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AN EVALUATION  
OF  
INTERVIEW TRAINING FOR ADOLESCENTS.

© EILEEN M. HOOD, M.A., M.APP.SCI.

THESIS SUBMITTED FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY IN THE FACULTY OF  
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PART 1 - LITERATURE REVIEW.

### ABSTRACT.

The effectiveness of interview training was investigated in a study involving seventy-two lesser-qualified school-leavers, allocated to the following groups:-

interview training (IVT)

interview training + videotape feedback (IVT + Video)

videotape feedback - 3 sessions (3 Video)

videotape feedback - 1 session (1 Video)

discussion (3 Disc.)

handout (Handout)

attention-only control (Att.C)

For the IVT group a combination of modelling, coaching, roleplay, feedback and discussion was used to train both verbal and non-verbal interview skills in 3 sessions. This programme was modified to include videotape feedback for the IVT + Video group. Videotape feedback without the other components was administered to 3 Video, and 1 Video. The 3 Disc. group spent 3 sessions discussing problems at interview and how to resolve them (without the active components included in the IVT programme). The Handout group received only the written material used with the IVT group, together with a brief description of the appropriate use of such information. The Att.C group had 3 sessions of discussion of leisure interests etc., to control for the non-specific effects of being in therapy. Subjects were assessed using videotaped roleplayed interviews. Analyses of verbal and general items demonstrated the superiority of the two experimental groups (IVT, and IVT + Video) over the alternative procedures. A good degree of social validation was achieved, there was evidence of generalisation and at follow-up the post-training improvements were well-maintained. Interview training was shown to be effective irrespective of the subject's level of intelligence.



The interview training programme was extended to eight clinical single case studies. The programme was found to be effective with this population also, especially for subjects without wider social skills problems. Training in verbal skills was particularly important, as was generalisation training. In contrast, relaxation training, and training of non-verbal skills contributed little. Videotape feedback had less effect than expected, however, this was possibly due to the adoption of a random allocation procedure.

## SUMMARY

In the first chapter studies investigating the effect of unemployment on mental health are reviewed. If unemployment does not, in fact, have an adverse effect on mental health, then in terms of mental health, it matters little whether individuals cope adaptively with job interviews, therefore interview training is irrelevant. However, one almost inevitable effect of unemployment i.e. reduced income, generally results in effective presentation at interview being seen as important by job-seekers.

Interest in the effects of unemployment first developed during the 1930's, but cultural and societal changes limit the extent to which findings from that time can be applied to the 1980's. Recent studies (aggregate, cross-sectional, and longitudinal) have provided more systematic information on the effect of unemployment on mental health. There is evidence that unemployment generally has an adverse, and sometimes profound effect on mental well-being. Redundant adults who obtained new jobs within four months, having initially reported symptom levels similar to those who remained continuously unemployed, appeared even less stressed than control (continuously employed) subjects following their return to work. In a study of school-leavers, the mental health of those subsequently unemployed was impaired relative to their employed counterparts. As the two groups were indistinguishable in terms of mental health while at school, this important result shows that the experience of unemployment is likely to cause psychological impairment, as opposed to resulting from same. Recent work has suggested that the anticipation of unemployment may be stressful in itself, for example, British adolescents are more worried about unemployment than about nuclear war.

Poor interview performance and resultant unsuccessful job applications

have been shown to be related to duration of unemployment, attributional variables, and depressive symptomatology.

In view of the detrimental effect of unemployment on mental health, it is important that those who have pronounced difficulty at interview should be enabled to cope more adaptively. One approach to this is interview training (IVT) outlined and reviewed in Chapter 3. As the content and methods of social skills training (SST) constitute much of the background to the interview training literature, Ch.2 contains an introduction to that area. Argyle's work on the analysis of social behaviour was a major catalyst for the development of SST which utilises modelling, coaching, roleplay, feedback and discussion in various combinations to improve social interaction. Studies evaluating these components yield inconsistent results, but the general conclusion is that the various techniques are most effective in conjunction with one another, rather than in isolation.

There are particular problems in applying SST to adolescents and few researchers have tried to do so. One successful attempt involving adolescent psychiatric outpatients is highlighted and this stands in contrast to methodologically flawed applications of SST within a school setting.

Ch.3 comprises a review of literature relating to various aspects of job interviews. These include reliability and validity, critical interview skills, and interview training. The important issues of social validation, generalisation and maintenance of treatment effect are introduced. Most controlled group studies of interview training with adults are characterised by some, but not all, of the following problems :-

- 1) lack of criteria for subject selection.
- 2) omission of follow-up assessment.

- 3) absence of social validation of results.
- 4) failure to assess generalisation of treatment effect.
- 5) inappropriate statistical methodology.
- 6) restricted comparison of alternative treatments.

The multiple baseline studies with adults are more sophisticated and show that interview training is effective in increasing specific skills and global presentation. There is evidence that these effects are maintained and generalise to real-life interviews.

However, there has been little comparable research into interview training with adolescents. The present research addresses the above problems in the context of a comprehensive controlled group study, and a series of single case studies. The group study involved the allocation of 72 lesser-qualified school-leavers to seven alternative procedures; the single case studies were conducted with adolescents referred by a G.P. or psychiatrist.

Ch.4 outlines assumptions implicit in interview training and summarises Chs. 1-3 in the context of these assumptions.

Ch. 5 contains the introduction to the present study which examines the topics already outlined. In addition, a recent emphasis in SST has been on incorporating videotape feedback in training, therefore its differential contribution was investigated. An adequate group study should include the following comparisons:

Interview training vs. discussion

Interview training vs. videotape feedback -3 sessions

Interview training vs. videotape feedback - 1 session

Interview training vs. interview training + videotape feedback

Interview training vs. handout describing important interview skills.

Interview training vs. attention-only control.

Whilst interview training with adolescents is generally less advanced than with adults, the lack of clinical studies is particularly

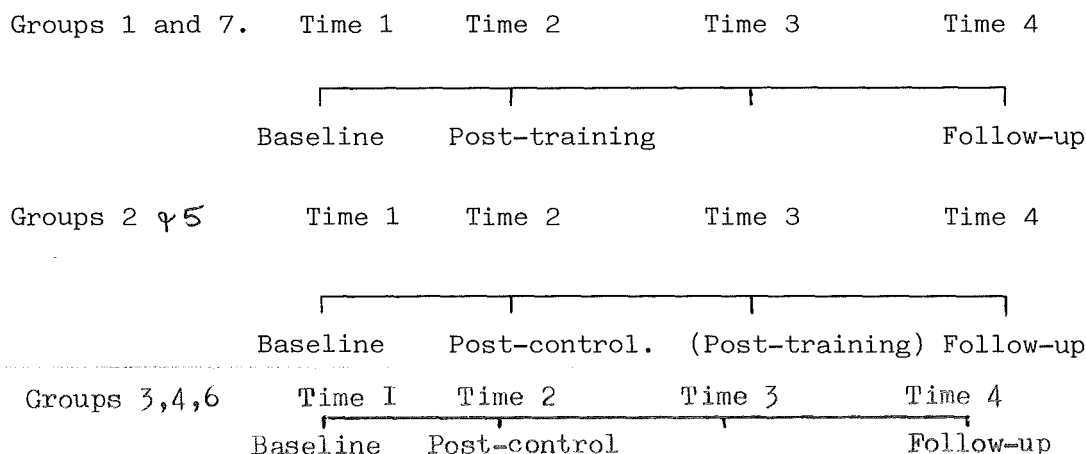
striking. The present research addresses this lack by incorporating clinical single case studies. Ch.5 concludes with an outline of the main issues and hypotheses examined in the present study.

One of the issues raised in Ch. 5 is that of selection criteria for adolescents. The usual criterion-number of unsuccessful interviews-is not appropriate for adolescents just entering the job market. One alternative would be a valid and reliable questionnaire assessing interview skill.

Ch.6 describes the development of such a questionnaire. An acceptable degree of retest reliability was achieved, but the results for validity were less positive.

In Ch.7 the method used in the group study is described. Subjects were randomly allocated to whichever group was due to commence shortly before their school-leaving date, and the multiple group comparison described above was carried out.

The diagram below illustrates the various assessment phases:-



In Ch.8 the results of the group study are presented. These are derived from ratings of videotaped assessment interviews which were subjected to oneway analysis of variance based on gain scores. At baseline, each adolescent was interviewed for the job of General Clerk, in subsequent assessments subjects were also interviewed

for a job of their choice. It was expected that there should be no significant between-group differences at baseline, and with the exception of two items - informational statements, and question-asking - this was confirmed. It was hypothesized that there should be between-group differences at Time 2 with the two experimental groups (IVT, and IVT + Video) being more effective than the alternative procedures. Analyses of verbal and general items supported this hypothesis. Eight analyses of non-verbal items revealed significant differences in only two instances - eye contact, and posture. The two experimental procedures were significantly different from various alternatives, however, one of the two non-verbal analyses also showed a significant difference between the 1 Video programme and the Attention-control group.

The lack of significant differences in non-verbal skills is largely attributable to the fact that baseline non-verbal skills showed less pronounced deficits than verbal ones. There was therefore less improvement in non-verbal skills because of higher initial scores.

A good degree of social validation was achieved, there was evidence of generalisation, and at follow-up the post-training improvements were well-maintained.

An investigation of the role of intelligence in relation to outcome indicated that interview training is effective irrespective of the subject's level of cognitive function.

Analyses of critical interview skills showed 'interest' and 'question answering' to be particularly important.

The interview training programme was further evaluated with a series of single case studies (Ch.9). Taking the results for all eight subjects together, there is evidence that the programme generalises well to a clinical population. For both 'good' and 'poor' responders in the individual case studies there is close concordance between the results based on videotaped assessment

interviews, and self-report data. In general, 'good' responders are those whose difficulties at interview are focal and specific, rather than one manifestation of a pervasive interpersonal problem.

There is evidence that, even without obtaining employment, the acquisition of skills which enable subjects to cope more adaptively with job interviews, can itself lead to a reduction in psychological distress as measured by the General Health Questionnaire (GHQ).

One aim in conducting the single case studies was to examine the differential contribution of individual sessions in the interview training programme. Training in verbal skills proved to be particularly important, closely followed by generalisation training which exerted a substantial influence on subjects' interview performance. Contrary to expectations, minimal treatment effect accrued from relaxation training, and training of non-verbal skills. In the case of relaxation, this indicates that anxiety at interview is more readily resolved by measures focusing on the acquisition of skill, rather than the reduction of anxiety symptoms per se. Surprisingly, videotape feedback had less effect than expected, although as its inclusion was on a random basis, only tentative conclusions can be made.

Ch. 10 contains a summary of the rationale for the methodology adopted in the present study. This is followed by discussion of the aims of the present research, and implications of results. The chapter concludes with various recommendations for future research.

## CHAPTER 1.

### UNEMPLOYMENT - THE EFFECT ON MENTAL HEALTH.

#### Introduction :

A certain polarisation is evident in beliefs about the effect of unemployment, at one extreme there is what has been termed the 'benign' view in which unemployment is seen as inevitable and as fairly neutral in its effect, whereas at the opposite extreme, unemployment is viewed as having a profound and detrimental effect on mental health.

Interest in the effect of unemployment first developed during the 1930's, precipitated by the consequences of the Depression. A number of very detailed, descriptive accounts appeared, possibly the best known example is that of Jahoda, Lazarsfeld and Zeisel (1933). On the basis of an extensive study of unemployment in a one-factory village in Austria, they concluded that unemployment leads to "a diminution of expectation and activity, a disrupted sense of time and a steady decline into apathy through a variety of stages and attitudes". Such conclusions are representative of the majority of studies in the 1930's; and while Jahoda et al portray a vivid impression of the difficulties encountered by many within the particular community under study, the extent to which their findings can be generalised to the 1980's is limited due to cultural and societal changes in the intervening years.

Thereafter, relatively little research was carried out until the late 1970's. A variety of papers then emerged, ranging from theoretical accounts of the significance of work and unemployment (Kelvin, 1981; Warr, 1982) and descriptive reports on the effect of unemployment (Hill, 1978; Riegle, 1982) to more systematic and controlled studies.



Studies to be reviewed here fall into the latter category which includes analyses at both macro and micro levels. The main exponent of macro-level analysis is Brenner (1973, 1977). He tried to assess the strain produced by unemployment by looking at how economic indices, e.g. the unemployment rate, relate to measures of strain (e.g. psychiatric admissions, suicide rates and death due to cardiovascular disease). He found that the number of psychiatric admissions and suicide rates etc. increased considerably during periods of economic decline; it also emerged that the unemployment rate for men over 40 years of age was significantly associated with neurosis and cardiovascular mortality in England and Wales. While some of Brenner's results are impressive, his methodology has been criticised by Gravelle, Hutchinson and Stern (1981) who pointed out that it is difficult to establish a causal link between unemployment and poor health which can be separated from other factors such as poverty, bad housing and inadequate diet. Colledge (1982) suggested that the main danger in such macro or aggregate studies is in attempting to generalise from the national to the individual level. These studies therefore require to be balanced by others which approach the problem at the micro-level of analysis.

A substantial number of such studies have been published recently, many are methodologically sound and well-designed and their results provide a more comprehensive picture of the potential effect of unemployment.

Adult populations:

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The relationship between unemployment and mental health is clearly not a linear one and a number of studies have investigated various factors which may moderate the psychological impact of unemployment. One example is Hepworth's (1980) study in which she investigated the effect of age, occupational status, length of unemployment

and ability to occupy time. The experimental group comprised 78 unemployed men from Sheffield, six of whom had been unemployed for more than two years, with a further twelve having been out of work between one and two years; an employed control group was incorporated. The General Health Questionnaire (GHQ) and the Present Life Satisfaction Scale (PLS) were administered and it was found that :-

Age :- the 35-44 age group had the highest mean score on the GHQ and the lowest on the PLS, i.e. this group had poorer mental health and were less satisfied with their lives than other age groups assessed (it had been predicted that the 45-54 age group would have poorer mental health as this had previously been found by Warr (1978) in a study of redundant steelworkers);

Occupational status - increased psychological problems were found with lower occupational status;

Length of unemployment - this was negatively correlated with the PLS and positively correlated with the GHQ;

Ability to occupy time - this was found to be the best single predictor of mental health, it was positively correlated with occupational status and also correlated with length of unemployment so that the longer a person was unemployed, the less able he was to fill his time meaningfully.

While cross-sectional studies preclude any judgement regarding the direction of the causal link between unemployment and mental health, the results of this study indicated that the unemployed in the sample had significantly poorer mental health and poorer subjective well-being than the employed population. It was also found that certain demographic variables moderated the effects of unemployment, and Hepworth concluded that the unemployed are not homogeneous in their reaction to joblessness and that it should

not be assumed that every unemployed person passes through a similar pattern of subjective experiences.

In a further cross-sectional study, Furnham (1983) assessed 196 London subjects, split into five groups depending on their employment status: full-time employed, part-time employed, unemployed, retired, and students. The Langner-22 index of mental health was used, it emerged that there was no effect of age, (contrary to Hepworth's, 1980 study) or sex, but employment status was highly significant. The 'unemployed' scores were significantly different from those of every other group apart from the part-time employed. It was suggested that the lack of significant differences between the unemployed and the part-time employed may be a function of some people taking part-time work they do not like because full-time is not available, or because some part-time work is for short periods only and therefore does not give many of the benefits of permanent employment. While these results provide evidence of an association between unemployment and mental health, once again the direction of causality cannot be established. Behavioural rather than emotional changes following unemployment were the main focus of Warr and Payne's (1983) cross-sectional study. A total of 399 subjects were drawn from throughout Britain and then divided into middle-class and working-class groups. Each subject had been unemployed between six and eleven months. The General Health Questionnaire was administered and subjects were also asked to rate how often they engaged in various behaviours, including domestic work, domestic pastimes, other pastimes, reading and recreation, entertainment involving financial outlay and social contact. (It is relevant to the understanding of the following findings that 'domestic and other pastimes' refer to items such as 'sit around at home' and 'have a sleep during the day'; whereas 'reading, recreation and social contact' include rather more active

pursuits such as reading for study, physical exercise and voluntary work.) Both groups reported significant increases for all categories except entertainment involving financial outlay which decreased significantly. When the relationship between the above behaviours and psychological and health variables was examined, it was found that for middle-class subjects, increased time spent on domestic and other pastimes was significantly associated with money and activity problems, higher levels of psychological distress, anxiety and depression as measured by the GHQ, and with more negative health changes since job loss. There were no significant associations of this kind for changes in reading, recreation or social contact. For the working-class group, reported changes in domestic pastimes and other pastimes were again most predictive of psychological outcome. In general, where similar associations were found for the working-class group, the correlations tended to be lower than for the middle class respondents. Warr and Payne concluded that their findings differed from those of the 1930's in terms of reported increases in social contact and reading. Two suggested explanations are that financial deprivation is less severe, therefore social activities are less curtailed than in the 1930's, or that people in the 1980's are more active in their response to unemployment. While the authors recognised the potential limitations of retrospective reports, they suggested that the consistent differences between the two samples and the absence of stereotyped responding supported the validity of their findings. Apart from the inevitable limitation of correlational studies in terms of establishing causal relationships, this study is quite useful in that it highlights behavioural as well as emotional changes and also the association between the two.

In contrast to the above, the following two studies are longitudinal

in design and thus have the advantage of facilitating an assessment of causal relationships. Kasl, Gore and Cobb's (1975, 1979) study focused on 113 American blue-collar workers from two plants and followed them through five phases from the anticipation of closure to two years after shut-down when the majority had found new jobs. A control group was also included. The study was concerned mainly with physical rather than mental health. Of the variety of measures of physical health used, the main ones were :- (1) Days complaint (i.e. not feeling as well as usual), and (2) Days disability (unable to carry out usual activities due to illness). An 8-item depression scale was the sole index of mental health. It was found that the experimental group had a significantly higher number of days complaint than the control group during the anticipation of closure. The number for the experimental group then dropped significantly between then and a few weeks after closure, rose significantly again thereafter until a few months after closure and dropped significantly between then and one year after closure. The authors suggested that these fluctuations reflect the process of adjustment to the loss of a long-held job, and to a change in work circumstances, whether that change is to a new job or to unemployment. This explanation is consistent with one of the hypotheses of life events research which proposes that stress is caused by demands for change and readjustment per se, irrespective of the desirability of such change.

Both the days disability measure and the depression scale showed only small variations across the five phases. Social support as a moderating variable was also investigated in this study, it was found that among men low on social support, those who had consistently high levels of depression were the ones who had a more difficult time in finding a job; among men high in social

support, levels of depression were not particularly predictive of the subsequent amount of unemployment. Kasl et al suggested that this might indicate that unemployment did not have a detectable impact on depression in this study, but that depression did have an impact on unemployment in men with low social support. However, the lack of detail regarding the depression scale, and the low priority given to the assessment of mental health, leave the validity of this conclusion open to question.

Kasl et al suggested a number of factors which may have limited the impact of unemployment on mental health. (1) the results would probably be different with a different set of workers, i.e. the results are only generalisable to other groups who have a weak attachment to the work role as seen in this group. (2) unemployment was studied in the context of whole-plant closings which probably lead to a minimum of self-blame. In such a situation, everyone is affected together therefore there is increased potential for sharing the experience. (3) the duration of unemployment was relatively short for most of this particular group.

However, to quote Cobb and Kasl (1977) "In the psychological sphere, the personal anguish experienced by the men and their wives does not seem adequately documented by the statistics".

In contrast to Kasl et al, mental rather than physical health was the focus of Liem and Liem's (1979) study. Eighty redundant workers (40 blue and 40 white collar) were interviewed four times over a one year period, each experimental subject being matched with a control. Two psychiatric inventories (similar to the GHQ) - Hopkins BSI and Hopkins SCL 90 - were administered. It was found that, at one and four months after job loss, the experimental subjects consistently reported higher levels of anxiety, depression, hostility, and paranoia than their employed counterparts. This

difference was also significantly greater at the fourth month, than at the time of the first interview.

The authors noted that those who found new jobs by the fourth month had initially reported symptom levels similar to those who remained continuously unemployed but that they appeared even less stressed than controls (continuously employed) following their return to work. This finding is the basis for Liem and Liem's argument that unemployment causes rather than responds to emotional strain. They also noted that at the second interview, wives of unemployed men were significantly more depressed, anxious, phobic and sensitive about their interpersonal relationships than wives of the control group. Wives of men who had found new jobs were indistinguishable from wives of controls at this time.

Liem and Liem's results indicate that unemployment has a detrimental effect on the mental health of both the person concerned and their partner.

It should be noted that, with one exception (Furnham, 1983), each of the foregoing studies involved male subjects only. Warr and Payne (1983) found that women with children, especially young women, were less adversely affected by unemployment than other sections of the population. This may be because they are generally fully-occupied, whether they have paid employment or not, and their role in relation to their children may take priority. However, it was also found that single women and those who were principal wage earners were as affected by unemployment as men.

Summary of studies based on adult populations:

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In both Hepworth (1980) and Furnham's (1983) studies, the unemployed were found to score consistently higher than the employed on two measures of psychological function, thus providing some evidence

of an association between unemployment and psychological impairment. In Warr and Payne's (1983) study certain behavioural changes were found to correlate with higher levels of psychological distress. However, the cross-sectional design of these studies precluded any definite conclusions about the direction of the causal relationship between unemployment and mental health.

The seeming contradiction in the results of the two longitudinal studies is very largely attributable to the differing emphases of the two investigations. As noted above, Kasl et al (1975, 1979) concentrated almost exclusively on physical health, whereas Liem and Liem (1979) were concerned with mental health, and as Smith (1985) noted, the evidence linking unemployment with impaired mental health is much stronger than that linking it with impaired physical health. Comparison of the two studies is therefore of limited relevance, Liem and Liem's is more pertinent to the theme of this chapter, it is also more realistic in that the group concerned had a median length of unemployment of 18 weeks, whereas Kasl et al's group had a median duration of 5 weeks. In addition, it appears that Kasl et al's workers became unemployed during a generally healthy period in the wider economy, whereas this was not the case in the area where the group studied by Liem and Liem were located.

The most significant result from Liem and Liem's study was that those who obtained new jobs by the time of the second interview had initially reported symptom levels similar to those who remained continuously unemployed, but they appeared even less stressed than control (continuously employed) subjects following their return to work. This finding supports the view that unemployment causes rather than responds to emotional strain.

The results of the above studies are not consistent with the benign



view of the effect of unemployment referred to in the Introduction. Instead they substantiate the belief that the effect of unemployment on mental health is generally detrimental in nature. It is, of course, recognised that there is considerable individual variation in response to unemployment as a function of certain moderating variables. Some unemployed people benefit because they have been relieved of a job that was unrewarding, poorly paid, and stressful, still others are able to react positively to being unemployed. Fryer and Payne (1984) found 11 such individuals, all of whom were involved in shared experiences outside the home with transcending goals and purposes other than paid employment. It is perhaps relevant that most of this group had, when employed, been I or II on the Registrar General's classification. Taking the literature on unemployment and mental health as a whole, it is apparent that those who benefit from the experience of unemployment represent a very small minority.

#### Adolescent/young adult populations:

British adolescents are more worried about unemployment than anything else, including nuclear war (Gillies et al, 1985). This is perhaps not surprising in view of recent unemployment statistics which show that in January, 1987 almost one third of Britain's three million unemployed were aged 18-24; 48% of the unemployed under 25 had been without jobs for more than 6 months, 29% for more than a year, and 14% for more than 2 years.

In contrast to the preceding studies of unemployment and mental health in adult populations, there are more longitudinal than cross-sectional studies of adolescent populations. The cross-sectional studies will be reviewed first; each of these is Australian, therefore there may be some limitations on the generalisability of results to British populations.

In Finlay-Jones and Eckhardt's (1981) study, a sample of 401 unemployed people, aged 16-24, completed the 30-item GHQ, and a further weighted but representative subsample of 72 were interviewed by psychiatrists using the Present State Examination (PSE). It was found that 56% of the total sample had a GHQ score of 5 or more, i.e. they were at risk of minor psychiatric disorder. Of those who underwent a psychiatric interview, 49% were estimated to have a severe psychiatric disorder of which three-quarters were diagnosed as depressed. In 30% of the cases of psychiatric disorder, unemployment could not have precipitated the onset as it occurred after onset; in 28% the disorder followed unemployment, but the person had also experienced at least one other severely stressful life event in the three months prior to onset; in the remaining 42%, the onset followed unemployment in the absence of any other recent stressful event. The GHQ case rate found here was twice that expected among Australian G.P. patients of the same age, but disregarding their employment status. A potential limitation of the study was that 22% refused to take part in the study therefore the results may be somewhat biased; however, as the authors noted, refusal to take part in a health survey has not yet been shown to be a reliable index of mental health. Despite this and the limitation of retrospective self-reports, the study does provide some evidence of the possible negative effect of unemployment upon mental health.

A more comprehensive cross-sectional study of the relationship between unemployment and certain other psychological variables was conducted by Feather (1982). A group of 78 employed subjects, mean age 21 years, was compared with a sample of 69 unemployed people, mean age 19 years. The latter group had been unemployed for a mean of 31 weeks, with a median of 18 weeks. The variables measured included:- depressive symptoms (Beck Depression Inventory -

BDI), self-esteem, Protestant ethic values, attributional style and apathy. Drawing on evidence from a longitudinal study of adolescents by Backman, O'Malley and Johnston (1978) in which it was found that the unemployed were lower than average in terms of self-esteem, Feather predicted that self-esteem would be lower and depressive symptoms higher in the present sample of unemployed compared to employed people. He based this prediction on two assumptions:- firstly, it could be that depressive symptoms and low self-esteem are an outcome of the negative experiences associated with the unsuccessful search for employment; secondly, it could be argued that work is an important part of one's self-concept, that it helps to define one's sense of identity and worth, Super and Hall (1978), and provides a means of satisfying certain basic needs, Jahoda (1979).

The results indicated that both male and female subjects in the unemployed group had higher depression and lower self-esteem scores than the employed group, and that male, but not female unemployed subjects had lower Protestant ethic scores and were more apathetic in relation to both good and bad outcomes than were the employed group. It was also found that male unemployed subjects gave more external attributions for bad events than did the employed males but this difference was reversed for females.

While unequivocal conclusions regarding causal relationships cannot be drawn, Feather suggested that the impact of being unemployed may have determined some of the observed differences in that, the longer the unemployed subjects had been out of work, the lower were their self-esteem scores; there was also a trend in this direction for depression scores. A significant association between making less effort to find a job and longer unemployment was also found.

The above findings of greater depression and lower self-esteem in the unemployed and increased levels of apathy are consistent with the results of the 1930's research despite considerable changes in social conditions since that time. However, in common with other writers, Feather recognised that the relationship between unemployment and both depressive symptoms and self-esteem is probably affected by a range of moderating variables and that these should be the focus of future research. While this study is subject to the usual limitations of those with a cross-sectional design, it is useful in attempting to put to a more rigorous test some of the conclusions drawn from the descriptive accounts of the 1930's.

As an extension of the above study, Feather and Barber (1983) investigated correlates of situation-specific depressive affect associated with unemployment, and correlates of more general depressive symptoms. They also examined the effectiveness of attributional measures in predicting both types of depression. Following on from Feather's (1982) finding of an association between duration of unemployment and self-esteem deficits and a trend towards an increase in depressive symptoms, Feather and Barber suggested that a transition from temporary situation-specific affective states to more general depression may occur in some people following prolonged and/or repeated periods of unemployment.

Subjects were 116 unemployed people with a mean age of 20 years; the mean duration of unemployment was 57 weeks and the median duration was 36 weeks. Situation-specific depressive affect was assessed via a 7-point rating scale; the Beck Depression Inventory was used to measure depression and a modified version of Rosenberg's (1965) self-esteem scale was also administered.

It was found that, as hypothesised, situation-specific affect about unemployment was associated with high expectations of obtaining a job; with the perceived importance of having employment; and with external attributions about the causes of unemployment.

Again, as hypothesised, BDI depression scores were positively related to subjects' ratings of the perceived uncontrollability of the cause of their unemployment and to their belief in internal causes. BDI scores were negatively related to self-esteem scores. (Mean BDI score was in the mild range of depression). No statistically significant relationship was found between situation-specific depression and BDI scores. It was also found that subjects who were unemployed for longer periods were more likely to make internal causal attributions. There was also a tendency for ratings of perceived uncontrollability to be higher among those with longer unemployment. As expected, a statistically significant relationship was found between length of unemployment and number of unsuccessful job applications. More frequent unsuccessful job applications were also associated with higher BDI scores.

Feather and Barber concluded that situation-specific depressive affect and depressive symptoms have somewhat different correlates. The finding with regard to situation-specific affect reflected frustrated work motivation and tended to have a fairly circumscribed focus, whereas the correlates of BDI depressive symptoms tended to have a more general focus involving self-blame and diminished self-esteem.

The above findings lend support to the view that depressive symptoms, internal attributions and beliefs about external control may be a consequence of increasing length of unemployment and more unsuccessful job applications. Given the cross-sectional design, it is not possible to exclude the explanation that subjects with

more depressive symptoms made more unsuccessful applications partly because of their depression (i.e. that the more depressed subjects tried harder), however, this explanation does not seem particularly tenable in view of work done on depression and motivational deficits, and Feather's (1982) report that increasing length of unemployment was associated with motivational deficits. The finding of a relationship between depressive symptoms and number of unsuccessful job applications is particularly relevant in the context of the present research.

In contrast to the above, the following studies are longitudinal in design, the first four reports were based on an Australian population, whereas the next two are British in origin.

Gurney (1980a, 1980b) reported two different aspects of a longitudinal study of the effects of unemployment on school-leavers. In the first report (1980a), he investigated the effect of unemployment on self-esteem in 412 Australian adolescents. They were assessed while still at school, and then again approximately four months later by which time they could be grouped according to employment status as either:- (1) employed, (2) unemployed or (3) returned to school or post-school training course. At the time of the first assessment, subjects' mean age was 16.5 years, both academic and technical streams were represented.

Self-esteem was measured using a ten-item inventory adapted by Cobb et al (1966), from Rosenberg's (1965) scale. Results of the baseline assessment revealed a significant difference between the scores of male and female subjects in that the girls had significantly lower self-esteem scores. Only one of the changes in self-esteem between the two assessment phases was significant and this revealed an increase in the level of self-esteem for girls who became employed within four months of leaving school.

While female subjects who obtained jobs showed a very significant increase in self-esteem and male subjects showed an increase which did not reach significance, the unemployed did not show any decrease in their level of self-esteem. One possible explanation suggested by Gurney is that the inventory used may not have been sensitive to the components of self-evaluation most affected by unemployment. An alternative conclusion is that, contrary to common belief, school-leavers are not adversely affected in terms of self-esteem by being unemployed. He suggested that if this is the case, it may be because school-leavers have not yet established a vocational identity and may have a reduced commitment to the work ethic. He also noted that this should not obscure the fact that self-esteem in those who became employed rose (marginally in males, significantly in females) and that whatever the explanation for this, it was apparently denied to those who remained unemployed.

