, nor, in the context of this study, does training alone, a finding which may appear discouraging at first sight.

It should be noted, however, that this study involves one post-treatment assessment only, taking place immediately after training. It is reasonable to expect, and it would be consistent with recommendations on evaluation of training discussed in Chapter 2,

that medium and longer term follow-up assessment, when trainees have had the opportunity to practise and receive feedback on their skills, would be needed to identify the benefits of training alone. Evidence to support this assumption can be found, for example, in the research of Hall et al. (1996) with a group of teachers who attended a counselling module as part of a Masters degree programme. The extent to which learning was applied to the participants' professional and personal lives was estimated by means of a self-report inventory. While there were no immediate significant changes, one year after completion of the programme significant changes in the use of counselling strategies were found, indicating a "sleeper effect" in response to the training.

The findings on gender indicate that some differences in communicative behaviour, as measured in this study, do exist. They are concerned with firstly, the manifestation of communicative behaviours, where it was seen that females obtain higher ratings than males in eye contact, active listening and questioning style, and secondly in the decoding of facial expression, in which females make fewer errors than males.

5.3 Evaluation of Methodology

Before examining the wider implications of these findings it is useful at this point to evaluate the methodology of this study and to consider the extent to which it is possible or appropriate to generalise from the results.

The research design conformed to the guidelines proposed by Clark (1991) for the systematic empirical study of interpersonal communication. A strength of the methodology was that the research design translated well to implementation. Each element of the study was completed in the time allocated, and there was minimal wastage due to absence. The training programme which formed one of the independent variables was unaltered except for the scheduling of its delivery, and although the participants were trainee careers advisers, the programme of this introductory CST programme is not content- or context-specific. Consequently the findings can be generalised to other applications of CST in professional training.

A feature of the design which has already been pointed out is that the sample is selected on the basis of an ability to communicate and consequently the spread of scores and the differences between participants and between groups, including perhaps the differences between males and females, is likely to be minimised. This is a possible reason for the findings of this study being relatively modest. A second weakness, particularly in respect of the hypotheses relating to gender, is the small number of males in the sample. Again this risk was acknowledged as a consequence of using an opportunistic sample, but it removed the opportunity to realistically examine the effect of the gender of the other person in an interaction on the communicative behaviour of males and females.

A third concern about the methodology relates to the use of self-report measures. Although they have been used extensively in the

assessment of communication skill, self-report measures are subject to inaccuracy arising from the desire to produce socially acceptable responses, or arising from a lack of self awareness on the part of the individual. In this particular design an additional problem is that the feedback from the pre-training assessment could itself have affected the post-training responses in the case of the Rotter I-E Scale and the Social Situations Questionnaire. The overall findings, however, are safeguarded by the improvement in behavioural ratings.

It is interesting to compare the methodology used in this study with the current trends in the study of interpersonal communication identified by Knapp et al. (in Knapp and Miller, 1994). They note that the study of communicative behaviour shows a return to systematic observation, but used alongside self-report data. They argue that while it is appropriate up to a point to treat non-verbal and verbal behaviour separately, it is particularly valuable to look at complex behaviours which include both. (An example from this research is active listening.) They also stress the importance of naturally occurring situations, so that even within laboratory settings, scripted role play and the priming of partners to behave in a particular way should be discouraged. Again, it can be noted that in this study the videotaped interviews consisted of the participants interviewing/being interviewed "as themselves", though there is obviously an element of artificiality.

Finally, Knapp et al. note that there is a difference of opinion among researchers about the relevance of the study of individual

differences, but certain characteristics do attract the attention of researchers, for example communication apprehension and its links with learned helplessness and perceptions of interpersonal competence. The authors suggest that, while it is possible to use individual difference variables for explanation or prediction, this should only occur within a broader theoretical context.

5.4 Some Implications for CST

While the results of this study lend support to the proposal that pre-training assessment and feedback might usefully be introduced to CST programmes like the one used in this study, a proposal which will be discussed more fully in a later section, the writer believes that this research has additional implications for training which will be considered here.

Taking the narrow view first of all, this study provided an opportunity to deliver a tried and tested CST programme under closer scrutiny than normal circumstances permit, and including an opportunity for student feedback additional to the usual course evaluation procedures. It was useful to confirm, in the process of conducting the review of the literature, that the programme meets the "good practice" recommendations described in Chapter 2.

When a subsample of 12 participants were asked to describe their reactions to taking part in the research, they were also asked for their views on the training programme itself. Their comments, summarised in Chapter 4, Section 4.7, were overwhelmingly positive.

There is, however, an aspect of the programme which could be developed further. In Chapter 1 the writer referred to the need for CST to be rooted in an understanding of models of communication, and although the student evaluation indicated satisfaction with this aspect of the training, the literature review indicates a key emphasis on the role of cognition in communication; the writer believes that, while the role of cognition is addressed in the current programme, it could be made more explicit, both in examining the communicative process and in the delivery of training, for example the use of interpersonal process recall (IPR) in microtraining.

The role of cognition is an area where theory and practice need to develop alongside each other. Knapp et al., in discussing the future of the study of interpersonal communication, suggest that more work is needed in both the relationship between social cognition and social behaviour, and in the formation and organisation of social cognition. Specifically, more work is needed in the formation of "attitudes, expectations, inferences, scripts, schemas, fantasies, rules and wishful thinking" (Knapp et al., in Knapp and Miller (Eds.), 1994).

It is also important in this context to consider how the term "skill" is defined and understood. The behaviourist conceptualisation of skill which underpinned earlier models of CST focused on the notion of reacting to a stimulus with a response performed to a standard, but did not refer to achievement of purpose. Given the interactive nature of communication skill and

the agentic approach discussed by Trower (1984), the idea of communication skills as strategies for achieving a purpose is important - and in fact features by implication in this study in the behavioural ratings measures, where raters were asked to judge "appropriateness" of behaviours.

In the meantime, a feature of all CST programmes should be a consideration of the communicative process, whether by examining "state of the art" models, or by encouraging trainees to conceptualise their own, as in the example from medical school training discussed in Chapter 2. Such an addition would elevate overnight much of what passes for customer care training by making a nonsense of the process by which trainees learn a set of scripts but do not learn to interpret feedback from the other person in the interaction, or even from themselves. In response to critics who say that CST removes the spontaneity from interactions, Hargie (1997) points out that "controls on behaviour should come from the individual who is always the decision maker in terms of choice of responses". To manage the process effectively it is important to understand it.

It is relevant here to restate two warnings concerning the theoretical standpoint of the trainer, which were referred to in Chapter 2. Firstly, Argyris and Schön (1974, cited in Eraut, 1994) make a general point about differences between the "official theory" of professionals and their "theory in use". Then in the specific context of CST, we find an example (Ellis and Whittington, 1981) where exactly this has happened. It is, therefore, essential for

consistency that trainers espouse and model the theory they teach. There need not be a fundamental distinction between professional and generic communication skills, despite the case made by Argyle (1994) discussed in Chapter 1. But it is perhaps worth remembering Ellis and Whittington's comment that academic theory tends to be descriptive, while theory linked to professional training is prescriptive - a difference which need not exist.

5.5 CST and Repertory Grid Analysis

Findings from the repertory grid analysis, referred to briefly in Section 5.2, will now be discussed in more detail. As stated at the beginning of this chapter, this part of the study was exploratory rather than confirmatory. The writer's starting point was that an individual's beliefs about effective communicative behaviour exhibited by others will shape their views of their own communication skills and consequently their attitudes towards CST; it may therefore be useful to explore beliefs about communication through personal constructs.

One finding from both the pilot study and the main study was the difficulty many people have in separating communicative behaviour from more general aspects of behaviour and personality; or to turn this round, the central position of communicative behaviour in a person's identity.

Secondly, training programmes often assume agreement among participants and between participants and tutors about what

constitutes effective communicative behaviour. The results from analysis of both the repertory lists and the repertory grids, which were presented in Chapter 4, Section 4.5, suggest that, while there is some common ground, this is not so widespread as to justify such an assumption.

Thirdly, as described in Section 4.5.2, the principal component analysis graphs of a sub-sample of participants revealed interesting relationships between constructs and elements. Reflecting this data back to the participants could have contributed significantly to their conceptualising of communication skills.

A repertory grid exercise at the beginning of training would therefore serve a number of purposes. First, it would surface individuals' own notions about communicative behaviour - not, of course, in order to persuade everyone to subscribe to the same view, but to create shared understanding of concepts like "extrovert" and "assertive". Second, it would provide an opportunity (which could subsequently be reinforced by discussion of models of communication) to distinguish between inferences made from behaviour (e.g. "warm") and behaviours themselves (e.g. "smiles"). Third - and this is a good principle of any training - if the elements used in the grid are people known to the individual, it enables the process of movement from the known to the unknown, by forming constructs from people who are familiar. Fourth, a principal component analysis like those completed in this study would reflect data about significant constructs and elements back to the individual in a way

which will contribute to their own understanding of their personal world.

In summary, it is recommended on the basis of the findings of this study that PCT and its application via repertory lists and repertory grid analysis can make a valuable contribution to CST and should be incorporated where practicable, for example where work is being done with a group over an extended period of time. This could also contribute to the individualising of training, discussed in the final section of this chapter.

5.6 Key Conclusions and Recommendations

5.6.1 Gender and Communication

The second research hypothesis, which concerned gender differences in communicative behaviour, will be discussed first. Differences revealed by this study were confined to a small number of elements of communicative behaviour, but the writer believes that there is scope for further enquiry. In particular there is potential for a larger scale study where the balance of males and females permits a fuller exploration of the interaction between gender and the independent variables, and where the differential effect of same sex and mixed sex dyads could be examined. The purpose of this research would be to verify the existence of differences in communicative behaviour and to explore the implication of such differences for communication skills training.

5.6.2 Communication Skills Training - Theory and Practice

Historically, communication is an applied field in which theories arise from practice. Wood (in Cissna (Ed.), 1995) refers to two links between theory and practice in communication: first, research activities - and the research process itself - are informed by theory; and second, practice informs and reforms theory. The key conclusion of this study is that there is evidence to support the introduction to CST of pre-training assessment and feedback. It is important to discuss this finding in the context of the extended model of communication described in Chapter 2 on page 27 which forms the basis of the training programme used in this research. The writer suggests that pre-training assessment and feedback can be linked to the model in two ways.

Firstly, a component of the model, labelled by Hargie (1997) as "mediating factors" is defined by him as "those internal states, activities or processes within the individual which mediate between the feedback which is perceived, the goal which is being pursued and the responses that are made". Mediating factors include cognitive and affective dimensions. It is possible that pre-training assessment and feedback influences the individual's attitudes to, and beliefs about, themselves as communicators.¹

¹ For the purposes of this part of the discussion it is important to distinguish between feedback as a component of Hargie's model (the sense in which it is used here) and feedback following pre-training assessment, one of the independent variables of the study. The writer hopes that this distinction has been clear elsewhere in the thesis.

Secondly, the training itself contains the three phases of sensitisation, practice and feedback, and evaluation. Pre-training assessment and feedback presents an opportunity for sensitisation, when participants watch their own videotapes, are asked to comment on them, and are offered constructive feedback. This process is reinforced by the training programme, and in both cases one goal of the person leading the feedback process is to heighten perceptual sensitivity. Hargie identifies perception and mediation as two of the potential points of breakdown of the communicative process; thus it can be argued that pre-training assessment and feedback addresses both of these areas.

A third contribution made by pre-treatment assessment and feedback can be identified from a different theoretical standpoint. The notion that skill development contains practice and feedback has already been discussed. Within a training programme, feedback may come from the self, from a trainer, or from other trainees - most usefully from all three sources. Social learning theory (Bandura, 1977) proposes that behaviours are learned through modelling and imitation of significant others. The writer strove to model good practice in offering feedback to the participants. For the "feedback plus training" group, this was immediately followed by opportunities to give and receive feedback during their training programme. It is therefore possible that their participation in this part of the training programme was enhanced as a result of their pre-training experience.

5.6.3 **Pre-Training Assessment and Feedback - a Move Towards Tailored Training**

The key conclusion from this study is that there is evidence to support the introduction to CST of pre-training assessment and feedback. The primary functions of feedback have been identified in Chapter 2 as informing, motivating and reinforcing. Feedback already performs all of these functions at the fourth stage of CST. At the beginning of training, constructive feedback would inform about current performance, increase motivation to change, and reinforce existing good practice. To counteract the view that any feedback is unfair if it precedes instruction, it should be noted that what is proposed is a systematic procedure which follows guidelines for constructive feedback, as was used in this study.

Most importantly, this kind of addition to CST would offer the possibility for a further refinement discussed in the introductory chapter, that is the notion of training which is tailored to specific needs and areas for development. As early as 1980, Eisler and Fredericksen maintained that "social skills training depends on a highly individualised assessment approach which is carefully tailored to each client, whether the trainer is working with one or several", but the writer has found little evidence of this approach in practice. Where CST is delivered to small groups (and it is hoped that this is always the case) there is - or should be - already an element of individualised training as differences emerge which are highlighted by feedback and addressed in further practice.

Pre-training assessment and feedback has the potential to contribute to this process of individualising training by identifying key features of communicative behaviour before the training programme begins. There can be no better support for this final proposal than to quote a participant in the research. There is much to discuss in her words but the writer highlights three phrases, which refer in turn to the roles of feedback, affect, and cognition in her approach to the development of communication skills:

"[The pre-training assessment and feedback was] very useful as it provided basic information about our different styles, strengths and weaknesses early on, which is important when starting a new course, as you are always thinking 'will I be any good?' and 'what will I need to work on?'"

(Participant S8)

Appendices

**Appendix 1 Guidelines on Giving and Receiving
Feedback**

MANCHESTER METROPOLITAN UNIVERSITY

FACULTY OF COMMUNITY STUDIES LAW AND EDUCATION

CENTRE FOR HUMAN COMMUNICATION

CONSTRUCTIVE FEEDBACK

Feedback is a way of learning more about ourselves and the effect of our behaviour on others.

Constructive feedback increases our self awareness, and offers options and encourages development. It is important to learn to give and receive it. Constructive feedback does not mean only positive feedback. Negative feedback, given skilfully, can be very important and useful because it provides options for development.

Destructive feedback, given in an unskilled way, can lead the recipient to feel bad, and is not useful because it does not help the recipient to learn from the experience.

Giving Feedback Skilfully:**1. Start with the positive**

Most people are encouraged by being told when they are doing something well. When offering feedback it can help the receiver to hear first what you like about them and what they have done well.

e.g. "I really like how well you listen to Jim; on that occasion however, I did feel that you made an assumption about him, without checking it out".

Our culture tends to emphasise the negative. The focus is likely to be on mistakes more often than strengths. In a rush to criticise we may overlook the things we liked. If the positive is registered first any negative is more likely to be listened to, and acted upon.

2. Be specific

Avoid general comments which are not useful when it comes to developing skills. Statements such as, "You were brilliant!" or "It was awful", may be pleasant or dreadful to hear, but they do not give enough detail to be useful sources of learning. Pin-point what the person did which led you to use the label 'brilliant' or 'awful'.

e.g. "The way you asked that question at that moment was really helpful" or "At that moment you seemed to be imposing your values on the other person."

Specific feedback gives more opportunity for learning.

3. Refer to behaviour which can be changed

It is not likely to be helpful to give a person feedback about something over which they have little or no choice.

e.g. "I really don't like your accent",

does not offer information upon which the recipient can act.

In comparison, a statement like,

"It would help me if you smiled more or looked at me when you speak",
can give the recipient something with which to respond.

4. Offer alternatives

If you do offer negative feedback then do not simply criticise but suggest what the person could have done differently. Turn the negative into a positive suggestion:

e.g. "The fact that you remained seated when Ann came in seemed unwelcoming. I think that if you had walked over and greeted her it would have helped to put her at ease."

5. Be descriptive rather than evaluative

Tell the person what you saw or heard and the effect it had on you rather than that something was good, bad, etc.

e.g. "Your tone of voice as you said that really made me feel that you were concerned."

is likely to be more useful than:

"That was good."

6. Own the feedback

It can be easy to say to the other person "You are ...", suggesting that you are offering a universally agreed opinion about that person. In fact you are entitled to give only your own experience of that person at a particular time. It is important that you take responsibility for the feedback you offer. Begin the feedback with "I" or "In my opinion" or "it seemed to me that", thus avoiding the impression of being the giver of universal judgement about the other person.

7. Leave the recipient with a choice

Feedback which demands change or is imposed heavily on the other person may invite resistance. It is not consistent with acknowledging that each of us is personally autonomous. Feedback does not involve telling somebody how they must be to suit us. Skilled feedback offers people information about themselves in a way which leaves them with a choice about whether to act on it or not. It can help to examine with the person the consequences of any decision to change or not change, but it does not involve prescribing change.

8. Think what it says about you

Feedback is likely to say as much about the giver as the receiver. It will say a good deal about your values and what you focus on in others. Therefore, you can learn about yourself if you listen to the feedback you offer to others.

Receiving Feedback

If you are on the receiving end of feedback you can help yourself by encouraging the giver to use some of the skills just mentioned above, and also by:

1) **Listening to the feedback rather than immediately defending or arguing with it**

Feedback can be uncomfortable to hear, but you may be poorer without it. People who have opinions about you without telling you cannot help you to learn.

2) **Be clear about what is being said**

Avoid jumping to conclusions or becoming immediately defensive. If you do, people may cut their feedback or you may not be able to use it fully. Make sure you understand the feedback before you respond to it. A useful technique can be to paraphrase or repeat their criticism to check that you have understood.