The psychosocial development of school-leavers was the focus of Gurney's (1980b) second paper on the same study. The questionnaire used was a reconstruction of earlier attempts to evaluate Erikson's theory of psychosocial development and Gurney admitted that it needed further refinement to improve its reliability and to establish its validity. Gurney's hypothesis was that having a job helps school-leavers to clarify their sense of identity, and being unable to get work leads to a confused perception of self. The main finding of the study was that female subjects who obtained work developed a significantly greater sense of identity compared with when they were first assessed at school, however, male subjects did not change in this respect. There was no evidence to suggest that identity confusion was prevalent among the unemployed, Gurney proposed that this may have been due to the relatively short period of unemployment experienced by this population. He concluded

that unemployment has the effect of inhibiting psychosocial development in school-leavers rather than inflicting trauma.

Unfortunately, the findings of this study are greatly limited by the paucity of data on the reliability and validity of the questionnaire and by the centrality given to Eriksen's theory which has not been sufficiently empirically investigated. Gurney's third study (1981) involved a similar but larger population than the one used in the earlier two reports. This paper focused on Gurney's hypothesis that the kind of causal ascription made by those who want work but cannot obtain it could have important implications for their psychological well-being, i.e. via either intensifying or mitigating their feelings of failure and self-worth. He devised an eight-item scale concerned with external/internal causes of ability/inability to obtain work. In this study, both cross-sectional and longitudinal data were available; from the cross-sectional data on 131 subjects, it was found that there were no significant differences between the unemployed and employed subjects when both males and females were taken together, but when separate analyses were carried out it was found that unemployed males attributed both getting and not getting work significantly more to external factors, as compared with employed males; female unemployed and employed subjects did not differ in their attributions. Thus Gurney concluded that attributional differences do exist between employed and unemployed persons but only for male subjects.

Some clarification of these findings is provided by the longitudinal study Gurney then conducted using a revised and extended version of the questionnaire. Contrary to expectations, the results indicated that it was not the unemployed who changed their attributions but the employed. With the exception of one item, employed males generally adopted more internal attributions at the second assessment phase, whereas employed females made more external attributions



on three items and more internal ones on two items. The unemployed girls showed a significant change on two items, one of which suggested that they attributed their lack of a job to poor performance in the interview situation. While the finding that it is the employed rather than the unemployed who change with regard to causal ascriptions stands in contrast to other work which suggests that the long-term unemployed become more external in their attributions (Tiffany, Cowan and Tiffany, 1970; O'Brien and Kabanoff, 1979). Gurney pointed out that there was a trend for the unemployed in this study to make more external attributions. Unfortunately, the importance of these results is limited due to doubts concerning the reliability and validity of the questionnaire used.

A later study by Tiggemann and Winefield (1984), comparable to Gurney's in terms of design and subjects, produced similar results. This study appears to have fewer methodological problems, it also has the advantage of a one year rather than four month gap between assessments. Tiggemann and Winefield looked at the effect of unemployment on mood, self-esteem, locus of control and depressive affect; they found that the unemployed were generally less well-adjusted than their employed counterparts. This was revealed in greater negative mood and higher depression scores; the unemployed girls also displayed lower self-esteem. However, these differences resulted largely from an improvement in outlook on the part of the employed, rather than a deterioration in functioning in the unemployed. Tiggemann and Winefield concluded that their results were consistent with the notion of employment leading to growth rather than of unemployment leading to debilitation. However, in contrast to Gurney who focused on the absence of impairment, Tiggemann and Winefield stressed the gravity of evidence of retarded 'normal' development. They concluded that "it appears that the

unemployed individual is not given the same opportunity to grow and develop as his employed counterpart. One can as yet only speculate as to whether such consequences subside after the individual is able to obtain a job, or persist if the opportunities provided by a job are denied for a sufficiently long period of time, resulting in permanent psychological damage".

A rather different study by Lavercombe and Fleming (1981) examined the relationship between attitudes held by adolescents while still at school and the duration of unemployment they experienced immediately after leaving school. This work was carried out with a view to identifying, while still at school, those at risk of prolonged unemployment so that some form of help could be offered. The rationale for their research was largely derived from a variety of studies which have proposed a link between attitudes to school discipline, and experience in the job market such as unemployment and/or frequent job changing. In this study conducted in Sheffield, teachers' ratings of pupils' attitudes towards school, and pupils' self-ratings of attitudes towards school, authority, work and unemployment were obtained. Information regarding the duration of unemployment was subsequently obtained from Careers Office records; the mean duration of unemployment was 2.42 months with a standard deviation of 1.7 months.

The results indicated that duration of unemployment was not significantly related either to pupils' attitudes to school etc., teachers' expectations of pupils' future difficulties in obtaining a job, or teachers' ratings of pupil behaviour and attitudes in school. It was also found that more academic pupils who passed more C.S.E.'s did not obtain jobs significantly more quickly than other pupils.

Although the data seemed to indicate to the contrary, the authors concluded that attitudes may be one influence on duration of

unemployment but they suggested that other factors may be equally, if not more important. Among these potential factors, they suggested that differences in interview presentation and information-seeking skills may be relevant. While the results of this study run contrary to some commonly held assumptions, it is relevant that the mean duration of unemployment was only 2.42 months. This is unusually short and may have obscured differences which would have emerged with longer periods of unemployment.

The most thorough and well-designed study of the effect of unemployment upon adolescents is that of Banks and Jackson (1982). Their three objectives were : (1) to test the hypothesis that unemployment in young people is associated with elevated risk of experiencing symptoms of minor psychiatric disorder; (2) to refine this test by taking account of other factors which are known to be associated with higher unemployment (subjects with fewer qualifications, subjects within ethnic minorities and female subjects); (3) to throw light on possible causal mechanisms linking unemployment and mental health, using longitudinal data.

Two groups of 16-year old lesser-qualified school-leavers from Leeds completed the 12-item GHQ on three occasions over approximately 2½ years. Group A were interviewed three times after leaving school, complete data being available for 391 pupils. Group B were first interviewed while still at school, complete data being available for 478 pupils.

From the analysis of cross-sectional data it emerged that, when subjects were grouped according to employment status (unemployed, employed, further education, youth opportunities programme) there were consistent and highly significant differences between the four categories with the major contributor to this result being the contrast between the unemployed and the other three groups. There is thus strong evidence to suggest that young people currently

unemployed are at greater risk of minor psychiatric impairment.

The above-mentioned factors known to be associated with higher unemployment were then examined:- i) the sex difference effect was less clear than that of employment status. Females scored consistently higher on the GHQ than males, though the difference was statistically significant for only three out of five data sets. ii) an ethnic group effect was found with Asians scoring consistently highest and Whites lowest on the GHQ. iii) no significant differences were found as a function of the educational qualifications variable. From a subsequent regression analysis it was found that the strong relationship between employment status and GHQ remained when the other variables were taken into account.

The above results indicated an unequivocal link between current unemployment experience and elevated GHQ scores. In order to establish the direction of the causal link, the longitudinal data from Group B were analysed. It was found that those who were unemployed at the second assessment some time after leaving school showed a significant increase in GHQ scores between the baseline and second assessment. Those who were included in any of the other three categories at the second assessment showed a significant decrease in GHQ scores over the same period. A similar pattern of results emerged from the analysis of the baseline and third assessment scores.

On the basis of the cross-sectional data, Banks and Jackson concluded that those recent school-leavers who are unemployed display an elevated probability of suffering from minor psychiatric disorders. This effect remained after controlling for sex, ethnic group and educational qualification differences. The main conclusion drawn

from the analysis of longitudinal data is that the experience of unemployment is more likely to create increased symptoms rather than the other way round, this is largely based on the fact that there was no difference in GHQ scores, obtained at school, between subjects who subsequently found work and those who became unemployed. The reduction in GHQ scores for those who found work indicated that obtaining employment had a protective influence.

This study, which is the most comprehensive and thorough of those reviewed so far with adolescent populations, provided convincing evidence of the adverse effect of unemployment on mental health. Banks and Jackson's findings provide something of a contrast to those of Gurney and Tiggemann and Winefield outlined above. Banks and Jackson's study is superior in terms of methodology and design, therefore greater credibility may be accorded to their findings. In addition, theirs was a British population with a similar educational background to the population of the present study, therefore there may be fewer problems in generalising from their results.

Summary of studies based on adolescent/young adult populations:

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The cross-sectional studies reviewed provide substantial evidence of an association between unemployment and impaired mental health in adolescents. On the basis of three longitudinal studies, Gurney (1980a, 1980b and 1981) concluded that unemployment does not have a particularly adverse effect on self-esteem, and that it inhibits psychosocial development rather than inflicts trauma. Tiggemann and Winefield's (1984) study was rather better than Gurney's, their results were similar, but they interpreted them somewhat differently. Gurney had emphasized the absence of impairment, whereas Tiggemann and Winefield stressed the gravity of evidence

of retarded 'normal' development. They were concerned about the potential long-term implications of such retardation, and did not appear to see their results as consistent with a benign view of the effect of unemployment.

Banks and Jackson's (1982) longitudinal study is superior in terms of methodology and design, and provided convincing evidence that recent school-leavers who are unemployed are at greater risk of experiencing mental health problems. More importantly, their results indicated that unemployment is more likely to create increased symptoms rather than vice versa. Gillies et al's (1985) finding that British adolescents fear unemployment more than nuclear war, is also more consistent with Banks and Jackson's views than with those of Gurney.

#### Conclusion :

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The effect of unemployment on mental health - benign or profound?  
The best designed and methodologically sound studies of both adult and adolescent populations provide compelling evidence of the detrimental effect of unemployment on mental health. While the unemployed are not a homogeneous group, those who benefit from the experience represent an extremely small minority. For the majority, unemployment has an adverse and sometimes profound effect on mental health.

Of necessity, this review concentrated on systematic controlled studies, rather than descriptive accounts. However, it is the view of the author that the two are complementary and that the available evidence is consistent with Harrison's (1976) description: "Prolonged unemployment is for most people a profoundly corrosive experience, undermining personality and atrophying work capacities".

## CHAPTER 2.

### SOCIAL SKILLS TRAINING.

#### Introduction :

The content and methods of social skills training (SST) constitute much of the background to the interview training literature. SST is a relatively recent development prompted largely by growing evidence of the role of interpersonal difficulties in the etiology and maintenance of certain types of mental disorder. In theoretical accounts the importance of social inadequacy in relation to mental disorder has long been recognised, but studies providing empirical support for the idea did not appear until relatively recently. A survey of social inadequacy among psychiatric outpatients conducted by Bryant et al (1976) found that between a sixth and quarter of the sample were rated as socially inadequate. It would therefore seem that social inadequacy is an important factor frequently found among psychiatric outpatients. The aim of SST is to improve such patients' social functioning, and thereby hopefully alleviate other aspects of their problems which are either caused or maintained by their social inadequacy.

Another major impetus for the development of SST was Argyle's (1972) work on the analysis of social behaviour. Initially, he viewed social skills as being similar to motor skills in the way they are acquired and used. It was assumed that an individual had a system of hierarchically organised goals which directed his behaviour, which was in turn, modified by continuous feedback from the environment. Argyle broke social behaviour down into discrete verbal and non-verbal skills which could then be trained individually and built up again with a resultant improvement in social functioning.

This work formed the basis of Trower, Bryant and Argyle's method

of SST. More recently, Argyle (1984) has discussed SST within a much wider framework. Some authors made extensive use of his original work, others used certain techniques of SST in conjunction with other less structured methods (Liberman, et al, 1975; and Priestly et al, 1978). Work in the area has expanded rapidly, and SST now encompasses a wide spectrum of activities. Programmes that have been developed show considerable variation in scope from those which focus on one aspect of social behaviour e.g. assertion training, to comprehensive programmes covering numerous aspects.

#### Components of Training :

Although there is considerable diversity in the interpretation of SST, it is generally seen as a structured approach which, after careful analysis of an individual's social difficulties, uses modelling, coaching, roleplay, feedback and discussion in various combinations to improve social interaction. The differential effectiveness of these components has been examined in numerous studies. While there are three studies evaluating the components of training specifically in relation to job interviews (Chapter 3), two of these have a number of methodological problems, therefore there follows a brief summary of studies evaluating these components in the context of social skills training.

#### Modelling :

Twentyman and Zimering (1979) conducted an extensive review of studies evaluating SST, and over 70% of these included a model who demonstrates appropriate or inappropriate behaviour for subjects. Modelling generally has immediate impact and it is often found that subjects who initially fail to perceive their own behaviour accurately, can readily identify various aspects of a model's



behaviour. The part of the model may be played by the therapist or by a group member; alternatively, audio or videotape presentations may be used. It is often helpful to have the therapist model an exaggerated example of inappropriate behaviour, as this can introduce some humour into training and help overcome subjects' reticence concerning participation in roleplay. In some studies, inappropriate behaviour is modelled first, followed by appropriate behaviour (Sarason and Ganzer, 1973) in others, the order is reversed (Caldwell et al, 1976). Twentyman and Zimering noted that while the literature does not particularly allude to this, modelling also takes place when subjects engage in roleplays in front of other group members (Field and Test, 1975).

Evaluations of the effectiveness of modelling have produced conflicting results. In a study conducted with psychiatric patients, Eisler, Hersen and Miller (1973) compared 3 groups:- modelling and rehearsal, rehearsal alone, and assessment control. The combined group improved significantly on 5 of 8 behavioural components, but no significant differences were found between the rehearsal and control groups. In contrast, McFall and Twentyman's (1973) study, based on a student population, found that rehearsal and coaching components led to change on most measures, whereas modelling did not.

The discrepant results of these studies may be a function of the populations involved. Eisler et al (1978) investigated the effectiveness of modelling with schizophrenics and with nonpsychotic hospitalized patients. The results indicated that while modelling played a vital role in improving the performance of schizophrenics, it was not essential for the nonpsychotic group. Taking the results of the above three studies together, it appears that the importance of modelling may depend upon the frequency with which particular subject populations are exposed to adequate coping models.

Other, similar studies of modelling also yielded inconsistent

results, and on balance, it appears that modelling contributes most in combination with other techniques of SST (Winship and Kelley, 1976).

#### Coaching:-

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Coaching consists of verbal instructions about effective responses. The information provided ranges from general guidelines to very detailed instructions with application to one particular skill.

In the second of McFall and Twentyman's (1973) four studies of assertion training for students, it was found that the coaching + rehearsal group differed significantly from the rehearsal-only group. The results of Hersen et al's (1973) study of SST with psychiatric inpatients indicated that coaching + modelling was superior to, or equal to, coaching alone or modelling alone on 5 of 7 components of behaviour. While both these studies provided evidence of positive treatment effects, McFall and Twentyman's (1973) negative results at follow-up indicated that such effects do not consistently generalise outwith the treatment situation.

Once again, it appears that coaching is best used in conjunction with other techniques.

#### Roleplay :-

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Roleplay is an essential component of SST, described by Twentyman and Zimering (1979) as involving the overt practice of responses in order to add to a limited behavioural repertoire or, when the response is already present, to increase the probability of its occurrence. While roleplay is probably most often used to enhance appropriate behaviour, it can also be used to demonstrate inappropriate responses. Role reversal can also be included in roleplay, many subjects are overly aware of their own difficulties and temporarily adopting the role of the other person can foster a greater awareness of others' feelings and behaviour. Roleplays should be

designed to be as similar as possible to the real situation, in order to facilitate transfer of training. Certain characteristics peculiar to roleplay were outlined by Lindsay (1986):-

- 1) Failure is less of a problem than in the real situation, as the subject can practise the same response several times.
- 2) Small segments of a behavioural sequence can be practised individually and later linked together.
- 3) Aspects of the situation likely to provoke anxiety can be introduced gradually, in step with the subject's progress.
- 4) The situation can be varied systematically from one that contains only a small number of relevant stimuli, to one that is very realistic.

Studies investigating the effectiveness of roleplay produced discrepant results. Two experiments already mentioned in connection with other techniques, Eisler et al (1973) and Hersen et al (1973) found that roleplay alone did not lead to improvements in skill. McFall and Twentyman (1973) interpreted their first study, quoted in the section on modelling, as indicating that roleplay alone leads to significant increases in assertive behaviour. They suggested that the difference between their findings and those of Eisler et al (1973) and Hersen et al (1973) is that in the latter two studies subjects practised assertive behaviours without a rationale for doing so. The results above are far from conclusive, and further evaluation of the effectiveness of roleplay alone seems necessary. In addition, research into methods of promoting transfer of training is also indicated. On the basis of the present findings, roleplay appears to contribute most when used with other components of SST.

#### Feedback :

Following participation in roleplays, subjects are given feedback

on their performance to facilitate further progress. Feedback may be given by the therapist, group members, or both. Audio or videotape playback of subjects' roleplays can be used to provide feedback on the performance of particular skills. Videotape playback is particularly useful as it facilitates feedback for both verbal and non-verbal skills, and anxiety. Videotape feedback was incorporated in Barbee and Keil's (1973) study of interview training, described in Ch.3.

As with other components of training, conflicting results emerged from studies focusing on feedback. In a study of heterosocial skills training with students, Melnick (1973) found that the two groups that received roleplay and videotape feedback were superior to one which received modelling, or a roleplay group without videotape playback. In an assertion study with students, Gormally et al (1975) compared treatments with and without videotape feedback. The two groups improved but were not significantly different from each other.

As with preceding components, studies evaluating the specific contribution of feedback have produced equivocal results. However, it appears that feedback is effective when used in conjunction with other techniques.

Taking the foregoing studies as a whole, at present it appears that each component :- modelling, coaching, roleplay and feedback, is best used in conjunction with other components, rather than in isolation.

Evaluation of SST programmes with adolescents.

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While the majority of studies of SST have been conducted with adult populations, there are a number of reports of SST with adolescents (Lindsay, Symons and Sweet, 1979; Spence and Marzillier, 1981; and Jackson and Marzillier, 1982) which have provided evidence

of the effectiveness of SST in improving social interaction in terms of both global and specific ratings, in the short-term and in certain instances, in the long-term.

As Lindsay et al's (1979) study is particularly relevant to the pilot study of interview training outlined in Ch.3 (Hood, Lindsay and Brooks, 1982) it is described in some detail. Their programme is not time-limited but is split into sections, it was developed through working with ten groups of adolescents and children, the majority of whom were psychiatric outpatients. Symons and Lindsay (1978) suggested that SST as used with adults has to be modified for use with adolescents who are often inhibited by the highly structured nature of SST. Accordingly, the programme begins with a number of unstructured activity sessions to allow the adolescents to relax and get to know each other and the therapist before the actual training commences. Comprehensive in scope, the programme includes teaching about social interaction, then training in specific areas, including initiating conversations, assertion skills etc. Results of self-report measures showed changes in personality traits relating to social behaviour, ratings on a social difficulty questionnaire (Lindsay and Lindsay, 1982) increased and there were significant improvements on most of the specific and general social skill ratings derived from the assessment interviews. As the programme developed, the authors began to promote generalisation of treatment effects by conducting sessions in real-life situations. This study is important in that it highlighted the problems encountered in applying methods of SST originally developed with adult populations, to adolescent ones, it also emphasized the need to programme and assess generalisation of training to real-life situations.

Two initial applications of SST within a school setting were seen in the work of Bowdler and Gleisner (1982) and Hayes, Sluckin and Smith (1982). Both studies were largely exploratory in nature

and have various methodological problems not found in the three abovementioned studies. However, they are included here as they appear to be the only ones carried out in a setting similar to that of the present study.

Bowdler and Gleisner's population of fourteen first year pupils was somewhat younger than that of the present study. No control group was included and the effect of the ten session SST programme was evaluated solely by a checklist of problem behaviours completed pre and post-training by both children and teachers. The absence of other forms of assessment e.g. ratings based on videotaped interviews, is a serious drawback and although a significant difference between pre and post-treatment scores was found, there is no mention of the statistical procedure employed.

Hayes et al's (1982) study involved twenty pupils from first to third year whom staff regarded as deficient in social skills. These subjects were allocated either to an experimental or a control group. The effectiveness of the ten sessions of training was evaluated on the basis of ratings of videotaped interviews conducted pre and post-treatment. From Mann-Whitney 'U' tests of change scores the experimental group was found to have improved significantly compared to the control group on measures of tone and loudness, content of speech and general impression. While this study is somewhat superior to the preceding one, it lacked sophistication and did not include any assessment of generalisation or maintenance of treatment effect. Unfortunately, both these studies have certain deficiencies which greatly restrict the conclusions that can be drawn from them.

#### Summary :

The components of SST discussed in this chapter form the basis of the methods used in the present study of interview training.

The differential effectiveness of such components is therefore relevant and while the evidence with regard to each component per se is equivocal, when they are used in combination with one another, more consistent, positive findings emerge.

While studies of SST with clinical groups of adolescents have produced encouraging results, as yet similar findings have not emerged from research conducted within a school setting.

### CHAPTER 3.

#### THE JOB INTERVIEW - RELIABILITY, VALIDITY, AND THE MODIFICATION OF SKILLS DEFICITS.

##### Reliability and Validity.

The job interview has a central place in the selection procedure of virtually every organisation. Despite such extensive use, early studies concerned with reliability and validity lacked sophistication and produced dismal findings. Intelligence was the only trait consistently rated with high reliability; both reliability and validity were satisfactory in only one area - sociability. However, recent studies have been vastly superior in design and methodology, and the resultant evidence is considerably more encouraging. Arvey and Campion (1982) felt that interviews conducted by a board or panel appeared promising as a vehicle for enhancing reliability and validity; Latham et al (1980) found that careful linking of job analysis and interview content had beneficial effects on interviewer reliability and validity.

Many studies have sought to identify crucial variables in the decision-making process. The following findings are particularly relevant to the present study:-

- biases are established by interviewers early in the interview (Webster, 1964).
- unfavourable information has most influence on interviewers (Webster, 1964).
- the interviewee's state anxiety is unrelated to interviewer's evaluations (Keenan, 1978).

Despite susceptibility to bias and distortion, the interview is as popular as ever. Arvey and Campion (1982) advanced various reasons for its continued use, the most tenable of which is that



the interview does yield valid judgements on several observable interpersonal dimensions of behaviour e.g. sociability, verbal fluency etc. The case for the interview could be enhanced by establishing more specific evaluative goals for it which emphasise these interpersonal dimensions.

#### Modification of interview skills deficits.

Training specifically for the job interview originated within the wider field of social skills training so that preparation for the job interview was conducted alongside training for other potentially difficult social situations and was generally evaluated as part of the whole programme rather than as a separate entity. However, drawing on evidence regarding the situational specificity of social skills, Furman et al (1979) suggested that job interviews represent a particularly important specialised kind of social interaction, and interview training has gradually come to be regarded as a specific, separate approach to a discrete problem. Interview training (IVT) incorporates the traditional methods of social skills training, i.e. modelling, coaching, roleplay, feedback and discussion, but modifies the content of training to meet the particular requirements of the job interview.

Research into the effectiveness of interview training has involved a variety of subject populations, including college students, culturally and educationally disadvantaged trainees, teenage mothers, formerly hospitalised psychiatric patients and mentally retarded adults and adolescents. However, interview training, especially in relation to college students, has not been without its critics. Babcock and Yeager (1973) and Shaw (1973) advised against the routine administration of interview training, suggesting that this simply teaches students how to act and can therefore result in misrepresentation at interview. Babcock and Yeager supported

the use of interview training for a minority of students who are either extremely anxious at interview or are found to communicate poorly. In discussing the ethical considerations involved in teaching people to act, Shaw suggested that the goal of interview training should be to enable individuals to relax and project their personality. The points raised by both Babcock and Yeager, and Shaw are perfectly valid and would be accepted by the vast majority of those involved in interview training, and it seems that these objections may have been based on a small number of unrepresentative studies. The major part of the literature on interview training is concerned not with graduates but with populations in which communication difficulties are generally more pronounced, e.g. educationally disadvantaged trainees, psychiatric patients and mentally retarded individuals, and the criticisms made by Babcock and Yeager, and Shaw lack validity in such circumstances.

A number of attempts have been made to identify the skills that are crucial to effective presentation at interview, these will now be discussed, following this the key issues of social validation of results and generalisation of treatment effects will be introduced. Thereafter, various studies of interview training will be reviewed in terms of the following :- The effectiveness of interview training compared with other treatments, and its applicability to different subject populations; the efficacy of various components of training; and the emphasis placed on social validation and generalisation of the results of treatment.

#### i) Critical Interview Skills.

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In an attempt to identify particular skills which correlate with effective interview performance, Tschirgi (1973) conducted a survey of the views of employers involved in graduate recruitment. It

was found that communication skills were rated as most important, with academic performance and work experience in second and third places respectively. Communication skills were described by employers as being reflected in 'evidence of interview preparation' and 'enthusiasm'. The most serious fault commented on was failure to prepare adequately for interview, manifested by a lack of knowledge of the company's products or job prospects or a tendency to ask irrelevant questions.

Lumsden and Sharf (1974) identified six factors in recruiters' responses to a behavioural check-list:- social and academic balance, socially unresponsive, mature insight, dedication, verbal and unprepared.

In a similar study, Cohen and Etheredge (1975) identified a number of items relating to ability to communicate, manifestations of anxiety, and physical appearance, which were important factors in determining the outcome of an interview.

Hollandsworth et al (1979) attempted to determine the relative importance of verbal, articulative and non-verbal dimensions of communication by analysing recruiters' ratings of campus interviews. Appropriateness of content, fluency of speech and composure emerged as the most critical variables; Hollandsworth et al concluded that verbal, rather than non-verbal skills were particularly important at interview.

The main problem in attempting to generalise from the above work to the present study is that these studies were concerned with University recruiters who interview a highly selected population, therefore the skills they identify may not be equally important for different populations. However, Prazak's (1969) early study of employers' opinions, although considerably less systematic than those examined above, was concerned with employers' opinions

of adults in vocational rehabilitation who are likely to be less highly selected in terms of intelligence and therefore, in this respect at least, more similar to subjects in the present research.

The behaviours identified were essentially similar to those above and included:- ability to explain skills and answer problematic questions and ask specific questions about the job, enthusiasm, appropriate appearance and mannerisms.

The importance attached to communication skills in all the above studies is particularly relevant when considering the application of methods of social skills training to interview behaviour. While considerable time and resources are required to modify deficient academic performance and work experience, the literature on social skills training indicates that communication skills can be built up in a much shorter period of time. Given that such skills are emphasised more than traditional ones such as academic performance, it would seem that the interview may be a valid area for the application of methods of social skills training.

While precise definitions of many of the above skills or factors are lacking, e.g. ability to communicate, a certain consistency is present in the results of the various studies, therefore some general guidelines for training may be obtained, firstly by considering work with adults and then with adolescents. However, before reviewing these studies, an introduction to the issues of social validation and generalisation of treatment effects is appropriate.

#### ii) Social Validation and Generalisation.

Until recently, specific behavioural changes following interview training have been the main focus of concern with relatively little attention being paid to the social importance of these changes for the subject. Social validation has been proposed as a means of evaluating whether behavioural changes following treatment are

clinically important. Kazdin (1977) outlined two possible methods of social validation :- social comparison and subjective evaluation. Social comparison involves comparing the pre and post-training behaviour of a given subject with that of his peers who have not been identified as problematic. In subjective evaluation procedures the behaviour of the subject is examined by individuals who interact with him, or have some special expertise in judging that behaviour. Global evaluations of the subject's functioning are then made, thus indicating whether treatment has resulted in his behaviour being seen as socially acceptable. While Kazdin noted that global subjective evaluations are much more subject to bias than are specific behavioural measures, this difficulty can be avoided by using a combination of the two without according disproportionate importance to either.

In the words of Baer, Wolf and Risley (1968) "Generalisation should be programmed rather than expected or lamented". A number of studies of interview training have failed to assess the extent of generalisation of treatment effect, and most have made no attempt to include in treatment, procedures which may facilitate such transfer. Within interview training there are a number of possible approaches to the assessment of generalisation, e.g. at post-test, in addition to the interviews used at baseline, subjects may be interviewed by a second interviewer asking different questions about a different job; ratings of videotaped assessment interviews may include a 'probability of hire' rating; and information regarding success in interviews following training may be obtained. As it is not always possible to obtain employment outcome data, the inclusion of a 'probability of hire' rating is important. Although somewhat less convincing, it is still considerably better than relying solely on ratings of specific behaviours. It cannot be taken for granted that increases in individual skills will result

in significantly improved overall presentation, but the inclusion of a 'probability of hire' rating provides a means of checking that statistical changes are also clinically relevant.

Kelly and Christoff (1983) outlined various methods of programming generalisation into interview training with the mentally retarded.

Many of these may be applicable when training other populations, e.g. involving a variety of interviewers with different styles of interviewing; ensuring that practice interviews consist of questions similar to those asked in genuine interviews; varying the phrasing and type of questions used in roleplays; and encouraging subjects to develop strategies of self-presentation rather than specific answers to specific questions.

Many of the following controlled group studies have not adequately assessed the social importance and generalisation of results, but most of the multiple baseline studies have attempted to deal with both issues.

Certain other considerations noted by Speas (1979) are also relevant when comparing the following studies; methodological differences abound, with variations in the population sampled, duration of treatment, components of treatment, skills selected for training and assessment procedures used.

### iii) Adult Populations.

#### a) Controlled Group Studies.

One of the first systematic evaluations of the effectiveness of social skills training for the job interview was that of Barbee and Keil (1973). Working with a population of culturally disadvantaged trainees, their aim was to evaluate the relative contribution of videotape feedback and behaviour modification. Accordingly, 64 subjects were randomly allocated to one of three groups (a) videotape feedback and behaviour modification, (b) videotape feedback

only, and (c) no-treatment control. In group (a) subjects viewed their baseline assessment interviews, noting areas to be improved and then received a single 30-minute training session. Subjects in group (b) were shown their baseline assessment interviews without any feedback and group (c) were simply asked to wait for 30 minutes until the second interview. All assessment interviews were rated by five personnel interviewers. The combined treatment group (a), improved significantly relative to the other two groups on only 2 of 9 items - level of questions asked, and assertiveness/initiative. Barbee and Keil reported that there was a significant improvement for the combined group compared to the control subjects on a 'probability of hire' rating. However, Gillen and Heimberg (1980) pointed out in their review that the analysis of variance for this measure was non-significant and the significant result was obtained from a series of pairwise 'T' tests which was carried out without control for experimental error. This rather invalidates Barbee and Keil's conclusion for the 'probability of hire' item, and thus greatly diminishes the importance of the study. Further weaknesses are seen in the absence of criteria for both subject and skills selection.

A second study by Keil and Barbee (1973) with a similar population, made some attempt to remedy the latter deficiency by selecting the skills to be trained on the basis of both a study of personnel interviewers' ratings of critical interview skills and clinical experience. Twenty eight subjects were randomly allocated either to an experimental group (similar to the combined-treatment group of the preceeding study) or a no-treatment control group. Subjects in the experimental group received a single, ½-hour training session, while those in the control group waited for a similar length of time before participating in the post-treatment interview. The assessment interviews were rated by 4 personnel interviewers and

the results of the analysis of variance indicated that there were between-group differences on only three items:- 1) ability to answer questions; 2) degree of honesty and openness; and 3) self-confidence. No significant between-group difference emerged on the 'probability of hire' measure.

Neither of these studies provided any substantial evidence for the effectiveness of interview training. Although significant changes took place in a few specific skills, these were not reflected in a global 'probability of hire' rating and this greatly limits the importance of the positive findings. However, in both cases, the training programme was very brief; it may be that more positive results would have been obtained with a somewhat extended treatment time.

A third study carried out around the same time, is that of Venardos and Harris (1973). In a comparison of videotape and roleplay, 19 vocational rehabilitation clients were randomly allocated to videotape feedback, roleplay, and attention-placebo groups. Treatment for the two experimental groups lasted for 10 hours spread over 2 days. Ratings of assessment videotapes were made by five judges and the results indicated that, in relation to both specific and global ratings, videotape and roleplay groups improved significantly, compared with the control group, but the two experimental groups did not differ significantly from each other. In addition to the above analyses of covariance and variance, gain scores on the composite behavioural ratings were analysed by 't' tests with the result that subjects in both experimental groups improved significantly, whereas control subjects did not. No 'probability of hire' rating was included. Venardos and Harris concluded that roleplay might be the treatment of choice as it is less expensive but they also suggested that videotape feedback may make subjects



aware of deficits more quickly. This experiment has a number of limitations; both experimental groups included other techniques of interview training, e.g. modelling, lectures and discussion, in addition to either videotape or roleplay and it may be that other aspects of the programme were responsible for the improvement noted, rather than the two components which were the main focus of attention. It also seems that the roleplay procedure was not carried out as thoroughly as the videotape one, the former group included, in the main, rehearsal of excerpts rather than entire interviews and this may have biased the results. However, this study at least made some attempt to assess the importance of specific components of training which is a feature of only a small number of experiments.

While there are certain limitations inherent in the above three studies, it has to be borne in mind that they were among the first to systematically evaluate the potential contribution of interview training and were thus superior to the purely descriptive accounts published around the same time (Raanan and Lynch, 1974; Forrest and Baumgarten, 1975).

A later group study, better designed than the above, is that of Hollandsworth, Dressel and Stevens (1977). In their comparison of interview training and discussion, they allocated 45 students to two experimental groups and a control condition. Skills were selected from work by Cohen and Etheredge (1975), Prazak (1969), and the assertion training literature, and treatment comprised one 4-hour workshop with subjects being assessed pre and post-training in videotaped mock interviews. Analysis of the ratings made by pairs of blind, independent judges indicated that the interview training group showed a significantly greater increase in eye contact compared to the other two groups, while subjects in the

discussion group were significantly superior to those in the other two groups in terms of length of speaking, ability to explain skills and expression of feelings and personal opinions on matters relevant to the interview.

On the basis of these results, Hollandsworth et al advocated a combination of interview training and discussion procedures but, as Gillen and Heimberg (1980) noted this assumes that two procedures will have a simple additive effect whereas it may be that such a combination will produce less positive results because the time allocated to each method will be limited. These results are promising but would have been greatly enhanced by the inclusion of a 'probability of hire' measure, and a follow-up assessment. With reference to the selection of subjects, Hollandsworth et al mentioned that quite a number of the students did not have severe interview skills deficits but wanted to improve on their already adequate skills. These considerations apart, the study was well-designed and is the only published one with an adult population which compares interview training with the traditional discussion-based format used by many vocational counsellors.

A population with more marked skills deficits was the focus of Grinnell and Lieberman's (1977) study. Twenty four mentally retarded subjects were allocated to three experimental groups and one control group. The aim was to evaluate the most effective use of videotape in training by a comparison of the following groups: (1) modelling, coaching, roleplay, with the subject observing his own videotaped interview together with social and monetary reinforcement each time specific skills were displayed; (2) similar to the above, but reinforcement was delayed rather than being given in conjunction with the viewing of the videotape; (3) training as above but omitting videotape feedback. A number of non-verbal and verbal skills

were trained over 6 sessions. The independent ratings of the videotaped assessments indicated that each of the 3 experimental groups improved significantly in terms of eye contact and posture but did not show a significant increase in any of the verbal skills. The finding that the experimental group which did not include videotape feedback improved in a similar manner to the groups incorporating videotape is interpreted by Grinnell and Lieberman as indicating that modelling alone, without the use of videotape, is probably the single most important variable in the training of such non-verbal skills.

Certain weaknesses in design and methodology detract from the importance of these results. No 'probability of hiring' measure was included, and multiple correlated 't' tests were used as well as analysis of variance, thus greatly limiting the conclusions that can be drawn from this study.

Twentyman, Jensen and Kloss' (1978) study was also based on a clinical population, in this instance, offenders with a history of psychiatric referral and chronic unemployment. Eleven subjects were randomly assigned to two groups, (1) interview training and (2) monetary incentive. Twentyman et al's aim was to assess the extent of transfer of training and the effects of a monetary incentive. The interview training group completed 4 one-hour sessions of treatment, only 2 of which were specifically devoted to interview skills. The results of the correlated 't' tests indicated that the two groups were significantly different post-training on a number of specific ratings and on a 'probability of hiring' measure. A measure of generalisation to real-life was included, 4 of 5 experimental subjects had obtained jobs within two weeks of training, whereas none of the control subjects were employed at the follow-up.

The inclusion of a 'probability of hire' measure and the assessment

of generalisation to real-life is a major point in favour of this study. Had this been matched by its design and evaluation, it would have been superior to those reviewed above but unfortunately certain limitations substantially reduce its importance. Firstly, there is a lack of clarity regarding the methods of interview training used; secondly, only half of the treatment time in the interview training group was devoted to skills training, the other half focused on finding out about job vacancies and completing application forms, thus the source of the obtained result is debatable. The statistical methods used are open to question, thus casting doubt upon the results of videotaped interviews, although from the positive results of assessment of employment outcome, it could be inferred that significant changes in specific skills did, in fact, take place.

A further study utilising a forensic population is that of Speas (1979), the aim in this instance was to evaluate the differential effectiveness of the components used in interview training. Fifty-six subjects were allocated to 5 groups : 1) Modelling (Mod) 2) Roleplay (RP), 3) Modelling and roleplay (MRP), 4) Modelling, roleplay and video (Video) and 5) Assessment - only control. Each group received 9 hours of training, except for the modelling group which had 5 hours of treatment. Training focused on 5 critical areas of interview behaviour incorporated in Prazak's (1969) assessment model. These included :- ability to explain skills, ability to answer problem questions, evidencing of enthusiasm, appropriate appearance and mannerisms, and opening and closing the interview; In addition, a composite score was compiled. Ratings based on pre and post-treatment videotaped interviews were subjected to oneway analysis of variance. The results at post-test indicated that the modelling and roleplay; and modelling, roleplay and video groups were significantly better than the control group on all

six variables, but were not significantly different from each other; the roleplay group was better than the control group on two variables; and modelling alone was not significantly different from the control procedure on any variable. However, this negative finding with regard to modelling should not be over-emphasised as the reduced treatment time afforded to this group may have biased the results.

For the 'probability of hire' variable, it was found that the combined group of modelling, roleplay and video differed significantly from the control group; there were no significant differences among the four treatment groups.

Speas interpreted her results as indicating that there is no simple way to develop complex verbal and non-verbal interview skills. She concluded that, in order to develop skills which will be maintained and will generalise outwith the treatment setting, a combination of training components, modelling, roleplay and video feedback is more effective than individual training components alone.

The aim of Speas' study was similar to that of previous experiments by Venardos and Harris (1973), and Grinnell and Lieberman (1977).

However, various weaknesses inherent in the latter two studies raise doubts about the validity of their results. Speas' study was superior to the two above, the one flaw in her study being the omission of follow-up data. However the study did yield useful information regarding the differential effectiveness of the most commonly used treatment components.

#### Summary of controlled group studies, adult populations.

Certain weaknesses in design and methodology are found in many of the above studies, i.e. lack of criteria for selection of subjects, inappropriate statistical methodology, failure to include a 'probability

of hire' measure or to assess generalisation to real-life, and failure to socially validate the results of training by involving personnel interviewers in evaluation. Despite these major limitations, certain studies have provided preliminary evidence in support of the use of interview training in relation both to specific skills (Hollandsworth et al, 1977; Speas, 1979) and to global ratings of performance and transfer to real-life (Twentyman et al, 1978).

b) Multiple Baseline Studies.

Hollandsworth, Glazeski and Dressel (1978) conducted a single case study with a graduate who had a history of psychological problems. The subject's record of 60 unsuccessful job interviews fulfilled even the most stringent criteria for selection, and training was carried out over 24 twenty/forty-minute sessions. Three target behaviours:- focused responses, overt coping statements, and subject generated questions, were derived from the baseline assessment interview and presented using a multiple baseline design. The results of two judges' ratings of the videotaped assessment interviews indicated that all three skills improved with training, the subject's rate of speech disturbances (assessed but not trained) decreased during treatment, as did his rated anxiety (GSR). While some evidence of generalisation was found in the subject's ability to cope with unfamiliar questions and interviewers following training, the strongest evidence of generalisation was derived from the subject's subsequent performance in genuine interviews. He had three interviews towards the end of training with a resultant three offers of employment. At 8 month follow-up, he was still coping with his work, and had made gains in other aspects of social competence. This study produced excellent results with conclusive evidence of maintenance and generalisation across both responses and situations.

The following two studies feature both the assessment of generalisation and the use of social validation procedures. Furman et al (1979) gave individual interview training to 3 formerly hospitalised psychiatric patients over 12 to 18 half hour sessions. Four skills:-

- 1) giving information about one's background,
- 2) question asking,
- 3) gesturing, and
- 4) expressing enthusiasm,

were sequentially introduced in multiple baseline fashion. The assessment was based on a videotaped interview, and a second interview with a Personnel Manager. It was found that each skill increased substantially upon the introduction of training with the improvement being maintained throughout treatment. Generalisation interviews with the Personnel Manager were rated by a second Personnel Manager to provide social validation of the results of training. Performance in these interviews improved pre-post treatment for two of the three subjects and these same two patients obtained jobs shortly after training and were still employed at 3 month follow-up. The use of social validation procedures and the assessment of generalisation to real-life are two very positive features of this study. Kelly et al (1979) adapted Furman et al's methods for group training. Six formerly hospitalised psychiatric patients took part in the study. The skills selected for training were very similar to those of Furman et al's study, the programme consisted of 9 to 13 sessions spread over a four week period. As in the foregoing experiment, the assessment included taped interviews conducted immediately following each training session, and pre-post training generalisation interviews with a Personnel Manager, these being rated subsequently by a second Personnel Manager. The ratings of taped interviews demonstrated a substantial increase in each skill contingent upon training, although some individual variability

in the rate of acquisition emerged. Considerable evidence of generalisation was found, after training all subjects were evaluated much more positively by the second Personnel Manager. Having been unemployed for at least one year before training, 5 of the 6 subjects obtained employment or were successful in securing paid positions in vocational re-training programmes shortly after treatment.

The above study was replicated by Kelly, Urey and Patterson (1981) with three clients enrolled in a mental health centre aftercare/day treatment programme. As in Kelly et al (1979) increases in each skill were found contingent upon training and the results for two of the three subjects provided convincing evidence of generalisation. These clients were evaluated more favourably by a Personnel Manager on all six measures post-training and found work in the following four months. The other subject was evaluated somewhat less favourably by the Personnel Manager post-training and did not obtain employment subsequent to treatment.

Hall, Sheldon - Wildgen and Sherman's (1980) study was conducted with two groups of three mentally retarded adults. They spent an average of 18 hours in the training of five interview skills, job application skills and office skills, e.g. introducing oneself to a receptionist etc. The assessment interviews were audiotaped and rated by observers in the room at the time of interview. Generalisation interviews were carried out by people who regularly conducted job interviews as part of their professional duties. The results demonstrated that some improvement in interview skills took place during training, but this was less substantial than progress made in relation to office skills and application skills. Compared to the roleplayed interviews, less positive results were obtained from the generalisation interviews. No 'probability of hire' rating appears to have been included and, in general, this study



produced rather less positive results than the preceeding four reports.

Summary of multiple baseline studies, adult populations :

Four of the five studies reviewed (Hollandsworth et al, 1978; Furman et al, 1979; Kelly et al, 1979; and Kelly et al, 1981) avoided many of the pitfalls in design and methodology which beset most of the work described earlier. Each of these four provided convincing evidence of the effectiveness of interview training in increasing both specific skills and global presentation with clinical populations. Not only were improvements found during training, these four studies demonstrated that such gains could be maintained, and shown to generalise across responses and settings, resulting in more effective presentation in real-life interviews with subsequent offers of employment. The inclusion of social validation procedures is another very positive feature found in three of these four experiments (Furman et al, 1979; Kelly et al, 1979; and Kelly et al, 1981).

iv) Adolescent Populations.

While accounts of interview training with adults were beginning to appear around the early 1970's, the extension of interview training to adolescent populations represents, in the main, a fairly recent development. As such, these studies tend to be more limited in scope and more restricted in terms of population.

In discussing various transitions which occur during adolescence, Priestly et al (1978) suggested that the transition from school to the work situation is one of the most important changes during this period. Of recent, there has been considerable emphasis within psychology on preventative intervention. It is consistent with this trend that methods be developed to assist individuals experiencing pronounced difficulty at interview, thus averting any detrimental effect on psychological function arising from

same. Priestly et al (1978) developed a Job Finding Programme covering a variety of aspects including interview behaviour trained by the use of roleplays, but the programme does not appear to have been systematically evaluated, therefore it will not be discussed in detail. The following studies are too few in number to justify classifying them separately according to the type of design used, they will therefore be discussed in chronological order.

The earliest empirical account is that of Braukmann et al (1974).

Their research was carried out in a residential institution catering for adolescents with behavioural problems. Six boys received approximately 8 hours of training with five skills presented in multiple baseline fashion. The interview training programme consisted of a two page instruction sheet with a limited amount of modelling and roleplay. Braukmann et al examined the effectiveness of the programme as a whole, and the degree to which the various skills were independent of each other. They found improvements in post-treatment performance for almost all skills trained and this was maintained at follow up; it was found that, with the possible exception of eye contact and posture, the behaviours seemed independent of each other. Certain major weaknesses are apparent in this study; the training was not particularly systematic, in some cases it seemed to consist solely of verbal instructions, and a verbal response; and no attempt was made to incorporate social validation procedures or to assess the extent of generalisation of treatment effects.

Schinke et al (1978) allocated 26 teenage mothers to interview training, and discussion groups for four, 1½-hour weekly sessions. Skills included in training were drawn both from the vocational counselling and personnel guidance literature and from an assessment of the needs of teenage mothers conducted by three of the four authors. The videotaped assessment interviews were rated on specific

items of behaviour by four judges, and on a 'probability of hire' measure by a personnel specialist. The interview training group improved significantly compared to the discussion group on a variety of skills, including:- eye contact, positive self-statements and informational statements, with a decreased frequency of negative self-statements, inappropriate statements and non-responses. There were no significant between-group differences on smiles, unspecific responses and single word responses. The interview training group was also superior to the discussion group on the 'probability of hire' measure. This study was well-designed, incorporating social validation procedures in the assessment of treatment effect and yielding very encouraging results. The one drawback is that it did not include a follow-up assessment.

Kelly, Wildman and Berler (1980) carried out a similar programme to that of Kelly et al (1979); in this instance 4 mentally retarded adolescents were involved in training. They used a multiple baseline design and trained three skills:-

- 1) favourable information re previous work etc.
- 2) job-related questions, and
- 3) verbal interest and enthusiasm about the job.

These behaviours were selected because previous research by Furman et al (1979) and Kelly et al (1979) showed that increases in these skills were associated with favourable global ratings of competence by Personnel Managers. Group training lasted approximately 13 hours spread over 18 sessions. In addition to audiotaped assessment interviews, real-life generalisation interviews at a fast-food restaurant were organised. Ratings of the audiotaped interviews demonstrated substantial increases in each skill contingent upon the introduction of training. These same skills were assessed in the generalisation interviews and it was found that, although the amount of positive information given increased, ratings of

question asking and interest did not. Despite this, the global ratings of performance made by other personnel interviewers did increase.

The finding that a positive global evaluation was made in the absence of any questions being asked is interesting in view of the emphasis often placed on question asking in relation to general improvement in interview performance. Kelly et al suggested that the absence of question asking in this situation was a function of the interviewer's style in that he volunteered much more detailed information than the other interviewers did, thus obviating the need to ask questions at the end. At 6 months follow-up, two of the four subjects were employed. This study produced very positive short-term and long-term results and was very thorough in its incorporation of social validation procedures and assessment of generalisation via real-life interviews, the latter only being possible with small numbers.

Heimberg et al (1982) compared interview training and group discussion with educationally disadvantaged adolescents on a Youth Employment Training Programme. To examine the amount of training time necessary, they allocated 36 subjects to 4 groups :- 1) four 1½ hour sessions of interview training (IVT 4). 2) two 1½-hour sessions of interview training (IVT 2) (same content more quickly); 3) four 1½ hour sessions of group discussion; 4) no-treatment control group. Skills included in training were selected on the basis of a study carried out by Heimberg et al, and treatment effect was assessed via mock interviews and interviews with potential employers. Apart from providing a 'probability of hire' measure, these interviews could not be used as a more direct gauge of generalisation as had originally been intended because employers were paid a subsidy for hiring youths from the scheme with a resultant inflation in the number of job offers extended.

Performance in the mock interviews indicated that interview training subjects improved more than controls on a number of specific and global ratings, e.g. experimental subjects were significantly less likely to respond to questions with single word responses, and they were more likely to enquire about future contact than control subjects. Although group means were in the predicted direction in three of the four remaining analyses of covariance for verbal behaviour, no significant effects were found for number of questions asked, or for number of positive, negative, or neutral informational statements. The analyses of non-verbal behaviours showed that while most mean scores fell in the predicted direction, no significant differences were found. The two interview training groups differed only on a measure of the total duration of the interview with the IVT 2 group holding longer interviews; the absence of other differences suggested that the number of sessions was not a critical variable with regard to performance in role-played interviews.

In contrast, in interviews with potential employers, subjects in IVT 4 were rated as more motivated, confident, dependable, mature and co-operative than the combined controls. Subjects in IVT 2 emerged as more motivated and co-operative than the control subjects, but the IVT 4 group was the only one to achieve significantly improved 'probability of hire' ratings. While there was no evidence of superiority of IVT 4 compared to IVT 2 with regard to roleplayed performance, evidence from interviews which more closely approximate to real-life clearly carries more weight and the positive findings seen here for IVT 4 tend to support its use, as opposed to the shorter time required for IVT 2.

It is interesting to note that global ratings of performance provided evidence of significant treatment effect, in the absence of positive results from analyses of many specific skills rated, e.g. number

of questions asked, and all non-verbal skills included in training. This study was well designed and placed due emphasis on the assessment of generalisation, it achieved positive results at least in the short-term, no follow-up measure being included.

A population somewhat similar to Heimberg et al (1982) participated in a pilot study for the present research. Hood, Lindsay and Brooks (1982) carried out a controlled group study with 10 non-certificate school-leavers. Subjects were randomly allocated to an interview training group or to an attention-only group to control for the non-specific effects of being in treatment. The skills trained were selected on the basis of the studies of critical interview skills already reviewed, and the literature on both social skills training, and interview training. The targeted behaviours included :- interest, question asking, question answering, fidgeting, smiling, eye contact, gesture and posture. Interview training was conducted in three 1½-hour weekly sessions, the control group spent the same amount of time in discussion of a variety of issues unrelated to job interviews. Following three attention-only sessions, the control group completed the same programme of training previously used with the experimental group.

Pre and post-treatment videotaped roleplayed job interviews were conducted with each adolescent. An additional, generalisation interview was carried out post-treatment, this involved a different interviewer asking different questions about a different job tailored to each adolescent's interest. All roleplayed interviews were rated by two judges on the specific skills above and a global evaluation of performance was made by a Personnel Officer. Results of the analyses of variance for the original interviews conducted pre and post-training indicated that the interview training group improved significantly compared to the control group on measures of question answering, question asking and interest. In contrast,

there was no significant improvement in non-verbal skills. Following training, the previous control group showed a similar pattern of improvement, thus ruling out the possibility that the differences between the two groups were obtained only because the control subjects were less skilled and incapable of comparable change.

Analysis of the ratings from the generalisation interviews indicated that, after training for both groups, there were within-group differences on six of eight items rated, with question asking, eye contact and interest being skills which improved most.

The Personnel Officer's subjective evaluations of adolescents' pre and post-treatment performance demonstrated that the interview training group were perceived as significantly more skilled at interview than the control group. As expected, once the control group had been trained, there were no longer any significant differences between the two groups. The finding that the Personnel Officer's global rating of performance increased post-treatment in the absence of any significant change in ratings of non-verbal skills, is in line with the findings of Hollandsworth et al's (1979) research into skills associated with positive outcome. Their results favoured a stronger emphasis on verbal rather than non-verbal skills, and this concurs with the findings of certain other studies reviewed earlier in this chapter, e.g. Furman et al (1979) and Kelly et al (1979). Only a very brief follow-up of three weeks was possible for the experimental group and the results were maintained for four of the five subjects.

As in some of the preceding studies, this experiment incorporated social validation procedures. It also attempted to programme generalisation into training, and included an assessment of generalisation based on performance in additional interviews with different interviewers asking different questions about a different job. Due to time constraints, it was not possible to incorporate a

direct measure of employment outcome. The preliminary results were quite encouraging, but a more extensive evaluation appeared necessary.

v) Summary of interview training, adolescent populations.

Results of these studies, with the exception of Braukmann et al (1974) indicated that interview training with a variety of adolescent populations can lead to improvement in both specific skills and general performance with these changes being reflected in positive 'probability of hire' ratings. Social validation procedures featured largely in these experiments and various methods of assessing generalisation of treatment effect were employed. Apart from Kelly et al (1980), employment outcome data was not included. In this respect, studies with adolescents are somewhat limited compared to those with adults incorporating a multiple baseline design, but the adult work generally involved smaller numbers of subjects thus facilitating the assessment of employment outcome. In addition, research with adolescents has involved a restricted range of populations, and the available controlled group studies are less comprehensive than the preceding adult ones. These considerations apart, the results were sufficiently positive to warrant further research.

vi) Directions for future research.

The foregoing studies highlighted a number of issues to which future research should be addressed:-

1. In some studies, no obvious criteria for the selection of subjects were employed, there is thus a need for more adequate methods of assessment designed specifically to measure interview skills. An assessment of the characteristics of those most likely to benefit from training is also necessary.
2. Further work on identifying skills which are critical to



effective performance at interview is also required, as is work on isolating the most important components of training so that time is not spent on ones which do not contribute significantly to treatment outcome.

3. Recent studies have included validation procedures and continued emphasis should be placed on such measures.

4. Similarly, the need to assess generalisation of treatment effects should also be stressed. Employment data should be obtained where possible, if this is not feasible, a 'probability of hire' measure should certainly be included. Further work on promoting generalisation during training is advisable. Kazdin (1975) suggested that this might be facilitated by training the target behaviour in a variety of situations and in the presence of several individuals.

5. Gillen and Heimberg (1980) put forward a number of suggestions for future research including :- the comparison of interview training with other training approaches, the investigation of various parameters of treatment, e.g. amount of training, and the assessment of the differential effects of interview training for different populations.

Taking the results of interview training for adults and adolescents together, it appears that the methods of interview training have a worthwhile role to play in preparing individuals to cope effectively with job interviews, and with further research incorporating some of the above recommendations, the extent of this contribution should increase.

## CHAPTER 4.

### LITERATURE REVIEW : SUMMARY.

The preceding three Chapters provide the background and rationale for the present study. This chapter highlights various issues from Chapters 1 to 3 which are particularly relevant to the present research. Assumptions implicit in interview training include :-

- unemployment has an adverse effect on mental health.
- methods of training for the job interview are effective and increase the probability of the candidate being offered the job in question.

If unemployment does not, in fact, have a detrimental effect on mental health, then in terms of mental health, it matters little whether individuals cope adaptively with job interviews, therefore interview training is irrelevant. The weight of the evidence reviewed in Ch. 1 substantiates the view that there is an association between unemployment and impaired mental health, and that this relationship is causal in nature. Support for the argument that unemployment causes rather than responds to emotional strain is derived both from studies of adult, and adolescent populations. Liem and Liem (1979) found that adults who obtained new jobs within 4 months of being made redundant, had initially reported symptom levels similar to those who remained continuously unemployed, but appeared even less stressed than control (continuously employed) subjects following their return to work. Based on an adolescent population, Banks and Jackson's (1982) study provided longitudinal evidence that adolescents who were unemployed at the time of a second assessment showed a significant increase in GHQ scores between baseline and this assessment. In contrast, those who were employed or in further education/training showed a significant

decrease in their scores over the same period. As the two groups were indistinguishable in terms of GHQ scores while at school, this important result demonstrates that the experience of unemployment is likely to cause psychological impairment, as opposed to resulting from same. There is evidence that the anticipation of unemployment may be stressful in itself, Gillies et al (1985) found that British adolescents were more worried about unemployment than anything else, including nuclear war.

Duration of unemployment is also relevant, Feather (1982) found that the longer people were unemployed, the lower their self-esteem became; there was also a trend in the same direction for depressive symptoms. In a study of factors influencing duration of unemployment, Lavercombe and Fleming (1981) suggested that interview presentation may be an important variable. In addition, Gurney (1981) noted that unemployed girls tended to attribute lack of work to poor performance at interview. The impact of unsuccessful job applications was touched on in Feather and Barber's (1983) study with a higher incidence of depressive symptoms being associated with more frequent unsuccessful job applications.

Gurney (1980) interpreted his findings as indicating that unemployment does not inflict trauma on adolescents, although it does inhibit their psychosocial development. While he emphasized the absence of impairment, Tiggemann and Winefield (1984) stressed the gravity of retarded 'normal' development. They noted the potential long-term implications of such retardation and did not appear to subscribe to the 'benign' view of the effect of unemployment.

The foregoing evidence is in keeping with the current emphasis within psychology on prevention. As defined by the Task Force on Prevention (1978) "-- primary prevention is proactive in that it seeks to build adaptive strengths, coping resources and health

in people; not to reduce or contain already manifest deficit --". If obtaining employment prevents either retardation of 'normal' development (Tiggemann and Winefield, 1984) or emergence of mental health problems (Banks and Jackson, 1982) then developing methods to help individuals who have difficulty in obtaining employment would appear a legitimate area for psychological intervention. Such developments are also consistent with the view recently expressed in the British Medical Journal : "Depression associated with the problems of parenthood, unemployment, poverty-- is often relieved more by practical interventions than by formal psychotherapy or drugs" (Brandon, 1986).

The second assumption outlined earlier in this chapter is that methods of training for the job interview are effective and will increase the probability of the candidate being offered the job in question. Studies evaluating the effectiveness of interview training were reviewed at length in Ch. 3, therefore they will only be summarised briefly here. While certain weaknesses are inherent in many controlled group studies with adult populations, there is some preliminary evidence to support the use of interview training (Hollandsworth et al, 1977; Twentyman et al, 1978; Speas, 1979). Most of the multiple baseline studies reviewed (Hollandsworth et al, 1978; Furman et al, 1979; Kelly et al, 1979 and 1981) were superior in terms of design and methodology and provided convincing evidence of the effectiveness of interview training in increasing both specific skills and presentation with clinical populations. These studies also demonstrated that such gains could be maintained and shown to generalise across responses and settings, resulting in more effective presentation in real-life interviews with subsequent offers of employment. The inclusion of social validation procedures was another very positive feature of most of these experiments.

Studies of interview training with adolescents have been more limited in scope and more restricted in terms of population. However, the initial results are encouraging, (Schinke et al, 1980); Kelly et al, 1980; Heimberg et al, 1982; and Hood et al 1982) providing evidence that interview training can lead to improvements in both specific skills and general performance with these changes being reflected in positive 'probability of hire' ratings. The assessment of generalisation and the incorporation of social validation procedures was again a very important aspect of these studies.

A number of issues to which future research should be directed were outlined at the end of Ch.3 and will not be reiterated here, but attempts have been made to incorporate the most important of these in the present study.

PART 2 - PRESENT STUDY.

## CHAPTER 5.

### INTRODUCTION.

Interview training for adults is now reasonably well-established, in comparison, most of the studies with adolescents are comparatively small scale. In relation to adolescent populations, the only alternative treatment with which interview training has been compared is a traditional discussion-based approach (Schinke et al, 1978; Heimberg et al, 1982). While both studies achieved positive short-term results favouring interview training, the lack of any follow-up assessment is a major drawback. The contribution of video feedback has been assessed in relation to adults (Speas, 1979) but there are no comparable studies with adolescents. The need for further comparison of interview training and alternative approaches was stressed by Gillen and Heimberg (1980) and the present research was designed to incorporate several comparisons:-

Interview training vs. discussion.

Interview training vs. videotape feedback - 3 sessions.

Interview training vs. videotape feedback - 1 session.

Interview training vs. interview training + videotape feedback.

Interview training vs. handout describing important interview skills.

Interview training vs. attention-only control.

The group study involved 72 lesser-qualified school-leavers, similar to the population of Heimberg et al (1982). In view of the association between unemployment and impaired mental health (Banks and Jackson, 1982), interview training for this sub-clinical population appeared warranted on preventative grounds, as well as important in its own right.

The only clinical study of interview training with adolescents is Kelly et al (1980) who trained 4 mentally retarded subjects with positive results. An issue arising from the group study

above concerned the extent to which the methods of interview training would generalise to a clinical population. Accordingly, the same basic programme was evaluated in a more detailed fashion with 8 single case studies. This facilitated a micro-analysis of process variables, and individual sessions of the interview training programme.

Various issues highlighted in Chapter 3 were addressed by the present research:-

1. Criteria for the selection of subjects.

The usual criterion of 'number of unsuccessful interviews' is generally not appropriate in the selection of adolescents just entering the job market. As an alternative, a valid and reliable questionnaire assessing interview skill would appear to have potential.

To meet this need, the Interview training questionnaire described in Ch.6 was developed and administered to the population from which subjects for the group study were selected. The criterion for inclusion in the series of single case studies was referral by a G.P. or psychiatrist because of a presenting problem judged to be related to difficulty in obtaining employment.