3) **Check it out with others rather than rely on only one source**

If you rely on one source then you may imagine that individual opinion is shared by everybody. In fact if you check out with others you may find that others experience you differently, and you will have a more balanced view of yourself which can keep the feedback in perspective.

4) **Ask for the feedback you want**

Feedback is valuable and you may have to ask for it if it isn't offered. Sometimes you may get feedback that is restricted to one aspect of your behaviour, so you may need to request that which you would find useful.

5) **Decide what you will do as a result of the feedback**

To extend your self awareness you need to know what others think of you so that you can further your own development. When you receive feedback you can then assess its value, the consequences of ignoring it or using it and finally decide what you will do. If you do not take decisions on the basis of feedback then it will be wasted.

6) **Value it**

Finally thank the person for giving the feedback. You might benefit from that feedback; it may not have been easy for the person to give, and it is a valuable practice to encourage in any organisation or relationship.

Appendix 2
Gender and Age Distribution of
Postgraduate Diploma in Careers
Guidance Cohorts, 1990 - 1994

	1990/91		1991/92		1992/93		1993/94	
	M	F	M	F	M	F	M	F
21-30	1	8	4	13	3	11	3	15
31-40	10	33	7	17	19	27	13	22
41+	1	9	5	13	2	4	3	4
TOTAL	12	50	16	43	24	42	19	41
PERCENTAGE	19	81	27	73	36	64	32	68

Appendix 3

**Letter to Course Selectors Seeking
Clarification of Selection Criterion**

June 1995



Vice-Chancellor
Sir Kenneth Green MA LL.D

Faculty of
Community Studies,
Law and Education

**Centre for
Human Communication**

799 Wilmslow Road
Didsbury
Manchester M20 2RR

Telephone 0161-247

(direct line)
Facsimile 0161-247 6392

Dear

I am working towards a PhD and my research is in Approaches to Communication Skills Training. My experimental work will be with the 1995 intake of PG Diploma in Careers Guidance students, and I will need to discuss in the thesis the extent to which the sample has been selected for adequate communication skills.

As you have recently taken part in selection interviews here, would you be kind enough to complete the attached and return it to me as soon as possible (SAE enclosed). It should only take a few minutes, and your responses will not be attributed to you; they will be incorporated into a general discussion of the criterion in question.

I would very much appreciate your help with this - please give me a ring if i can clarify anything.

With best wishes,

Yours sincerely,

Judith Done
Course Leader, PG Diploma in Careers Guidance

Director of Centre
W Campbell
BA MED PhD

University exchange
0161-247 2000

Minicom 0161-247 2148

"EVIDENCE OF ADEQUATE COMMUNICATION SKILLS"

a) Behaviours which in your view have demonstrated this criterion

b) Behaviours which have led you to the view that the applicant
does not meet the criterion

Please return to Judith Done by 3 July. Many thanks for your
time.

Appendix 4 Letter to Course Selectors - Summary of Responses

Statements made by more than two judges (number in brackets)

Keeping to the point	(7)
Demonstrating listening non-verbally and verbally (i.e. by appropriate responses)	(7)
Clarity of expression	(5)
Maintaining eye contact	(4)
Smiling to establish and maintain rapport	(4)
Use of language appropriate to the situation	(4)
Speaking clearly	(4)

Statements made by two judges

Use of non-discriminatory language

Using humour to maintain rapport and release tension

Seeking clarification when questions not understood

Being polite and calm under pressure

Appropriate timing and pacing of responses

Appropriate level of self-disclosure

Assertive i.e. "owning" and explaining views and challenging
constructively

Statements made by one judge

Able to paraphrase and summarise

Open, friendly, demonstrating "wish to be present"

Greeting and departing appropriately

Equal treatment of different genders

Appropriate dress

Appendix 5 Self-Report Measures (Final Versions):

- (i) Rotter I-E Scale**
- (ii) Social Situations Questionnaire**
- (iii) PONS Test**
- (iv) Repertory Test**

COMMUNICATION SKILLS RESEARCH PROJECT

PHASE ONE, SESSION ONE

NAME.....

NUMBER (PLEASE LEAVE BLANK).....

DATE 19 SEPTEMBER 1995

1000

The statements described below are trying to find out the way that certain situations affect you. Each statement has been put with another to form a pair. You are asked to choose one statement from the pair (and only one) which you believe is more likely to be true. Try and pick the one that you actually believe to be true rather than the one you would like to be true. There aren't any right or wrong answers. Just put a / in the box next to the one statement from the pair that you think is true. Read both statements before choosing a or b

Statement	Put / in only one box from pair
1a Children get into trouble because their parents punish them too much.	<input type="checkbox"/>
1b The trouble with most children nowadays is that their parents are too easy going with them.	<input type="checkbox"/>
2a Many of the unhappy things in people's lives are partly due to bad luck.	<input type="checkbox"/>
2b People's misfortunes result from the mistakes they make.	<input type="checkbox"/>
3a One of the major reasons why we have wars is because people don't take enough interest in politics.	<input type="checkbox"/>
3b There will always be wars, no matter how hard people try to prevent them.	<input type="checkbox"/>
4a In the long run people get the respect they deserve in this world.	<input type="checkbox"/>
4b Unfortunately, an individual's value in society often passes unrecognized no matter how hard (s)he tries.	<input type="checkbox"/>
5a The idea that teachers are unfair to students is nonsense.	<input type="checkbox"/>
5b Most students don't realize the extent to which their grades are influenced by accidental happenings. (e.g. good mood of teacher)	<input type="checkbox"/>
6a Without luck one cannot be a good leader.	<input type="checkbox"/>
6b Capable people who fail to become leaders have not taken advantage of their opportunities.	<input type="checkbox"/>

Please Turn Over

7a	No matter how hard you try some people just don't like you.	<input type="checkbox"/>
7b	People who can't get others to like them don't understand how to get along with others.	<input type="checkbox"/>
8a	The qualities that you are born with are the main things that determine your personality.	<input type="checkbox"/>
8b	It is your experiences in life which determine what type of person you become.	<input type="checkbox"/>
9a	I have often found that what is going to happen will happen.	<input type="checkbox"/>
9b	Trusting to fate has never worked for me.	<input type="checkbox"/>
10a	In the case of the well prepared student there is rarely if ever such a thing as an unfair test.	<input type="checkbox"/>
10b	Many times exam questions tend to be so unrelated to what has been studied in class that studying is really useless.	<input type="checkbox"/>
11a	Becoming a success is a matter of hard work, luck has little or nothing to do with it.	<input type="checkbox"/>
11b	Getting a good job depends mainly on being in the right place at the right time.	<input type="checkbox"/>
12a	The average person can have an influence in government decisions.	<input type="checkbox"/>
12b	This world is run by the few people in power, and there is not much the ordinary person can do about it.	<input type="checkbox"/>
13a	When I make plans, I am almost certain that I can make them work.	<input type="checkbox"/>
13b	It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad luck anyhow.	<input type="checkbox"/>
14a	There are certain people who are just no good.	<input type="checkbox"/>
14b	There is some good in everybody.	<input type="checkbox"/>

- 15a In my case getting what I want has little or nothing to do with luck. ☐
- 15b Many times we might just as well decide what to ^{do} by flipping a coin. ☐
-
- 16a Who gets to be the boss often depends on who was lucky enough to be in the right place first. ☐
- 16b Getting people to do the right thing depends upon ability. Luck has little or nothing to do with it. ☐
-
- 17a As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control. ☐
- 17b By taking an active part in political and social affairs the people can control world events. ☐
-
- 18a Most people don't realise the extent to which their lives are controlled by accidental happenings. ☐
- 18b There really is no such thing as "luck". ☐
-
- 19a One should always be willing to admit mistakes. ☐
- 19b It is usually best to cover up one's mistakes. ☐
-
- 20a It is hard to know whether or not a person really likes you. ☐
- 20b How many friends you have depends upon how nice a person you are. ☐
-
- 21a In the long run the bad things that happen to us are balanced by the good ones. ☐
- 21b Most misfortunes are the result of lack of ability, ignorance, laziness, or all three. ☐
-
- 22a With enough effort we can wipe out political corruption. ☐
- 22b It is difficult for people to have much control over the things politicians do when they are in power. ☐

Please Turn Over

- 23a Sometimes I can't understand how teachers arrive at the grades they give. ☐
- 23b There is a direct connection between how hard I study and the grades I get. ☐
-
- 24a A good leader expects people to decide for themselves what they should do. ☐
- 24b A good leader makes it clear to everybody what their jobs are. ☐
-
- 25a Many times I feel that I have little influence over the things that happen to me. ☐
- 25b It is impossible for me to believe that chance or luck plays an important role in my life. ☐
-
- 26a People are lonely because they don't try to be friendly. ☐
- 26b There's not much use in trying too hard to please people, if they like you, they like you. ☐
-
- 27a There is too much emphasis on athletics in Secondary school. ☐
- 27b Team sports are an excellent way to build character. (e.g. football, netball etc) ☐
-
- 28a What happens to me is my own doing. ☐
- 28b Sometimes I feel that I don't have enough control over the direction my life is taking. ☐
-
- 29a Most of the time I can't understand why politicians behave the way they do. ☐
- 29b In the long run the people are responsible for bad government on a national as well as on a local level. ☐

**WHEN YOU HAVE FINISHED THE FIRST QUESTIONNAIRE, PLEASE TURN OVER
THE PAGE AND COMPLETE THE SOCIAL SITUATIONS QUESTIONNAIRE.**

SOCIAL SITUATIONS QUESTIONNAIRE

Please look at each of the following situations and rate the extent you find or would find, the situations difficult to cope with, using the following scale:

No	Slight	Moderate	Great	Avoidance if
Difficulty	Difficulty	Difficulty	Difficulty	Possible
0	1	2	3	4

	At the present time	This time a year ago
1. Walking down the street.....	-	-
2. Going into shops.....	-	-
3. Going on public transport....	-	-
4. Going into pubs.....	-	-
5. Going to parties.....	-	-
6. Mixing with people at work...	-	-
7. Making friends of your own age	-	-
8. Going out with someone you are sexually attracted.....	-	-
9. Being with a group containing both men and women of roughly the same age as you.....	-	-
10. Entertaining people in your home lodgings etc.....	-	-
11. Going into restaurants or cafes	-	-
12. Going to dances, dance halls or discotheques.....	-	-
13. Being with older people.....	-	-
14. Being with younger people....	-	-
15. Going into a room full of people	-	-
16. Meeting strangers.....	-	-
17. Being with people you don't know very well.....	-	-
18. Being with friends.....	-	-
19. Approaching others - making the first move in starting up a friendship.....	-	-
20. Making ordinary decisions affecting others (e.g. what to do together in the evening)	-	-
21. Being with only one other person rather than a group	-	-
22. Getting to know people in depth.....	-	-
23. Taking the initiative in keeping a conversation going.....	-	-
24. Looking at people directly in the eyes.....	-	-

25.	Disagreeing with what other people are saying and putting forward your views.....	-	-
26.	People standing or sitting very close to you.....	-	-
27.	Talking about yourself and your feelings in a conversation	-	-
28.	People looking at you	-	-
29.	Complaining to a neighbour that you know well about constant noisy disturbances	-	-
30.	Going for a job interview	-	-
31.	Visiting the doctor when unwell.....	-	-
32.	Going to a close relation's funeral.....	-	-
33.	Going round to cheer up a depressed friend who ask you to call.....	-	-
34.	Hosting a large party.....	-	-
35.	Giving a short formal speech to about fifty people whom you don't know.	-	-
36.	Taking an unsatisfactory article back to a shop	-	-
37.	Going across to introduce yourself to new neighbours	-	-
38.	Dealing with a difficult and disobedient child	-	-
39.	Going to functions with many people from a different culture	-	-
40.	Playing a party game eg. charades	-	-
41.	Attending the wedding of a distant relative where you know few people	-	-
42.	Apologising to a superior for forgetting an important task	-	-

PLEASE DON'T TURN THE PAGE YET. WHEN EVERYONE HAS FINISHED, YOU
WILL RECEIVE INSTRUCTIONS FOR THE FINAL EXERCISE.

REPERTORY TEST PART A

ROLE TITLE LIST (please take this list away with you at the end of the sessions) Please don't use the same person twice.

ROLE TITLE

NAME

1. An employer or supervisor you like(d)
2. An employer or supervisor you find hard to get along with
3. A teacher or lecturer you liked
4. A teacher or lecturer you have disliked
5. Your current (or recent) partner
6. Your mother (or the person who has played the part of a mother in your life)
7. Your father (or the person who has played the part of a father in your life)
8. Your brother nearest your age (or the person who has been most like a brother)
9. Your sister nearest your age (or the person who has been most like a sister)
10. A person with whom you have worked who was easy to get along with
11. A person with whom you have worked who has been hard to understand
12. A neighbour whom you get/got along well
13. A neighbour whom you find/found hard to understand
14. A person of your own sex whom you would enjoy having as a companion on a trip
15. A person of your own sex whom you would dislike having as a companion on a trip
16. A person with whom you have been closely associated recently who appears to dislike you
17. The person you would most like to be of help to
18. The most intelligent person you know personally
19. The most successful person you know personally
20. The most interesting person you know personally

REPERTORY TEST PART B

In each of the following sorts, three numbers are listed. Look at your Part A sheet (the role title list) and consider the three people you have listed opposite these numbers. In terms of their interpersonal communication, in what important way are two of these three people alike and at the same time, essentially different from the third?

When you have decided what the important way is, write it in the blank opposite the sort marked **CONSTRUCT**.

Write down what you believe to be the opposite of the construct in the blank marked **CONTRAST**.

SORT	PART A NUMBERS	CONSTRUCT	CONTRAST
1	4, 5, 11	.....	.....
2	1, 8, 10	.....	.....
3	3, 15, 18	.....	.....
4	10, 13, 16	.....	.....
5	1, 2, 6	.....	.....
6	9, 16, 17	.....	.....
7	2, 18, 20	.....	.....
8	7, 8, 19	.....	.....
9	3, 4, 12	.....	.....
10	1, 6, 14	.....	.....
11	4, 11, 13	.....	.....
12	2, 9, 10	.....	.....

PROFILE OF NONVERBAL SENSITIVITY - Visual Portion (Still 40)

NAME

(Last)

(First)

(Middle)

DATE

INSTRUCTIONS: Please circle the letter (A or B) next to the label which best describes the scene in the picture.

1. A. criticizing someone for being late
B. expressing gratitude
2. A. talking about one's wedding
B. expressing gratitude
3. A. expressing motherly love
B. asking forgiveness
4. A. admiring nature
B. helping a customer
5. A. admiring nature
B. saying a prayer
6. A. nagging a child
B. criticizing someone for being late
7. A. criticizing someone for being late
B. expressing gratitude
8. A. expressing strong dislike
B. expressing deep affection
9. A. expressing motherly love
B. threatening someone
10. A. expressing strong dislike
B. ordering food in a restaurant
11. A. expressing deep affection
B. nagging a child
12. A. asking forgiveness
B. nagging a child
13. A. admiring nature
B. expressing motherly love
14. A. returning faulty item to a store
B. helping a customer
15. A. saying a prayer
B. threatening someone
16. A. helping a customer
B. asking forgiveness
17. A. talking about one's divorce
B. trying to seduce someone
18. A. talking about one's divorce
B. asking forgiveness
19. A. leaving on a trip
B. nagging a child
20. A. ordering food in a restaurant
B. threatening someone

21. A. expressing strong dislike
B. helping a customer
22. A. leaving on a trip
B. expressing deep affection
23. A. nagging a child
B. talking to a lost child
24. A. returning faulty item to a store
B. talking about the death of a friend
25. A. talking about one's wedding
B. talking about one's divorce
26. A. expressing jealous anger
B. threatening someone
27. A. talking about one's divorce
B. leaving on a trip
28. A. expressing deep affection
B. admiring nature
29. A. talking about the death of a friend
B. expressing jealous anger
30. A. returning faulty item to store
B. expressing strong dislike
31. A. ordering food in a restaurant
B. expressing jealous anger
32. A. expressing motherly love
B. talking to a lost child
33. A. trying to seduce someone
B. talking to a lost child
34. A. saying a prayer
B. nagging a child
35. A. talking about one's divorce
B. returning faulty item to a store
36. A. expressing jealous anger
B. nagging a child
37. A. talking about one's wedding
B. talking about the death of a friend
38. A. threatening someone
B. expressing strong dislike
39. A. saying a prayer
B. talking about one's wedding
40. A. leaving on a trip
B. trying to seduce someone

**Appendix 6 Rotter I-E Scale -
Amendments to Original Version**

Word/phrases which have been added are shown in parentheses. Where these replace existing words/phrases, that which they replace has been underlined.

- 1a Children get into trouble because their parents punish them too much.
- 1b The trouble with most children nowadays is that their parents are too easy (going) with them.
- 2a Many of the unhappy things in people's lives are partly due to bad luck.
- 2b People's misfortunes result from the mistakes they make.
- 3a One of the major reasons why we have wars is because people don't take enough interest in politics.
- 3b There will always be wars, no matter how hard people try to prevent them.
- 4a In the long run people get the respect they deserve in this world.
- 4b Unfortunately, an individual's worth (value in society) often passes unrecognised no matter how hard (s)he tries.
- 5a The idea that teachers are unfair to students is nonsense.
- 5b Most students don't realise the extent to which their grades (marks) are influenced by external happenings (e.g. good mood of teacher).
- 6a Without the right breaks (luck) one cannot be a good leader.
- 6b Capable people who fail to become leaders have not taken advantage of their opportunities.
- 7a No matter how hard you try, some people just don't like you.
- 7b People who can't get others to like them don't understand how to get along with others.