2. Critical interview skills.

Most studies of critical interview skills have been based on undergraduate populations. They are therefore highly selected in terms of intelligence and would also tend to be older than the subjects involved in the present research. Both these factors may limit the extent to which the results can be generalised to other populations. Kelly et al (1980) selected the skills taught to mentally retarded adolescents on the basis of previous research by Furman et al (1979) and Kelly et al (1979). While the outcome of Kelly et al (1980) would suggest that the skills selected were relevant, the research on which they were based was conducted



with adult subjects. The only study of interview skills based on an adolescent population is that of Heimberg et al (1982). This study was not available when the present research was planned, and in its absence, it had been decided that the present data would be used in an attempt to derive information about critical interview skills for adolescents.

### 3. Social validation procedures.

The use of social validation procedures is a relatively recent development. Apart from Heimberg et al (1982), most studies incorporating such procedures have involved fairly small populations, therefore it was judged important to include such procedures with the larger population of the present study.

### 4. Procedures to facilitate generalisation of treatment effects.

Kelly and Christoff (1983) outlined various methods of programming generalisation in interview training with the mentally retarded.

These included:-

Involving a variety of interviewers with different styles of interviewing; ensuring that practice interviews consist of questions similar to those asked in genuine interviews; varying the phrasing and type of questions used in roleplays; and encouraging subjects to develop strategies of self-presentation vs. specific answers to specific questions.

Many of these suggestions were also incorporated in the present group study. In order to ensure that questions used in practice interviews were similar to those asked in genuine interviews, two experienced Personnel Officers selected relevant questions from a pool of potential items. Considerable emphasis was placed on developing strategies of self-presentation vs. giving stereotyped answers and the phrasing and type of questions was varied as much as

possible. Session 2 of the interview training programme represented a further attempt to promote generalisation by involving a Careers Officer with personnel management experience. This increased the range of interviewing styles and provided additional information about jobs subjects were interested in.

The assessment of generalisation incorporated in the present study involved having subjects participate in two interviews post-training; one was identical to the baseline assessment, the second was carried out by a different interviewer, asking different questions about a different job. As it was not feasible to obtain employment data for all 72 subjects, a 'probability of hire' measure was obtained for each interview. Employment data were obtained for most of the single case studies, unfortunately the employment situation has deteriorated dramatically during the period that has elapsed since this research was planned, therefore employment data may no longer constitute a realistic measure of treatment outcome.

#### 5. Maintenance of treatment effects.

While various multiple baseline studies have included follow-up assessments, two of the main controlled group studies with adolescents (Schinke et al, 1978; and Heimberg et al, 1982) have failed to incorporate such measures. This omission tends to limit the conclusions that can be drawn, therefore an assessment of maintenance of treatment effect was included in the present study.

#### 6. The role of intelligence in relation to treatment outcome.

In previous studies of interview training with adults and adolescents the possible relationship between the subject's level of intelligence and treatment outcome has not been assessed. As it was felt that this variable could moderate the effect of training, this issue was examined in the present study.

## 7. Gillen and Heimberg's (1980) suggestions.

Apart from the issue dealt with above, concerning the comparison of interview training with other treatment approaches, Gillen and Heimberg also highlighted the need to assess certain parameters of treatment, e.g. the amount of training required, and the differential effects of interview training for different populations. An attempt was made to address both these issues in the present study, the amount of treatment time was varied between 3 sessions, 1 session, and providing written information; and the two populations involved, lesser-qualified school-leavers and adolescent psychiatric outpatients, were intended to provide information about the differential effectiveness of interview training for different populations.

In summary, the areas examined in the context of the present research include:-

### Group Study.

- (A) 1. The differential effectiveness of alternative treatments for interview skills deficits.
- 2. The amount of treatment required to enhance interview skill.
- 3. The effectiveness of certain combinations of techniques.
- 4. The extent of generalisation of treatment effects.
- 5. The degree of social importance of treatment effects.
- 6. The extent to which treatment effects are maintained.
- (B) Interview skills associated with positive treatment outcome.
- (C) The role of intelligence in relation to treatment outcome.

### Single Case Studies.

- 1. The extent to which the methods of interview training used in the group study can be generalised to a clinical population.
- 2. Micro-analysis of process variables and individual sessions of the interview training programme .

3. Interview skills associated with positive treatment outcome.

Consideration of the above issues led to the formulation of the following hypotheses:-

Group Study.

General

1. Three sessions of interview training (IVT) should lead to significant improvements in both specific and global ratings of interview skill.
2. Subjective evaluations carried out by an experienced Careers Officer should show that changes in specific skills result in significant improvements on a general 'probability of hire' measure.
3. Treatment effects should be shown to generalise to a different interviewer, asking different questions, about a different job.
4. Treatment effects should be shown to be maintained over a follow-up period of approximately 2½ months.
5. Subjects who have higher scores on the Mill Hill Vocabulary scale and Progressive Matrices should respond more favourably to interview training.
6. Positive treatment outcome should be associated more with verbal skills, especially question asking, than with non-verbal ones.

Specific.

1. IVT should lead to significantly greater improvement than three sessions of discussion, on both specific and global ratings of interview skill.
2. IVT should lead to significantly greater improvement than three sessions of video feedback, on both specific and global ratings of interview skill.
3. IVT should lead to significantly greater improvement than

one session of video-feedback, on both specific and global ratings of interview skill.

4. IVT should lead to significantly less improvement than IVT + video feedback, on both specific and global ratings of interview skill.
5. IVT should lead to significantly greater improvement than a handout describing important interview skills, on both specific and global ratings of interview skill.
6. IVT should lead to significantly greater improvement than an attention-control group, on both specific and global ratings of interview skill.

Aims : Single case studies.

1. To assess the extent to which the methods of interview training used in the group study can be generalised to a clinical population.
2. To facilitate a micro-analysis of process variables and individual sessions of the interview training programme.
3. To provide further information concerning interview skills associated with positive treatment outcome.
4. To identify characteristics of 'good' vs. 'poor' responders.

## CHAPTER 6.

### INTERVIEW SKILLS QUESTIONNAIRE.

#### Development of the questionnaire.

Adult subjects are usually selected for interview training on the basis of the number of unsuccessful job interviews participated in. However, with adolescents just beginning to look for employment, the use of this criterion is impractical. One alternative screening method would involve the use of a valid and reliable self-report questionnaire. As it seemed that such a measure had not been developed, the following questionnaire was devised by the author.

There are separate forms of the questionnaire for male and female adolescents, with 16 questions in each (Appendix A). The questionnaire comprises the following three sections:-

1. Interview anxiety (Q1) and experience (Q2).
2. Job-specific interview knowledge (Q3-Q6).
3. Interview skill (Q7-Q16, with Q16 requiring a more complex response than other items).

#### 1. Interview anxiety (Q1) and experience (Q2).

Item 1 concerns the amount of anxiety the adolescent experiences in relation to job interviews. The subject is required to select one of four possible responses, ranging from a) not at all worried, to d) very worried indeed. Item 2 requires the respondent to indicate the number of job interviews participated in. Again, there are four alternative responses ranging from a) more than four, to d) none. These items are scored on a 0 - 3 scale, with a low score representing lack of skill.

#### 2. Job-specific interview knowledge (Q3-Q6).

Items 3 to 6 are concerned with the subject's knowledge of the kind of information that should be provided during interviews for specific jobs. The following eight jobs were selected as

representing the interests of the adolescents involved:-

Male subjects : labourer, apprentice joiner, apprentice mechanic,  
and clerk.

Female subjects : hairdressing junior, factory worker, shop assistant,  
and clerkess.

Nine responses of varying degree of relevance were provided for each of the eight jobs. The concept of social validation was introduced earlier in relation to treatment outcome, it is also important in the context of questionnaire items, therefore the help of a representative from each of the eight jobs was sought. These were people involved in staff selection, they were asked to choose the four most appropriate responses from the nine alternatives provided. Items 3-6 were scored on a 0-4 scale, with a low score indicating lack of knowledge of a particular job.

### 3. Interview skill (Q7-Q16).

In contrast to items 3-6, items 7-16 refer to skills that are important at interview, irrespective of the particular job involved. These items were drawn from the literature on critical interview skills, and studies of social skills training. Items 7-15 require the respondent to choose one of four alternative answers, usually ranging from a) never, to d) most of the time. Item 16 is different from the rest in that the subject is simply asked to note any questions that would be appropriate at the end of an interview. The 72 subjects in the group study provided 173 responses which ranged greatly in appropriateness. In order to establish objective criteria for scoring, three professionals involved in personnel work and selection were asked to rate each response as relevant or irrelevant. As a result, item 16 yields two scores, one representing the number of relevant responses (Q16), the other consisting of the number of irrelevant responses (Q17). While theoretically the number of relevant questions is indeterminate, in practice

the maximum encountered was 8. The total score on the questionnaire comprises scores for items 1-15 plus the score for relevant questions on item 16, but not the score for irrelevant questions. Possible total scores on the questionnaire range from 0 to around 56.

#### Retest reliability of the questionnaire.

Retest reliability data are available for 60 subjects. The interval between the two administrations ranged from 2 to 7 weeks. Pearson product-moment correlations (SPSS Manual, 1975) were obtained for the total score, and for Q16 (N. of relevant questions). The latter was included as it requires a more considered response than other items.

#### 1. Total Score.

	r	sig. level
Male subjects	0.68	***
Female subjects	0.76	***

#### Q16 (N. of relevant questions).

All subjects	0.64	***
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These results indicate that an acceptable degree of retest reliability was achieved. (\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ).

#### Normative study.

#### Correlations between scores on the interview skills questionnaire and performance in videotaped roleplayed interviews.

An initial 124 randomly selected 16 year old subjects (75 male, 49 female) completed the questionnaire. In order to assess the degree of convergent validity of the questionnaire, the 20 highest and lowest scoring respondents were asked to participate in a videotaped interview for a hypothetical job. (Scores for the 'low' group ranged from 21 - 32, and for the 'high' group from 40 - 45). If a reasonable degree of concordance were established between scores on the questionnaire and actual performance in an assessment interview, the results from the 20 highest scoring



subjects could then be used as normative data for this, and possibly for very similar populations.

These videotaped interviews were subsequently rated by an independent observer. The method of rating was identical to that used in the group study, described in Ch. 7.

The following skills were rated :- question answering, informational statements, question asking, number of relevant questions, number of irrelevant questions, eye contact, posture, smiling, fidgeting, fluency of speech, volume, listening skills, interest, presentation and 'probability of hire'.

The 'probability of hire' recommendation is the single most important rating from the videotapes as it would be expected that subjects who achieve high scores on the questionnaire should receive recommendations accepting them for the job, and vice versa for subjects who achieve low scores. Of the 20 high scoring subjects, 10 were placed in the 'accept' category, while all of the 20 low scoring subjects were allocated to the 'reject' category. While a 50% 'hit-rate' for the high scoring group is clearly much lower than had been hoped, a high false positive rate is preferable to a high false negative rate for the purposes of the present study. As all 20 in the low group were placed in the 'reject' category, it appears that subjects included in the group study on the basis of low questionnaire scores were allocated correctly.

However, it seems that a substantial number of subjects not included in the study may have been incorrectly excluded, and while this problem requires remediation, it does not carry the same implications for the present study as would apply if the degree of false positives and false negatives were reversed.

The degree of concordance between scores on the questionnaire, and ratings of skill in videotaped interviews was then examined

in greater detail. The following results include only significant correlations:-

i) Total score on the interview skills questionnaire with total score from the videotaped interview

		r.	sig. level.
Male subjects	-	0.66	***
Female subjects	-	0.52	**

ii) Total score on the interview skills questionnaire with individual items from the videotaped interview.

Male subjects. r. sig. level

Total score with R1 (question answering)	0.54	**
" " " R2 (info. statements)	0.65	**
" " " R3 (question asking)	0.63	**
" " " R4 (N. of rel. questions)	0.52	**
" " " R7 (posture)	0.44	**
" " " R9 (fidgeting)	0.42	**
" " " R10 (fluency)	0.59	**
" " " R12 (list.skills)	0.61	**
" " " R13 (interest)	0.60	**
" " " R14 (presentation)	0.66	**
" " " R15 (hire/no hire)	0.45	**

Female subjects. r. sig. level

Total score with R1 (question answering)	0.54	**
" " " R2 (info.statements)	0.38	**
" " " R6 (eye contact)	0.54	**
" " " R7 (posture)	0.42	**
" " " R9 (fidgeting)	0.62	**
" " " R10 (fluency)	0.59	**
" " " R12 (list. skills)	0.40	**
" " " R13 (interest)	0.52	**
" " " R14 (presentation)	0.48	**
" " " R15 (hire/no hire)	0.50	**

iii) Questionnaire item Q16 (n. of relevant questions) with individual items from the videotaped interview.

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All subjects.

	r.	sig. level.
Q16 with R1 (question answering)	0.51	***
" " R2 (info. statements)	0.46	**
" " R3 (question asking)	0.48	**
" " R4 (N. rel. questions)	0.38	**
" " R6 (eye contact)	0.40	**
" " R8 (smiling)	0.54	***
" " R9 (fidgeting)	0.34	**
" " R10 (fluency)	0.62	***
" " R12 (list. skills)	0.56	***
" " R13 (interest)	0.52	***
" " R14 (presentation)	0.45	**
" " R15 (hire/no hire)	0.37	**

Q17 (N. of irrelevant questions) was also correlated with individual items from the videotaped interview, but only one of these correlations reached significance:-

	r.	sig.level.
Q17 with R15 (hire/no hire)	0.28	**

Table 1 - Correlations between scores on the interview skills questionnaire and ratings of roleplayed interviews. (\*p < .05, \*\*p < .01, \*\*\*p < .001).

These results indicate that subjects' total scores and individual item scores for Q16 of the questionnaire were significantly correlated with the majority of skills rated from their videotaped interviews. However, the magnitude of many of these correlations was less than would have been expected, therefore data from this analysis would not be appropriately used as normative data for this or similar populations. There are at least three factors which

may account for discrepancies between self-report data and observed behaviour :-

1. Attentional factors - some of the adolescents included in the study seemed to have difficulty in sustaining concentration, except for brief periods. They appeared better able to concentrate during videotaped interviews than when completing the interview skills questionnaire. The latter was administered in the group situation which contained various potential distractions.
2. Motivational factors - while willing to participate in modelling, roleplay, discussion and similar activities, most of the subjects were less well-motivated to complete self-report measures.
3. Factors governing self-perception - results of the Normative study indicate that adolescents who obtained very low scores on the interview skills questionnaire were, as a group, highly accurate in terms of self-perception. Their low scores on the questionnaire were substantiated by low ratings of performance in videotaped interviews with each of the 20 subjects in this group receiving negative ratings on the 'probability of hire' measure.

In contrast, subjects who achieved high scores on the interview skills questionnaire may be sub-divided in terms of their self-perception, into two very distinct groups. One group, comprising 10 of the 20, perceived themselves accurately, in that they rated themselves on the questionnaire as having little difficulty at interview, and the ratings of their performance in videotaped interviews bear this out, with each of these subjects obtaining positive ratings on the 'probability of hire' measure. However, the 10 remaining subjects in the high scoring group all received negative 'probability of hire' ratings demonstrating a significant discrepancy between their expectations regarding their performance at interview, and their actual ability to cope with a roleplayed job interview.

## CHAPTER 7.

### METHOD - GROUP STUDY.

#### (a) Subjects.

Seventy two 16 year old school-leavers from Airdrie Academy, 45 of whom were male, acted as subjects for this research. They were selected from a group of approximately 300 school-leavers on the basis of their scores on the Interview skills questionnaire (ISQ) described in Ch.6. (Initially, subjects were included if their score on the ISQ was less than, or equal to 33. However, the validation data for Q3-Q6 and Q16 were not available when most subjects were selected, therefore they were given an approximate score for these items. When these scores were revised on the basis of the validation data, 18 subjects were found to have scored above the cut-off of 33. However, the 'probability of hire' ratings at baseline indicated that all but two of these subjects were appropriately included in the group study as positive 'probability of hire' ratings were obtained in only 2 of 72 cases). The majority of subjects were non-certificate school-leavers who lacked many of the verbal skills important at interview, but were quite capable of performing the jobs they were interested in.

#### (b) Design.

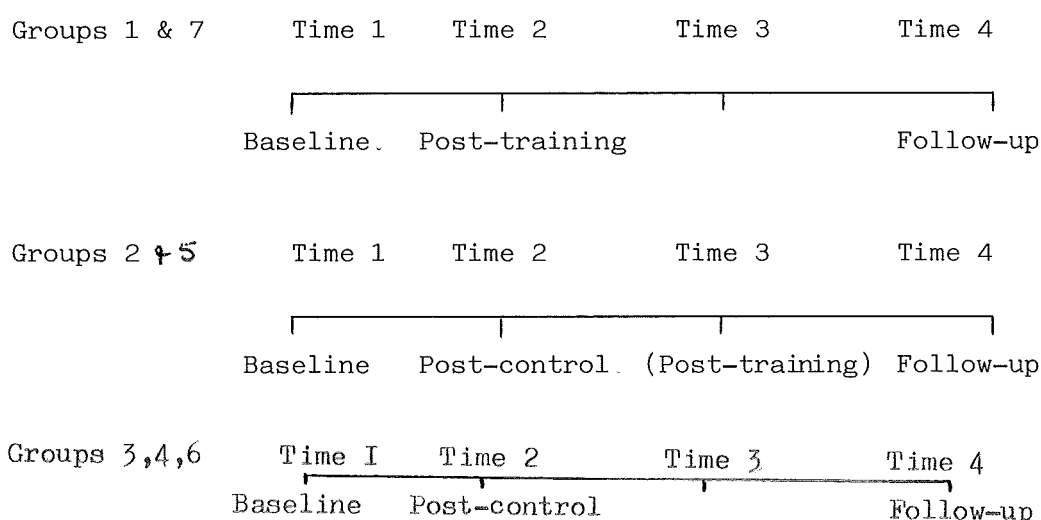
Training for the following seven groups was conducted sequentially with subjects randomly allocated to whichever group was due to commence at the time they were preparing to leave school:-

1. Interview training group (IVT)
2. Handout group (Handout)
3. 1 Video group (1 Video)
4. 3 Video group (3 Video)
5. Attention control group (Att. C)
6. 3 Discussion group (3 Disc.)

#### 7. Interview training + Video group (IVT + V)

Subjects in groups 1 and 7 were assessed at baseline, after 3 sessions of interview training, and at follow-up. The latter assessment was carried out 2½ months after completion of training for group 1, approximately half of group 7 were followed up after the same interval, but some who could not be contacted then, were seen for follow-up purposes 4 months after completing training.

The diagram below illustrates the various assessment phases:-



the control procedure, and at follow-up (some follow-up data are missing due to absenteeism from school).

The Handout group, part of the 1 Video group (four subjects were unavailable due to exams), and the Attention control group were subsequently given the same training as the IVT group in order to show that these groups were capable of improving to a similar degree to the original IVT group. Training for the Handout group was carried out over four sessions due to absenteeism from school, however, most subjects in the group received the standard three sessions.

Follow-up assessments for the former Handout, and Attention control groups were conducted at 2 and 3 months respectively. Various

subjects in the former 1 Video group were unavailable at follow-up and as only two subjects remained, they were excluded from analysis. The 3 Video group were not subsequently given the IVT programme. Preliminary inspection of the data suggested that this was unnecessary as this group appeared to have improved considerably following three sessions of video feedback.

It had been intended that the Discussion group would subsequently be trained, but this was not feasible as administrative difficulties within the Psychology Department necessitated giving priority to the IVT + Video group.

(c) Materials.

1. Assessment.

i) Mill Hill Vocabulary Scale, and Progressive Matrices.

In order to investigate the role of intelligence in relation to treatment outcome, each subject was asked, at baseline, to complete the Junior form of the Mill Hill Vocabulary Scale, and the Standard Progressive Matrices.

The Mill Hill Vocabulary Scale (MHV) developed by Raven (Revised Manual, 1977) consists of two parallel sets of 44 words arranged in ascending order of difficulty. In one of these two sets, the Synonyms section, the subject is required to select, out of a group of words, one word which most nearly corresponds to the meaning of the word at the head of the group. The other set, which comprises the Definitions section, facilitates a more detailed qualitative appraisal of word usage and knowledge.

In the Junior forms of the MHV, the last 11 words of both sets have been omitted, these forms were designed for subjects aged between 11 and 14 years, and may be administered either individually or in group testing situations. The majority of subjects in

the present study were non-certificate school-leavers, therefore it was judged appropriate to use the Junior forms of the MHV, despite the subjects being somewhat older than those for whom it was intended.

Retest reliability figures for the MHV are quoted in the Manual (1977) as being .88 for subjects of  $13 \pm 1$  year, and .93 for subjects under 30 years of age.

The Standard Progressive Matrices (PM) also developed by Raven (Revised manual, 1977), consist of five sets of 12 problems. Each problem is presented as a figure with one piece omitted and the subject is required to complete the figure by selecting the appropriate piece from the alternatives provided. Each of the five sets begins with a problem which is largely self-evident, and develops a theme which becomes progressively more difficult. The internal consistency of the PM has been evaluated in a number of studies, the majority of which report correlations of at least .90, with a modal value of .91. Short-term retest reliability figures are quoted as being around .90, with figures of around .80 at longer intervals.

The MHV and the PM have been standardized together for representative samples of British people, 6 to 65 years of age (Foulds and Raven, 1948; Raven, 1948). Both tests were scored according to instructions in the Manual (1977) and figures for verbal and non-verbal I.Q.'s were derived using Peck's (1970) norms.

ii) Videotaped roleplayed job interview.

Subjects participated in videotaped job interviews at each assessment point. All interviews were conducted by strangers not involved in training.

Job A.

At baseline, each adolescent was interviewed for the job of general



clerk (Job A) selected from a current newspaper on the grounds of its suitability for both male and female applicants. The interviews were structured as far as possible in that the interviewer asked the same basic questions each time, but he also responded to answers given by the subject, as would be the case in a genuine interview. The basic questions used in these interviews are contained in Appendix B. A copy of the advertisement for Job A is included in Appendix C.

#### Job B.

In subsequent assessment phases, each subject was also interviewed for the job of his/her choice (Job B). A variety of jobs were chosen for Job B (See Appendix D). Each subject was interviewed for Job B by another unfamiliar interviewer who asked questions different from those used in relation to Job A. These questions are included in Appendix E. The inclusion of these interviews facilitated the assessment of generalisation to different interviewers, different jobs and different questions.

#### Rating scale for videotaped interviews :-

All videotaped interviews were rated by one independent observer who was unaware of which group and assessment phase the subjects belonged to, 54 of these interviews were assessed by a second rater as a reliability check. Eighteen interviews were rated twice by the original rater as a check on intra-rater reliability. The interviews were rated on the following items (see Appendix F for copy of rating scale, and definitions of skills rated).

- |                                   |   |                  |
|-----------------------------------|---|------------------|
| 1. Question answering             | ) |                  |
|                                   | ) |                  |
| 2. Informational statements       | ) |                  |
|                                   | ) |                  |
| 3. Question asking                | ) | Verbal behaviour |
|                                   | ) |                  |
| 4. Number of relevant questions   | ) |                  |
|                                   | ) |                  |
| 5. Number of irrelevant questions | ) |                  |

- |                                 |   |                               |
|---------------------------------|---|-------------------------------|
| 6. Eye contact                  | ) |                               |
|                                 | ) |                               |
| 7. Posture                      | ) | Non-verbal behaviour          |
|                                 | ) |                               |
| 8. Smiling                      | ) |                               |
|                                 | ) |                               |
| 9. Fidgeting                    | ) |                               |
|                                 |   |                               |
| 10. Fluency of speech           | ) |                               |
|                                 | ) |                               |
| 11. Voice volume                | ) | Non-verbal aspects of speech. |
|                                 |   |                               |
| 12. Listening skills            | ) |                               |
|                                 | ) |                               |
| 13. Interest                    | ) |                               |
|                                 | ) |                               |
| 14. Presentation                | ) | General skills                |
|                                 | ) |                               |
| 15. Would you give this person  | ) |                               |
| the job?                        | ) |                               |
|                                 | ) |                               |
| ('Probability of hire rating')) |   |                               |

Items were drawn from Hollandsworth et al's (1979) study of critical interview skills, various studies of interview training included in Chapter 3, and the social skills training literature. Items were rated on a 7 point unipolar scale with a score of '0' indicating lack of skill or inappropriate behaviour, and 6 representing appropriate or skilled behaviour.

A 7 point scale was used in accordance with Miller's (1956) finding that observers can deal with a maximum of 7 categories at any one time.

In order to provide social validation data, thirty-three randomly selected interviews were also rated separately on 'probability of hire' by a Careers Officer with personnel management training. Obviously it would have been desirable to have every interview rated in this way, but the number of interviews rendered this impractical.

## 2. Training.

### i) Handout describing important interview skills.

This handout was compiled by the author and contains a brief description of each skill felt to be important at interview (see Appendix G). It was used in the first session as it was felt that the use of written rather than purely verbal material would help the subjects retain more of the information to be used at interview after completion of training.

### ii) Handout of guidelines for phrasing questions at interview.

On examining the videotaped interviews from Hood et al (1982) it had appeared that while the subjects remembered the topics about which it was important to ask questions in the interview situation, they found it difficult to remember how to phrase questions on these topics; therefore a brief handout was devised by the author and given to all subjects (see Appendix H).

### (d) Procedure.

All groups were interviewed for Job A at baseline. In addition, the Mill Hill Vocabulary Scale and Progressive Matrices were completed. As mentioned above, treatment for each group was conducted sequentially:-

#### 1. Interview training group.

A programme of three interview training sessions was devised by the author, based on previous research in interview training and social skills training. The methods used in training i.e. roleplay, modelling etc., have already been described in Ch.2. Each weekly training session lasted between 1¼ and 1½ hours and was conducted as follows:-

IVT Session 1 - After a brief introduction to the nature and purpose of the present programme of IVT and the potential practical benefit to the subjects concerned, a discussion of the skills (both verbal and non-verbal) important at interview was initiated. The handout

of important skills at interview was used as an extension and summary of the discussion. The author then modelled a very unskilled interview for a job as a Hairdressing Junior, with a volunteer from the group asking questions prepared by the author. The subjects were asked to make a written note of appropriate and inappropriate use of skills outlined in the handout, and their observations were discussed after the interview. The performance was deliberately exaggerated and was used to emphasize the importance of appropriate use of the skills discussed previously; it also served to establish rapport and introduce some humour into training. The use of role reversal has been stressed by workers in social skills training, and subjects who acted as interviewers gained an appreciation of the difficulties involved in interviewing as well as in being an interviewee, and the effect a disinterested and unco-operative interviewee can have on the interviewer.

Thereafter, the author modelled a skilled but imperfect interview for a Commercial Photographer Trainee, with a different subject acting as interviewer, and the rest of the subjects taking notes as before. The literature on modelling suggests (Meichenbaum 1971) the most effective models are those perceived as coping, but not giving a flawless performance that might seem unattainable to the observer. Although initially unable to present themselves well at interview, subjects were accurate in observing appropriate and inappropriate use of skills.

A roleplayed interview for any of the jobs the individual had expressed interest in was then conducted with each subject. From the author's evaluation of the baseline videotaped interview, each subject was instructed in the appropriate use of one or two skills most lacking in the interview. These were tailored to suit each subject. Questions similar, but not identical to those used for Job A in the baseline assessment were asked by the author.

The roleplays were conducted in the group situation with the rest of the group making notes on the positive and negative aspects of the interview, based on the handout of important interview skills. On completion of the roleplay, the interview was discussed with emphasis on the positive aspects, and constructive criticism and coaching to improve the negative aspects. It was found that the group were very supportive of one another, yet fair and accurate in their appraisal.

Following roleplays for each subject, the material covered in the first session was reviewed. At some point during each training session, tea, coffee and biscuits were provided. This seemed to establish rapport and it was felt that the adolescents responded well to receiving more individual attention than the school system can normally provide.

IVT Session 2 - The second session was devoted to attempting to promote generalisation of training. One method of doing this suggested by Goldstein et al (1978) is to increase the range of trainers, and so an experienced Careers Officer was asked to come to the group and conduct roleplays with each subject. Prior to the roleplays the interview skills discussed in the first session were reviewed. Once again, roleplays were tailored to suit each subject, and after each one the Careers Officer offered constructive criticism and suggested ways of improving the subject's performance. These roleplays were made much more life-like by the fact that the interviewer worked in the same geographical area, and knew a great deal about the individual employers concerned, and the jobs the subjects were applying for. As before, the session ended with a review of the material covered.

IVT Session 3 - After a recap of the previous session, each adolescent was asked which skills they felt competent in using

and which required further practice. As well as the skills selected by each individual, the skills of question answering, and question asking were highlighted and elaborated. From roleplays in preceding sessions, it appeared that subjects were becoming better able to think of topics to ask questions about, but had continued difficulty in phrasing such questions appropriately. Considerable time was spent on group discussion of alternative ways of phrasing questions, and subjects were provided with the handout of guidelines for question asking. The session continued with roleplays tailored to each individual regarding both the job chosen, and the particular skills emphasized. This session closed with a review of the whole training programme, and advice on future use of material covered.

## 2. Handout group.

The Handout group was included to assess the effect of written materials alone, as, in the event of a significant treatment effect, the use of written materials would be a very time-saving method of developing interview skill. All subjects completed the baseline assessment, the handout was distributed, along with a brief explanation of its purpose and contents, and subjects were asked to read it thoroughly prior to the assessment at Time 2.

## 3. 1 Video group.

The contribution of video feedback to training was assessed in groups 3 and 4. Group 3 completed the baseline assessment, and then received one 1½ hour session of video feedback. This session began with an outline of the way in which video feedback could be used to modify certain aspects of behaviour, the handout of important interview skills was distributed, then the whole group observed each member's baseline interview. At the end of each interview, constructive comments were invited from the group,

and then the author gave feedback concerning the positive features of the interview and highlighted specific skills which required modification.

4. 3 Video group.

A similar procedure as for group 3 was followed, except that training involved three 1½ hour sessions. Each interview was shown more than once and feedback was more detailed and extensive.

5. Attention control group.

Three 1½ hour sessions were conducted. A variety of topics were selected for discussion, these included school and leisure activities, and anything the adolescents expressed interest in. As far as possible, the topics of job interviews and career aspirations were avoided.

6. 3 Discussion group.

Group discussion of methods of coping with job interviews is the traditional procedure used in vocational counselling. This group covered similar topics to group 1, but none of the components of social skills training were included. The group spent three 1½ hour sessions discussing skilled and unskilled performance at interview, potential problems at interview, and how to cope with them.

7. Interview training + Video group.

This group included all the components examined in the above groups. A similar programme to group 1 was followed except that instead of Session 3 involving further practice of question answering and asking, the final session was spent on observing each subject's baseline videotaped interview with appropriate feedback, in a method similar to that used with group 3.

## CHAPTER 8.

### RESULTS - GROUP STUDY.

#### Introduction:

As outlined in Ch. 7 Method - Group Study, the 72 subjects were videotaped in roleplayed job interviews at various assessment phases; the list of groups, and diagram of assessment phases is repeated below:-

1. Interview training group (IVT)
2. Handout group (Handout)
3. 1 Video group (1 Video)
4. 3 Video group (3 Video)
5. Attention control group (Att.C)
6. 3 Discussion group (3 Disc.)
7. Interview training and video group (IVT + V)

Groups 1 and 7	Time 1	Time 2	Time 3	Time 4
	<hr/>			
	Baseline	Post-training		Follow-up

Groups 2 & 5	Time 1	Time 2	Time 3	Time 4
	<hr/>			
	Baseline	Post-control	(Post-training)	Follow-up

Groups 3,4,6	Time 1	Time 2	Time 3	Time 4
	<hr/>			
	Baseline	Post-control		Follow-up

Ch. 7.

Inter-rater agreement figures were based on 54 interviews, rated on 10 items. Calculations were made for complete agreement, and 1, 2 or 3 point differences between the two raters. From his work on inter-rater agreement on semantic differentials, Triandis (1960) concluded that on a 7 point scale, a discrepancy between two raters of 1.2 units is not very disturbing, but a discrepancy of 1.7 units is serious and indicates that the two raters have a rather different perception of the situation. For the present study, consistent discrepancies of more than 1 point would indicate



an unsatisfactory degree of inter-rater agreement. The following results were obtained:-

Item	Complete Agreement + 1 pt. diff.	2 or 3 pt. diff.
Question answering	90.6%	9.2%
Question asking	81.1%	18.8%
Eye contact	88.8%	11.1%
Posture	74%	25.9%
Smiling	77.8%	22.2%
Fidgetting	70.2%	29.6%
Listening skills	92.6%	7.4%
Interest	84.9%	13.1% + 1.8% (1 x 4 pt. diff.)
Presentation	86.9%	12.9%
Hire/no hire	100%	

(Inter-rater reliability figures for 'informational statements' and 'fluency' are not available as these were not rated by the second rater. Figures for 'volume' are not included because it was nearly always rated as '3').

Table 2 - Inter-rater reliability figures for ratings of videotaped assessment interviews.

For the majority of items the level of inter-rater agreement seems acceptable. Three exceptions are 'posture', 'smiling' and 'fidgetting' for which C.A. + 1 point diff. figures fell below 80%. These three items seemed to be particularly difficult for raters to assess (despite guidelines), perhaps because they found it problematic to decide whether excessive behaviour should be given a higher or lower score than absence of the behaviour. While results for these three skills were disappointing, previous studies of critical interview skills have emphasized verbal rather than non-verbal ones, therefore these results are possibly less damaging than

if they had occurred in relation to verbal skills. Nevertheless, the results do suggest that any significant differences for non-verbal skills pre-post treatment should be interpreted with caution.

Intra-rater agreement figures were based on 18 interviews, rated on 10 items, with an interval of one month between the two ratings.

The following results were obtained:-

Item	Complete Agreement + 1 pt. diff.	2 pt. diff.
Question answering	99.9%	
Informational statements	100%	
Question asking	99.9%	
Eye contact	88.8%	11.1%
Posture	88.8%	11.1%
Smiling	88.8%	11.1%
Fidgeting	88.8%	11.1%
Fluency	94.3%	5.5%
Listening skills	99.9%	
Interest	94.4%	5.5%
Presentation	99.9%	
Hire/no hire	100%	

Table 3 - Intra-rater reliability figures for ratings of videotaped assessment interviews.

The above results indicate that an acceptable level of intra-rater reliability was achieved. Interestingly, those skills for which C.A. + 1 pt. diff. figures fell below 90% were once again non-verbal, rather than verbal.

When the distributional characteristics of all baseline data variables were examined, it was found that:-

Eye contact	)	
	)	
Posture	)	Conformed to the normal
	)	distribution.
Fidgeting	)	
	)	
Fluency	)	
	)	
Smiling	)	
	)	Less well-distributed.
Interest	)	
	)	
Question answering	)	Not normally distributed,
	)	cluster of scores at lower
Info. statements	)	end of scale(i.e.indicating lack
	)	of skill). In view of the
Question asking	)	fact that subjects were
	)	selected for training on the basis
N. of relevant questions	)	of low scores on another
	)	measure(ISQ) of interview
N. of irrelevant questions	)	skill,it was to be expected
	)	that their scores should
Listening skills	)	not be normally distributed
	)	but should cluster at the
Presentation	)	lower end of the scale.
	)	
Volume	-	This item was rarely rated
		as anything other than '3'
		i.e. average, at any assessment
		phase, therefore it was
		excluded from the analysis.
Hire/no hire	-	This is a dichotomous variable
		which, as expected, was rated
		negatively at baseline in
		all but two instances.

#### Method of analysis used for the main comparisons.

Three alternative methods of analysis were considered:-

- 1) Analysis of covariance.
- 2) Repeated measures analysis of variance.
- 3) Oneway analysis of gain scores.

#### 1) Analysis of covariance.

As subjects in the present study were randomly allocated, it was expected that there should be no significant between-group differences at baseline, therefore analysis of covariance seemed an unnecessarily

involved method of evaluating the results. In addition, missing data were anticipated and Kirk (1982) noted that computational formulae for estimating missing observations and carrying out comparisons among means for some analysis of covariance designs are relatively complex. Therefore, it seemed that analysis of covariance was not the most appropriate method of analysis for the current results.

## 2) Repeated measures analysis of variance.

Huck and McLean (1975) described various problems in using this method to analyse data from a pretest-posttest design. The test for between-subjects treatment differences is based on both pretest and posttest means, and as Huck and McLean noted "... similarity between the pretest means (due to randomization) will cause differences between the treatment effects, which really exist only at the posttest period, to become 'spread-out' over the two trials when the main effect means for treatment groups are computed. In other words the estimated treatment effects .... will only be one half as large as they really should be". Huck and McLean pointed out that interaction F really deals with the treatment main effect, and they advocated the use of oneway analysis of gain scores, or analysis of covariance instead of a repeated measures analysis of variance.

## 3) Oneway analysis of variance of gain scores.

Based on the considerations above, this method of analysis was selected. It is a simpler analysis which still takes pre-treatment scores into account, and when followed by Scheffe's test for a posteriori contrasts it appeared the most appropriate method for the present data.

Accordingly, the data obtained from the videotaped interviews were subjected to oneway analysis of variance (SPSS Manual, 1975).

Analysis of variance is concerned with testing hypotheses about population variances, two of the main assumptions underlying its use (Kirk, 1968) are that observations are drawn from normally distributed populations and that there is homogeneity of population error variances. Kirk noted that Cochran and Cox (1957) stated that failure to meet these assumptions may affect both the significance level and the sensitivity of a test. However, Kirk went on to say "fortunately the F distribution is very robust with respect to violation of many of the assumptions associated with its mathematical derivation... Cochran (1947) pointed out that it is impossible to be certain that all required assumptions are exactly satisfied by a set of data. Thus analysis of variance must be regarded as approximate rather than exact".

In relation to the assumption of normally distributed populations, Kirk (1968) stated that "studies by Pearson (1931) and Norton as cited by Lindquist (1953) indicate that the F distribution is relatively unaffected by lack of symmetry of treatment populations. It is also relatively unaffected by kurtosis except in extreme cases of leptokurtic or platykurtic populations .." Kirk cited Cochran (1947) as showing that the F distribution can withstand violation of the assumption of homogeneity of population-error variances, as long as the number of observations in the samples is equal. A problem arises with unequal samples in that failure to meet the homogeneity assumption can bias the test of significance; this bias may be positive or negative, according to Box (1953). However, Kirk concluded "since the F distribution is so robust with respect to violation of the assumption of homogeneity of error variance, it is not customary to test this assumption routinely". Although the subject numbers in the seven groups at Time 2 (when

the most important analyses were carried out) were not quite equal, they differed by a maximum of two, and while this might cast doubt on the interpretation of borderline results, findings which were clearly significant would not present this difficulty.

## Results.

Analyses at Time 1. (for detailed Anova tables see Appendix I).

	F.Ratio.	F.Prob.	Scheffe(0.05)
<u>Verbal items.</u>			
Question answering (QANS)	2.80	*	NS
Info. statements (INFO)	3.54	**	<u>3 Vid.sig.diff.</u> from IVT.
Question asking (QASK)	4.16	***	<u>1 Vid.sig.diff.</u> from 3 Disc. & Att.C.
N. relevant questions (REL)	3.07	**	NS
N. irrelevant questions (IRREL)	1.46	NS	NS
<u>Non-verbal items.</u>			
Eye contact (EC)	0.82	NS	NS
Posture (POS)	0.94	NS	NS
Smiling (SMIL)	1.74	NS	NS
Fidgetting (FIDG)	1.67	NS	NS
<u>Non-verbal aspects of speech.</u>			
Fluency (FLUE)	1.68	NS	NS
<u>General items.</u>			
Listening skills (LIS)	1.79	NS	NS
Interest (INTR)	2.08	NS	NS
Presentation (PRES)	2.21	NS	NS
Hire/no hire (HIRE)	0.74	NS	NS

Table 4 - Selected information from Anova tables - Time 1 (\*p < .05, \*\*p < .01, \*\*\*p < .001)

	Group	Count	Mean	S.D.
<u>Verbal items.</u>				
QANS	1	10	1.30	0.48
	2	11	2.36	1.36
	3	11	2.00	1.18
	4	9	2.44	0.52
	5	11	1.36	0.67
	6	9	1.88	0.33
	7	10	1.70	0.67
	Total	71	1.85	0.91
INFO	1	10	1.20	0.63
	2	11	2.09	1.51
	3	11	2.18	1.07
	4	9	2.77	0.83
	5	11	1.36	0.50
	6	9	1.55	0.52
	7	10	2.10	0.73
	Total	71	1.88	1.00
QASK	1	10	1.00	1.05
	2	11	1.27	1.19
	3	11	1.90	1.30
	4	9	0.88	0.92
	5	11	0.36	0.80
	6	9	0.00	0.00
	7	10	0.70	0.82
	Total	71	0.90	1.09

	Group	Count	Mean	S.D.
REL	1	10	1.20	1.39
	2	11	1.00	1.18
	3	11	1.63	1.12
	4	9	1.00	1.11
	5	11	0.36	0.80
	6	9	0.00	0.00
	7	10	* 0.50	0.70
	Total	71	0.83	1.09
IRREL	1	10	0.00	0.00
	2	11	0.09	0.30
	3	11	0.45	0.93
	4	9	0.33	0.50
	5	11	0.09	0.30
	6	9	0.00	0.00
	7	10	0.10	0.31
	Total	71	0.15	0.46
<u>Non-verbal items.</u>				
E.C.	1	10	2.30	1.25
	2	11	2.54	1.69
	3	11	2.54	0.82
	4	9	3.00	0.86
	5	11	1.90	1.30
	6	9	2.33	0.86
	7	10	2.50	0.84
	Total	71	2.43	1.14
POS.	1	10	2.90	1.37
	2	11	3.09	1.44
	3	11	2.72	1.19
	4	9	3.00	0.70



	Group	Count	Mean	S.D.
POS.(Cont'd)	5	11	2.18	0.98
	6	9	2.55	0.52
	7	10	2.50	0.70
	Total	71	2.70	1.06
SMIL	1	10	2.60	1.34
	2	11	2.72	1.67
	3	11	2.09	1.22
	4	9	2.22	0.66
	5	11	1.36	1.02
	6	9	2.22	0.66
	7	10	2.50	0.70
	Total	71	2.23	1.16
FIDG.	1	10	2.40	1.34
	2	11	3.27	1.42
	3	11	2.81	1.53
	4	9	2.44	0.88
	5	11	1.81	1.16
	6	9	2.55	0.88
	7	10	2.00	1.15
	Total	71	2.47	1.27

Non-verbal aspects of speech.

FLUE	1	10	1.80	0.42
	2	11	2.63	1.68
	3	11	2.00	1.41
	4	9	2.66	1.00
	5	11	1.45	1.12
	6	9	2.00	0.50
	7	10	2.00	0.47
	Total	71	2.07	1.11

	Group	Count	Mean	S.D.
<u>General items.</u>				
LIS	1	10	1.70	0.94
	2	11	2.18	1.25
	3	11	2.36	1.36
	4	9	2.33	0.70
	5	11	1.27	0.64
	6	9	1.77	0.66
	7	10	2.00	0.66
	Total	71	1.94	0.98
INTR	1	10	1.50	0.97
	2	11	2.36	1.68
	3	11	1.81	1.83
	4	9	2.55	1.01
	5	11	1.00	0.89
	6	9	1.33	0.50
	7	10	1.50	0.97
	Total	71	1.71	1.28
PRES	1	10	1.70	0.67
	2	11	2.18	1.25
	3	11	2.00	1.09
	4	9	2.55	0.72
	5	11	1.27	0.78
	6	9	1.77	0.44
	7	10	1.80	0.63
	Total	71	1.88	0.90
HIRE	1	10	0.00	0.00
	2	11	0.09	0.30
	3	11	0.09	0.30
	4	9	0.00	0.00

	Group	Count	Mean	S.D.
HIRE (Contd)	5	11	0.00	0.00
	6	9	0.00	0.00
	7	10	0.00	0.00
	Total	71	0.02	0.16

Table 5 - Central tendency information - Time 1.

Summary of analyses at Time 1.

It was expected that there should be no significant between-group differences at baseline, and with the exception of 2 items - info. statements, and question asking - this was confirmed by the results above. In most cases, baseline non-verbal skills showed less pronounced deficits than verbal ones. There was therefore less room for improvement in non-verbal skills.

Analyses at Time 2. (for detailed Anova tables see Appendix J.)

At Time 2 all seven groups were compared together, however, the main interest was in the comparison of IVT and IVT + V with the five remaining groups. It was hypothesized that there should be between-group differences and that IVT and IVT + V should be more effective than the alternative procedures.

Gain scores, rather than raw scores were analysed at Time 2. Time 2 scores = (Time 2 - Time 1)/Time 1. For 3 items - QASK, N.REL, HIRE these gain scores could not be used as many subjects scored '0' at Time 1. Instead, gain scores based on  $T2 = T2 - T1$  were used. (IRREL is excluded as most scores = 0).

F.Ratio. F.Prob. Scheffe(0.05)

Where 1 group is significantly different from another the groups from which it is different are listed in order, beginning with the one with the lowest mean score, and ending with the highest mean score which is still significantly different.

Verbal items.

Question answering.

Job A	20.36	***	<u>IVT</u> sig.diff. from 3 Disc., Handout, 3 Vid., Att.C.,1 Vid.
			<u>IVT + V</u> sig.diff.from 3 Disc., Handout, 3 Vid., Att.C.
Job B	13.94	***	<u>IVT</u> sig.diff.from 3 Disc., Handout, 3 Vid.,Att.C.,1 Vid.

Informational statements.

Job A	3.84	**	<u>IVT</u> sig.diff. from Att.C.
Job B	9.17	***	<u>IVT</u> sig.diff.from all other groups - Handout, 3 Vid.,Att.C., IVT + V, 3 Disc., 1 Vid.

Question asking.

Job A	15.88	***	<u>IVT + V</u> sig.diff. from Att.C., 1 Vid., Handout, 3 Disc.
			<u>IVT</u> sig.diff.from Att.C., 1 Vid., 3 Vid. sig.diff.from Att.C.
Job B	13.14	***	<u>IVT</u> sig.diff.from Att.C., Handout, 1 Vid., 3 Disc.
			<u>IVT + V</u> sig.diff.from Att.C., Handout.      sig.diff. 3 Vid. sig.diff.from Att.C.

N. relevant questions.

Job A	11.32	***	<u>IVT + V</u> sig.diff.from Att.C. Handout, 3 Disc., 1 Vid.
			<u>IVT</u> sig.diff.from Att.C., Handout, 3 Disc., 1 Vid.
Job B	5.34	***	<u>IVT</u> sig.diff.from Att.C.,Handout.
			<u>IVT + V</u> sig.diff. from Att.C.

Non-verbal items.

Eye contact.

Job A	5.58	***	<u>IVT + V</u> sig.diff. from Att.C.
			<u>IVT</u> sig.diff. from Att.C.
Job B	2.42	*	NS

	F.Ratio	F.Prob.	Scheffe(0.05)
<u>Posture</u>			
Job A	9.04	***	<u>IVT + V</u> sig.diff.from Att.C., 3 Disc., 3 Vid., Handout. <u>IVT</u> sig.diff. from Att.C. <u>1 Vid.</u> sig.diff. from Att.C.
Job B	3.34	**	NS
<u>Smiling</u>			
Job A	3.44	**	NS
Job B	2.28	*	NS
<u>Fidgetting</u>			
Job A	2.08	NS	NS
Job B	2.54	*	NS
<u>Non-verbal aspects of speech.</u>			
<u>Fluency</u>			
Job A	10.19	***	<u>IVT</u> sig.diff. from Att.C.,Handout, 3 Disc., 3 Vid. <u>IVT + V</u> sig.diff. from Att.C., Handout.
Job B	4.16	**	NS
<u>General items.</u>			
<u>Listening skills.</u>			
Job A	4.64	***	<u>IVT</u> sig.diff.from Att.C.,Handout, 3 Vid.
Job B	5.76	***	<u>IVT</u> sig.diff.from Handout, 3 Vid.,Att.C., 3 Disc.
<u>Interest.</u>			
Job A	5.45	***	<u>IVT</u> sig.diff.from 3 Disc., Att.C.,Handout, 3 Vid.
Job B	9.06	***	<u>IVT</u> sig.diff. from Handout, 1 Vid., 3 Vid., Att.C., 3 Disc.

	F.Ratio.	F.Prob.	Scheffe (0.05)
<u>Presentation</u>			
Job A	7.08	***	$\frac{IVT}{3}$ sig.diff.from Att.C., Disc.
			$\frac{IVT + V}{3}$ sig.diff.from Att.C., Disc.
Job B	5.43	***	$\frac{IVT}{3}$ sig.diff.from Handout, Vid., 3 Disc., Att.C.
<u>Hire/no hire</u>			
Job A	8.57	***	$\frac{IVT}{3}$ sig.diff.from Att.C., Disc.
			$\frac{IVT + V}{3}$ sig.diff.from Att.C., Disc.
Job B	9.81	***	$\frac{IVT}{3}$ sig.diff.from Att.C., Handout, 3 Disc.
			$\frac{IVT + V}{3}$ sig.diff.from Att.C., Handout, 3 Disc.

Table 6 - Selected information from Anova tables - Time 2 (\*p < .05, \*\*p < .01, \*\*\*p < .001)

Verbal items

	Group	Count	Mean	S.D.
QANS - Job A	1	10	2.65	0.74
	2	9	0.02	0.59
	3	10	0.79	0.72
	4	9	0.31	0.42
	5	11	0.31	0.64
	6	9	- 0.05	0.52
	7	10	1.91	1.10
	Total	68	0.87	1.18
QANS - Job B	1	10	3.30	1.13
	2	10	0.45	0.63
	3	9	1.19	1.19
	4	9	0.46	0.49
	5	11	0.48	0.70

	Group	Count	Mean	S.D.
QANS - Job B (cont'd)	6	8	0.43	0.67
	7	10	1.83	1.17
	Total	67	1.18	1.33
INFO - Job A	1	9	1.77	1.09
	2	9	0.53	0.74
	3	10	0.76	0.91
	4	9	0.35	0.68
	5	11	0.31	0.81
	6	9	0.61	0.74
	7	10	1.28	0.81
	Total	67	0.79	0.94
INFO - Job B	1	9	3.66	1.58
	2	10	0.41	0.54
	3	9	1.48	1.65
	4	9	0.55	0.98
	5	11	0.81	0.78
	6	8	1.37	0.87
	7	10	1.20	0.89
	Total	66	1.32	1.45
QASK - Job A	1	10	2.70	0.82
	2	9	1.11	1.05
	3	10	0.50	1.43
	4	9	2.00	0.86
	5	11	- 0.09	0.70
	6	9	1.44	1.13
	7	10	3.50	0.84
	Total	68	1.57	1.52

	Group	Count	Mean	S.D.
QASK - Job B	1	10	3.30	0.94
	2	10	1.10	1.19
	3	9	1.33	1.32
	4	9	2.22	0.97
	5	11	0.09	0.53
	6	8	1.50	0.75
	7	10	3.00	1.05
	Total	67	1.77	1.44
REL - Job A	1	10	3.00	1.33
	2	9	0.66	0.86
	3	10	0.90	1.91
	4	9	1.33	0.70
	5	11	- 0.09	0.70
	6	9	0.88	0.92
	7	10	3.00	0.81
	Total	68	1.38	1.55
REL - Job B	1	10	2.70	1.82
	2	10	0.60	1.26
	3	9	1.33	1.73
	4	9	1.44	0.72
	5	11	0.18	0.75
	6	8	1.50	1.30
	7	10	2.50	0.84
	Total	67	1.44	1.50



<u>Non-verbal items</u>	Group	Count	Mean	S.D.
EC - Job A	1	9	0.83	0.45
	2	9	0.08	0.43
	3	10	0.45	0.55
	4	9	0.16	0.44
	5	10	- 0.25	0.33
	6	9	0.25	0.87
	7	10	0.96	0.67
	Total	66	0.35	0.67
EC - Job B	1	9	0.94	0.47
	2	10	0.82	0.69
	3	9	0.61	0.61
	4	9	0.32	0.44
	5	10	0.23	0.50
	6	8	0.43	1.01
	7	10	1.08	0.66
	Total	65	0.64	0.68
POS - Job A	1	9	0.54	0.45
	2	9	0.19	0.39
	3	10	0.48	0.41
	4	9	0.15	0.37
	5	11	- 0.22	0.34
	6	9	- 0.05	0.36
	7	10	0.91	0.50
	Total	67	0.28	0.53
POS - Job B	1	9	0.61	0.39
	2	10	0.48	0.74
	3	9	0.57	0.35
	4	9	0.17	0.41
	5	11	0.10	0.28

	Group	Count	Mean	S.D.
POS - Job B (cont'd)	6	8	0.14	0.31
	7	10	0.78	0.49
	Total	66	0.41	0.50
SMIL - Job A	1	10	0.78	0.85
	2	8	- 0.10	0.28
	3	10	0.75	0.79
	4	9	0.07	0.26
	5	10	0.12	0.31
	6	9	0.20	0.74
	7	10	0.81	0.78
	Total	66	0.40	0.71
SMIL - Job B	1	10	0.92	0.92
	2	9	0.24	0.69
	3	9	0.58	0.89
	4	9	0.16	0.25
	5	10	0.25	0.42
	6	8	0.20	0.42
	7	10	0.90	0.80
	Total	65	0.48	0.72
FIDG - Job A	1	9	0.79	1.37
	2	9	0.06	0.45
	3	9	0.22	0.73
	4	9	0.26	0.28
	5	10	- 0.06	0.54
	6	9	0.16	0.43
	7	9	0.94	1.14
	Total	64	0.33	0.83

	Group	Count	Mean	S.D.
FIDG - Job B	1	9	1.04	1.27
	2	10	0.19	0.48
	3	8	0.41	0.70
	4	9	0.20	0.35
	5	10	- 0.09	0.83
	6	8	0.18	0.75
	7	9	1.25	1.61
	Total	63	0.45	1.01

Non-verbal aspects of speech

FLUE - Job A	1	10	1.70	0.82
	2	9	- 0.03	0.63
	3	9	0.69	0.63
	4	9	0.43	0.47
	5	8	- 0.06	0.68
	6	9	0.11	0.41
	7	10	1.20	0.71
	Total	64	0.61	0.88

FLUE - Job B	1	10	1.60	0.61
	2	10	0.72	1.04
	3	8	0.59	0.37
	4	9	0.40	0.68
	5	8	0.22	0.52
	6	8	0.37	0.79
	7	10	1.53	1.29
	Total	63	0.82	0.95

	Group	Count	Mean	S.D.
<u>General items</u>				
LIS - Job A	1	10	1.97	1.23
	2	9	0.33	0.72
	3	10	0.97	1.09
	4	9	0.35	0.44
	5	11	0.25	0.40
	6	9	0.61	1.08
	7	10	1.38	1.17
	Total	68	0.85	1.08
LIS - Job B	1	10	2.42	1.34
	2	10	0.45	0.44
	3	9	1.16	1.27
	4	9	0.55	0.61
	5	11	0.59	0.49
	6	8	0.75	1.00
	7	10	1.20	0.75
	Total	67	1.02	1.07
INTR - Job A	1	10	2.45	1.62
	2	8	0.33	0.81
	3	6	0.58	0.74
	4	9	0.57	1.04
	5	8	0.31	0.96
	6	9	0.22	1.12
	7	8	1.56	0.72
	Total	58	0.91	1.31
INTR - Job B	1	10	3.65	1.59
	2	9	0.51	0.70
	3	5	0.70	1.30
	4	9	0.82	1.09

	Group	Count	Mean	S.D.
INTR - Job B (Cont'd)	5	8	1.10	0.89
	6	8	1.56	0.82
	7	8	1.75	0.84
	Total	57	1.53	1.48
PRES - Job A	1	10	1.75	0.95
	2	9	0.57	0.82
	3	10	0.90	0.81
	4	9	0.51	0.70
	5	10	0.10	0.61
	6	9	0.11	0.60
	7	10	1.66	0.95
	Total	67	0.82	0.99
PRES - Job B	1	10	2.55	1.27
	2	10	0.63	0.61
	3	9	1.24	1.16
	4	9	0.64	0.97
	5	10	0.93	0.73
	6	8	0.75	0.65
	7	10	1.86	1.11
	Total	66	1.25	1.15
HIRE - Job A	1	10	0.80	0.42
	2	9	0.22	0.44
	3	10	0.20	0.42
	4	9	0.55	0.52
	5	11	0.00	0.00
	6	9	0.00	0.00
	7	10	0.80	0.42
	Total	68	0.36	0.48

	Group	Count	Mean	S.D.
HIRE - Job B	1	10	1.00	0.00
	2	10	0.20	0.42
	3	9	0.44	0.52
	4	9	0.55	0.52
	5	11	0.09	0.30
	6	8	0.25	0.46
	7	10	1.00	0.00
	Total	67	0.50	0.50

Table 7 - Central tendency information - Time 2 - Job A and Job B.

#### Verbal items

Analyses of ratings for all four verbal items, Job A and B, provide evidence that one or both of the two experimental groups are more effective in increasing skill than the alternative procedures - with the exception of the 3 Video group which shows a treatment effect for question asking. However, the treatment effect on this item, for the 3 Video group, is less pronounced than that of the two experimental groups.

The Scheffe test for each of the 8 analyses reveals the IVT group to be significantly different from various alternative procedures. In five of these analyses, the IVT + V group is also significantly different from certain other groups. Based on the above, it seems that the treatment effect is somewhat more pronounced for the IVT group, and on one occasion the difference between the two groups reaches significance - INFO, Job B - where IVT is superior to IVT + V. This discrepancy must result from the difference in content for the two groups in Session 3 of training. The first two sessions were identical for each but Session 3 for the IVT group involved further training on question answering and asking, together with other skills mentioned by the adolescents. For

the IVT + V group, Session 3 was devoted to videotape feedback. While this obviously covered question answering and asking, and other skills, it appears to have had somewhat less effect on subjects' performance than the discussion and roleplay included in the IVT group.

The importance of question asking in relation to outcome measures has been stressed in the literature; while the above results, taken as a whole, indicate that the ability to ask appropriate questions is important, skill in answering questions appears equally, or marginally more important. More specifically, results for the 3 Video group have some bearing on this issue. While the 3 Video group is superior to one other in relation to question asking for both Job A and B, increases in this skill do not lead to significant improvements in ratings of general items, i.e. question asking is highly relevant, but improvements in this skill alone will not significantly increase overall ratings of performance.

For three of the four verbal items there is some disparity between the results for Job A and B. In relation to informational statements this difference is readily explained by the fact that Job B rather than Job A was focused on in training. As Job A was the job used for the baseline assessments, it was de-emphasized in training in order to minimise the intrusion of practice effect. However, analyses on question answering, and N. of relevant questions show higher F ratios for Job A vs. B. These results appear counter-intuitive and without obvious explanation. While analyses on N. of relevant questions show a higher F ratio for Job A vs. B, there is little difference in the F ratios for Job A and B on question asking. It appears that increased skill in relation to this item, for Job B, is associated more with the way in which questions are phrased and the order in which they are asked (job-orientated or self-orientated), than simply the number of questions posed.

#### Non-verbal items.

Significant between-group differences are found in only 2 of the 8 analyses. In both instances (EC and POS) the differences arise in relation to Job A, but not Job B. There is no apparent reason for this, and it should be seen in the context of fewer between-group differences for non-verbal skills in general, as compared with verbal ones. (As noted earlier, in most cases, baseline non-verbal skills showed less pronounced deficits than verbal ones. There was therefore less improvement in these skills because of higher initial scores. Another potential factor could be the relatively lower reliability of these scores).

#### Non-verbal aspects of speech.

As for the non-verbal items above, there are between-group differences favouring the two experimental groups for Job A, but not Job B.

#### General items.

On each of the 4 general items (LIS, INTR, PRES, HIRE) for both Job A and B, the IVT group is significantly different from various other procedures. Three of these 8 analyses also provide evidence of significant differences between the IVT + V group and the Att.C, and 3 Disc. groups, and in one instance, the Handout group. Once again, it appears that the IVT group is somewhat more effective than the IVT + V group, although the two groups are not significantly different from each other. (For 6 of the 8 analyses the IVT + V group is second only to the IVT group, in the remaining 2 analyses the mean scores of the two groups are equal).

Taking the results for general items as a whole, it appears that significant improvement in overall presentation will result from participation in the IVT, or to a lesser extent, the IVT + V programme, but not from the alternative procedures.



### Summary - all items.

It has already been noted that the results of certain analyses indicate a tendency for IVT to be more effective than IVT + V. While this difference only reaches significance in one analysis, the results as a whole tend to favour IVT vs. IVT + V. In 19 instances, the Scheffe procedure reveals IVT as superior to various other groups, this is true of IVT + V on 11 occasions, whereas it was expected that these positions would be reversed, i.e. that the inclusion of video feedback in the IVT programme should have yielded more positive results than the original IVT programme alone. While these results consist of trends rather than significant differences, it does appear that for the population concerned, spending further time on developing particularly important skills was more beneficial than the inclusion of a new component of training. Taking the results as a whole, there is evidence that the IVT programme, and to a lesser extent, the IVT + V programme, lead to significant improvements in ratings of individual skills and general performance, and increase the likelihood of a positive hiring recommendation based on a videotaped roleplayed interview. There is evidence of superiority of both the IVT and, in certain instances, the IVT + V group, as compared to the alternative procedures administered to the five other groups. Although there are some indications that the results for Job A are slightly superior to those for Job B, there is still substantial evidence that treatment effects generalise to a different interviewer, asking different questions, about a different job.