- 8a Heredity plays the major role in determining one's personality (The qualities that you are born with are the main things that determine your personality).
- 8b It is one's experiences in life which determine what they are like (It's your experiences in life which determine what kind of person you become).
- 9a I have often found that what is going to happen will happen.
- 9b Trusting to fate has never turned out as well for me as making a decision to take a definite course of action (worked for me).
- 10a In the case of the well-prepared student there is rarely if ever such a thing as an unfair test.
- 10b Many times, exam questions tend to be so unrelated to course work (what has been studied in class) that studying is really useless.
- 11a Becoming a success is a matter of hard work; luck has little or nothing to do with it.
- 11b Getting a good job depends mainly on being in the right place at the right time.
- 12a The average citizen (person) can have an influence in government decisions.
- 12b This world is run by the few people in power, and there is not much the little guy (ordinary person) can do about it.
- 13a When I make plans, I am almost certain that I can make them work.
- 13b It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune (luck) anyhow.
- 14a There are certain people who are just no good.
- 14b There is some good in everybody.

- 15a In my case, getting what I want has little or nothing to do with luck.
- 15b Many times we might just as well decide what to do by flipping a coin.
- 16a Who gets to be the boss often depends on who was lucky enough to be in the right place first.
- 16b Getting people to do the right thing depends on ability. Luck has little or nothing to do with it.
- 17a As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control.
- 17b By taking an active part in political and social affairs the people can control world events.
- 18a Most people don't realise the extent to which their lives are controlled by accidental happenings.
- 18b There is really no such thing as "luck".
- 19a One should be willing to admit mistakes.
- 19b It's usually best to cover up one's mistakes.
- 20a It is hard to know whether or not a person really likes you.
- 20b How many friends you have depends on how nice a person you are.
- 21a In the long run the bad things that happen to us are balanced by the good ones.
- 21b Most misfortunes are the result of lack of ability, ignorance, laziness or all three.
- 22a With enough effort we can wipe out political corruption.
- 22b It is difficult for people to have much control over the things politicians do in office (in power).

- 23a Sometimes I can't understand how teachers arrive at the grades they give.
- 23b There is a direct connection between how hard I study and the grades I get (if I were studying at school or college).
- 24a A good leader expects people to decide for themselves what they should do.
- 24b A good leader makes it clear to everybody what their jobs are.
- 25a Many times I feel I have little influence over what will happen to me.
- 25b It is impossible for me to believe that chance or luck plays an important role in my life.
- 26a People are lonely because they don't try to be friendly.
- 26b There's not much use in trying hard to please people; if they like you, they like you.
- 27a There's too much emphasis on athletics in high (secondary) school.
- 27b Team sports are an excellent way to build character (e.g. football, netball etc.).
- 28a What happens to me is my own doing.
- 28b Sometimes I feel that I don't have enough control over the direction my life is taking.
- 29a Most of the time I can't understand why politicians behave the way they do.
- 29b In the long run the people are responsible for bad government on a national as well as a local level.

**Appendix 7 Social Situations Questionnaire -
SPSS Principal Components Analysis
with Oblique Rotation -
Factor Pattern Matrix**

ITEM	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6
19	.66262					
23	.65620					
15	.59551					
22	.53731					
17	.48433					
16	.47169					
13	.42780					
25	.41102					
3	-.38796					
20	.37142					
8	.34781					
41	.32880					
32		-.70965				
30		-.65447				
33		-.60423				
42		-.59817				
35		-.56845				
29		-.55069				
37		-.41813				
34		-.33081				
39		-.25391				
5			.78385			
4			.70279			
12			.59094			
1				.79345		
2				.76785		
18				.75344		
9				.43817		
7				.40063		
28					-.68318	
40					-.67596	
26					-.66463	
27					-.64183	
36					-.56540	
14						-.56102
6						-.53395
10						-.51161
24						-.43412
21						-.41602
38						-.41262
31						-.35785
11						-.35652

Appendix 8 Behavioural Ratings Sheet

INSTRUCTIONS TO RATERS

Each videotape contains a series of short interviews (maximum 3 minutes) in which the subject matter is a job previously held by the interviewee.

In each case, please concentrate on the interviewer, and, using one of the attached sheets,

1. Rate the interviewer's performance according to the criteria listed.
2. Comment briefly on each criterion; in particular, provide explanatory comments if you have rated a behaviour "always inappropriate" or "sometimes inappropriate".

PRE-TEST INTERVIEWER

GROUP

Please use the following rating scale for each criterion:

- 1 always appropriate
- 2 mostly appropriate
- 3 mostly inappropriate
- 4 always inappropriate

“Appropriate” - likely to be effective in eliciting a response from the interviewee.

CRITERION	1	2	3	4	COMMENTS
Eye contact					
Facial expression					
Posture/orientation					
Gesture					
Active listening					
Pausing					
Tone					
Questioning style					

Other comments (if any)

Appendix 9

Outline of Communication Skills Training Programme

Session	Content
1	Outline of training programme; explanation of microtraining format; familiarisation with videotaping equipment
2	Introduction to Interpersonal Communication, (using Hargie's extension of Argyle's model of interpersonal interaction)
3	Theory and Practice: Non-Verbal Behaviour
4	Playback and analysis of tapes
5	Theory and Practice: Questioning
6	Playback and analysis of tapes
7	Theory and Practice: Set Induction and Closure
8	Playback and analysis of tapes

THE MANCHESTER METROPOLITAN UNIVERSITY
DEPARTMENT OF APPLIED COMMUNITY STUDIES

CENTRE FOR HUMAN COMMUNICATION

NON-VERBAL COMMUNICATION

Reading: Hargie et al (1994) "Social Skills in Interpersonal Communication"
Chapter 3.

1. **Touch** Includes handshakes, or using touch to comfort someone (eg touching arm, or putting arm round person's shoulders, during bereavement).
2. **Territoriality** Individuals tend to create an area of "personal territory" using furniture and other items. Sensitivity to personal territory is an important aspect of social skill.
3. **Proximity** How close do people sit, or stand, together when they are interacting? Usual balance in our society is five feet nose to nose. Extreme variations include being "stand-offish" or "too close for comfort"! Distance is closer when status is equal.
4. **Orientation** How do participants position themselves? Is one on a higher chair? Is there a table? What effects do these items have? Note relative positions for co-operation, conversation, competition and co-action.
5. **Posture** This can indicate attention, dominance, openness etc... A forward, or sideways, lean is usually a sign of listening. What postures do participants adopt? Do they "mirror" each other in posture by sitting the same way in their chairs? To what extent does posture convey emotion?
6. **Facial Movements** We move the muscles around our mouth and eyes. Do participants smile, and if so was this appropriate? Do they raise eyebrows, yawn, or bite their lip? What do these behaviours suggest? Is facial expression congruent with speech?
7. **Head Nods** Very important in interaction are 'the noddies'. We nod slowly to indicate 'yes, continue talking, I am listening'; to indicate 'hurry up, I know that'. (Also we tilt our head to listen.)
8. **Gestures** These can be self-comforting (eg when we "hold hands" with ourselves) and orientated towards the self. Or they can be linked with what the speaker is trying to communicate to someone else. Are gestures used by participants? Are they self-directed or communicative? Were they appropriate? Do they replace speech or complement it?
9. **Eye Contact** Crucially important. We look away when embarrassed, uninterested or have something to hide; we look less when speaking than when listening. Patterns of eye contact may be related to gender and status.

10. **Appearance** Relevant dimensions include hair, face, body shape and clothes. Most people make inferences about personal characteristics based on limited visual information.
11. **Paralanguage** How something is said. Includes tone, pitch, stress, volume, accent and speed of voice. Are these elements used appropriately? Do they always support the verbal message, or do they in any way contradict what was being said?

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QUESTIONING

Reading: Hargie et al (1994) "Social Skills in Interpersonal Communication"
Chapter 5.

1. **Recall and Process Questions** This division refers to the cognitive level rather than the structure of the question. Recall questions require the respondent to supply simple information. Process questions require thought (eg giving an opinion, justifying, judging, evaluating, predicting or interpreting). May be used to stimulate thought, (eg in teaching), or to assess, (eg in job selection).
2. **Closed Questions** Useful for gathering specific factual information, or for getting someone talking early on since they are easy to answer. There are three types:-
 - (i) **Yes/No:** "Are you married?", "Do you own this house?".
 - (ii) **Selection:** "Do you prefer tea or coffee?", "Would you rather stay here or move away?".
 - (iii) **Identification:** "What is your name?", "What age are you?", "How much do you earn?".
3. **Open Questions** Allow the respondent to answer as he/she wants, and require more than one or two words for an adequate answer (eg "How have things been since we last met?", "Tell me about that", "How do you feel about that?", "Why do you say that?"). Some open questions will restrict the respondents more than others - look out for 'funnel' sequence.
4. **Affective Questions** Relate specifically to emotions, attitudes and feelings and can be open or closed. Particularly relevant in counselling, and can be appropriate in many other kinds of 'helping interview'.
5. **Leading Questions** Lead the respondent in the direction of the answer sought by the questioner. There are three types:-
 - (i) **Conversational** "Isn't the weather terrible?", "Have you ever seen my mother looking better?". These can be useful in stimulating conversation, if used wisely.

- (ii) Simple "You do, of course, go to Church, don't you?", "Surely you don't support the Communists?". These are unambiguously intended to lead the respondent to give the answer the questioner expects.
 - (iii) Implication "Like all good counsellors, wouldn't you agree with the non-directive approach?". If the respondent disagrees, he/she is forced to accept a negative implication (ie not a good counsellor).
 - (iv) Subtle "Do you get headaches frequently?", "How tall was the basketball player?". Questions like this are more likely to elicit a certain kind of response.
6. Probing Questions It is important for the questioner to relate questions closely to the answers given by respondents, by 'following up'. Probing can be concerned with clarification, justification, relevance, exemplification, extension and accuracy. Probing can also be achieved by 'echoing' something that the respondent has just said, nonverbally (eg by paralanguage, head-tilting etc), or by pausing.
 7. Rhetorical Questions A question which does not expect an answer, either because it is used to make a statement ("When did you last arrive on time?"), or because the speaker intends to answer him/herself - a common technique in public speaking. Generally inappropriate in interviewing.
 8. Multiple Questions Two or more questions strung together. May be useful when time is limited (eg radio/TV interviewers) but generally to be avoided as they are liable to confuse the respondent and produce inaccurate answers.
 9. Structuring Involves indicating to the respondent what questions are likely to be asked and why it is necessary to ask them (eg "If I am going to be able to help you with this, I need to find out a bit more about your present situation...").
 10. Sequencing There are four kinds of sequencing: funnel (open → closed), inverted funnel (closed → open), tunnel (series of questions of the same type), erratic (mixture of open and closed, or recall and process). It is important to use the sequence pattern most appropriate to the situation.

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CENTRE FOR HUMAN COMMUNICATION

SET INDUCTION AND CLOSURE

Reading: Hargie et al (1994) "Social Skills in Interpersonal Communication"
Chapter 7.

Set Induction establishes in the individual a state of readiness appropriate for the task which is to follow. The induction of an appropriate set can be defined as the initial strategy utilised in order to establish a frame of reference, deliberately designed to facilitate the development of a communicative link between the expectations of the participants and the realities of the situation. Set induction can therefore be a long, or a short, process depending on the context of the interaction.

Important factors include:-

- (i) Establishing rapport. This includes the use of verbal and non-verbal reinforcement. It could also include 'non-task' comments (eg about the weather) and good use of listening skills initially.
- (ii) Establishing the expectations of the other and evaluating these in relation to how realistic they are; ascertaining participants' level of knowledge about the topic.
- (iii) If relevant, reviewing previous encounters to agree about what has gone before.
- (iv) Outlining professional job functions - pointing out the limits of one's powers etc.
- (v) Deciding upon the goals for the forthcoming interaction - drawing up a 'contract' upon which to begin a relationship.

These are the main aspects of set induction which can be discussed during training. There are other aspects (such as the dress and physical appearance of the interactors in any given situation) which will influence how people are regarded initially by others, but which are not so relevant during training. It is important to be aware of motivational set, social set, perceptual set and cognitive set.

The skill of set induction consists of four main processes:-

- (i) orientation - welcoming, settling down etc
- (ii) transition - links with previous encounters, expectations, functions of participants
- (iii) evaluation - of the relationships between expectations and realities
- (iv) operation - outlining goals, nature, content and duration of forthcoming interaction

Closure is complementary to set induction, in that while set induction 'opens' social interaction, the skill of closure brings it to a 'close'. Closure can be seen as directing attention to the completion of an interaction sequence. It is a skill which is widely used, in various forms, in social interaction. The following functions of closure should be considered:-

- (i) to indicate that the topic has been completed, at least for the moment
- (ii) to focus attention on what has been covered, by summarising
- (iii) to consolidate the components of this interaction with previous episodes
- (iv) to give participants a sense of achievement if appropriate and to offer reinforcement ("Thanks for coming - I really enjoyed meeting you")
- (v) to indicate 'what happens next'
- (vi) to assess the effectiveness of the interaction
- (vii) to create a positive attitude to any future encounter

The process of closure can be analysed at four different levels:-

- (i) factual closure - using summaries, initiating or inviting questions, future links
- (ii) motivational closure - encouraging further action by the participant. Techniques include the use of explicitly motivating statements, thought-provoking comments and future-oriented comments
- (iii) social closure - should follow the factual closure and should reinforce the notion that the encounter has been an enjoyable experience. Techniques include task-related supportive statements ("Well done, we're beginning to get somewhere now") and non-task-related statements ("Have a safe journey").
- (iv) perceptual closure - signalling the end of the encounter with 'closure markers' which may be verbal ("I think that's it for today") or non-verbal (breaking eye contact, closing notebook, taking out keys, standing up etc). It is important that the verbal and non-verbal markers should be supportive to the client and consistent with each other. Notice that with young people, explicit verbal closure markers are usually necessary.

Most of the above aspects can be discussed during training. In both set induction and closure, however, there are elements of difficulty in the real setting. For example, there may be problems in getting into a particular house, the other person may be rude or abusive, and as a result other skills may be needed. Similarly, there may be problems in closing, especially with someone who is lonely and needs someone to talk to; at the other extreme is the possibility of being 'thrown out' of a situation by an aggressive, annoyed individual.

**Appendix 10 Behavioural Ratings - Mean Raw Scores
at Time 1 and Time 2, by Group and
Category**

Group	Category	Time 1	Time 2
1 (TO)	1	3.8000	4.0000
	2	3.3000	3.7000
	3	3.4000	3.9000
	4	3.7000	3.7000
	5	3.3000	3.4000
	6	3.4000	3.3000
	7	3.8000	3.7000
	8	3.0000	3.0000
2 (TF)	1	3.9167	3.8333
	2	3.6667	3.8333
	3	3.4167	3.5833
	4	3.2500	3.6667
	5	3.9167	3.7500
	6	3.5833	3.7500
	7	3.6667	3.7500
	8	2.7500	3.0833
3 (FO)	1	3.8333	4.0000
	2	3.9167	3.9167
	3	3.2500	3.7500
	4	3.5000	3.6667
	5	3.8333	3.6667
	6	3.4167	3.3333
	7	3.8333	3.7500
	8	2.8333	2.9167
4 (C)	1	3.9167	3.9167
	2	3.6667	3.7500
	3	3.5833	3.5833
	4	3.5833	3.5833
	5	3.6667	3.6667
	6	3.6667	3.3333
	7	3.5833	3.6667
	8	3.3333	2.8333
All males	1	3.7333	3.8667
	2	3.6000	3.7333
	3	3.2667	3.5333
	4	3.3333	3.6000
	5	3.6000	3.4000
	6	3.4000	3.4667
	7	3.7333	3.6667
	8	2.8667	2.5333
All females	1	3.9355	4.0000
	2	3.6744	3.8367
	3	3.4839	3.7742
	4	3.5806	3.6774
	5	3.7419	3.7419
	6	3.5806	3.4194
	7	3.7097	3.7097
	8	3.0323	3.1613

Appendix 11**Repertory Grid Analysis - Percentage
of Variance Accounted For by First and
Second Principal Components**

Subject	Percentage of Variance		Total
	First P.C	Second P.C	
1.1	63.07	12.42	75.49
1.2	69.00	9.91	61.10
1.3	46.44	14.76	78.91
1.4	83.99	4.84	88.83
1.5	70.28	16.10	77.38
2.1	59.02	11.74	70.76
2.2	48.56	14.42	62.98
2.3	63.23	10.75	73.98
2.4	75.07	7.56	82.63
2.5	75.53	7.39	82.92
3.1	66.18	11.16	77.34
3.2	53.19	18.32	71.51
3.3	27.58	24.36	51.94
3.4	52.96	25.56	78.52
4.1	66.46	9.41	75.87
4.2	67.57	9.77	77.34
4.3	77.64	7.09	84.73
4.4	44.00	17.68	61.68

Appendix 12 Repertory Lists - Whole Sample

TIME 1	GROUP 1 (TO)	
SUBJECT	CONSTRUCT	CONTRAST
1.1	uncommunicative extrovert intelligent egocentric aggressive constrained direct gregarious relaxed outgoing inconsistent supportive	clear introvert unintelligent open calm relaxed manipulative shy tense tense straightforward aggressive
1.2	intelligent easygoing enthusiastic comical kindhearted sensitive well-read hardworking congenial practical selective	cold stubborn exhausting gossip sarcastic mercenary ignorant selfish intolerant demanding pass-remarkable
1.3	slightly closed chatty very communicative poor eye contact relaxed closed off giving quiet/relaxed straightforward accepting overbearing reinforcing	open quiet overwhelming good eye contact tense listens well demanding extrovert inconsistent directing uncommunicative not reinforcing
1.4	secretive friendly open stubborn chatty relaxed lively laid back approachable communicative negative approachable	honest aggressive closed flexible quiet tense slow fiery defensive confident incongruent distant