### Analyses at Time 3 (for detailed Anova tables see Appendix K).

At Time 3 the former Handout, Attention C, and 1 Video groups, now trained (using same programme as IVT group received), were

compared with Time 2 scores for the IVT and IVT + V groups. The replication of training was carried out for the 3 groups above to show that differences between these and the IVT and IVT + V groups at Time 2 were genuine, and did not simply result from any between-group differences in relation to learning ability. It was hypothesized that there should be no significant between-group differences at Time 3. Once again, gain scores  $([Time\ 3 - Time\ 1] / Time\ 1)$  were used in the analyses. (As at Time 2, gain scores for QASK, REL, and HIRE were based on  $T3 = T3 - T1$ ).

<u>Verbal items</u>	F.Ratio	F.Prob.	Scheffe(0.05)
<u>Question answering</u>			
Job A	2.98	*	<u>IVT</u> sig.diff.from previous Handout.
Job B	2.89	*	NS
<u>Informational statements</u>			
Job A	0.59	NS	NS
Job B	3.95	**	<u>IVT</u> sig.diff.from <u>IVT + V</u> (this is a similar result to the one discussed re Time 2).
<u>Question asking</u>			
Job A	2.24	NS	NS
Job B	1.01	NS	NS
<u>N. relevant questions</u>			
Job A	2.06	NS	NS
Job B	0.25	NS	NS
<u>Non-verbal items.</u>			
<u>Eye contact</u>			
Job A	0.18	NS	NS
Job B	0.55	NS	NS

<u>Posture</u>	F.Ratio.	F.Prob.	Scheffe (0.05)
Job A	1.68	NS	NS.
Job B	1.08	NS	NS
<u>Smiling</u>			
Job A	2.86	*	NS
Job B	4.00	**	<u>Previous Att.C</u> sig.diff. from previous Handout
<u>Fidgetting</u>			
Job A	1.07	NS	NS
Job B	1.54	NS	NS
<u>Non-verbal aspects of speech.</u>			
<u>Fluency</u>			
Job A	1.72	NS	NS
Job B	0.66	NS	NS
<u>General items.</u>			
<u>Listening skills</u>			
Job A	1.11	NS	NS
Job B	2.38	NS	NS
<u>Interest</u>			
Job A	2.18	NS	NS
Job B	4.84	**	<u>IVT</u> sig. diff from previous Handout
<u>Presentation</u>			
Job A	1.28	NS	NS
Job B	1.56	NS	NS
<u>Hire/no hire</u>			
Job A	0.32	NS	NS
Job B	2.82	*	NS

Table 8 - Selected information from Anova tables - Time 3 - (\*p < .05, \*\*p < .01, \*\*\*p < .001.)

As the majority of results at Time 3 were non-significant, the following central tendency information is restricted to significant results, with the remainder contained in Appendix L.

	Group	Count	Mean	S.D.
<u>Verbal items.</u>				
QANS - Job A	1	10	2.65	0.74
	2	11	1.08	1.03
	3	7	1.70	1.09
	5	11	2.07	1.26
	7	10	1.91	1.10
	Total	49	1.88	1.14
INFO - Job B	1	9	3.66	1.58
	2	10	2.01	1.56
	3	7	1.66	1.99
	5	11	2.36	1.09
	7	10	1.20	0.89
	Total	47	2.18	1.59
<u>Non-verbal items.</u>				
SMIL - Job B	1	10	0.92	0.92
	2	9	0.62	0.94
	3	7	0.96	1.00
	5	10	2.12	0.90
	7	10	0.90	0.80
	Total	46	1.12	1.02
<u>General items.</u>				
INTR - Job B	1	10	3.65	1.59
	2	9	1.45	1.33
	3	4	1.00	1.36
	5	8	3.02	1.63
	7	8	1.75	0.84
	Total	39	2.35	1.65

Table 9 - Central tendency information - Time 3, Job A and Job B.

#### Summary of analyses at Time 3 - all items.

Contrary to the hypothesis, between-group differences were found for 3 items (INFO, Job B result not included as the same was found at Time 2). On two of these items (QANS, Job A; INTR, Job B) the IVT group is superior to the previous Handout group; on the third item (SMIL, Job B) the former Attention control group is superior to the former Handout group. There is no obvious explanation for these findings, one possibility is that the previous Handout group, having derived some knowledge of the skills required at interview from the written material used, was less receptive to the subsequent 3 session training programme which included the same material as a small part of Session 1. Although the above between-group differences were found for two specific skills, all global ratings, except one (INTR, Job B), produced non-significant results. Thus, the differences obtained on specific items were not pronounced enough for differences to be found in ratings of overall presentation.

#### Analyses at Time 4 - follow-up. (for detailed Anovatables see Appendix M).

Follow-up data are available for IVT and IVT + V, and for two of the alternative procedure groups which subsequently received the IVT programme (Handout, and Attention C). Of the former 1 Video group, half the subjects were subsequently trained, but only two were available at follow-up, therefore this group was excluded from the analysis.

It was hypothesized that there should be no significant between-group differences at Follow-up. As before, gain scores were used in the analyses, but as maintenance of treatment effect rather than change from baseline was the crucial issue, post-training scores were used instead of baseline ones i.e.  $(T4 - T3)/T3$ . (Gain scores for HIRE were based on  $T4 = T4 - T1$ ).

	F.Ratio	F.Prob.	Scheffe (0.05)
<u>Verbal items</u>			
<u>Question answering</u>			
Job A	1.04	NS	NS
<u>Info. statements</u>			
Job A	3.55	*	<u>IVT</u> sig.diff.from IVT+V
<u>Question asking</u>			
Job A	2.86	NS	NS
<u>N.relevant questions</u>			
Job A	2.18	NS	NS
<u>Non-verbal items.</u>			
<u>Eye contact</u>			
Job A	3.52	*	NS
<u>Posture</u>			
Job A	2.50	NS	NS
<u>Smiling</u>			
Job A	0.53	NS	NS
<u>Fidgetting</u>			
Job A	0.06	NS	NS
<u>Non-verbal aspects of speech.</u>			
<u>Fluency</u>			
Job A	2.15	NS	NS
<u>General items.</u>			
<u>Listening skills</u>			
Job A	2.04	NS	NS

	F.Ratio	F.Prob.	Scheffe(0.05)
<u>Interest</u>			
Job A	0.88	NS	NS
<u>Presentation</u>			
Job A	1.46	NS	NS
<u>Hire/no hire</u>			
Job A	1.47	NS	NS

Table 10 - Selected information from Anova tables - Time 4  
 (\*p < .05, \*\* p < .01, \*\*\* p < .001).

Most central tendency information is contained in Appendix N.  
 The one exception is INFO - Job A :-

	Group	Count	Mean	S.D.
INFO - Job A	1	10	0.25	0.45
	2	7	- 0.05	0.09
	5	11	0.08	0.19
	7	10	- 0.11	0.12
	Total	38	0.04	0.29

Table 11 - Central tendency information - Time 4 (INFO - Job A)

Summary of analyses at Time 4 - all items.

With one exception (INFO), the above results are consistent with the hypothesis that there should be no significant between-group differences at follow-up. (i.e. between trained groups). Results of the analysis on informational statements indicate that the IVT group is significantly different from the IVT + V group. These two groups were also significantly different on this item at Time 2 (although in relation to Job B, rather than A as at F.U.). It may be that the follow-up result is simply a continuation of this earlier difference. Taking the results as a whole, the analyses of follow-up data show that treatment effects are well-maintained.

### Social validation.

A Careers Officer with personnel management training carried out subjective evaluations of 37 Time 3 interviews (i.e. after replication of training). By Time 3, 49 subjects had received training, and had participated in videotaped assessment interviews for Job A and Job B. Time constraints precluded the social validation of all 97 interviews (1 subject was unavailable for interview for Job B), therefore 37 interviews were selected, the only criterion being that neither Job A nor B should be disproportionately represented. It was intended that 40 interviews would be included, 19 for Job A and 21 for Job B, but the assessment over-ran the time available, and 3 interviews were omitted, giving a total of 37, of which 16 were for Job A and 21 for Job B. In order to detect any potential response bias, 4 of the 37 interviews (3 for Job A, 1 for Job B) were ones which had received negative hiring recommendations from the other independent rater.

The Careers Officer, who had not previously been involved in the study, and was blind to the nature of it, was asked to rate each interview in terms of whether she would accept or reject the applicant for the position concerned. Of 33 interviews previously allocated to the 'accept' category, 23 received the same rating from the Careers Officer, giving agreement in 69.69% of cases. The four interviews previously placed in the 'reject' category, were each rated as such once again, giving 100% agreement.

Obviously the background and experience of the Careers Officer was very different from that of both the original rater, and the rater who provided reliability data. The Careers Officer had considerably greater knowledge of the jobs and particular companies involved, and appeared more stringent in her evaluation of the amount of job and company-specific information provided by subjects.



Although less positive than had been hoped for, the figures obtained provide a reasonable degree of social validation of the results of training.

#### Analysis of critical interview skills.

With one exception (Prazak, 1969) previous investigations of critical interview skills have been based on graduate populations. Such studies differ from the present one, both in terms of population involved and type of job sought. Therefore, it seemed appropriate to attempt some clarification of the skills which are critical to successful interview performance in the present study. Data obtained at Time 3 (post-training for IVT and IVT + V groups, and for two former alternative procedures) for Job A (N = 50) and Job B (N = 49) were analysed using stepwise logistic regression (PLR), (BMDP Manual, 1983). This procedure examines the relationship between a binary dependent variable, and a set of independent variables. In the present study the dependent variable was 'hire/no hire', the independent variables were the remaining skills rated from the videotaped interviews (QANS, INFO, QASK, REL, IRREL, EC, POS, SMIL, FIDG, FLUE, LIS, INTR, PRES.) The emphasis of PLR is on modelling the probability of hire, given certain factors. PLR selects predictor (independent) variables in a stepwise manner, and estimates the coefficients for a logistic regression. At each step in the stepping process, a continuous variable (in this case, one particular skill) or one set of design variables is added to or removed from the model. The step selections are based on either the maximum likelihood ratio (MLR) or an approximate asymptotic covariance estimate (ACE). MLR is more reliable and was used throughout.

#### Results for Job A -(HIRE: N = 39, NO HIRE: N = 11)

##### 1. Analysis including all items

Improvement chi-square. P.value

Presentation

52.68

0.000

As 'presentation' is a global rating of performance which is virtually synonymous with 'hire/no hire', it was excluded from further analyses.

2. Analyses including all items except 'presentation'.

	Improvement chi-square.	P.value.
Interest	47.27	0.000
Eye contact	5.41	0.02

Classification of subjects into HIRE/NO HIRE on the basis of scores on INTR, and EC is illustrated in the table below (Tables 12 to 20 were generated by the statistics package MINITAB, 1982):-

(1) 'HIRE' SUBJECTS.

		EYE CONTACT.						
		0	2	3	4	5	6	ALL
I N T E R E S T	1	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0
	3	0	1	0	0	0	0	1
	4	0	2	4	5	5	2	18
	5	0	0	1	8	4	1	14
	6	0	0	0	0	3	3	6
ALL		0	3	5	13	12	6	39

(2) 'NO HIRE' SUBJECTS.

		EYE CONTACT.						
		0	2	3	4	5	6	ALL
I N T E R E S T	1	1	1	0	2	0	0	4
	2	0	0	2	0	0	0	2
	3	0	0	4	1	0	0	5
	4	0	0	0	0	0	0	0
	5	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0
ALL		1	1	6	3	0	0	11

Table 12 - Critical interview skills: data points for INTR by EC by HIRE/NO HIRE - Job A.

The above results indicate that a person's scores on 'interest' and 'eye contact' will predict 'hire/no hire' with a high degree of certainty. 'Interest' is obviously the main factor in this analysis, however 'interest' is a general item and has both verbal and non-verbal components, therefore a further analysis was carried out excluding all general items.

### 3. Analysis omitting general items.

	Improvement chi-square.	P.value.
Question answering	30.53	0.000
Info. statements	10.85	0.001
Fidgetting	11.29	0.001

Classification of subjects into HIRE/NO HIRE on the basis of scores on QANS, INFO, and FIDG.is illustrated below:-

#### (1) 'HIRE' SUBJECTS.

		INFO.						
		1	2	3	4	5	6	ALL
Q A N S	1	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0
	3	0	0	0	2	0	0	2
	4	0	0	6	8	4	0	18
	5	0	0	1	9	4	0	14
	6	0	0	0	2	2	1	5
ALL		0	0	7	21	10	1	39

(2) 'NO HIRE' SUBJECTS.

		INFO.						
		1	2	3	4	5	6	ALL
Q A N S	1	1	0	0	0	0	0	1
	2	1	1	0	0	0	0	2
	3	0	2	2	2	0	0	6
	4	0	1	1	0	0	0	2
	5	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0
ALL		2	4	3	2	0	0	11

Table 13 - Critical interview skills : data points for QANS by  
INFO by HIRE/NO HIRE - Job A.

		HIRE		
		0	1	ALL
F I D G	1	0	1	1
	2	4	5	9
	3	4	5	9
	4	2	17	19
	5	1	8	9
	6	0	3	3
ALL		11	39	50

Table 14 - Critical interview skills : data points for FIDG by  
HIRE/NO HIRE - Job A.

(1) 'HIRE' SUBJECTS

		FIDG.						
		1	2	3	4	5	6	ALL
Q A N S	1	0	0	0	0	0	0	0
	2	0	0	0	0	0	0	0
	3	0	0	1	1	0	0	2
	4	1	3	3	10	1	0	18
	5	0	1	1	5	6	1	14
	6	0	1	0	1	1	2	5
ALL		1	5	5	17	8	3	39

(2) 'NO HIRE' SUBJECTS

		FIDG.						
		1	2	3	4	5	6	ALL
Q A N S	1	0	0	1	0	0	0	1
	2	0	0	1	1	0	0	2
	3	0	3	2	1	0	0	6
	4	0	1	0	0	1	0	2
	5	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0
ALL		0	4	4	2	1	0	11

Table 15 - Critical interview skills : data points for QANS by  
FIDG by HIRE/NO HIRE - Job A.

Results of this analysis indicate that knowledge of a person's scores on 'question answering', 'info. statements' and 'fidgetting' will facilitate highly accurate prediction of their scores on 'hire/no hire'. Of these three skills, 'question answering' is the most important. If subjects' scores on 'question answering' are known, the addition of their scores on 'info. statements' only reduces the misclassification rate by 1. The results presented in Table 14

show that the misclassification rate using 'fidgetting' alone is high, therefore while 'fidgetting' is statistically significant, it is of little clinical significance.

These results do not signify that other skills, such as 'question asking' are unimportant, but simply that they have not been found to contribute anything over and above the variables selected. (Taking the example of 'question asking', this variable is highly related to 'question answering', it is also important, but does not add anything extra, if the person's score on 'question answering' is known).

Results for Job B - (HIRE : N = 44, NO HIRE : N = 5)

1. Analysis of all items except 'presentation'.

	Improvement chi-square.	P.value.
Interest	16.60	0.000
(Fluency	3.41	0.065)
N. Rel. questions	7.23	0.007
Question answering	5.04	0.025

Classification of subjects into HIRE/NO HIRE on the basis of scores on INTR, and FLUE is illustrated below:-

		HIRE		
		0	1	ALL
I N T R	3	3	1	4
	4	2	10	12
	5	0	19	19
	6	0	14	14
ALL		5	44	49

Table 16 - Critical interview skills : data points for INTR by  
HIRE/NO HIRE - Job B.

		HIRE		
		0	1	ALL
F L U E	2	1	2	3
	3	4	6	10
	4	0	15	15
	5	0	14	14
	6	0	7	7
ALL		5	44	49

Table 17 - Critical interview skills: data points for FLUE by  
HIRE/NO HIRE - Job B.

(1) 'HIRE' SUBJECTS.

		FLUE					
		2	3	4	5	6	ALL
I N T R	3	0	0	1	0	0	1
	4	1	3	5	1	0	10
	5	1	3	5	8	2	19
	6	0	0	4	5	5	14
	ALL	2	6	15	14	7	44

(2) 'NO HIRE' SUBJECTS

		FLUE					
		2	3	4	5	6	ALL
I N T R	3	1	2	0	0	0	3
	4	0	2	0	0	0	2
	5	0	0	0	0	0	0
	6	0	0	0	0	0	0
	ALL	1	4	0	0	0	5

Table 18 - Critical interview skills: data points for INTR by  
FLUE by HIRE/NO HIRE - Job B.

As for Job A, 'interest' emerges as the variable with the highest

improvement chi-square. However, variables subsequently included in the stepping process are different from those listed for Job A. Much of this variation may be due to the smaller N in the 'no hire' category for Job B vs. Job A. 'Fluency' is included in parentheses, as the P. value is non-significant, however, it is included in the summary table as Step 2, as were it to be excluded, the following two variables included in Steps 3 and 4 would probably be altered.

Further tables of data points for this analysis are not included because:

- i) After INTR, including other variables will not substantially improve the misclassification rate which is limited to 5  
(N of 'no hire' = 5)
- ii) Subsequent tables are too complex as four variables are involved.

## 2. Analysis omitting general items.

	Improvement chi-square.	P.Value
Eye contact	11.19	0.001
Question answering	4.67	0.031
(N.rel questions	3.08	0.079)
Fluency	13.34	0.000

Classification of subjects into HIRE/NO HIRE on the basis of scores on EC, and QANS is illustrated below:-

		HIRE		
		0	1	ALL
E C	2	1	0	1
	3	3	8	11
	4	1	15	16
	5	0	13	13
	6	0	8	8
ALL		5	44	49

Table 19 - Critical interview skills: data points for EC by HIRE/NO HIRE -Job B.



(1) 'HIRE' SUBJECTS.

		EC					
		2	3	4	5	6	ALL
Q	3	0	2	3	0	0	5
A	4	0	5	2	2	2	11
N	5	0	1	9	10	5	25
S	6	0	0	1	1	1	3
ALL		0	8	15	13	8	44

(2) 'NO HIRE' SUBJECTS.

		EC					
		2	3	4	5	6	ALL
Q	3	0	3	1	0	0	4
A	4	0	0	0	0	0	0
N	5	1	0	0	0	0	1
S	6	0	0	0	0	0	0
ALL		1	3	1	0	0	5

Table 20 - Critical interview skills : data points for EC by QANS by HIRE/NO HIRE - Job B.

The item with the highest improvement chi-square in this analysis is 'eye contact'. This item was included in the first analysis for Job A, but did not appear to be significant in the first analysis for Job B. 'Question answering' and 'fluency' are also important, the first of these was also found to be significant in the equivalent analysis for Job A. In some respects 'fluency' and 'fidgeting' could be regarded as similar in that they are indicative of a person's level of anxiety, which may adversely affect their performance

at interview.

Further tables of data points are not included for reasons outlined in relation to the preceding analysis.

The analyses for Job B yield a larger number of smaller but significant chi-square values than the analyses for Job A. As noted above, the analyses for Job B were carried out with a smaller number in the 'no hire' category than for Job A, and this may have biased the results. Accordingly, the results of analyses for Job B should be interpreted with caution. The main, consistent findings, based largely on Job A results, are that 'interest' and 'question answering' are particularly important in relation to success at interview.

While in one of the foregoing analyses, the number of relevant questions asked emerges as significant, the number of irrelevant questions asked appears to have a low priority. In Ch. 3, it was noted that Webster's (1964) report on decision-making in the interview indicated that unfavourable information has most influence on interviewers. As it seemed that asking irrelevant questions would convey unfavourable information to an interviewer, this item was expected to feature in the above analyses. However, in the 5 analyses this item ranks second last in the statistics to enter or remove terms at Step 0. While its relative position changes slightly in later stages of the analysis, insufficient change takes place for 'irrelevant questions' to be entered or removed in the stepping process. The relative unimportance of irrelevant questions may be accounted for by more than one factor. Firstly, in the present study, three experienced interviewers rated questions asked as 'relevant' or 'irrelevant'. While certain questions were readily rated as 'irrelevant', others were less clear-cut, but introducing further categories simply increased interviewer variability, therefore the dichotomous decision was

adhered to. It was also apparent that subtle changes in the way a question is phrased can alter whether it is judged as appropriate or not. Both these factors may have reduced the impact of irrelevant questions on the outcome of the interview. Finally, it may be that the level of skill and qualifications required for particular jobs, and the number of suitable applicants, modifies the influence of irrelevant questions or other forms of unfavourable information. It seems likely that the higher the level of sophistication required, the greater the relationship between unfavourable information and a negative outcome. Further research would be required to clarify this issue.

In Ch. 3 a number of studies of critical interview skills were reviewed. While it has to be remembered that these generally involved graduate populations, there is some degree of similarity in the results. 'Manifestations of anxiety' was rated as important in Cohen and Etheredge's (1975) study; 'composure' and 'fluency of speech' were emphasized by Hollandsworth et al (1979); 'enthusiasm' and 'evidence of interview preparation' were stressed by Tschirgi (1973). The latter two skills appear similar to 'interest' and 'informational statements', both of which were identified as important in the present study.

#### Analysis of the role of intelligence in relation to treatment outcome.

A correlational analysis of MHV and PM scores, and ratings of 'presentation' at Time 3, was conducted (Pearson product-moment correlations, SPSS Manual, 1975). This was based on all subjects trained by Time 3 irrespective of group membership.

	Job A (PRES)	Job B (PRES)
MHV	0.15	-0.05
	N = 50	N = 49
	P = 0.14	P = 0.35

	Job A (PRES)	Job B (PRES)
PM	0.25	0.17
	N = 50	N = 49
	P = 0.03	P = 0.11

Table 21 - Correlational analysis of IQ scores and 'presentation' ratings.

These results indicate that there is no consistent pattern relating IQ to outcome.\* For the population involved in this study, it appears that interview training is effective irrespective of the subject's level of intelligence.

\*The correlations for each group, treated separately, (Appendix O) displayed a lack of consistency across time, suggesting again that a strong correlation between IQ and 'presentation' does not exist. This lack of consistency, and the small subject numbers included in certain correlations, indicated that further analysis would not be worthwhile.

## CHAPTER 9

### SINGLE CASE STUDIES.

#### Introduction.

The foregoing group study was concerned with the relative effectiveness of alternative procedures for developing interview skill. As such, it focused on treatment outcome, rather than on the process of change. The following single case studies attempt to address the latter issue, and to examine certain aspects of the interview training programme in greater detail.

Subjects involved in the group study were selected from a population of 15/16 year old school-leavers, whereas the single case studies were based on a clinical population. In the main, subjects were referred to the Department of Clinical Psychology by a G.P. or Psychiatrist. Subjects had presented with problems such as anxiety/depression/interpersonal difficulties, which in the opinion of the referring agent, were either related to the experience of unemployment, or would pose additional problems in obtaining employment. In three instances subjects were referred by a colleague within the Department, following completion of therapy. For these three subjects it was felt that further progress would be facilitated by finding employment, but that their lack of skill at interview would put them at a disadvantage. The age range of the single case studies was 16/20 years, with the exception of a head-injured patient aged 29, who was characterised by immature and socially inappropriate behaviour. He was included, despite his age, because his was a particularly interesting case.

Initially there were 10 single case studies, two are not included, one because she began to behave in a rather manipulative manner, and neither poor nor skilled performance during assessment interviews could be attributed to interview training with any degree of confidence.

The second subject did not complete training due to an intervening Court appearance, and lack of motivation.

The design and procedure varied across subjects and will be described in relation to the particular case involved. In general, the order of skills trained and those included in training was randomised, except for relaxation training which was included only when anxiety at interview presented a significant problem.

Training was carried out at approximately weekly intervals. The videotaped assessment interviews were conducted one week later, except where cancelled appointments or practical difficulties precluded this. These interviews were then assessed in the manner previously described in relation to the group study.

A number of self-report measures were also administered at various assessment phases. These included the General Health questionnaire (GHQ), the Interview skills questionnaire (ISQ) and the Social difficulty questionnaire (SDQ). These questionnaires were completed immediately prior to the videotaped assessment, thus avoiding potential bias arising from the subject's perception of his/her performance in the videotaped interview. Complete data are not available for every subject, the explanation for this is given in the text relating to the particular subject.

#### General Health questionnaire.

The General Health questionnaire devised by Goldberg (1972, 1978) is a self-administered test for detecting non-psychotic disorders among respondents in community settings. The 28-item version of the GHQ used in this study was based on a principal-component analysis of the original 60-item. The GHQ - 28 consists of four scales:- somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression. Each has seven items consisting of a question asking whether the respondent has recently experienced a particular symptom or item of behaviour rated on a 4 point scale. The full

scale has been shown to have high internal consistency, and good retest reliability over a period of six months. All versions of this scale correlate highly with one another. Various studies (reviewed by Goldberg, 1978) have provided evidence of the validity of the GHQ as shown by correlation with independent clinical assessments (usually  $r = .70$  or more), and its 'sensitivity' and 'specificity' in discriminating between 'cases' and 'normals'. For the purposes of case identification a cut-off score of 4/5 is used.

In the present study the Likert method of scoring was used as opposed to the GHQ binary method, the former was advocated by Banks et al (1980) as it is likely to produce a wider and less skewed distribution of scores more appropriate for correlational analyses, based on parametric statistics. For most subjects, the GHQ - 28 was used at baseline and was re-administered prior to each videotaped interview to assess the degree of relationship between interview performance and mental health. (GHQ - Appendix P).

#### Interview skills questionnaire (ISQ)

The development of this questionnaire was outlined in Ch.6. In the context of the group study, the ISQ was used as a screening method, but it was decided not to use it as an outcome measure because the reliability figures were not as high as had been hoped. Potential reasons for this included poor motivation regarding the completion of self-report measures, and a related problem arising from group administration of the questionnaire. This tended to result in a considerable amount of copying of responses if subjects were left unsupervised for even a very short period. However, these problems did not arise in relation to the single case studies. These subjects were well-motivated and cooperative, they completed the questionnaire on an individual, rather than a group basis. Retest reliability data are available for only two single case studies (S6 and S7) because practical difficulties

precluded the inclusion of more than one baseline assessment for the majority of subjects. The discrepancies between scores at baseline 1 and 2 (one week apart) were calculated for each individual item:-

Same	=	47.05%	)	Same + 1 point = 91.16%
1 point difference	=	44.11%	)	
2 point difference	=	5.88%		
3 point difference	=	2.94%		

It was felt that the proportion of 'same + 1 point difference' was sufficiently high as to warrant the inclusion of the ISQ as a process/outcome measure for the single case studies.

#### Social difficulty questionnaire (SDQ) - Appendix Q.

The development of this questionnaire is described in Lindsay and Lindsay (1982), it contains 46 items split into three sections as follows:-

- i. Social difficulty with peers - 26 questions which ask the adolescent about several aspects of his peer relationships.
- ii. Social difficulty with adults - 11 questions which deal with aspects of relationships with adults.
- iii. General social difficulty - 9 questions which are wider in scope and deal with more general problems.

Each has four possible answers which are graded to indicate degree of social difficulty.

Question 1 - "Do you feel shy with adults?" has the answers 'very shy', 'quite shy', 'a bit shy', 'not at all shy'. Scores are given from 3 indicating most social difficulty through to zero, for no difficulty or minimal difficulty. Possible total scores on 'difficulty with peers' range from zero to 78, possible total scores on 'difficulty with adults' range from zero to 33, and possible total scores on 'general social difficulty' range from zero to 27.



A study by Lindsay and Lindsay (1982) found the SDQ to be reliable and valid in that it clearly distinguished between adolescents referred for social difficulty and age-matched school children.

For the present single case studies, retest reliability data are available for the same subjects who provided the ISQ reliability data (S6 and S7). The results are as follows:-

Same	=	58.24% )	Same + 1 point = 89.04%
		)	
1 point difference	=	30.8% )	
		)	
2 point difference	=	8.8%	
3 point difference	=	2.2%	

Again, it was judged that the proportion of 'same + 1 point difference' was sufficiently high as to warrant the inclusion of the SDQ as a process/outcome measure. It was included to determine to what extent subjects' difficulty at interview could be seen as an isolated problem or as one manifestation of a wider social skills problem. The cut-off for the SDQ is 1 standard deviation above the mean:-

'Peers' - a score of 30 or more may indicate problems in this area.

'Adults' - a score of over 16 may indicate problems in this area .

'General' - a score of over 10 may indicate some isolated areas of social difficulty.

Materials used in training were similar to those incorporated in the group study. The same handouts describing important interview skills, and giving guidelines for phrasing questions at interview were used, but for the single case studies, the handouts were split up into various sections, e.g. information about question answering, question asking, non-verbal skills, and fluency. They were then used in conjunction with the appropriate training session.

Methods of training were essentially similar to those described

in relation to the group study i.e. incorporating modelling, roleplay, feedback and coaching. Each single case subject was trained individually and greater time was spent on training each specific skill e.g. in many instances a whole session was devoted to question answering, or to question asking. The generalisation training session followed the same format as in the group study.

Follow-up assessments were conducted on average  $2\frac{1}{2}$  months after training. Certain aspects of S3, 5, 6 and 7's psychological problems were not dealt with during interview training, but after the post-training assessment, short-term treatment was provided.

Each single case study is outlined below, followed by the summary of results for all eight subjects. The information contained in the graphs for each subject is organised as follows:-

- 'question answering, and info. statements' - points on the graph represent the average of ratings for these two skills.
- 'question asking, and relevant questions' - points on the graph represent the average of the qualitative rating for question asking, and the actual number of relevant questions asked.
- 'non-verbal, and fluency' - points on the graph represent the average of ratings for 5 skills, i.e. eye contact, posture, smiling, fidgeting, and fluency.
- 'global skills' - points on the graph represent the average of ratings for 3 skills, i.e. listening skills, interest and presentation.
- 'hire/no hire' - a score of zero represents a 'reject' recommendation; a rating of '1' signifies an 'accept' recommendation.

### Subject 1 (S.W.)

S1 was 19 years of age, and had spent approximately 6 weeks as an in-patient in the psychiatric unit some months previously. She had been diagnosed as suffering from schizophrenia; following discharge she was maintained on Depixol, and this medication remained constant throughout the period of interview training and follow-up. A colleague referred her for interview training as she was seeking employment, but performed poorly at interview due to extreme anxiety and inadequate social skills. She had previously been employed twice, first in a factory and subsequently in an Eventide Home. At the time of referral she had been unemployed for almost one year.