SUBJECT	CONSTRUCT	CONTRAST
1.5	calm attentive regarding extrovert selfish limited sense hard to understand interesting intelligent subjective likeable paternalistic	agitated inattentive disregarding introvert altruistic sensible understandable uninteresting unintelligent objective dislikeable non-paternalistic
1.6	difficult to follow easy to understand articulate doesn't listen gives opportunity to reply doesn't listen varies speech quiet allow to speak interested nothing in common no rapport	open inarticulate too quiet stops to listen impatient easy to talk to quiet rapport impatient doesn't listen unclear replies friendly manner
1.7	abrupt tactile open expressive communicative open thoughtful sensitive understanding aggressive communicative	calm non-toucher uncommunicative mumbling aggressive forceful forthright forceful direct incommunicative aggressive
1.8	uncompromising lighthearted easygoing aggressive encouraging caring interesting interested good listener friendly domineering bears a grudge	amenable serious annoying approachable disdainful unconcerned boring selfcentred dismissive dominant accessible forgiving

SUBJECT	CONSTRUCT	CONTRAST
1.9	moody leader interested open friendly open listener sensible fun competent superior adaptable	happy follower non-committal selfish arrogant closed angry senseless boring lazy off-hand single-minded
1.10	offhand confident forthright quiet overbearing helpful talkative extrovert friendly sociable helpful agreeable	pleasant lacks confidence understanding outgoing nonobtrusive unhelpful quiet introvert unfriendly unsociable unhelpful disagreeable
1.11	incoherent talks at length introvert unfriendly organised articulate clear objectives of few words unaggressive secure articulate explicit	coherent uses few words extrovert friendly disorganised inarticulate poor objectives chatty aggressive insecure inarticulate inexplicit
1.12	offensive articulate objective shallow consistent humorous thought-provoking fair exuberant dynamic inconsistent sound	tolerant inarticulate subjective deep inconsistent dour dull intolerant boring flat consistent poor

TIME 1	GROUP 2 (TF)	
SUBJECT	CONSTRUCT	CONTRAST
2.1	ignorant easy-going coherent anti-social articulate amenable sympathetic calm approachable concise arrogant empathy	open/friendly highly strung incoherent social inarticulate obnoxious unsympathetic aggressive unapproachable waffler timid uncaring
2.2	nastiness open personality willing to listen relaxed fair well spoken rude able to listen straightforwardness ability to move conversation on good eye contact unsmiling	pleasantness closed personality unwilling to listen unrelaxed unfair not well spoken polite unable to listen unable/unwilling to give straight answer repeating shifting eye contact smiling
2.3	uncommunicative truthful direct curt honest interesting communicative open minded reliable direct truthful	communicative untruthful indirect open dishonest not interesting uncommunicative closed unreliable indirect untruthful
2.4	not lucid articulate friendly bossy encouraging amiable knowledgeable caring sympathetic fun confident unjudgemental	coherent inarticulate intimidating unjudgemental critical unfriendly ignorant uncaring unsympathetic serious shy dictatorial

SUBJECT	CONSTRUCT	CONTRAST
2.5	unpredictable clear with advice interesting shady caring loving challenging protective amusing extrovert unfriendly affectionate	dependable vague boring open selfish unfriendly unchallenging self-centred miserable introvert friendly cold
2.6	bitchy rigid intelligent intimidating domineering ignorant boring confident helpful sensible obnoxious fun	open relaxed narrow minded friendly easy-going friendly funny introverted unhelpful unpredictable petty professional
2.7	boring open humorous scathing informative friendly articulate supportive informative humorous selfish sympathetic	interesting uncommunicative dull sympathetic secretive intimidating uncommunicative arrogant unapproachable boring arrogant sulky
2.8	arrogant easy to talk to outgoing lack of tolerance loving likeable talk about anything quiet confidence unpretentious sexually uninhibited open to persuasion ready smile	self-effacing reticent sullen charitable aggressive unpopular tunnel vision unfounded confidence supercilious shy rigid views barely suppressed anger

SUBJECT	CONSTRUCT	CONTRAST
2.9	shy relaxed informed approachable relaxed easy style clear interesting probing outgoing happy engaging	open tense stupid opinionated tense overpowering obscure boring shallow reserved sad uninteresting
2.10	boring dry humour informative callous caring know-all warm communicative naive ambitious sulky hard work	interesting crude humour non-informative sympathetic arrogant modest cold non-communicative confident contented enthusiastic easy going
2.11	vague flirtatious supportive friendly humorous open focused dependable respectful demanding dull slow	specific sarcastic competitive cool uptight closed confusing risk taking cheeky laid back loud rushed
2.12	cannot listen good teacher interested in others kind positive/cheerful judgemental humorous kind generous perfectionist intolerant humourless	listens well woolly explainer self-centred cruel negative/gloomy accepting dour grasping grasping relaxed about faults forgiving smiling

TIME 1	GROUP 3 (FO)	
SUBJECT	CONSTRUCT	CONTRAST
3.1	deceit friendly open cold empathy love talkative sympathetic talkative male unfeeling trusting	trustworthy formal disloyal effervescent distant hatred reclusive uncertain of feelings cunning female sneak untrustworthy
3.2	overpowering mellow assuming non-genuine serious assertive opinionated attention seeking approachable chatty overpowering outgoing	mellow overpowering unassuming genuine scatty unassertive unopinionated reflective overpowering introverted mellow introverted
3.3	talkative confident speaker fluent vocab. approachable openness puts one at ease receptive assertive confident confident hesitant friendly	non-talkative nervous speaker limited vocab. not receptive cards close to chest non-communicative non-receptive quiet hesitant hesitant confident inconsistent
3.4	uncommunicative direct overpowering friendly direct/friendly overpowering confident chatty authoritative direct/friendly intellectually challenged open	communicative indirect listens unfriendly indirect/unfriendly downtrodden shy only talks when something to say friendly direct/nasty authoritative withdrawn

SUBJECT	CONSTRUCT	CONTRAST
3.5	unfriendly reliable unselfish rude sociable stupid caring interested warm communicative silent awkward	friendly unreliable selfish polite unsociable intelligent uncaring uninterested cold uncommunicative talkative comfortable
3.6	sarcasm open boring difficult relaxed uncommunicative unclear enthusiastic friendly interesting unfriendly stressful	friendly uncommunicative interesting easy-going stressed outgoing open uncooperative uncommunicative uninteresting boring easy going
3.7	muddled open approachable tense initiates conversation humorous self conscious confident anxious comfortable with self friendly domineering	clear secretive stand-offish relaxed doesn't initiate conversation serious not self conscious shy at ease not comfortable with self unfriendly not domineering
3.8	quietly dominant friendly and open range of topics quietly set in ways cheerful gossips intelligent plodder chatty cheerful, confident speaks mind friendly	loudly dominant doesn't initiate one topic open to ideas moody avoids gossip <u>thinks</u> they are intelligent entrepreneur moody cheerful, no confidence keeps to self gets backs up

SUBJECT	CONSTRUCT	CONTRAST
3.9	closed open to many interesting closed fair open approachable interested open loyal closed unless approached friendly	emotionally closed open one to one boring open disloyal hard to approach unapproachable disinterested closed untrustworthy closed unapproachable
3.10	rigid content with lot generous self centred encouraging deserving good communicator in groups articulate funny independent unfriendly good listener	flexible has direction selfish altruistic condescending unappreciative bad communicator in groups groups inarticulate stern dependent friendly bad listener
3.11	makes self clear secretive chatty witty devious sensitive enchanted uncommunicative cheerful uncomfortable uncommunicative but nice evasive	evasive open moody stiff honest coarse to be avoided gregarious severe cheerful uncommunicative but nasty straightforward
3.12	lively at ease easy to understand unpretentious organised at ease unconformist unmoralistic good fun free happy easy going	quiet up tight bitchy hard to read unorganised too talkative conformist moralistic uninterested reserved moody harsh

TIME 1	GROUP 4 (C)	
SUBJECT	CONSTRUCT	CONTRAST
4.1	waffly reserved quiet critical pleasant shared interests asks questions introvert open witty good diction friendly/open	direct friendly loud supportive aggressive little in common self-centred extrovert reserved serious clear diction aggressive
4.2	changeable talkative communicative unfriendly open unrestrained lively communicative approachable friendly domineering communicative	reliable listener uncommunicative friendly uncommunicative shy dull shy unapproachable shy uncommunicative uncommunicative
4.3	sincere interested amusing superior sincere communicative helpful concern interested talkative standoffish defensive	insincere uninterested boring equal offhand uncommunicative unhelpful unconcerned patronising quiet forward open
4.4	easy-going organised self-centred helpful interested interesting narrow-minded placid pretentious tactful impatient thoughtful	uptight disorganised generous patronising uninterested uninteresting open-minded flippant unpretentious untactful patient thoughtless

SUBJECT	CONSTRUCT	CONTRAST
4.5	brusque chatty business-like shy people-orientated interested noncommunicative dour/uninterested helpful understanding closed open	involved surly uninterested gregarious aloof uninterested verbose inquiring self-involved not comprehending open unapproachable
4.6	unapproachable friendly interesting disinterested warm closed enthusiasm ambitious cold narrow minded unfriendly enthusiasm	helpful aggressive unexciting lots in common cold open inertia subdued warm open approachable apathy
4.7	aggressive sincere interesting garrulous gentle demonstrative sincere demonstrative modest sincere over confident sincere	non-aggressive not sincere not interesting to the point aggressive not demonstrative not sincere not demonstrative supercilious not sincere not over confident not sincere
4.8	finds difficulty in explaining simple things reserved calm positive attentive warm humorous makes feel small approachable fun to be with caring stubborn	makes simple things interesting outgoing nervous negative concerned with self cold serious treats as equal difficult to talk to miserable mechanical flexible

SUBJECT	CONSTRUCT	CONTRAST
4.9	direct good listener approachable friendly sympathetic understanding condescending non-expressive down-to-earth talkative awkward comfortable	subtle overpowering selfish distant unfeeling indifferent respectful emotional superior quiet aims to please uneasy
4.10	condescending serious talkative arrogant sarcastic trusting approachable sociable sensitive attentive articulate boisterous	sympathetic light-hearted quiet modest caring closed unapproachable unsociable tactless restless inarticulate timid
4.11	closed shy unaggressive warm assertive informal reserved get along with most outgoing outspoken down to earth	communicative confident aggressive cold not assertive formal bubbly get along with few introverted quiet superior
4.12	listen quiet empathetic sullen friendly talkative abrupt looks at you open polite sarcastic humorous	talk loud not understanding lively unfriendly morose welcoming doesn't look at you sly rude serious humourless

TIME 2	GROUP 1 (TO)	
SUBJECT	CONSTRUCT	CONTRAST
1.1	prescriptive egocentric intelligent disorganised understanding calm widely experienced good listener friendly good humoured complex open	flexible understanding unintelligent organised self-centred nervous narrow minded self involved disinterested shy simplistic standoffish
1.2	honest jovial fascinating humorous good listener caring knowledgeable helpful approachable encouraging unstressed considerate	cold blunt insincere biting ignorant untruthful petty-minded shallow closed overconfident poor communicator selfish
1.3	domineering easy going informative inconsistent frankness open encouraging quietly confident organised more intimate closed friendly	accepting formal scatty constant all things to all people uncommunicative not interested effervescent disorganised formal open two faced
1.4	no listening skills funny honest adamant caring passive genuine reluctant amenable friendly selfish helpful	good listening skills serious dishonest open cold headstrong evasive close distant erratic awkward closed

SUBJECT	CONSTRUCT	CONTRAST
1.5	patient cold knowledgeable infuriating encouraging evasive friendly patient approachable confident extrovert thoughtful	aggressive sincere ignorant easy going offputting open unfriendly angry unapproachable selfish introvert contrived
1.6	didn't give clear instructions easy to approach unresponsive doesn't listen erects barriers interesting to converse with quiet concise friendly, caring difficult to find common ground approachable	speaks concisely inarticulate approachable listens well asks for help difficult to talk to witty long-winded one-sided communicator willing to reiterate unapproachable
1.7	arrogant lively articulate aggressive sensitive open positive thoughtful approachable aggressive open	open quiet calm passive overpowering uncommunicative negative insensitive reserved quiet uncommunicative
1.8	uncompromising personal interesting friendly approachable encouraging able to listen caring easy-going personable constructively critical encouraging	amenable detached boring bombastic defensive critical ignorant disinterested argumentative authoritarian difficult aggressive

SUBJECT	CONSTRUCT	CONTRAST
1.9	kind patient knowledgeable easy going approachable friendly open forceful confident outgoing natural thoughtful	angry frustrating infuriating snidy standoffish closed evasive ignorant selfish complacent forced contrived
1.10	uncooperative awkward articulate outgoing authoritative charming wonderful ambitious competent uncooperative outgoing	cooperative aloof inarticulate unfriendly weak unhappy failure talkative incompetent helpful stupid
1.11	poor speaker explicit informative quiet coherent articulate humorous reserved friendly organised coherent nonstop talking	speaks well implicit uninformative outgoing incoherent inarticulate surly open shy disorganised incoherent good listener
1.12	disjointed comments driven communicator overconfident not specific consistent articulate dull/lethargic sound/consistent elaborate concerned inconsistent concerned	structured detached communicator solid concrete devious duplicitous enthusiastic tenuous restricted unconcerned strict unconvincing

TIME 2 GROUP 2 (TF)

SUBJECT	CONSTRUCT	CONTRAST
2.1	abrasive accommodating articulate abrupt open/honest calm easy-going coherent warm succinct confident chatty	friendly uncooperative inarticulate welcoming closed/dishonest irate highly strung muddled cold waffler introverted quiet
2.2	slow speech inability to listen low volume speech unsmiling upright posture head movements good eye contact sense of humour few pauses in speech rhetorical skill little body movement twitching facial movements	rapid speech ability to listen average speech smiling stooping posture few head movements little eye contact little sense of humour many pauses in speech lack of rhetorical skill plenty of body movement calm facial movements
2.3	vague communicative articulate aloof thoughtful coherent communicative straightforward warm thoughtless quiet	clear uncommunicative inarticulate down to earth thoughtless incoherent uncommunicative complicated cold thoughtful chatty
2.4	incoherent non-judgemental accepting judgemental unassuming friendly knowledgeable friendly caring relaxed incoherent sensitive	coherent judgemental opinionated non-judgemental dictatorial distant ignorant distant self-centred uptight coherent uncaring

SUBJECT	CONSTRUCT	CONTRAST
2.5	standoffish loyal interesting miserable encouraging caring entertaining protective humorous light-hearted selfish expressive	loving unreliable boring friendly condescending cold tedious self-centred no sense of humour serious uncommunicative closed
2.6	abrupt skilled non-judgemental pushy professional friendly loud domineering articulate warm defensive attentive	open friendly superior open warm defensive attentive considerate incomprehensible professional domineering loud
2.7	self-centred friendly inconsistent insincere scathing loving generous emotional outgoing funny boring accepting	open cold supportive warm-hearted sympathetic unfriendly aggressive cold distant bossy demonstrative opinionated
2.8	male egotist good listener limited topics frowning good eye contact stands off superficial poor listener encouraging attenders lack of empathy smiling eye contact	female self-centred well read open smile shifty stands close vulnerable attentive aggressive listeners positive dislike little eye contact

SUBJECT	CONSTRUCT	CONTRAST
2.9	confrontational open logical unapproachable snide accepting down to earth honest interesting clear uplifting superficial	timid secretive illogical approachable warm questioning aloof pretentious uninteresting muddled depressing deep
2.10	abrupt leader harsh humorous strict easy-going hurried confident encouraging outgoing impartial inhibited	calm led soft serious laid back hard-going slow self critical impatient insular biased emotional
2.11	unclear warm calm disinterested democratic friendly controlled shy interested busy self interested slow	communicative abrupt cluttered attentive authoritarian cold disorganised outgoing bored laid back uninterested rushed
2.12	interrupts quick, animated speech comfortable eye contact rigid body smiling eyes self conscious, fast speech assertive non-judgemental good eye contact bubbly, lots of body movement interrupts dour, no smile	waits/reflects slow, measured speech prolonged gaze relaxed body no smiling eyes unselfconscious, free-flowing aggressive judgemental avoids eye contact calm, self-contained attends laughs and smiles

TIME 2	GROUP 3 (FO)	
SUBJECT	CONSTRUCT	CONTRAST
3.1	communicate sociable chatty untrustworthy knowing loving affable honest open dependable friendly close	empathise professional withdrawn trusting distant deceitful cold untrustworthy uptight overwrought shy distant
3.2	domineering open/relaxed self-centred domineering serious open/relaxed self-centred outgoing open/relaxed ignorant open/relaxed	open/relaxed domineering decentred open/relaxed silly domineering decentred introverted domineering considerate domineering
3.3	expressive assertive verbally fluent forceful confident approachable confident forceful quiet welcoming	nonexpressive non-assertive very restricted quiet inconsistent speech pattern unapproachable unconfident unassuming forthright non-expressive
3.4	shy friendly/efficient successful chatty upfront cocky confident serious authoritative upfront upfront confident	ballsy friendly/lazy unsuccessful withdrawn withdrawn confident shy humorous friendly withdrawn withdrawn shy

SUBJECT	CONSTRUCT	CONTRAST
3.5	rude informal easy going rude confident brash good listener clear open articulate rude uncomfortable	polite formal intense polite nervous relaxed poor listener vague closed clumsy polite comfortable
3.6	uncommunicative friendly outgoing unpleasant open quiet boring stubborn friendly relaxed ignorant sarcastic	good communicator unfriendly uncommunicative friendly inwards talkative interesting laid back unpleasant uptight pleasant unsarcastic
3.7	concise open chatty clear approachable communicative expansive confident imprecise witty rambling sarcastic	waffly more reserved shy unclear unfriendly uncommunicative quiet less confident clarity more serious precise unsarcastic
3.8	friendly chatty mix well outgoing confident outspoken standoffish chatty sunny over jolly offputting reserved	false reserved speak when spoken to miserable feels inferior shy approachable introvert moody professionally cool non-understanding overtly pleasant

SUBJECT	CONSTRUCT	CONTRAST
3.9	<p>talkative</p> <p>gregarious open/interesting open/friendly open/honest</p> <p>open/impersonal open/approachable open to all open and friendly open and friendly</p> <p>open and honest <u>open/approachable</u></p>	<p>talkative when approached</p> <p>open when known well open/self-absorbed open/too forward open/hard to relate to</p> <p>open/intimate closed/unapproachable open to some closed</p> <p>open - limited friends</p> <p>closed/moody <u>closed/distant</u></p>
3.10	<p>bad listener good communicator animated opinionated responsive open to ideas approachable articulate mumbles concise intimidating <u>genuine</u></p>	<p>good listener bad communicator restrained open minded blinker presumptuous superior inarticulate confident waffler approachable <u>dishonest</u></p>
3.11	<p>spiky direct open judgemental insensitive gentle impatient thoughtful talkative honest intimidating sensitive</p>	<p>easy-going beats about bush shy tolerant sensitive bolshie patient impulsive quiet evasive mild insensitive</p>
3.12	<p>shy relaxed cautious unreasonable mature caring unimposing opinionated sincere wild quiet easy going</p>	<p>talkative uptight incautious reasonable immature uncaring imposing reserved insincere very reserved chatty prim</p>

TIME 2	GROUP 4 (C)	
SUBJECT	CONSTRUCT	CONTRAST
4.1	clear pronunciation approachable enthusiastic shows concern softly spoken listens nice voice nervous supportive serious opinionated placid, softly spoken	mumbles reserved grumbles self-centred aggressive tone talks non-stop hard voice confident critical witty open to ideas aggressive tone
4.2	changeable easy to talk to interesting unfriendly warm understandable interesting confident helpful communicative sarcastic unfriendly	reliable difficult to talk to dull friendly cold difficult to understand dull unconfident unhelpful uncommunicative pushy friendly
4.3	standoffish sarcastic amusing self-opinionated approachable receptive sincere selfish down to earth talkative self-interested interesting	approachable serious serious caring superior ignorant two-faced thoughtful too expectant quiet interested in others boring
4.4	secretive talkative critical sympathetic cheerful intelligent uninhibited helpful interesting lively self-centred down-to-earth	open quiet helpful thoughtless moody unintelligent cagey patronising boring intimate open-minded snobby

SUBJECT	CONSTRUCT	CONTRAST
4.5	abrupt verbose questioning inquiring chatty introspective closed approachable anti-social conversational closed social	chatty quiet distant reticent withdrawn inquiring open unapproachable social flow of info. open aloof
4.6	aggressive open confident approachable enthusiastic hesitant articulate energy warm responsive undemonstrative sympathetic	friendly guarded nervous unapproachable unfriendly confident inarticulate lifeless cold unresponsive demonstrative uncaring
4.7	sincere relaxed composed friendly sincere forthcoming friendly friendly friendly friendly arrogant open	insincere nervous neurotic guarded arrogant evasive arrogant insincere non-listener reserved over-friendly arrogant
4.8	sense of humour calm attentive flirtatious straightforward kind-hearted chatty introverted knowledgeable of the world youthful attitude unpredictable flexible	no humour nervous disregarding not flirtatious obscure sometimes selfish of limited words extroverted not knowledgeable of the world older attitude predictable not flexible

SUBJECT	CONSTRUCT	CONTRAST
4.9	unapproachable good listener comprehensive shy caring direct superior intimidating lucid chatty direct eye contact cheerful	friendly talkative awkward outgoing selfish subtle inferior approachable limited shy avoiding eye contact solemn
4.10	open light-hearted articulate thoughtful helpful tactful condescending sociable alert cooperative relaxed extrovert	dogmatic serious inarticulate thoughtless unhelpful tactless down to earth unsociable slow uncooperative tense introvert
4.11	direct reserved warm introverted friendly untactful eloquent not laid back formal assertive forthright reserved	indirect confident cold extroverted impersonal tactful not eloquent laid back informal not assertive shy outgoing
4.12	distant quiet domineering abrupt straight heavy obliging discreet cheerful confident modest	friendly forward humble obliging twisted light unhelpful open moody unconfident immodest

Appendix 13**Repertory Lists - Whole Sample -
Frequency of Occurrence of Constructs**

Construct	T1	T2	Total
aggressive	9	7	16
accepting	1	3	4
approachable	13	22	35
attentive	1	5	6
articulate	8	12	20
allow to speak	1		1
abrupt	3	6	9
adaptable	1		1
agreeable	1		1
adamant	1		1
amenable	1	1	2
arrogant	3	2	5
awkward	2	2	4
ambitious	2	1	3
accommodating		1	1
amiable	1		1
assertive	3	3	6
attention seeking	1		1
authoritative	3	2	5
anxious	1		1
asks questions	1	3	4
attentive	1		1
bears a grudge	1		1
bossy	1		1
bitchy	1		1
boring	4		4
brusque	1		1
business like	1		1
boisterous	1		1
body movement		3	3
biased		1	1
constrained	1		1
comical	1		1
congenial	1		1
caring	8	7	15
closed	30	20	50
chatty	8	8	16
calm	3	5	8
competent	1	1	2
confident	12	18	30
clear objectives	1	1	2
consistent	2	2	4
complex		1	1
considerate		2	2
cold	8	11	19
clear with advice	1		1
challenging	1		1
clear speech	5	8	13
callous	1		1

Construct	T1	T2	Total
comfortable with self	3	1	4
conformist	1		1
critical	1		1
confrontational	1		1
controlled	1		1
cool	1		1
cautious	1		1
cheerful	2		2
concise	1	4	5
constructively critical	1		1
charming	1		1
coherent	2	7	9
concrete	1		1
concerned	1	1	2
direct	5	3	8
doesn't listen	9	12	21
domineering	4	10	14
dynamic	1		1
difficult to find common ground	2	3	5
driven		1	1
dry humour	1		1
dependable	1	1	2
demanding	1		1
dull	1		1
deserving	1		1
demonstrative	3	2	5
discreet		1	1
difficult to understand		1	1
down to earth	1	5	6
difficulty explaining simple things	1		1
extrovert	11	12	23
egocentric	1	1	2
easygoing	10	9	19
enthusiastic	5	3	8
expressive	2	1	3
encouraging	3	7	10
explicit	1	1	2
exuberant	1		1
experienced		1	1
evasive		2	2
erects barriers		1	1
elaborated code		1	1
empathy	3	2	5
easy to talk to	2		2
engaging	2		2
explains well	1		1
entertaining		1	1

Construct	T1	T2	Total
friendly	26	32	58
fun	5	1	6
forthright	1		1
fair	3		3
fascinating		1	1
frankness		1	1
forceful		2	2
flirtatious		2	2
focused	1		1
fluent	1	2	3
formal	1	2	3
facial movement		1	1
flexible		1	1
gregarious	1	1	2
giving	2		2
gives opportunity to reply	1		1
genuine	1	2	3
generous	2		2
gossips	1		1
good in groups	2		2
garrulous	1		1
good communicator		1	1
gentle		1	1
hardworking	1		1
hard to understand	2		2
helpful	6	7	13
humorous	13	11	24
honest	3	7	10
happy	2		2
head movements		1	1
harsh		1	1
heavy		1	1
intelligent	5	2	7
inconsistent	1	2	3
interested	10	4	14
interesting	10	10	20
incoherent	1		1
informative	1	2	2
infuriating		1	1
ignorant	2	1	3
intimidating	1	1	2
intolerant	2		2
informed	1		1
initiates conversation	1		1
independent	1		1
inhibited	1	2	3
interrupts		2	2
impersonal		1	1
imposing		1	1

Construct	T1	T2	Total
jovial		1	1
kindhearted	3	3	6
knowledgeable	1	7	8
know-all	1		1
lively	3	4	7
laid back	1		1
limited sense	1		1
likeable	2		2
lighthearted	1		1
leader	1	1	1
loving	3	2	5
loyal	1	1	2
limited topics		1	1
logical		1	1
moody	1	2	3
more intimate		1	1
male	1	1	2
mellow	1		1
moralistic	1		1
modest	1	1	2
mature		1	1
natural		1	1
nasty	1		1
non-judgemental	2	5	7
overbearing	6	1	7
offhand	1		1
organised	3	3	6
offensive	1		1
objective	1		1
open to many	3	5	8
overconfident	1	1	2
obnoxious	1		1
open to persuasion	2		2
opinionated	1	5	6
off-putting		1	1
practical	1		1
poor eye contact	3	6	9
paternalistic	1		1
prescriptive		1	1
patient	1	5	6
positive	6	2	8
personal	6	2	8
personable		1	1
protective	1		1
probing	1		1
perfectionist	1		1
puts at ease	1		1
plodder	1		1
placid	1		1

Construct	T1	T2	Total
people-oriented	1		1
patronising	3		3
pauses in speech		1	1
predictable	1	1	2
pretentious	4		4
quiet	6	12	18
quiet voice	1		1
relaxed	8	12	20
reinforcing	1		1
regarding	1		1
reluctant		1	1
rude	3	3	6
reliable	3	1	4
rigid	2		2
respectful	1		1
receptive	1	1	2
range of topics	1		1
reserved	3	5	8
rhetorical skill		1	1
reasonable		1	1
responsive		1	1
supportive	2	1	3
selective	1		1
straightforward	2	3	5
secretive	1	1	2
stubborn	2		2
sensitive	3	4	7
sensible	2		2
superior	2	1	3
sociable	4	4	8
secure	1		1
shallow	1		1
sound	1		1
selfish	2	3	5
slow	1	5	6
stupid	1		1
self-conscious	1	1	2
speaks mind	1		1
stands close		2	2
sarcastic		4	4
shady	1		1
sympathetic	5	3	8
smiling	1	4	5
shy	5	7	12
serious	3	4	7
shared interests	1		1
sincere	6	5	11
standoffish	1	1	2
self centred	1	7	8
succinct		1	1
slow speech		1	1

Construct	T1	T2	Total
superficial		2	2
successful		1	1
tactile	1		1
thoughtful	3	7	10
talkative	11	5	16
truthful	2		2
trustworthy	2	1	3
tactful	1	2	3
uncommunicative	18	5	23
understanding	3	1	5
uncompromising	1	1	2
uncooperative		3	3
unfeeling	1		1
upright posture		1	1
unassuming		1	1
upfront		3	3
varies speech	1		1
vague	2	1	3
voice pleasant		1	1
verbose		1	1
well read	1		1
wonderful		1	1
well spoken	1		1
welcoming		1	1
youthful		1	1

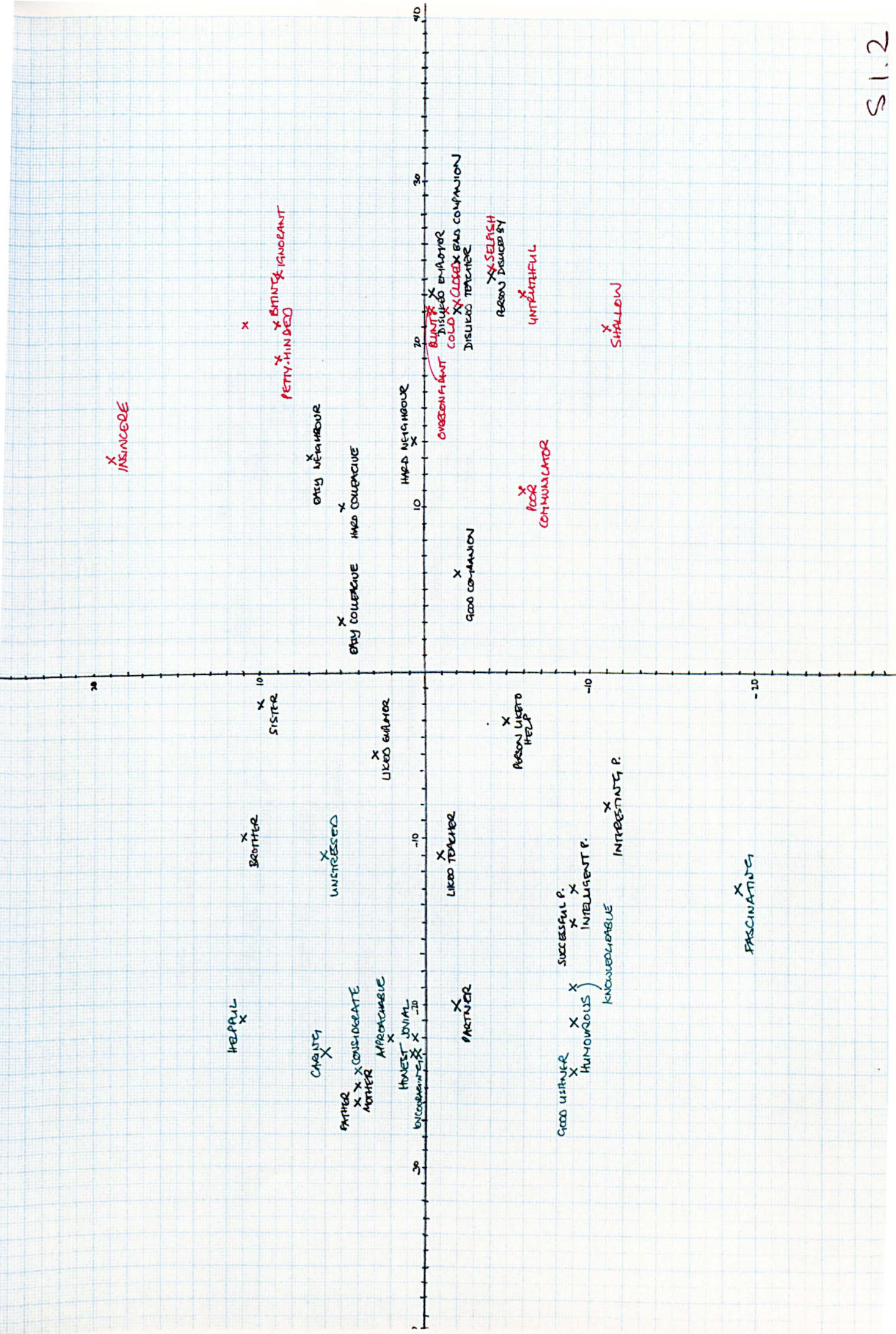
**Appendix 14 Repertory Lists: Whole Sample -
Contrasts to Eleven Most Frequently
Occurring Constructs**

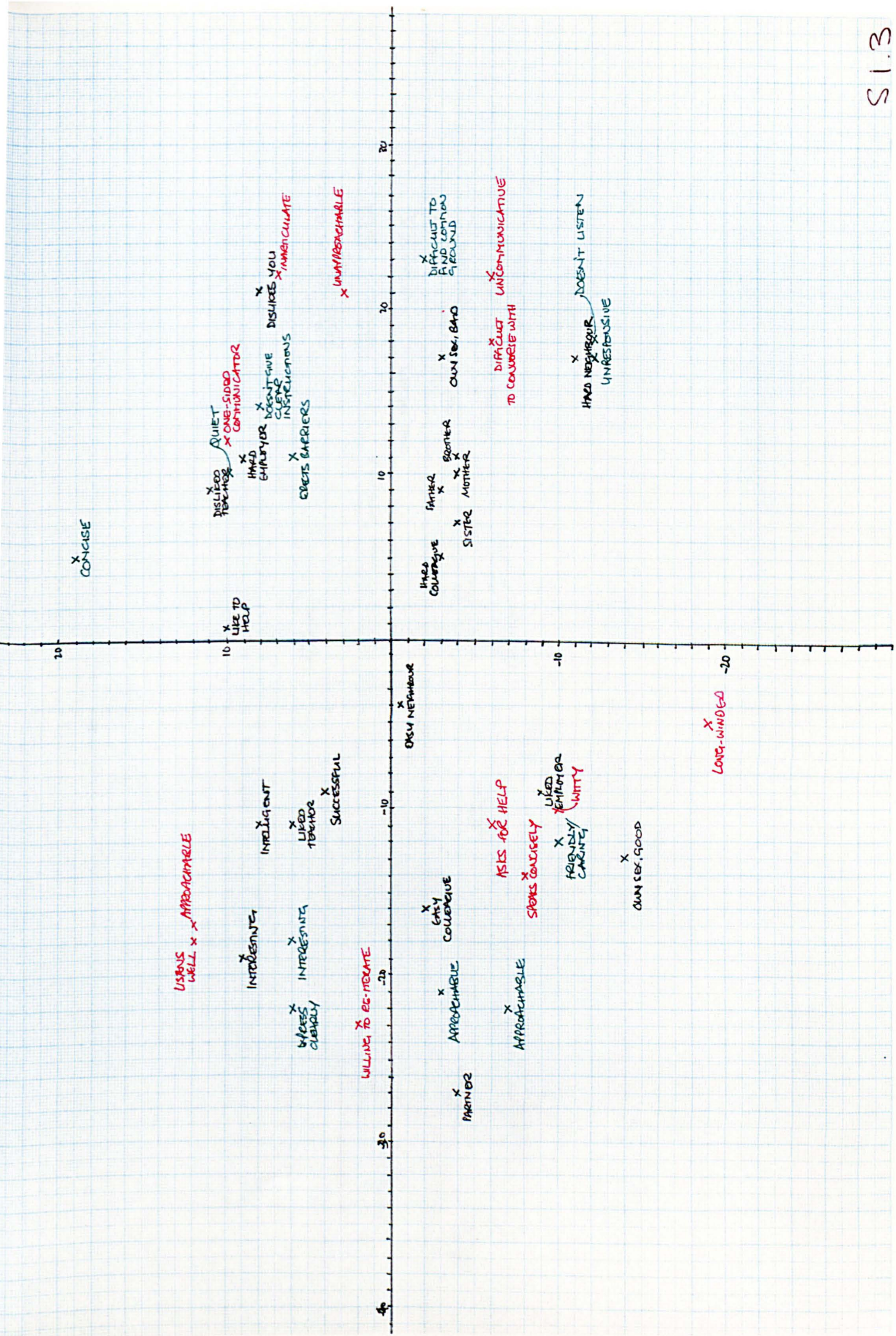
(NB Some contrasts feature more than once.)