An assessment of cognitive function was carried out:-

Verbal I.Q. (Mill Hill) = 89

Non-verbal I.Q. (Prog. Mats.) = below 66

While S1's score on the Mill Hill was at the top end of the dull normal range, her performance on the Progressive Matrices was within the mentally defective range.

### Procedure :

Baseline

Session 1 - Non-verbal skills and relaxation training.

Session 2 - Question answering.

Session 3 - Generalisation training.

Session 4 - Question asking.

Follow-up - 6 weeks.

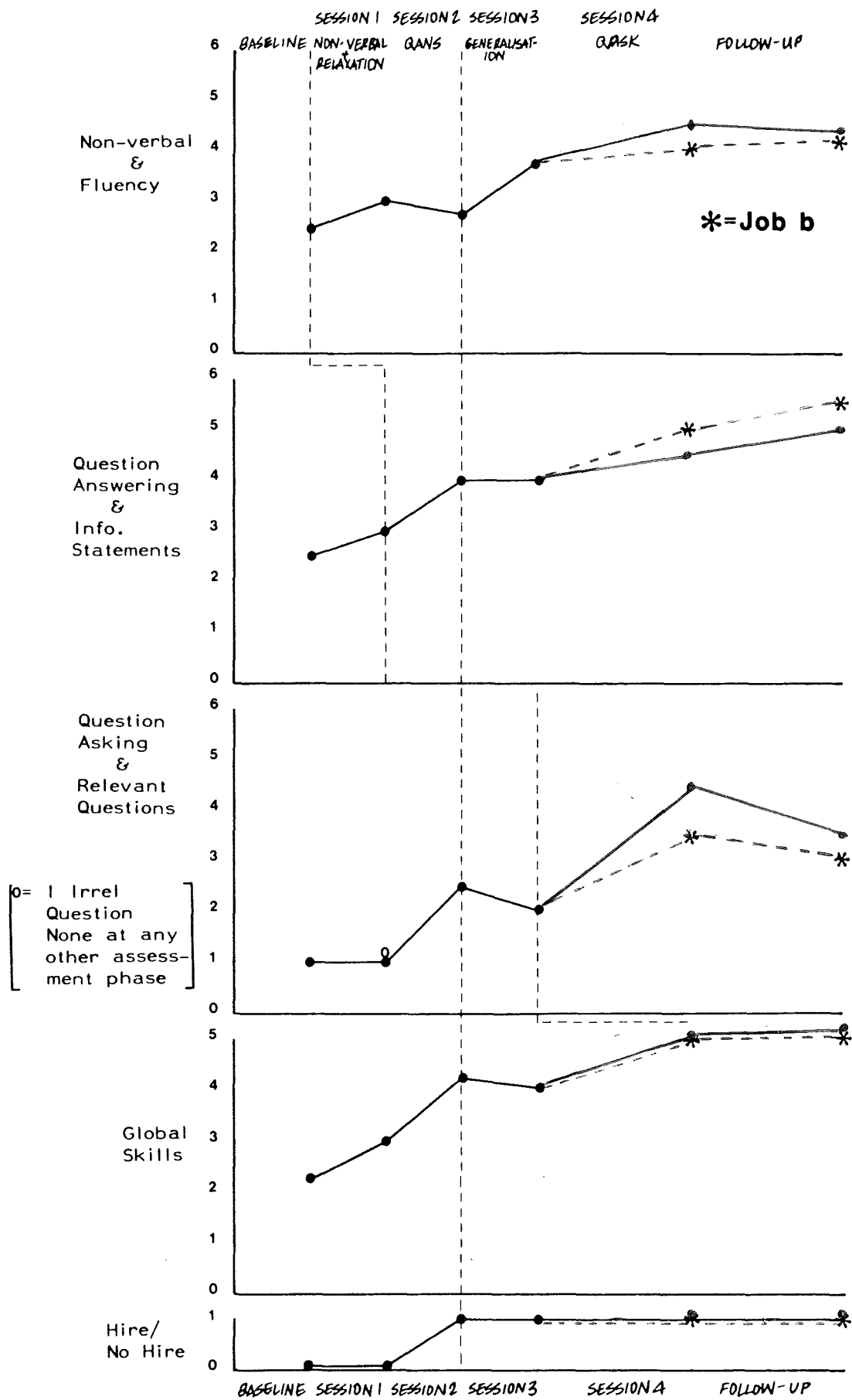
### Results:

#### 1. Videotaped assessment interviews.

Ratings of specific and global skills at interview are presented in the graphs on the following page:-

Job A - General clerkess.

Job B - Kitchen assistant in an Eventide Home.



Ratings of Specific and Global Skills from Assessment Interviews -51

FIGURE 2

From the foregoing graphs it can be seen that :-

- the training session devoted to question answering, and the later session focusing on question asking, have a substantial effect on specific and global skills. The 'question answering' session has a considerable effect on QASK as well as QANS; the 'question asking' session also affects QANS as well as QASK, although to a lesser extent.
- the first training session incorporating non-verbal skills and instruction in the use of relaxation training has little effect on non-verbal skills. Following this training session, a negative hiring recommendation is made, it is only after the session focusing on question answering that a positive hiring recommendation is achieved.
- generalisation training followed by a session focusing on question asking has more effect on non-verbal skills than an earlier session focusing specifically on non-verbal aspects of behaviour.
- there is some indication of a cumulative effect of training.
- the results indicate that the effects of treatment generalise well to a different interviewer asking different questions about a different job.
- there is evidence that treatment gains are well-maintained at follow-up.

## 2. Self-report data.

### i. Self-rated anxiety (0-10)

This self-rating of anxiety about being interviewed is mainly concerned with between-session change. However, it also gives an indication of the extent to which the subject's anxiety is altered following the assessment interview. For S1, this rating was completed after Session 3, 4 and at follow-up.

Post(3)	Post (4)	Follow-up.
'Generalisation'	'Question asking'	
Pre-5	Pre-5	Pre-0
Post-5	Post-2	Post-0

S1's anxiety decreased considerably between post-training and follow-up, but this did not appear to influence actual performance during assessment interviews.

ii) Interview skills questionnaire (ISQ)

The ISQ was not administered at baseline or after the first 3 training sessions as it was still being developed.

Post (4)	Follow-up
'Question asking'	
T = 37	T = 33
R = 5	R = 3
IR = 0	IR = 0

'T' refers to the total score, based on items 1 - 16, 'R' and 'IR' are the actual number of relevant and irrelevant questions asked. Scores on the ISQ are reasonably well-maintained at follow-up, with only a slight decrease in 'T' and 'R'.

iii) Social difficulty questionnaire (SDQ)

As for the ISQ, this was only administered after Session 4, and at follow-up.

T = 31	T = 31
P = 17	P = 20
A = 9	A = 5
G = 5	G = 6

Again, 'T' refers to the total score, 'P' and 'A' to the sections concerned with difficulty with peers, and adults respectively, and 'G' to general social difficulty.

S1's scores on the SDQ are below the cut-off point and indicate that at post-training and at follow-up she was not experiencing significant social difficulty in the areas assessed by the SDQ.

## Subject 2 (H.F.)

Although this subject was 29 years old, his behaviour was consistent with someone much younger. Some years previously he had sustained a head injury rendering him comatose for some days. Shortly prior to participating in this study he had been attending the day hospital, following his discharge from there he was referred for interview training as he was seeking employment, but presented very poorly at interview. This was largely because his performance was characterised by a high level of verbal aggression and aggressive gesticulation. He had previously worked as a tyre fitter, and as a labourer (both jobs having been obtained with the help of family and friends), but had been unemployed for quite some time prior to referral. An assessment of cognitive function was carried out :-

Verbal I.Q. (Mill Hill ) = 78

Non-verbal I.Q. (Prog. Mats.) = 90

While S2's score on the Progressive Matrices was just within the average range, his performance on the Mill Hill was at the top end of the borderline range.

### Procedure :

Baseline

Session 1 - Non-verbal skills.

Session 2 - Question answering.

Session 3 - Question asking.

Session 4 - Generalisation training .

Follow-up - 7 weeks .

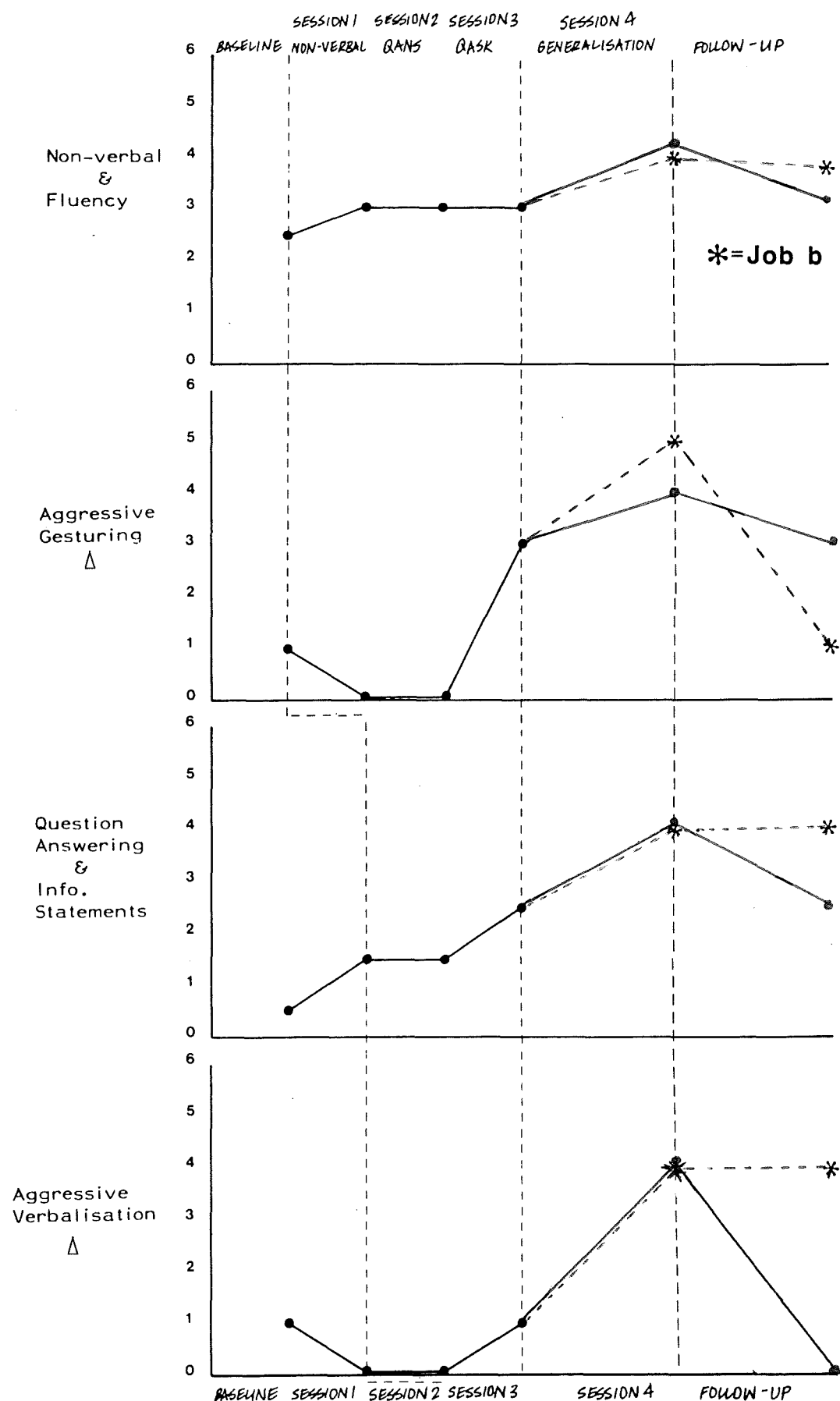
### Results :

#### 1. Videotaped assessment interviews.

Ratings of specific and global skills at interview are presented in the graphs on the following page:-

Job A - General clerk.

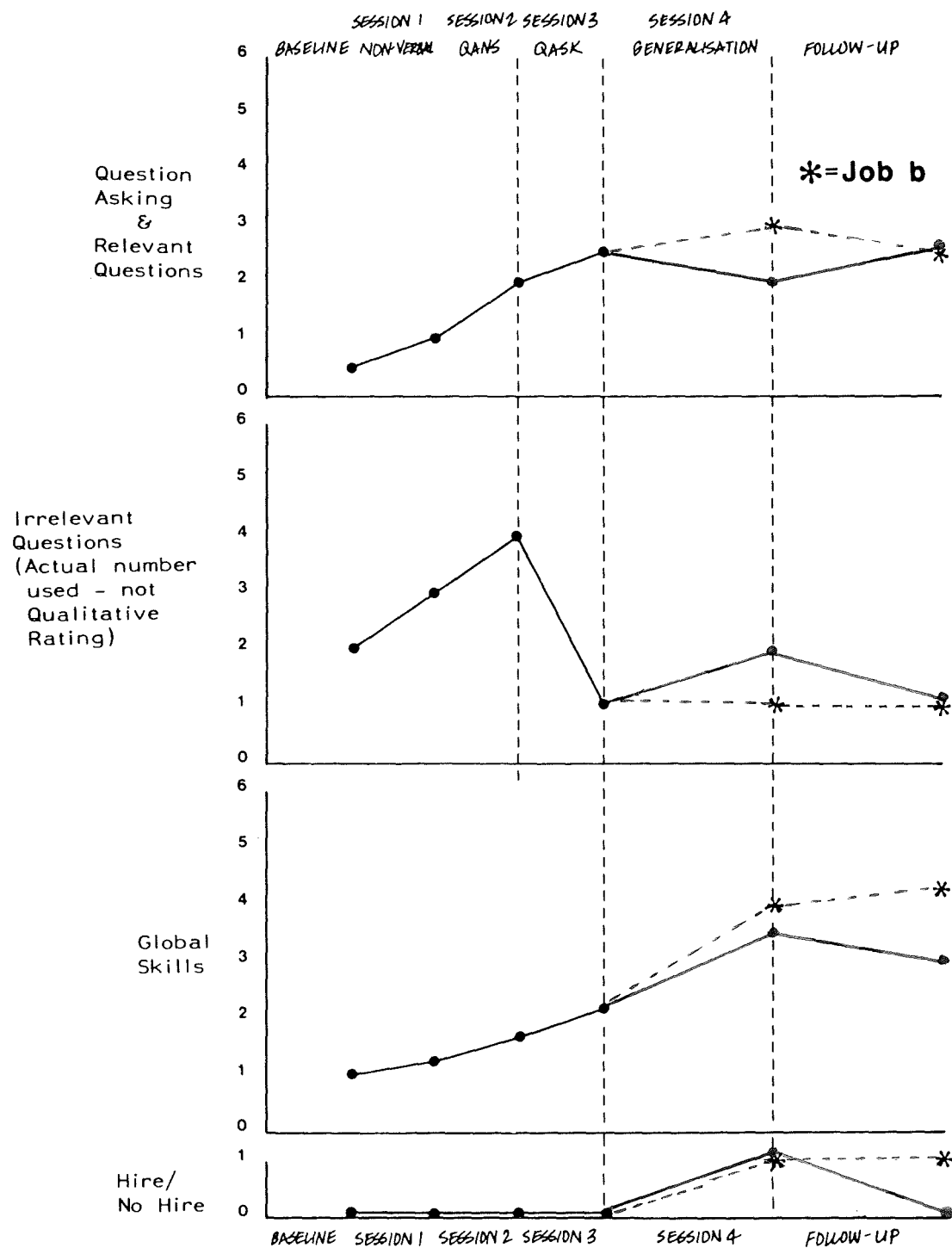
Job B - Tyre fitter with Kwik-fit.



(Cont. on next page)

$\Delta$  Low scores on aggressive gesturing/verbalisation are indicative of inappropriate behaviour.





Ratings of Specific and Global Skills from Assessment Interviews -S2

FIGURE 3

From the foregoing graphs it can be seen that :-

- the generalisation training session had a greater effect than any other aspect of training, in relation to both specific and global skills. Following this session positive hiring recommendations were achieved for the first time.
- the first training session, focusing exclusively on non-verbal skills, had little effect on ratings of non-verbal behaviour or aggressive gesturing.
- the next session, concerned with question answering, had no effect on ratings of either this skill or aggressive verbalisation. This training session effected a slight increase in ratings of question asking and number of relevant questions.
- the 'question asking ' training session had only a slight effect on ratings of this skill and number of relevant questions, but it did effect a decrease in the number of irrelevant questions asked.
- at post-training there was evidence that the effects of treatment generalised to a different interviewer, asking different questions about a different job. These results were well-maintained at follow-up for Job B, with the single exception of 'aggressive gesturing' which returned to baseline levels. In contrast, evidence of maintenance of treatment effect for Job A was lacking, various specific skills had deteriorated, and a negative hiring recommendation was made.

## 2. Self-report data.

The interview skills questionnaire was not included at baseline or after the first 3 sessions for the same reason as for Subject 1. After both session 4 and the follow-up assessment, the Interview skills questionnaire, and the Social difficulty questionnaire were completed.

i) Interview skills questionnaire.

Post(4) 'Generalisation'	Follow-up
T = 41	T = 19
R = 3	R = 3
IR = 1	IR = 0

There is very close correspondence between results based on this self-report measure and actual performance in the assessment interview for Job A. At follow-up, S2's total score on the ISQ decreased by more than 50%, a parallel deterioration was seen in his performance in the assessment interview for Job A.

ii) Social difficulty questionnaire.

T = 58	T = 81
P = 26	P = 38
A = 21	A = 26
G = 11	G = 17

On completion of training S2 did not rate himself as having significant difficulty in his relationships with peers, but his scores on the 'adult' and 'general' sections were indicative of deficits in these areas.

At follow-up he rated himself as having greater difficulty, and his scores are above the cut-off points for all 3 categories.

These results indicate that, in this case, difficulty in coping with job interviews was not an isolated area of social anxiety/deficit, but was part of a wider social skills problem.

There is thus considerable concordance between both measures of self-reported behaviour (ISQ and SDQ) and actual performance in an assessment interview.

### Subject 3 (W.A.)

This 20 year old girl was referred by her G.P. for treatment of depression and anxiety. While her mood was depressed, she was not suicidal, it appeared that one of the major factors in her depressed mood was her inability to find work, therefore interview training was given prior to the commencement of any other therapy. She had worked as a waitress for 6 months shortly after leaving school, but had been unable to find further employment in the intervening four years.

An assessment of cognitive function was carried out :-

Verbal I.Q. (Mill Hill) = 78

Non-verbal I.Q. (Prog. Mats. ) = 71

S3's performance on both the Mill Hill and Progressive Matrices was within the borderline range.

### Procedure :

(Two baseline assessment interviews, one week apart, were obtained for subjects 3, 6 and 7, practical difficulties necessitated the use of only one baseline interview for the remaining subjects).

Baseline 1 and 2

Session 1 - Relaxation training.

Session 2 - Verbal skills (this session included both question answering and question asking).

Session 3 - Non-verbal skills.

Session 4 - Generalisation training.

Follow-up - 9 weeks.

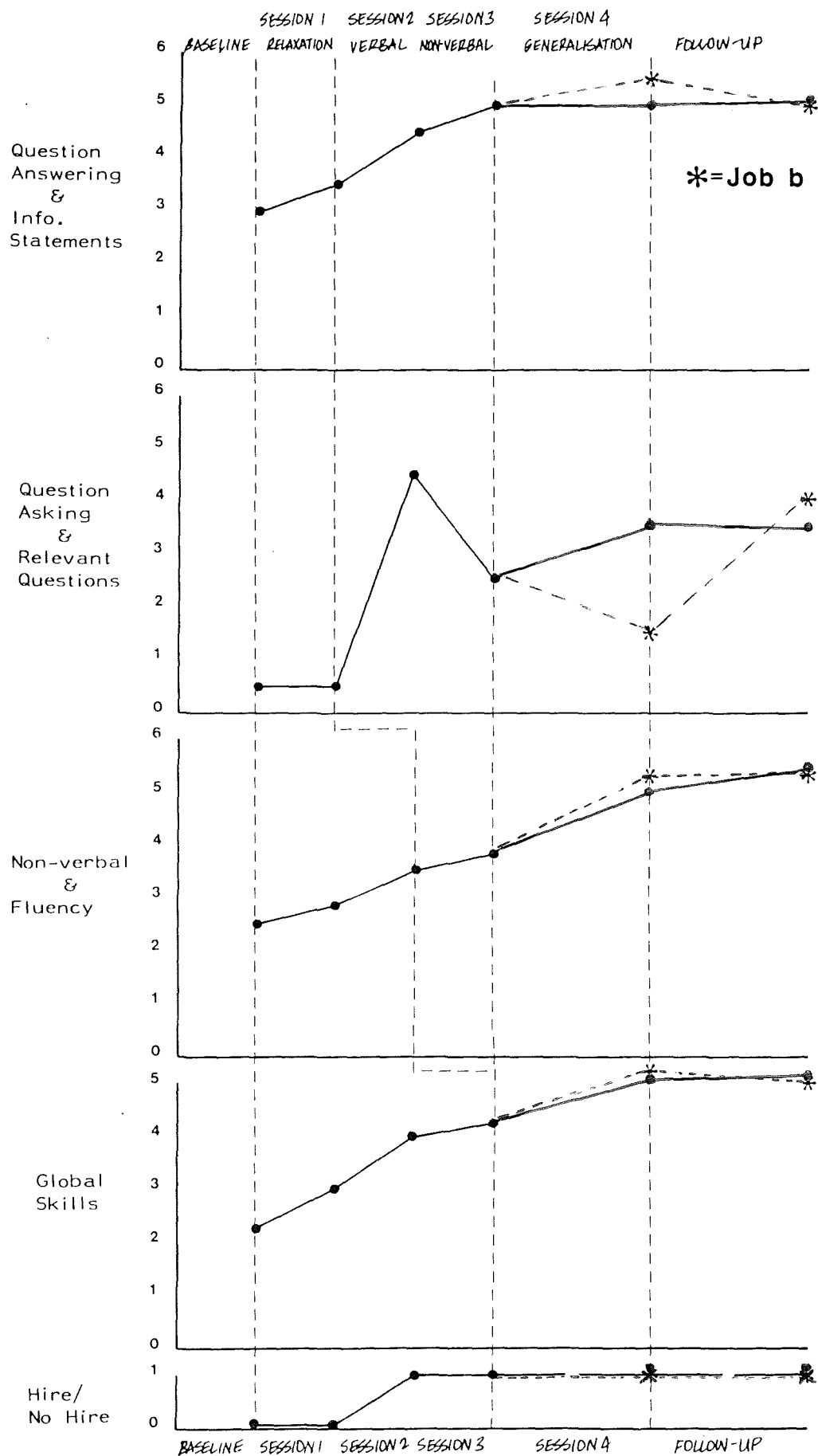
### Results :

#### 1. Videotaped assessment interviews.

Ratings of specific and global skills at interview are presented in the graphs on the following page :-

Job A - General clerkess.

Job B - Trainee cook in local hospital.



Ratings of Specific and Global Skills from Assessment Interviews -S3

FIGURE 4

From the foregoing graphs it can be seen that :-

- verbal training (QANS and QASK) leads to substantial change in ratings of question asking, and improvement in question answering, though to a lesser extent.
- the hire recommendation becomes positive after session 2, this seems very largely due to the 'verbal' training session, as instruction in relaxation training in session 1 and daily practice for one week led to little change in specific or global skills.
- the non-verbal training session has very little effect on non-verbal skills or on any other skills.
- generalisation training is effective in relation to non-verbal skills. (in contrast to specific non-verbal training), and global skills. It does not seem to add anything to ratings of verbal skill.
- there is some indication of a cumulative effect re question answering, non-verbal and global skills.
- there is evidence that the effects of treatment generalise well to a different interviewer, asking different questions, about a different job.
- ratings at follow-up show that treatment gains are well-maintained for both Job A and Job B.

## 2. Self-report data.

- i) General Health questionnaire (GHQ) - this was administered at each assessment phase.

Baseline (1)	Baseline (2)	Post (1) 'Relaxation'	Post (2) 'Verbal'	Post (3) 'Non-verbal'	Post (4) 'General- isation'.	Follow-up
16	6	7	2	0	1	1

These results closely parallel improvements in objective ratings of interview skill. It is after session 2 that the GHQ rating drops below the cut-off point; it was after this session that a positive hiring recommendation was achieved for the first time.

ii) Self-rated anxiety (0-10)

Baseline (1)	Baseline (2)	Post(1) 'Relaxation'	Post(2) 'Verbal'	Post(3) 'Non-verbal'	Post (4) 'General- isation'	Follow-up.
-----------------	-----------------	-------------------------	---------------------	-------------------------	-----------------------------------	------------

Pre-5	--	--	Pre-2	Pre-2	Pre-4	
Post-2			Post --	Post 1	Post 1	

There is evidence of a slight decrease in anxiety following sessions 2 and 3, but not following session 4.

iii) Interview skills questionnaire.

This was administered at Baseline 1, after session 4 and at follow-up.

Baseline 1	Post (4) 'Generalisation'	Follow-up
T = 29	T = 42	T = 44
R = 2	R = 4	R = 5
IR = 0	IR = 1	IR = 0

These results closely parallel performance in assessment interviews, S3 shows a substantial increase in ISQ scores following training, and there is evidence that this improvement is fully maintained at follow-up.

iv) Social difficulty questionnaire.

This was administered following Session 4 and at follow-up.

T = 42	T = 35
P = 26	P = 21
A = 9	A = 8
G = 7	G = 6

S3's scores on the SDQ are below the cut-off point and indicate, at post-training and at follow-up, that she was not experiencing significant social difficulty in the areas assessed by the SDQ.

#### Subject 4 (A.F.)

This 20 year old man was previously seen by a colleague for treatment of interpersonal difficulties. He was subsequently referred for interview training as he had had difficulty in obtaining employment, and had only had one job since leaving school. This was a seasonal job washing dishes in a holiday camp. He was extremely anxious about job interviews, as he felt inadequate in this particular situation.

An assessment of cognitive function was carried out :-

Verbal I.Q. (Mill Hill) = 96

Non-verbal I.Q. (Prog. Mats.) = 99

S4's performance on both the Mill Hill and Progressive Matrices was within the average range.

#### Procedure :

Baseline

Session 1 - Non-verbal skills.

Session 2 - Verbal skills (this included both question answering and question asking).

Session 3 - Generalisation training.

Session 4 - Verbal skills (this included both question answering and asking).

Follow-up - Data unavailable.

#### Results :

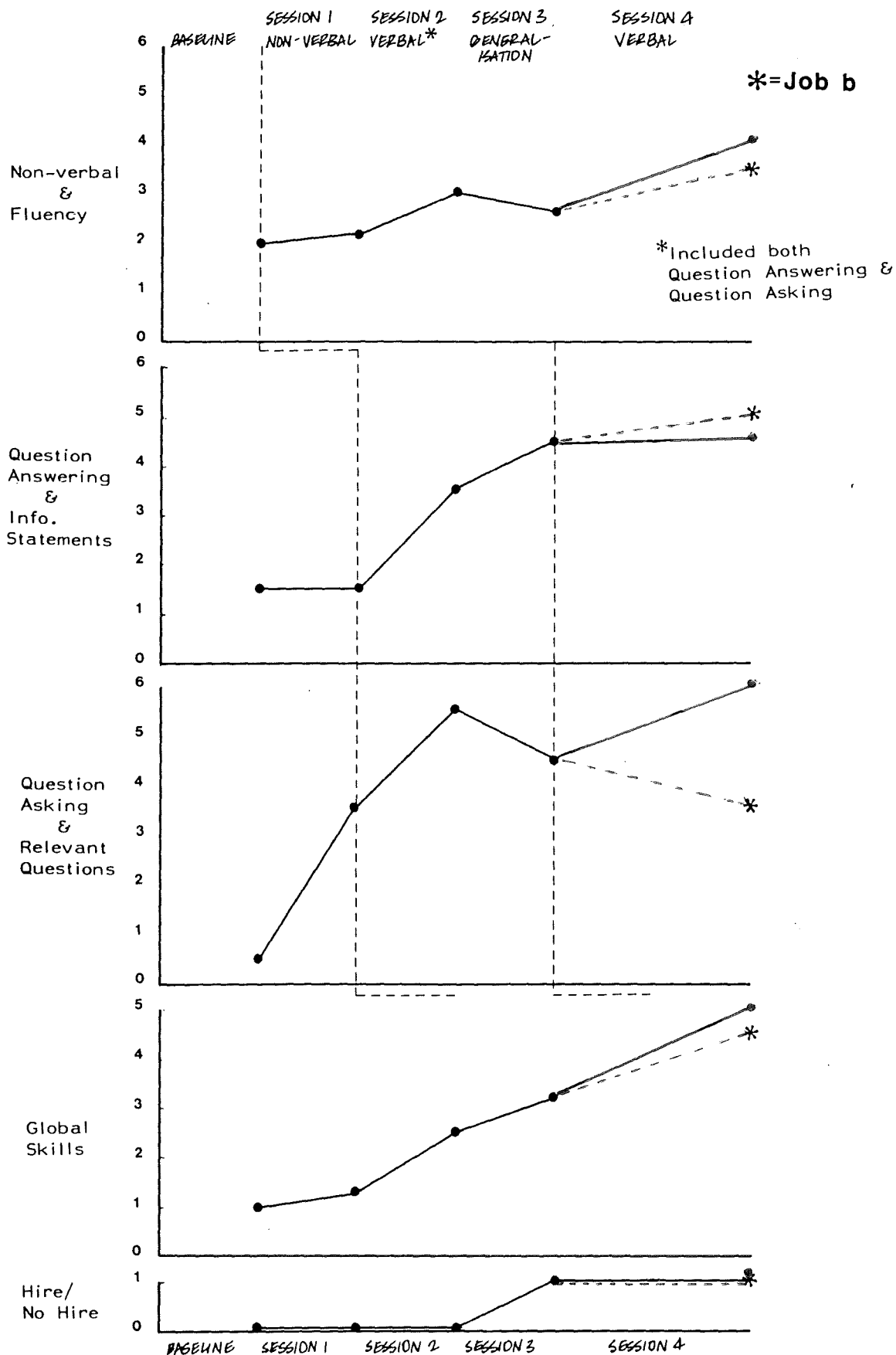
##### 1. Videotaped assessment interviews.

Ratings of specific and global skills at interview are presented in the graphs on the following page :-

Job A - General clerk.

Job B - Gardener with Parks Department.