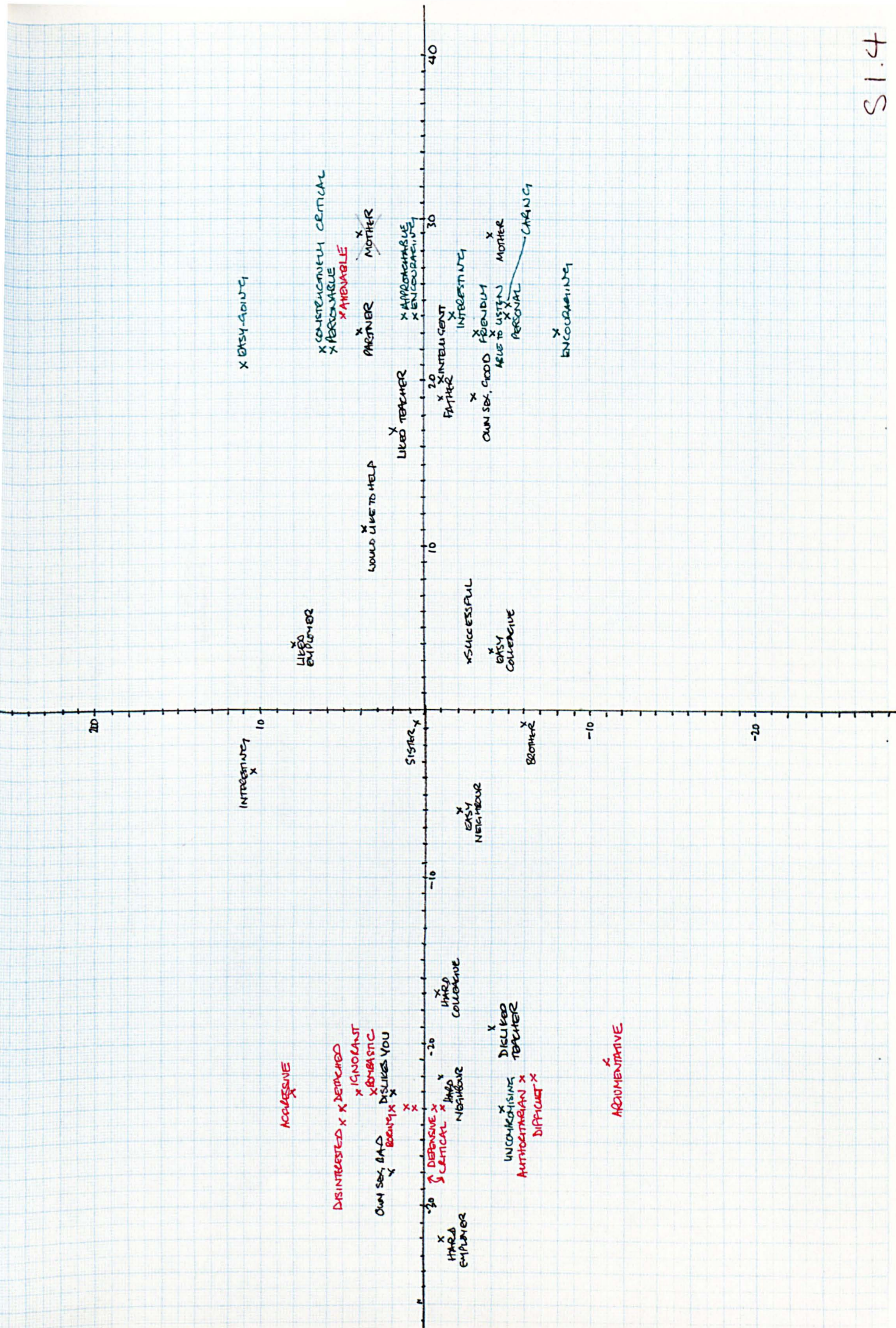
Construct	Contrasts
friendly	disinterested two faced erratic unfriendly one-sided communicator bombastic closed shy distant defensive cold false guarded arrogant insincere non-listener reserved impersonal aggressive intimidating cool formal inconsistent uncommunicative doesn't initiate gets backs up unapproachable
closed	listens well emotionally open open communicative distant
approachable	defensive distant unapproachable opinionated overpowering standoffish difficult to talk to selfish closed reserved unfriendly superior

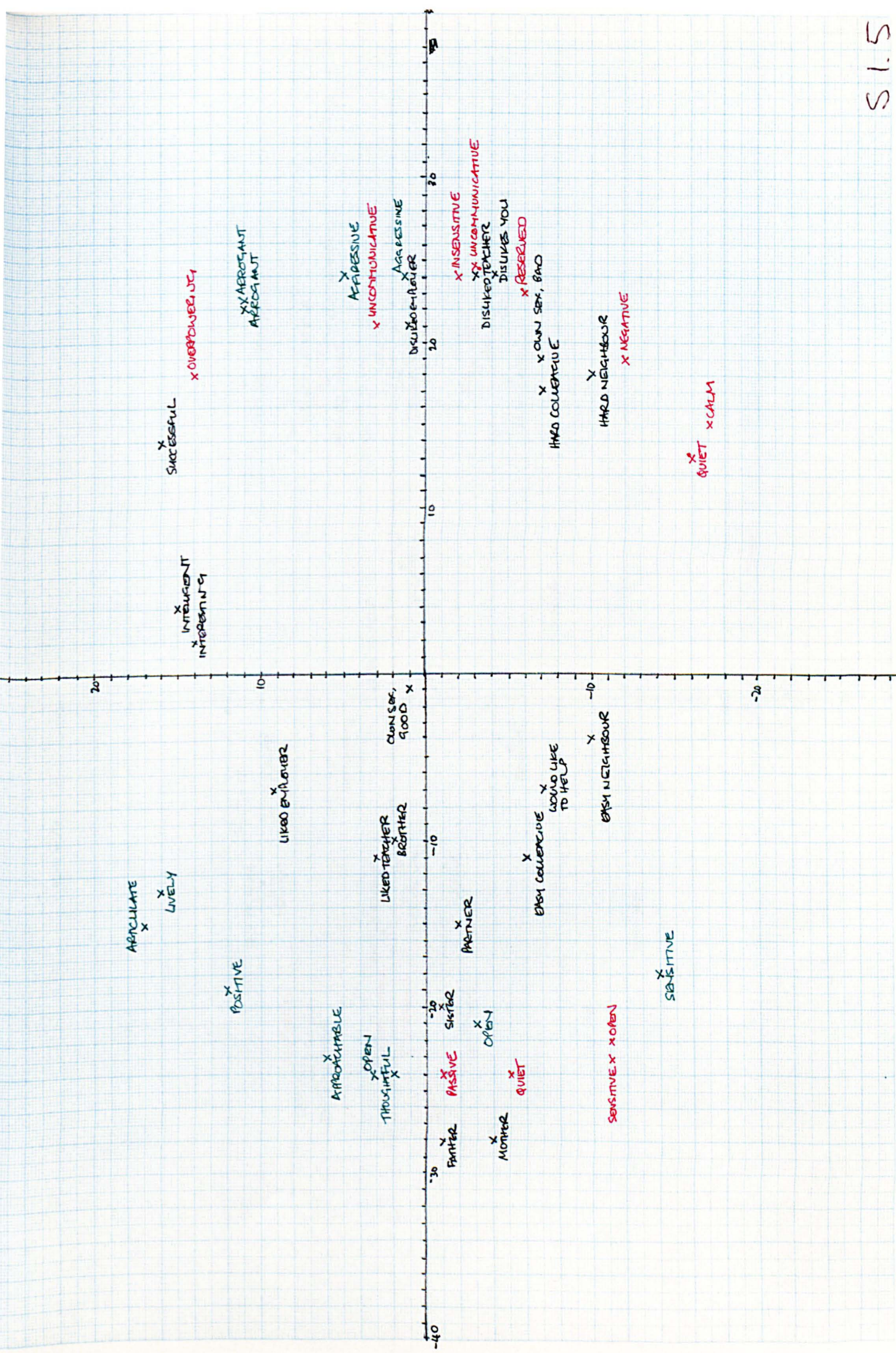
Construct	Contrasts
confident	lacks confidence shy introverted hesitant selfish inconsistent unconfident less confident feels inferior nervous
humorous	dour miserable boring uptight serious humourless biting surly no sense of humour
extrovert	introvert quiet/relaxed
uncommunicative	clear communicative outgoing gregarious verbose good communicator
doesn't listen	stops to listen listens well good listening skills ability to listen attentive
articulate	too quiet inarticulate duplicitous incomprehensible clumsy
interesting	uninteresting boring unexciting not interesting dull
relaxed	tense unrelaxed stressed uptight nervous

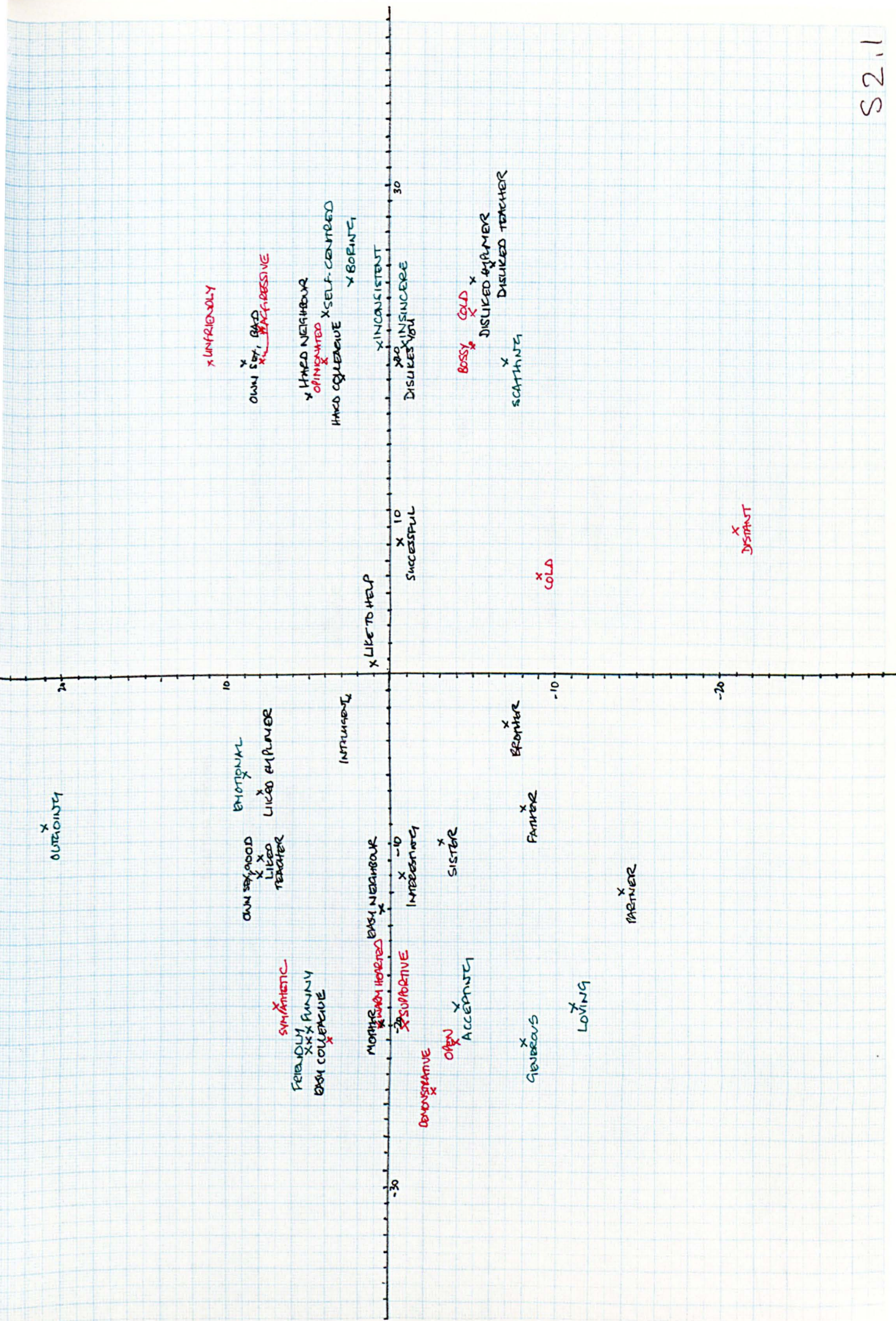
Appendix 15 Repertory Grids - Subsample - INGRID
Principal Component Analyses

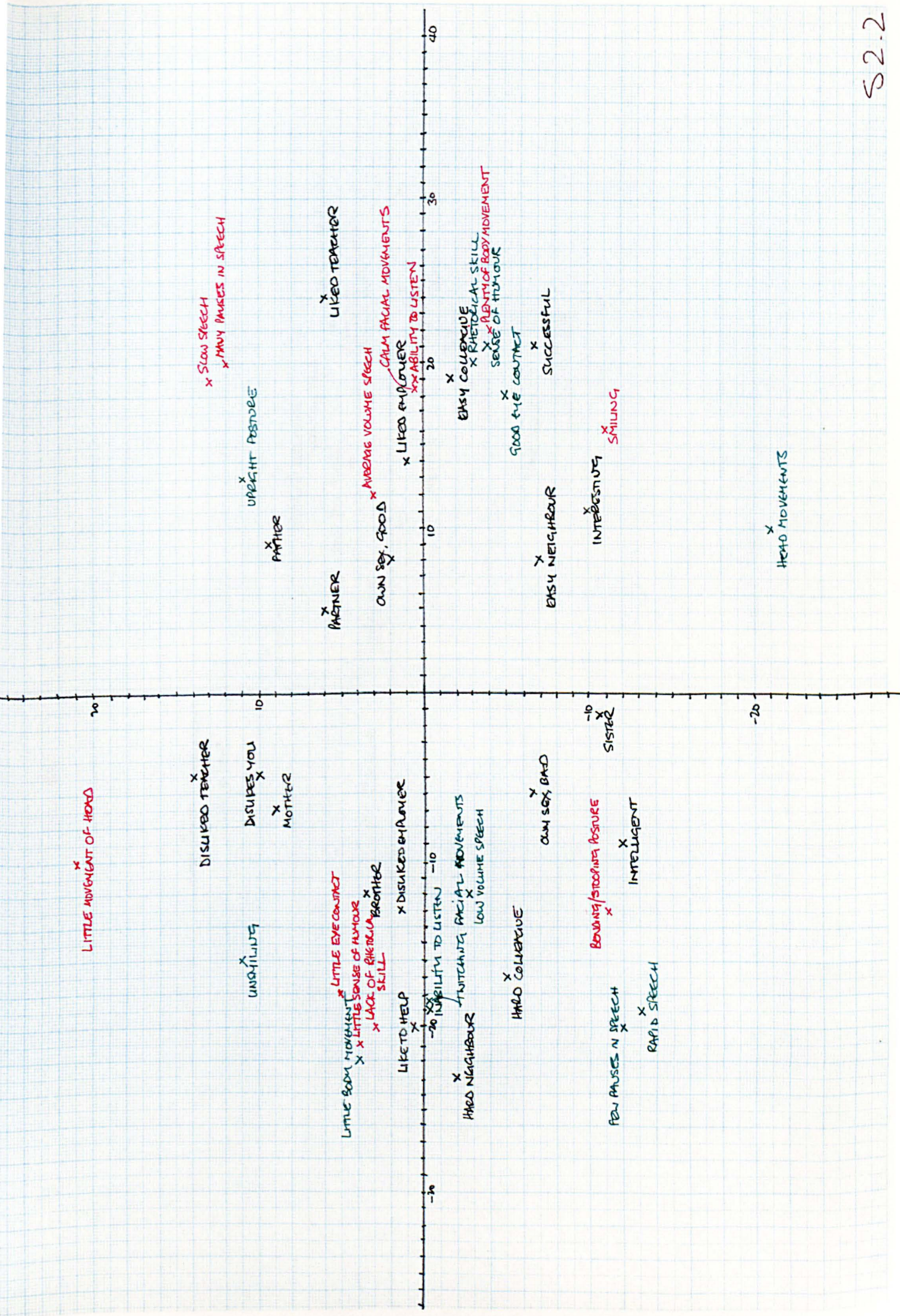












WELL READ

FEMALE

INTERESTING, INTELLIGENT
LIKE TO HELP

SUPERFICIAL

SHILLY EYES

ATTENTIVE

PARTNER

SISTER

DIFFICULT NEIGHBOUR

INTERESTING
SUCCESSFUL

DIFFICULT COLLEAGUE

OWN SEX GOOD

OWN SEX, BAD

XX LACK OF EMPATHY
FROWNING

AGGRESSIVE
XX SELF-CONTROLLED
STANDS AWAY

GOOD COLLEAGUE

GOOD EYE CONTACT

ENCOURAGING
STANDS CLOSE

GOOD LISTENER

POSITIVE DISLIKE
XX OPEN SMILE

LIKED TEACHER

MOTHER

DIFFICULT COLLEAGUE

LIKED EMPLOYEE

VULNERABLE

EASY NEIGHBOUR

DISLIKED TEACHER

MATE EGOTIST

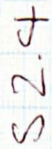
DISLIKED EMPLOYER

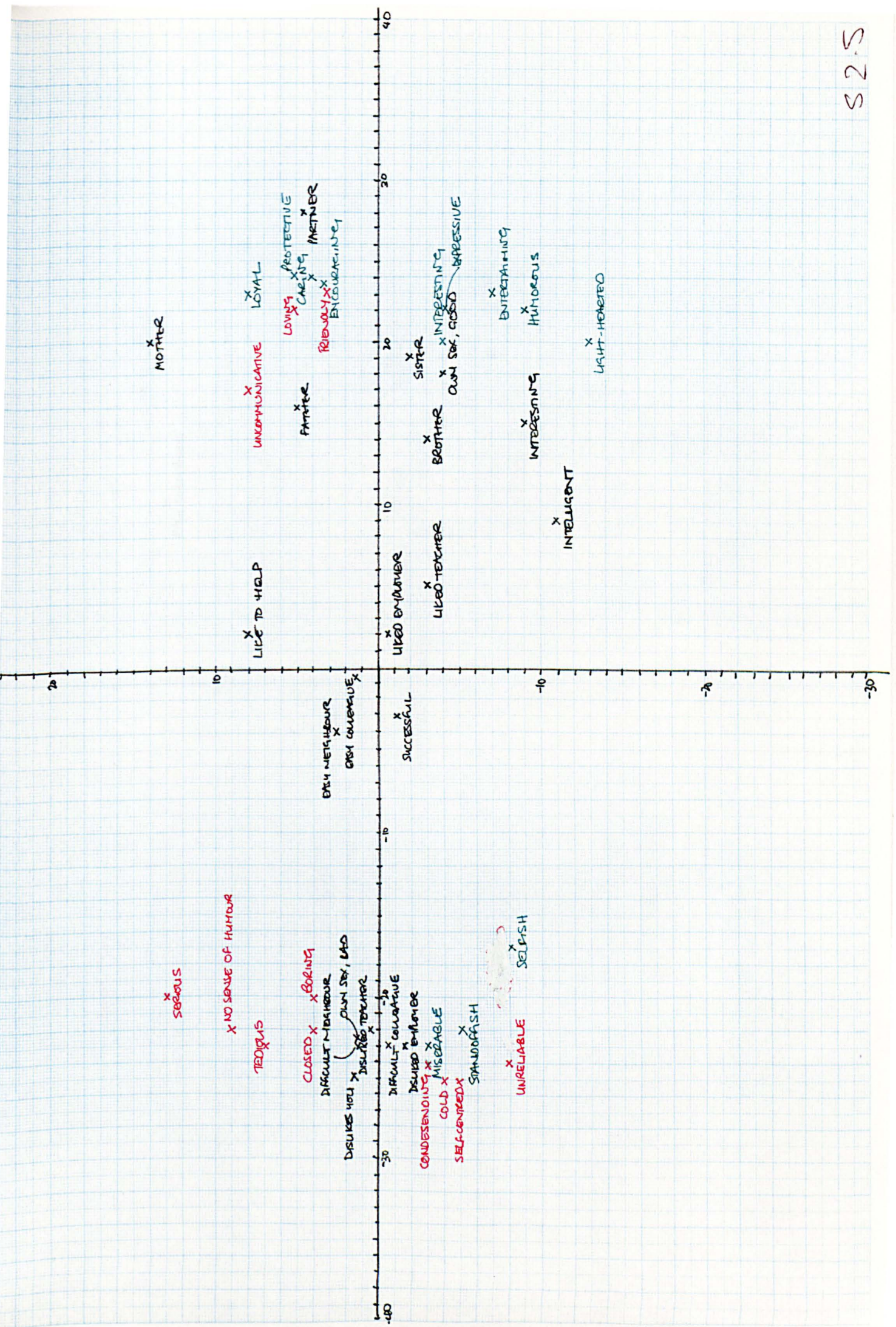
FATHER

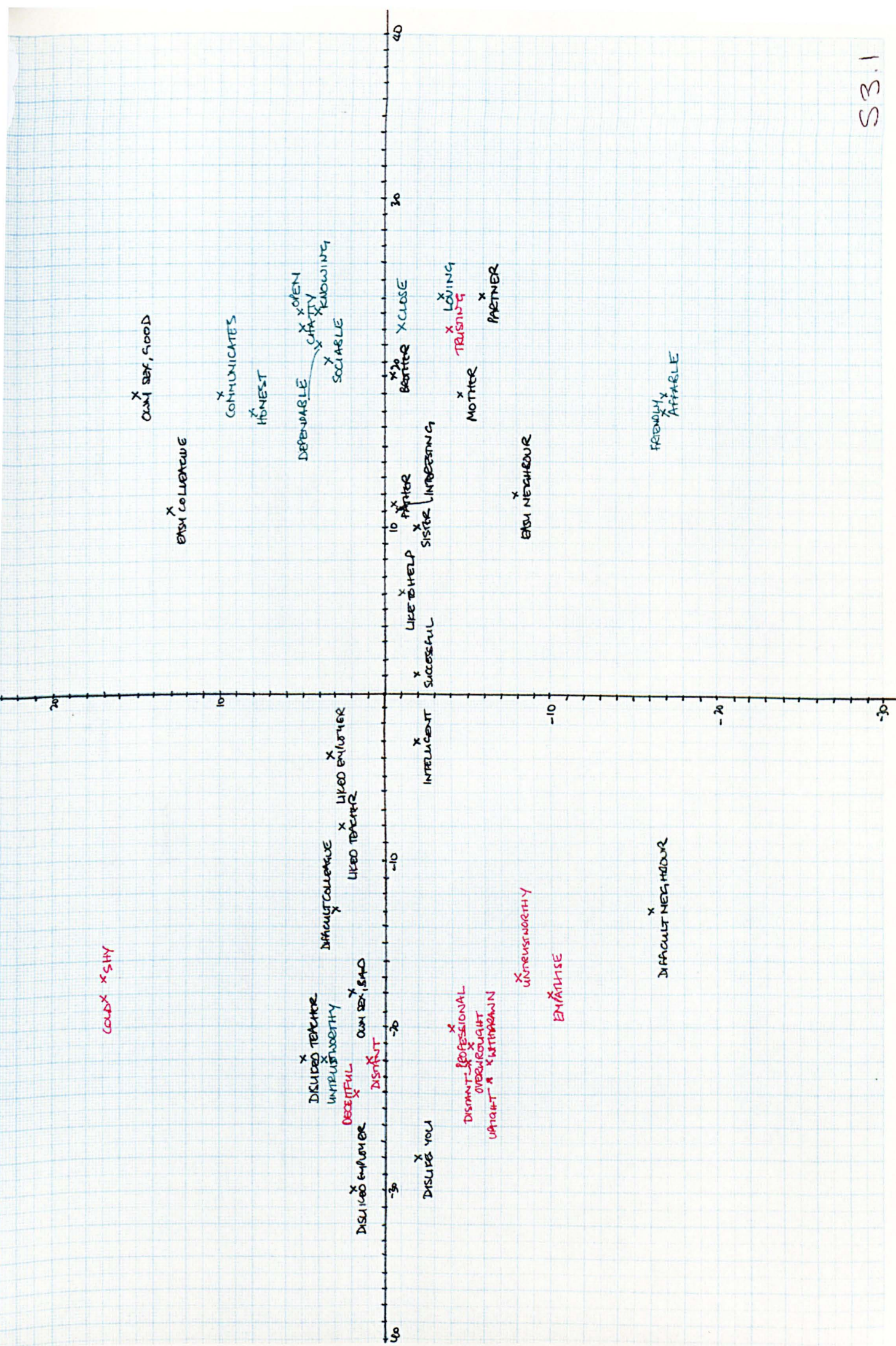
POOR LISTENER

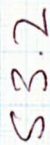
LITTLE EYE CONTACT
LISTENING

UNITED TOPICS

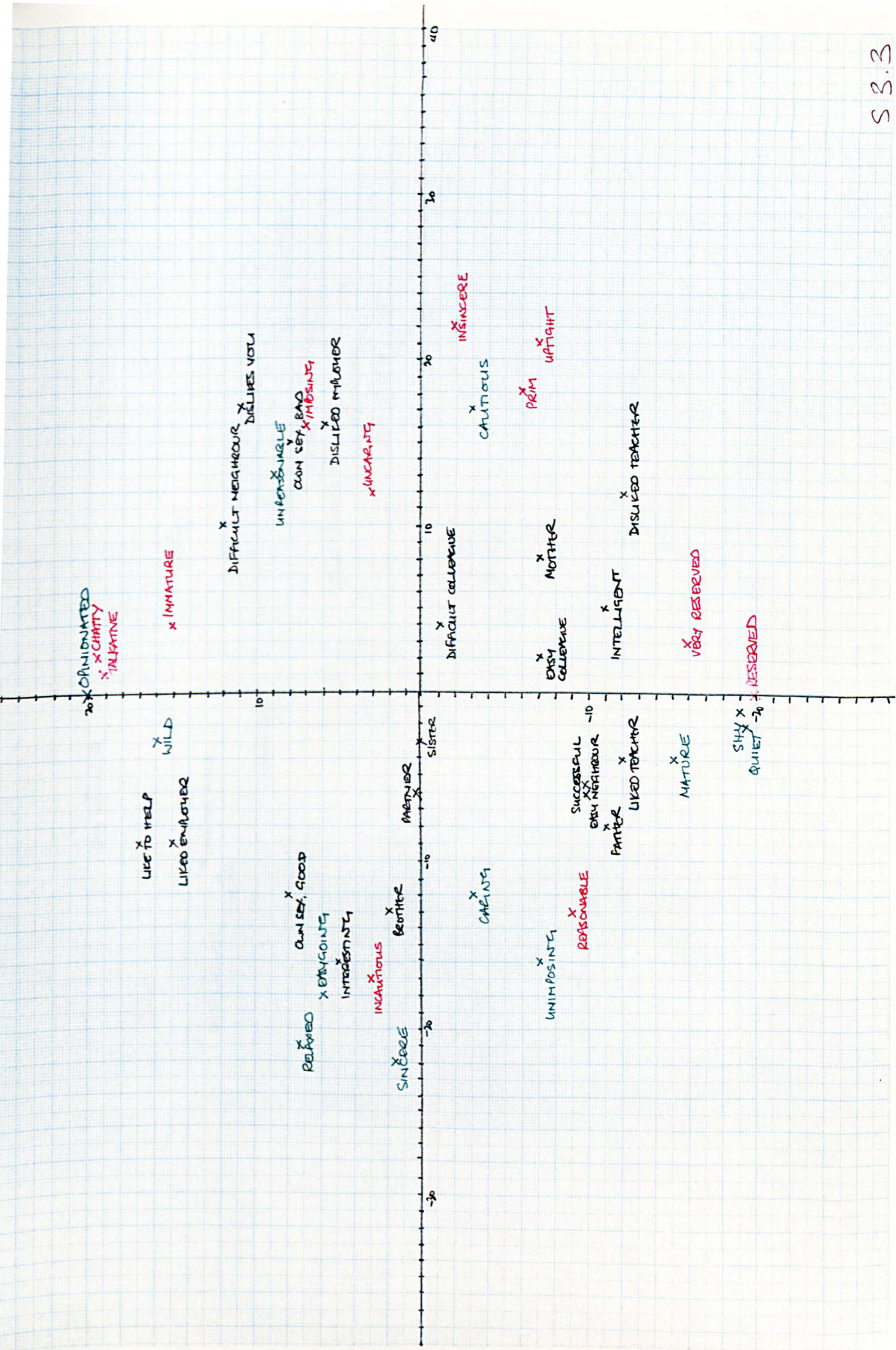


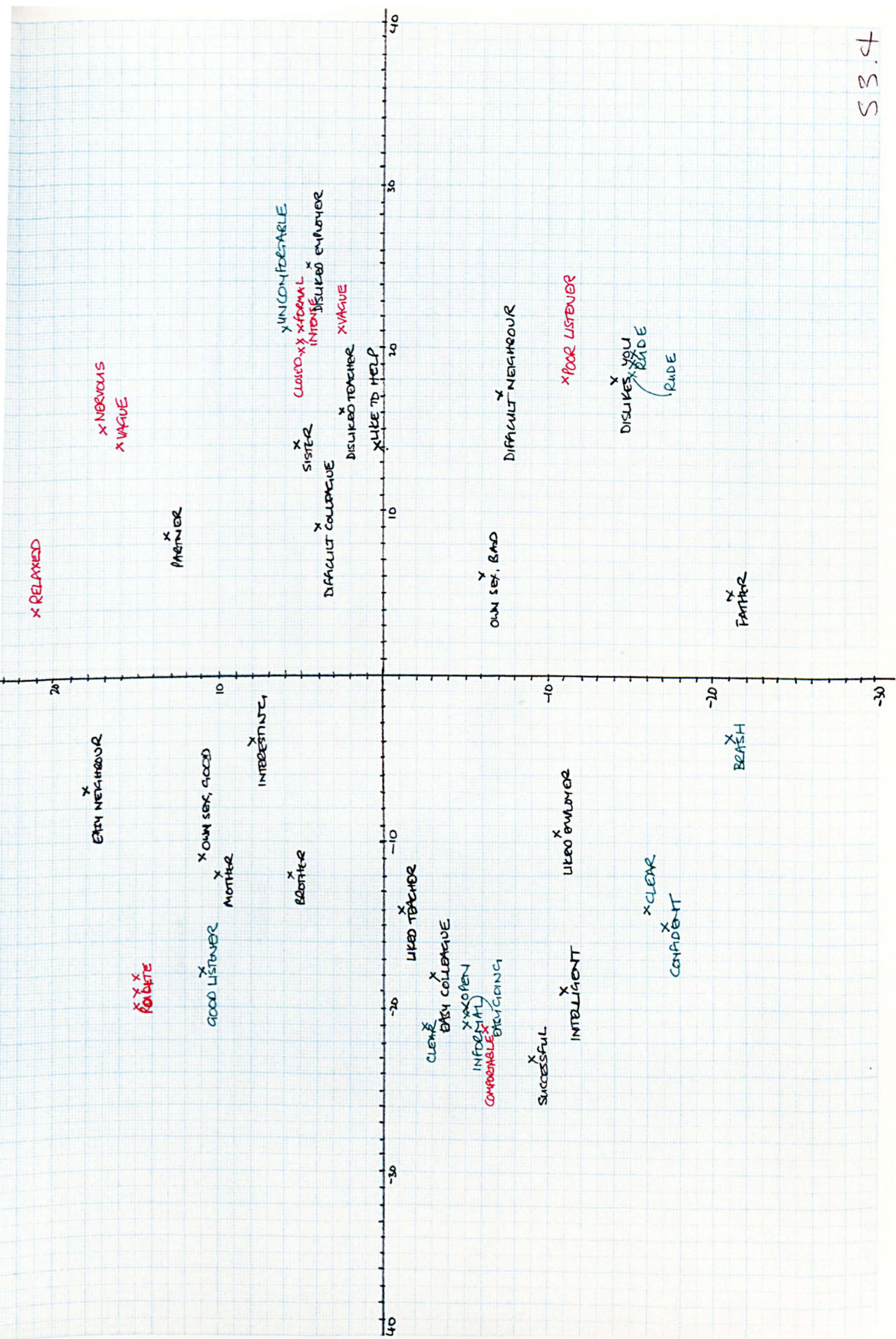


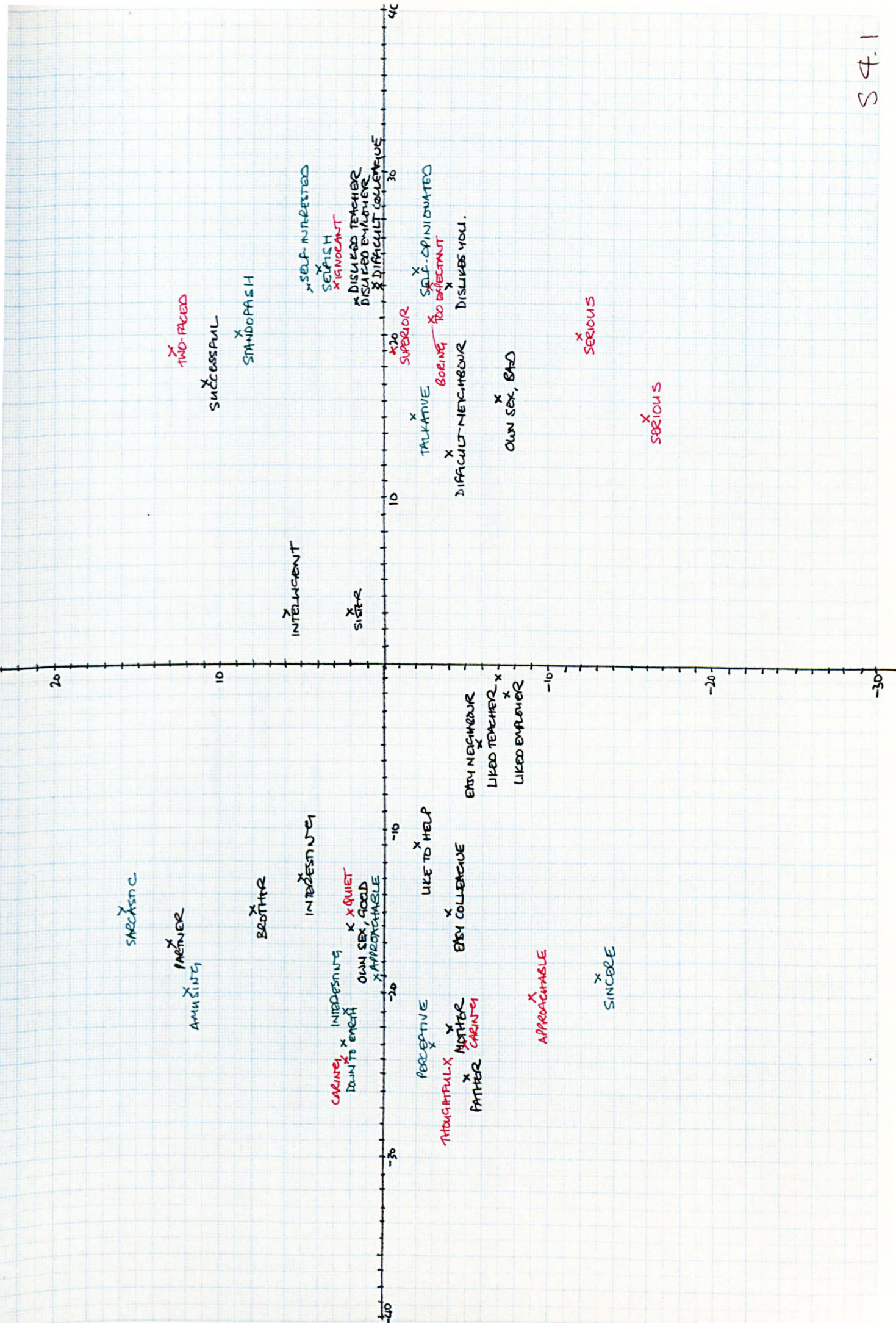


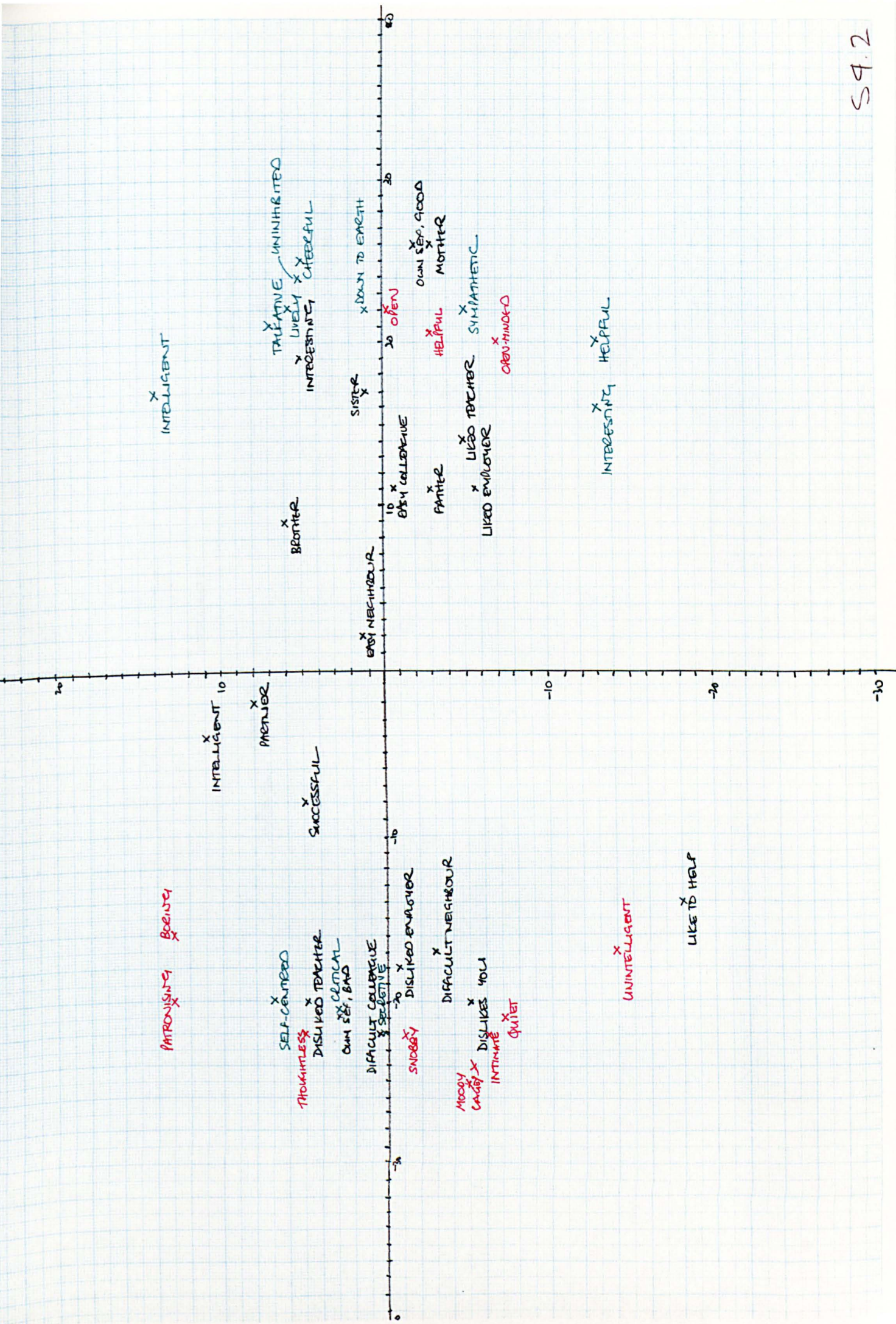


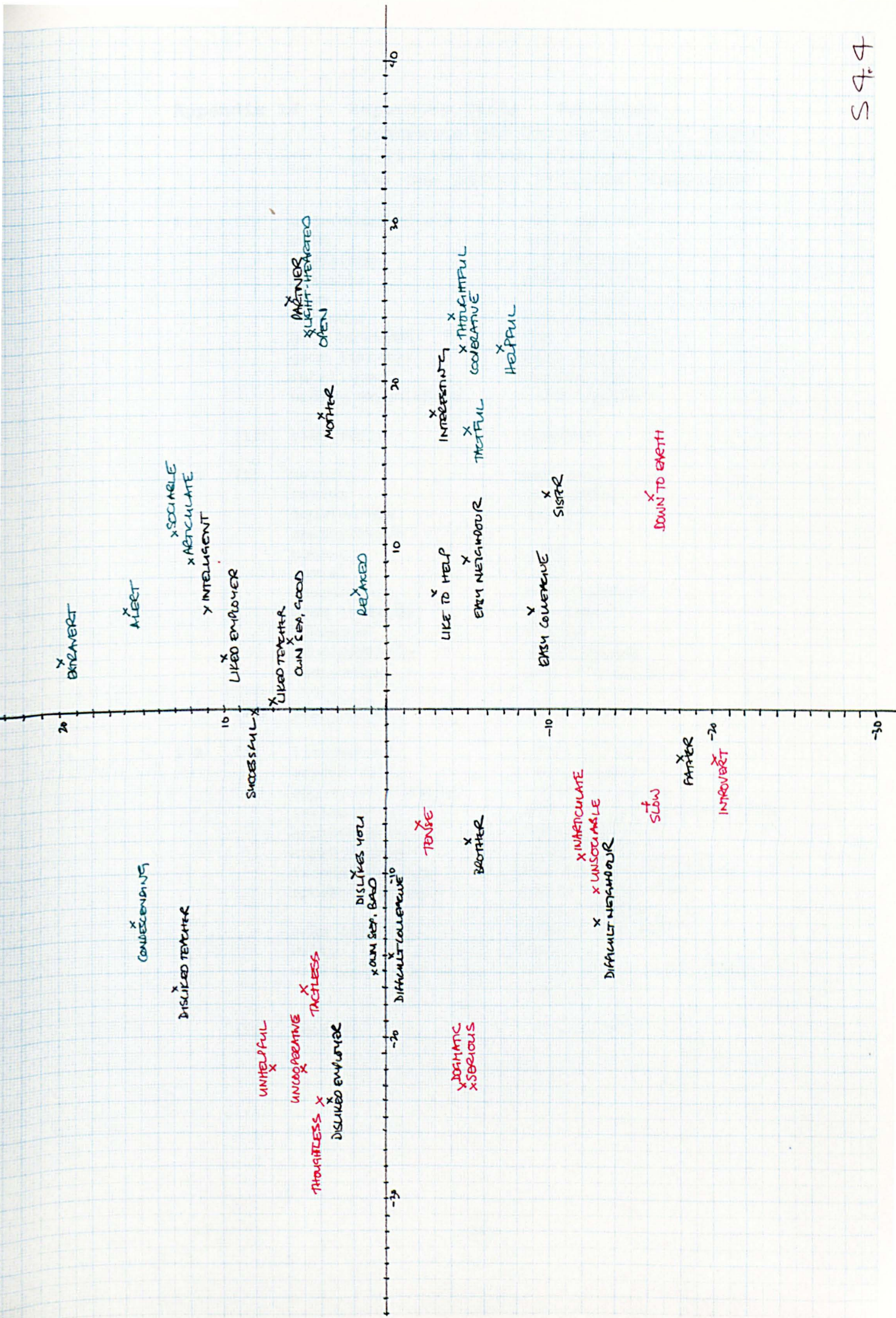
53.2











**Appendix 16 Repertory Grids - Subsample -
Constructs and Contrasts which Appear
on (i) the First Principal Component,
(ii) the Second Principal Component**

1.1	(i)	understanding x 2 calm organised flexible open friendly good humoured good listener intelligent widely experienced	self-centred nervous disorganised prescriptive standoffish disinterested shy self-involved unintelligent narrow-minded
	(ii)	simplistic	complex
1.2	(i)	helpful caring considerate approachable honest jovial encouraging good listener humorous knowledgeable unstressed	shallow untruthful selfish closed cold blunt overconfident ignorant biting petty minded poor communicator
	(ii)	fascinating	insincere
1.3	(i)	listens well approachable expresses clearly interesting approachable approachable friendly/caring speaks concisely asks for help witty willing to reiterate	doesn't listen unresponsive uncommunicative difficult to converse with unapproachable inarticulate one-sided communicator doesn't give clear instructions erects barriers quiet difficult to find common ground
	(ii)	concise	long winded

1.4	(i)	easy going constructively critical personable amenable approachable encouraging interesting friendly able to listen personal caring encouraging	argumentative difficult authoritarian uncompromising defensive critical boring bombastic ignorant detached disinterested aggressive
1.5	(i)	articulate lively positive approachable open thoughtful passive open quiet sensitive open sensitive	calm quiet negative reserved uncommunicative insensitive aggressive uncommunicative aggressive arrogant arrogant overpowering
2.1	(i)	sympathetic friendly funny warm hearted supportive demonstrative open accepting generous loving	scathing cold bossy insincere inconsistent boring self centred opinionated aggressive unfriendly
	(ii)	outgoing emotional	distant cold
2.2	(i)	slow speech pauses in speech upright posture average volume calm facial movements ability to listen rhetorical skill plenty body movement sense of humour good eye contact smiling	rapid speech few pauses bending/stooping low volume twitching facial muscles inability to listen lack of rhetorical skill little body movement little sense of humour little eye contact unsmiling
	(ii)	head movements	little head movement

2.3	(i)	female smiling eyes attending attentive encouraging good listener stands close positive dislike open smile good eye contact vulnerable	male egotist little eye contact listening poor listener self centred aggressive stands away lack of empathy frowning shifty superficial
	(ii)	well read	limited topics
2.4	(i)	knowledgeable self-centred uncaring incoherent x 2 unassuming non-judgmental x 2 distant x 2 relaxed accepting	ignorant caring sensitive coherent dictatorial judgmental x 2 friendly x 2 uptight opinionated
2.5	(i)	uncommunicative loyal loving protective caring encouraging friendly interesting expressive entertaining humorous light hearted	selfish unreliable standoffish self-centred cold condescending miserable boring closed tedious no sense of humour serious
3.1	(i)	communicates honest open knowing chatty sociable dependable close trusting loving	empathises untrustworthy uptight distant withdrawn professional overwrought distant untrustworthy deceitful
	(ii)	affable friendly	cold shy

3.2	(i)	confident confident x 2 upfront x 2 successful chatty ballsy	shy withdrawn x 2 shy x 2 unsuccessful withdrawn shy
	(ii)	friendly confident efficient/friendly humorous	authoritative cocky lazy/friendly serious
3.3	(i)	relaxed easygoing incautious sincere caring unimposing reasonable	uptight prim cautious insincere uncaring imposing unreasonable
	(ii)	opinionated chatty talkative wild immature	reserved shy quiet very reserved mature
3.4	(i)	polite x 3 good listener clear informal comfortable easy going clear confident	rude x 3 poor listener vague formal uncomfortable intense nervous vague
	(ii)	relaxed	brash
4.1	(i)	sincere approachable perceptive thoughtful caring approachable quiet interesting down to earth caring	two-faced standoffish ignorant selfish self-interested superior talkative boring too expectant self opinionated
	(ii)	amusing sarcastic	serious serious

4.2	(i)	open-minded sympathetic helpful open down to earth cheerful uninhibited lively talkative	self-centred thoughtless critical secretive snobby moody cagey intimate quiet
	(ii)	interesting helpful intelligent	boring patronising unintelligent
4.3	(i)	inquiring questioning chatty social conversational social anti-social inquiring approachable open verbose	reticent distant withdrawn aloof flow of information open closed introspective unapproachable closed quiet
	(ii)	chatty	abrupt
4.4	(i)	light hearted open relaxed thoughtful cooperative helpful tactful	serious dogmatic tense thoughtless uncooperative unhelpful tactless
	(ii)	extrovert alert sociable articulate down to earth	introvert slow unsociable inarticulate condescending

**Appendix 17 Questionnaire to Elicit Reactions
to Participation in Research**

July 1996

Dear

Positively the last word on my research!

There are a few loose ends which need to be tied up, and the end of term seemed too hectic all round. Could I ask you to spend a few minutes completing the attached, and to return it in the enclosed envelope, if possible by 22 July? (This letter is being sent to three people from each training group.)

Once again, many thanks. Do keep in touch, and if we can do anything to help with job-finding, let us know; one of the tutors will always be available during the holidays.

With best wishes,

Judith Done

(sent to 12 participants)

THE INTERVIEW TRAINING OVERALL (initial training, school based practice)

What was good about this training?

What could have been added (if anything)?

What should have been left out (if anything)?

How clear were the links between theory and practice?

In the overall timetable of the course, how well did the timing of the interview training and practice fit in? Any suggestions for improvement?

P.T.O

THE RESEARCH PROJECT

Please describe briefly how you felt at the time about being asked to take part in the research.

(Groups B and C only)

Part of the research involved you conducting short interviews on video and receiving feedback. How helpful was it to receive feedback about your video recordings?

Very many thanks for your help.
Judith Done
July 1996

**Appendix 18 Responses to Questionnaire
(Appendix 17)**

Question: Please describe briefly how you felt at the time
 about taking part in the research

- S1 "Having to travel up and down from Stoke to take part was the problem....otherwise no problem."
- S2 "Not bothered - happy to help."
- S3 "I didn't mind taking part in your research but [the research methods course] was a total nightmare."
- S4 "I had no problem in being asked to participate and was happy to do so, but I can remember thinking that it was going to last the whole year and felt quite relieved when I realised it wasn't!"
- S5 "Don't mind at all, although we were all very curious as to what it was all about - how this affected our behaviour/responses is an interesting question, since we all had our assumptions as to what was the purpose of the study."
- S6 "Fine - no real feelings either way."
- S7 "I felt pleased that I had been asked to take part in someone else's work."
- S8 "I had no strong feelings one way or the other about participating. However, it was nice to be involved in practical research especially for the course tutor. I felt part of developments in the department."
- S9 "Fine. I enjoy taking part in research. However, bits of the research were more time consuming than I imagined."
- S10 "Initially I was concerned about the research as I had no information about what the data was being used for. However, once I had commenced the research and it became clear about the reason I was happy to assist."
- S11 "Indifferent; if my participation was required I was happy to cooperate where necessary."
- S12 "It made me feel valued and aroused my curiosity as to what exactly the research was focusing on. It made me more aware of my own research proposal and with hindsight, now I can appreciate the amount of work involved!"

Question: Part of the research involved you conducting short interviews on video and receiving feedback. How helpful was it to receive feedback about your video recordings?

- S4 "Very helpful method of learning - each time we observe ourselves on video we 'take on board' improvements we can make - an incremental process, gradually layering up the required skills."
- S5 "Would have liked to see the original tape again to evaluate personal development throughout the course. Apart from that it was fairly helpful."
- S6 "Very helpful."
- S7 "Being a videophobic at the beginning of the course, when receiving feedback I spent most of my time cringing. However, I can remember you telling me to try and look relaxed, and gradually I would feel relaxed, so something useful did come of it."
- S8 "Very useful as it provided basic information about our different styles, strengths and weaknesses early on which is important when starting a new course, as you are always thinking 'will I be any good', 'what will I need to work on?' etc."
- S9 "Very helpful - helped build confidence and boost belief in my ability. Good constructive feedback."

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