Ratings of Specific and Global Skills from Assessment Interviews -S4

FIGURE 5

From the foregoing graphs it can be seen that :-

- following the first session focusing on non-verbal skills, there is virtually no change in ratings of these skills, but a substantial effect is seen in relation to question asking and N. of relevant questions. There is no obvious explanation for this finding, it should be noted that the improvement in ratings of QASK and REL is not reflected in the hire/no hire rating.
- training focused on verbal skills (session 2 and 4) has a far greater effect on ratings of non-verbal skills and fluency, as compared with 'non-verbal' training. (The generalisation training session between the two verbal ones does not appear to have any effect on ratings of non-verbal skills and fluency).
- 'verbal' training (session 2) has a substantial effect on question answering and question asking, and on global skills, but this is not reflected in a positive hiring recommendation.
- the hire/no hire rating changes following the generalisation session, this session also leads to some further improvement in relation to question answering and global skills.
- with the exception of two items (QASK and REL), treatment gains generalise well to a different interviewer, asking different questions, about a different job.

## 2. Self-report data.

### i) General Health questionnaire.

Subject 4 scored zero on this questionnaire at baseline and following the first three training sessions.

### ii) Self-rated anxiety (0-10)

Baseline	Post (1) 'Non-verbal'	Post (2) 'Verbal'	Post (3) 'Generalisation'
Pre-3	Pre-4	--	Pre-0
Post-2	Post-5	--	Post-0

S4's self-rated anxiety decreases to zero following the generalisation session, at the same point at which a positive hiring recommendation is first made.

iii) Interview skills questionnaire.

This was administered at baseline and after the last training session.

T = 36                      T = 49

R = 3                      R = 7

IR = 1                      IR = 1

With the exception of the 'IR ' score, performance on the ISQ increases considerably following training.

iv) Social difficulty questionnaire.

Administered at baseline and after the final training session.

T = 55                      T = 47

P = 27                      P = 23

A = 16                      A = 13

G = 12                      G = 11

S4's scores on the SDQ indicate that he did not see himself as having difficulty in relating to peers or adults, pre or post-training. However his scores on the 'general' category are just above the cut-off point and may indicate some isolated areas of social difficulty.

Subject 5 (A.I.)

This 18 year old boy was referred by his G.P. for treatment of interpersonal difficulties. He had previously participated in a Government training scheme as a Commis Chef, and had also worked in a bakery for 4 weeks. He had significant difficulty in coping with job interviews, largely due to inadequate non-verbal skills and inappropriate non-verbal aspects of speech. He had been unemployed for some months prior to his referral. His interpersonal difficulties were long-standing, he had been bullied at school, this appeared due in part to the fact that he could not participate in many of the activities of his peers, due to substantially impaired vision. He was very serious, somewhat old-fashioned in his attitudes and interests, and he tended to speak in a stylised and rather formal manner. He was a very self-conscious person, who inadvertently drew greater attention to himself by wearing a Parka jacket buttoned to the neck during a heatwave!

An assessment of cognitive function was carried out:-

Verbal I.Q. (Mill Hill) = 83

Non-verbal I.Q. (Prog. Mats.) = 90

S5's performance on the Mill Hill was within the dull normal range, on the Progressive Matrices it was just within the average range.

Procedure:

Baseline

Session 1 - Verbal skills (including both question asking and question answering).

Session 2 - Non-verbal skills.

Session 3 - Replay of videotaped baseline assessment interview, with detailed feedback.

Session 4 - Non-verbal aspects of speech.

Follow-up - 4 months.

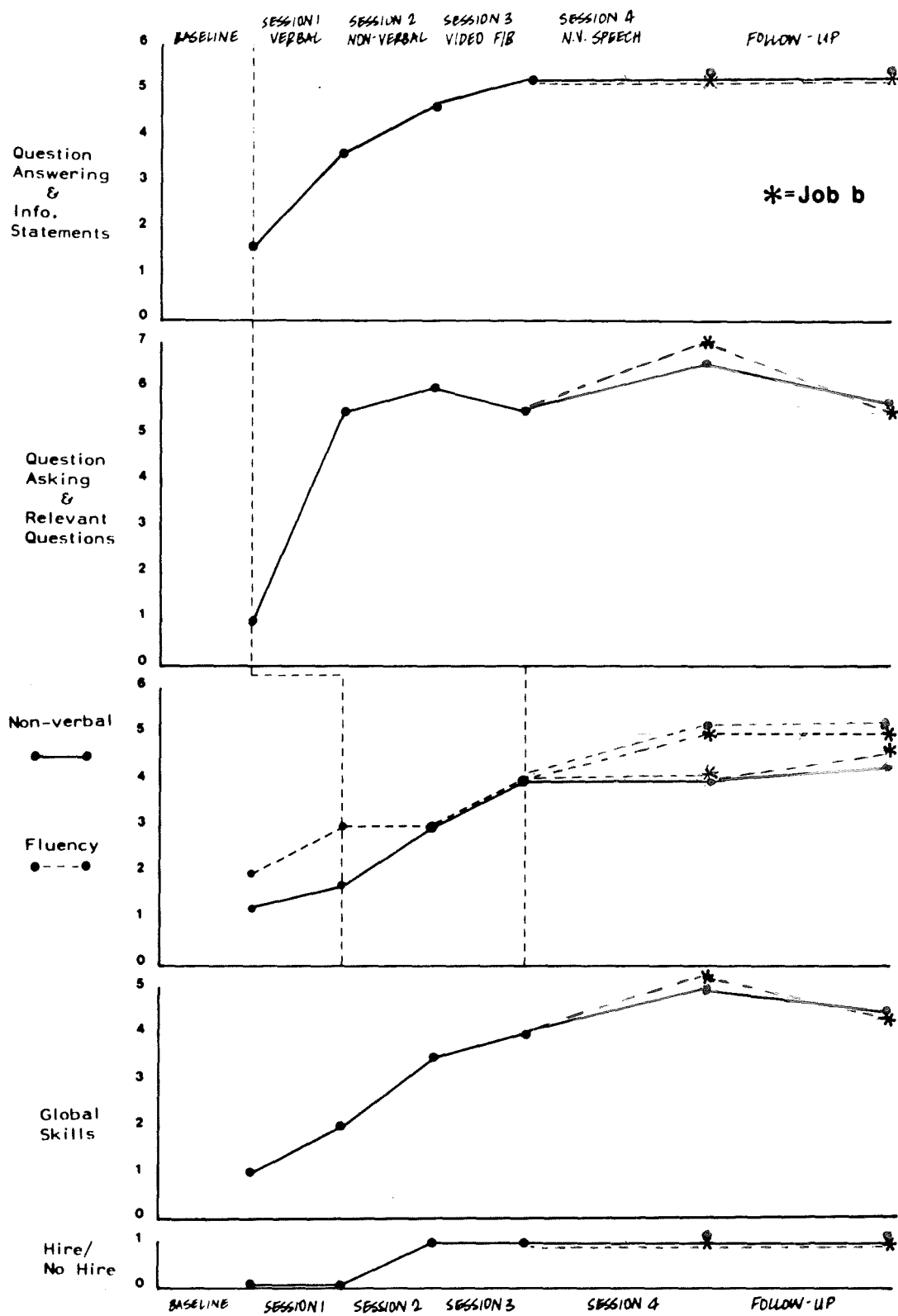
Results :

1. Videotaped assessment interviews.

Ratings of specific and global skills at interview are presented in the graphs on the following page :-

Job A - General clerk.

Job B - Trainee Chef in local hospital.



Ratings of Specific and Global Skills from Assessment Interviews -S5

FIGURE 6

From the foregoing graphs, it can be seen that :-

- 'verbal training' leads to substantial increases in these specific skills (QANS, INFO, QASK, REL), and some increase in ratings of fluency, and in global ratings, but despite this, a positive hiring recommendation is not achieved.
- this particular subject has greatly impaired vision, and poor social skills, it seems likely that the non-verbal aspects of these deficits probably had a more immediate impact than any verbal deficits. In addition to poor eye contact, little smiling and rigid posture, his style of dress tended to convey an impression of awkwardness and incongruity.
- 'non-verbal' training leads to quite an improvement in non-verbal skills, and also affects global skills, and to a lesser extent, verbal ones. Most important of all, following this training session, a positive hiring recommendation was achieved. (Although 'non-verbal' training was necessary to achieve this change, it is not possible to tell whether this training session was solely responsible for the change, or whether it had an additive effect, together with the preceding 'verbal' training session).
- video feedback does not appear to have any further effect on ratings of verbal skills. However, it appears to have an additive effect on non-verbal skills, and on ratings of fluency.
- the fourth session on non-verbal aspects of speech leads to further increases in ratings of fluency, and question asking, and relevant questions (in actual fact the increase in the latter area was confined to the number of questions asked, not the quality of questions asked as might have been expected. The qualitative rating of question asking increased from one to five following 'verbal' training and remained unchanged between then and follow-up).
- global skills reached a peak following the last training session,

for this subject a clear cumulative effect appears, it seems that to a greater or lesser extent, all aspects of training were differentially and additively effective.

- there is considerable evidence that the effect of treatment generalises to a different interviewer, asking different questions about a different job.
- treatment gains are also well-maintained at follow-up, in relation to both Job A and Job B.

## 2. Self-report data.

### i) General Health questionnaire.

Baseline	Post(1) 'Verbal'	Post(2) 'Non-verbal'	Post (3) 'Video'	Post (4) 'Non-verbal speech'	Follow-up
5	4	0	0	0	0

It appears that self-rated improvements in general functioning closely parallel objective ratings of improvement in interview skill. After the second training session this subject's score on the GHQ reduces to zero and remains at that level throughout. It was after the same training session that a positive hiring recommendation was achieved for the first time.

Baseline	Post(1) 'Verbal'	Post(2) 'Non-verbal'	Post(3) 'Video'	Post(4) 'Non-verbal speech'	Follow-up
Pre-1	Pre-0	Pre-0	Pre-5	Pre-0	Pre-0
Post-0	Post-0	Post-0	Post -	Post-0	Post-0

These ratings suggest that, for this subject, difficulty at interview was associated with lack of skill, as opposed to undue anxiety.

### iii) Interview skills questionnaire.

This was administered at each assessment phase.

T =29	T = 33	T = 34	T = 37	T = 35	T = 41
R = 2	R = 6	R = 4	R = 5	R = 6	R = 5
IR = 0	IR = 0	IR = 0	IR = 0	IR = 0	IR = 0



S5 shows a consistent increase in ISQ scores throughout training, and there is some evidence of further improvement at follow-up.

iv) Social difficulty questionnaire.

This was administered at baseline, after the 4th session and at follow-up.

Baseline	Post (4) 'Non-verbal speech'	Follow-up
T = 74	T = 76	T = 52
P = 53	P = 57	P = 38
A = 9	A = 6	A = 5
G = 12	G = 13	G = 9

S5's scores on the SDQ indicate very substantial deficits in his relationships with peers pre and post-training. At follow-up his score for this category decreases substantially, but it is still 8 points above the cut-off. His scores for the 'adult' category are below the cut-off throughout, with a slight improvement at post-training and follow-up. At baseline and post-training his scores for the 'general' category are just above the cut-off, the slight reduction at follow-up brings the score below this point.

S5's scores on the SDQ closely parallel the clinical impression gained during training. In S5's case, difficulty in coping at interview is not an isolated problem, he also has major problems relating to peers. Interestingly, his relationships with adults, apart from those encountered at interview, are not generally problematic.

Subject 6 (CMcG)

This 18 year old girl was referred by her G.P. for interview training. She had been seeking employment unsuccessfully for quite some time and her mood was somewhat depressed as a result. Previously, she had participated in four short-term Government training schemes. During selection procedures she performed well on tests of manual skills, but had extreme difficulty in coping with an actual interview. In this situation, she experienced pronounced somatic symptoms of anxiety, and was unable to think of appropriate replies.

An assessment of cognitive function was carried out:-

Verbal I.Q. (Mill Hill ) = 67

Non-verbal I.Q. (Prog. Mats.) = 89

While S6's performance on the Progressive Matrices was within the dull normal range, her score on the Mill Hill was within the mentally defective range.

Procedure :

Baseline 1 and 2

Session 1 - Question answering.

Session 2 - Question asking.

Session 3 - Non-verbal skills and non-verbal aspects of speech.

Follow-up - 4 months.

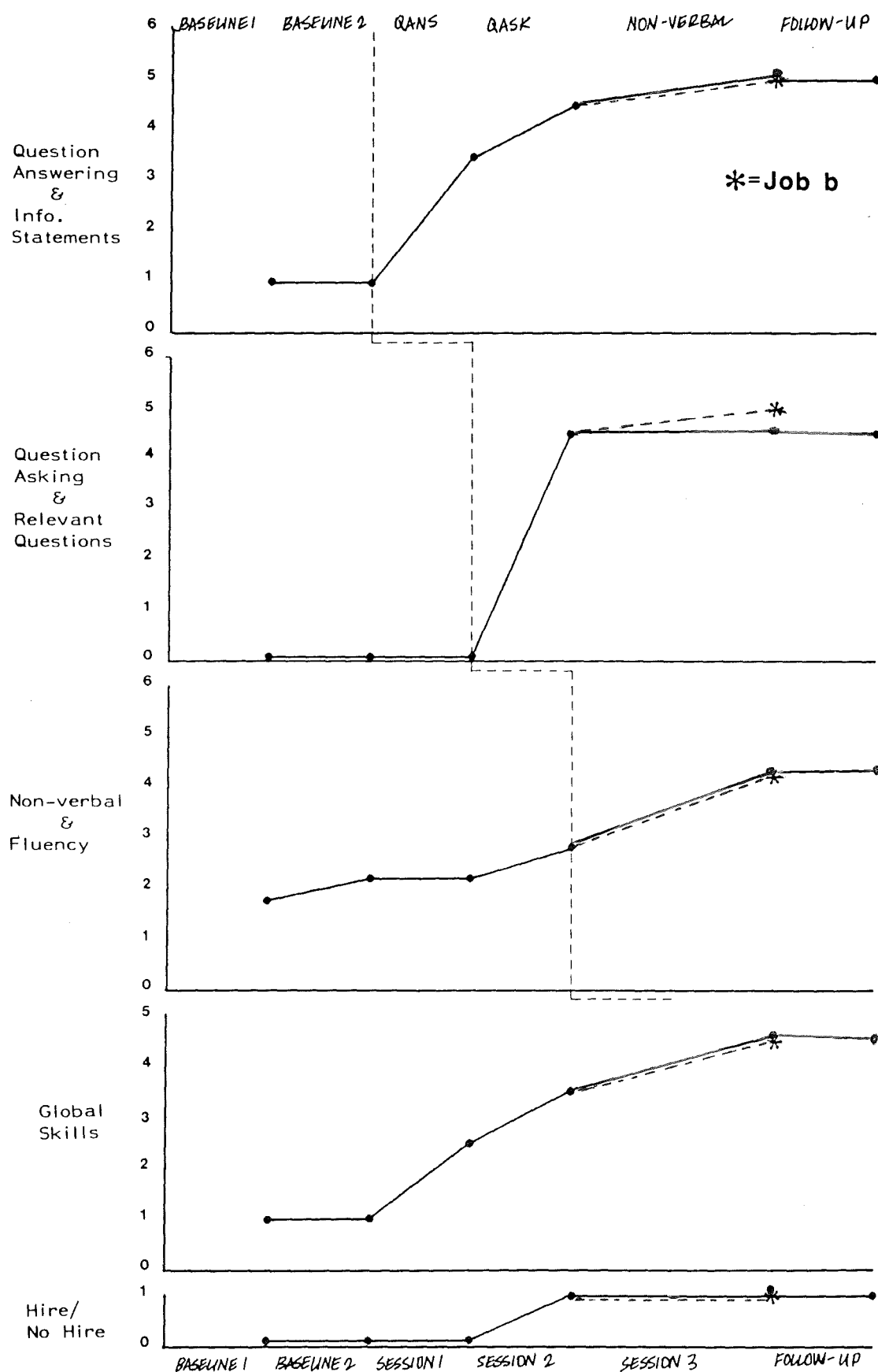
Results :

1. Videotaped assessment interviews.

Ratings of specific and global skills at interview are presented in the graphs on the following page:-

Job A - Electronic wiring in Pye factory.

Job B - Machinist in Ladybird factory.



Ratings of Specific and Global Skills from Videotaped Assessment Interviews - S6

FIGURE 7

From the foregoing graphs it can be seen that :-

- substantial increases in ratings of QANS and INFO; and QASK and REL occur contingent upon training in these skills. The 'question answering' session has a specific effect on ratings of QANS and INFO; the 'question asking' session has a substantial effect on ratings of QASK and REL, but also further increases QANS and INFO ratings.
- despite the considerable increase in ratings of QANS and INFO, a positive hiring recommendation is not achieved following this training session. However, once ratings of QASK and REL increase following the second session, the hire/no hire rating becomes positive.
- the third training session focusing on non-verbal skills is effective, although to a lesser extent than the preceding two sessions.
- there is evidence that the effects of treatment generalise well to a different interviewer asking different questions, about a different job.
- results for S6 are probably the most clear-cut of the single case studies; the positive results obtained during training are well-maintained at follow-up.

## 2. Self-report data.

### i) General Health questionnaire.

Baseline (1)	Baseline (2)	Post(1) 'Q.answering'	Post (2) 'Q.asking'	Post (3) 'Non-verbal' and 'non-verbal speech'.	Follow-up
7	0	0	0	0	0

S6's scores on the GHQ tend to indicate that her depressed mood was very largely related to her concern about being unemployed and having difficulty at interview. From being just above the cut-off score at Baseline 1, her score reduced to 0 at Baseline

2, this change in her score appears attributable to the fact that she felt that some help was available, and began to see her situation less negatively.

ii) Self-rated anxiety at interview.

Baseline (1)	Baseline (2)	Post(1) 'Q.answering'	Post(2) 'Q.asking'	Post(3) 'Non-verbal ' and 'non-verbal speech'	Follow-up
Pre-5	Pre-5	Pre-5	Pre-0	Pre-0	Pre-0
Post-7	Post-3	Post-0	Post-0	Post-0	Post-0

S6 attributed this increase in anxiety following the interview to not knowing what to say and being anxious about being filmed. It appears that S6's self-rated anxiety at interview closely parallels objective ratings of improvement in interview skill. After the second training session her ratings of anxiety reduced to '0' both before and after the assessment interview, and remained at that level following the next training session and at follow-up. It is at that same point that a positive hiring recommendation is given for the first time.

iii) Interview skills questionnaire.

Baseline (1)	Baseline (2)	Post(1) 'Q.answering'	Post(2) 'Q.asking'	Post(3) 'Non-verbal ' and 'non-verbal speech'	Follow-up
T = 38	T = 32	T = 40	T = 40	T = 43	T = 38
R = 1	R = 1	R = 1	R = 5	R = 5	R = 4
IR = 0	IR = 0	IR = 0	IR = 0	IR = 0	IR = 0

The main change in scores on this questionnaire appears in relation to the score for relevant questions which increases from one to five following the training session focusing on that particular skill. In contrast, the total score on the questionnaire changes little during training.

iv) Social difficulty questionnaire.

This was administered at each assessment phase.

Baseline (1)	Baseline (2)	Post(1) 'Q.answering'	Post(2) 'Q.asking'	Post(3) 'Non-verbal' and 'non-verbal speech'	Follow-up
T = 51	T = 41	T = 35	T = 29	T = 30	T = 29
P = 26	P = 17	P = 15	P = 9	P = 8	P = 12
A = 16	A = 15	A = 12	A = 14	A = 15	A = 14
G = 9	G = 9	G = 8	G = 6	G = 7	G = 3

S6's scores for the 'peers' category are below the cut-off point throughout, but also reduce by more than 50% during training.

Her score for the 'adult' category is borderline pre-training and remains at around the same level throughout. Her score for the 'general' category is also borderline pre-training, and does not change substantially, except at follow-up where it decreases considerably.

While some of S6's scores on the SDQ are borderline, there is no firm evidence that her problem in relation to job interviews was part of a wider social skills problem.

Subject 7 (C.G.)

This 19 year old girl was referred by her G.P. shortly after her discharge from in-patient psychiatric care following a serious overdose. She was depressed due to social inadequacy and inability to find employment. She had previously participated in two, 4 month training courses, one involving secretarial work, the other involved working in a day centre for the mentally handicapped. At the time of referral she had been unemployed for 3 years.

An assessment of cognitive function was carried out:-

Verbal IQ (Mill Hill) = 81

Non-verbal IQ (Prog. Mats.) = 91

S7's performance on the Mill Hill was within the dull normal range, and her score on the Progressive Matrices was within the average range.

Procedure :

Baseline 1 and 2

Session 1 - Question asking.

Session 2 - Question answering.

Session 3 - Relaxation training .

Session 4 - Replay of videotaped baseline assessment interview with detailed feedback; non-verbal skills and non-verbal aspects of speech.

Session 5 - Question answering.

Follow-up - 4 months.

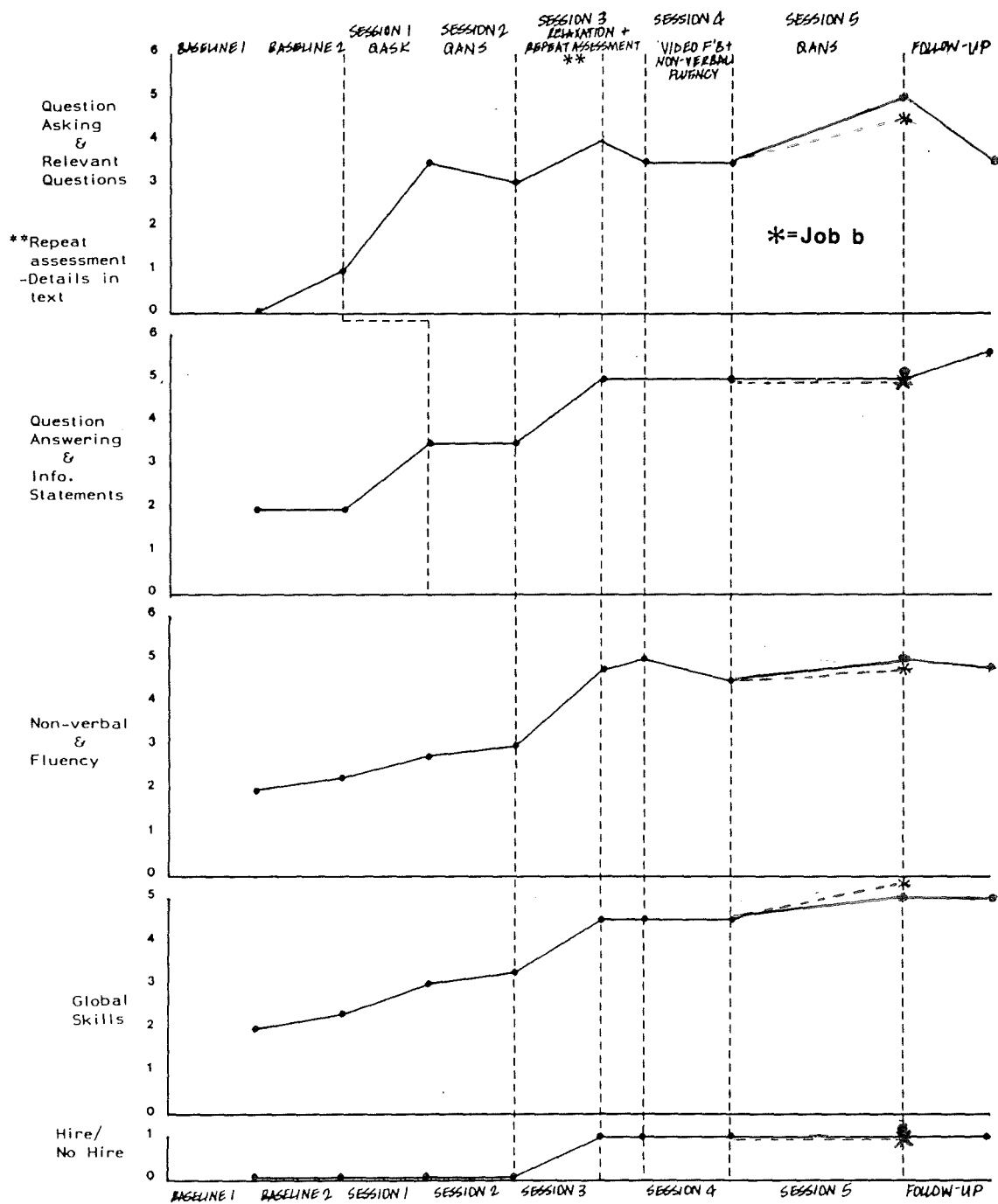
Results :

1. Videotaped assessment interviews.

Ratings of specific and global skills at interview are presented in the graphs on the following page:-

Job A - Shop assistant in Woolco.

Job B - Care assistant in a day centre for mentally handicapped children.



Ratings of Specific and Global Skills from Assessment Interviews -57

FIGURE 8



From the foregoing graphs it can be seen that :-

- the first session focusing on 'question asking', led to sizeable increases in ratings of QASK and QANS, and to some change in global skills, although to a much lesser extent.
- the 'question answering' session was not effective in increasing ratings of this or any other skill (at least it had no additional effect following the improvement in QANS and QASK which was attributable to the preceding 'question asking' session).
- by far the greatest improvement in both specific and global and hire ratings resulted from intervention totally unrelated to interview training. Following the third training session, S7's ability to cope with other aspects of her life deteriorated, and she consulted her G.P. who prescribed anxiolytic and anti-depressant medication. Relaxation training had been demonstrated during the third session, but she had failed to practise it as requested, as she found that after commencing on medication, practising relaxation training resulted in her falling asleep. After the assessment following relaxation training, change at this stage being attributable only to the introduction of medication, it was agreed that she would practise relaxation training regularly prior to the next assessment. She did so, and despite reporting clinically relevant changes, no further improvements in interview skill were detected.
- thereafter, the next session incorporating feedback from the baseline videotaped interview, and training in non-verbal skills and fluency, did not have any additional effect, nor did a further 'question answering' session affect ratings of QANS and INFO, although it did lead to a further increase in QASK and REL.
- at post-training, treatment effects generalise well to a different interviewer, asking different questions, about a different job.

- the results of training are well-maintained at follow-up, however for this subject, this appears partly attributable to her increased confidence in coping with interpersonal relationships.

## 2. Self-report data.

### i) General Health questionnaire.

Baseline (1)	Baseline (2)	Post(1) 'QASK'	Post (2) 'QANS'	Post (3) 'Relaxation' (I) (II)	Post (4) 'Video and NV'	Post (5) 'QANS'	Follow-up
3	0	3	0	** 0	0	0	0

S7 scored zero on the GHQ on all but two occasions, and these scores were still below the cut-off point. Given her recent overdose, and subsequent need for anxiolytic and anti-depressant medication during interview training, it would seem that her GHQ scores were a considerable underestimate.

### ii) Self-rated anxiety at interview.

Pre-10	Pre-2/3	Pre-6	*Pre-10	**Pre-2	Pre-0	Pre-0	Pre-0	Pre-0
Post-2	Post-2/3	Post-6	*Post-10	Post-0	Post-0	Post-0	Post-0	Post-2

Following the introduction of medication S7's anxiety rating reduced to 2 and then to zero and remained at that level throughout the remaining training sessions. At follow-up she rated herself as experiencing no anxiety prior to the interview and as being slightly anxious following the interview, but this was not sufficient to cause her any difficulty.

\* Prior to the assessment interview, mention had been made of the possible future involvement of the DRO at the Job Centre. There was no thought of this happening with any degree of urgency, but S7 misinterpreted this, and temporarily became very anxious.

\*\* Signifies commencement of antidepressant and anxiolytic medication.

iii) Interview skills questionnaire.

Baseline (1)	Baseline (2)	Post(1) 'QASK'	Post (2) 'QANS'	Post(3) 'Relaxation' (I) (II)	Post(4) 'Video & 'NV'	Post (5) 'QANS'	Follow-up
T = 22	T = 26	T = 36	T = 32	T = 40 T = 40	T = 41	T = 43	T = 39
R = 0	R = 0	R = 4	R = 3	R = 4 R = 5	R = 4	R = 5	R = 3
IR = 0	IR = 0	IR = 0	IR = 0	IR = 0 IR = 0	IR = 0	IR = 0	IR = 0

S7's total score on the questionnaire improves during training. Her score for relevant questions increases following training focusing on this particular area. Scores at follow-up are only slightly lower than post-training ones, there is thus evidence of maintenance of treatment effect.

iv) Social difficulty questionnaire.

Baseline (1)	Baseline (2)	Post(1) 'QASK'	Post(2) 'QANS'	Post(3) 'Relaxation' (I) (II)	Post(4) 'Video & 'NV'	Post(5) 'QANS'	Follow-up
T - 92	T - 72	T - 84	T - 73*	T - 86	T - 81	T - 81	T - 42
P - 56	P - 42	P - 47	P - 42	P - 52	P - 50	P - 49	P - 27
A - 16	A - 14	A - 21	A - 18	A - 21	A - 15	A - 17	A - 7
G - 20	G - 16	G - 16	G - 13	G - 13	G - 16	G - 15	G - 8

\* Scores for Items 42-46 missing.

S7's scores for the 'peers' section of the SDQ indicate very substantial deficits at baseline and throughout treatment. Her score decreases considerably at follow-up, this appears to be an accurate reflection of her increased confidence in coping with relationships with those of a similar age.

Her scores for the 'adult' section are borderline pre-training, show a slight increase at times during training, but decrease at follow-up to around 50% of the cut-off score.

On the 'general' category she scores twice the cut-off figure at baseline 1, but this reduces to below the cut-off at follow-up.

These results indicate that S7's difficulties at interview were part of a wider social skills problem.

Subject 8 (M.M.)

This 16 year old girl was referred to the Department of Clinical Psychology by her G.P. because of behavioural problems, e.g. destroying clothes belonging to other members of her family, stealing money and analgesics. Around the time of onset her father had re-married, unfortunately the relationship between S8 and her step-mother was extremely strained. She was seen by a colleague on around 6 occasions and was then referred for interview training, as she had been unable to obtain employment since leaving school 6 months previously. Although she attended an ordinary comprehensive school, she would appear to have had significant difficulty in coping intellectually. She had participated in a number of remedial classes, and an assessment of cognitive function carried out just prior to her referral yielded the following results:-

Verbal I.Q. (Wisc-R) = 51

Non-verbal I.Q. (Wisc-R) = 78

S8's score on tests of verbal intelligence indicate that she was functioning within the mentally defective range; on tests of non-verbal intelligence her score was within the borderline range.

She reported little anxiety in relation to job interviews, but it appeared that she had limited insight into her difficulties, as her baseline video assessment showed pronounced deficits in both verbal and non-verbal skills.

Procedure :

Baseline

Session 1 - Verbal skills (including both question answering and question asking).

Session 2 - Generalisation training. \*

Procedure (cont'd)

Session 3 - Verbal skills (including both question answering and question asking).

Session 4 - Question answering.

Session 5 - Question answering.

Follow-up - 5 weeks.

\* Unfortunately the assessment interview following generalisation training was inadvertently taped over.

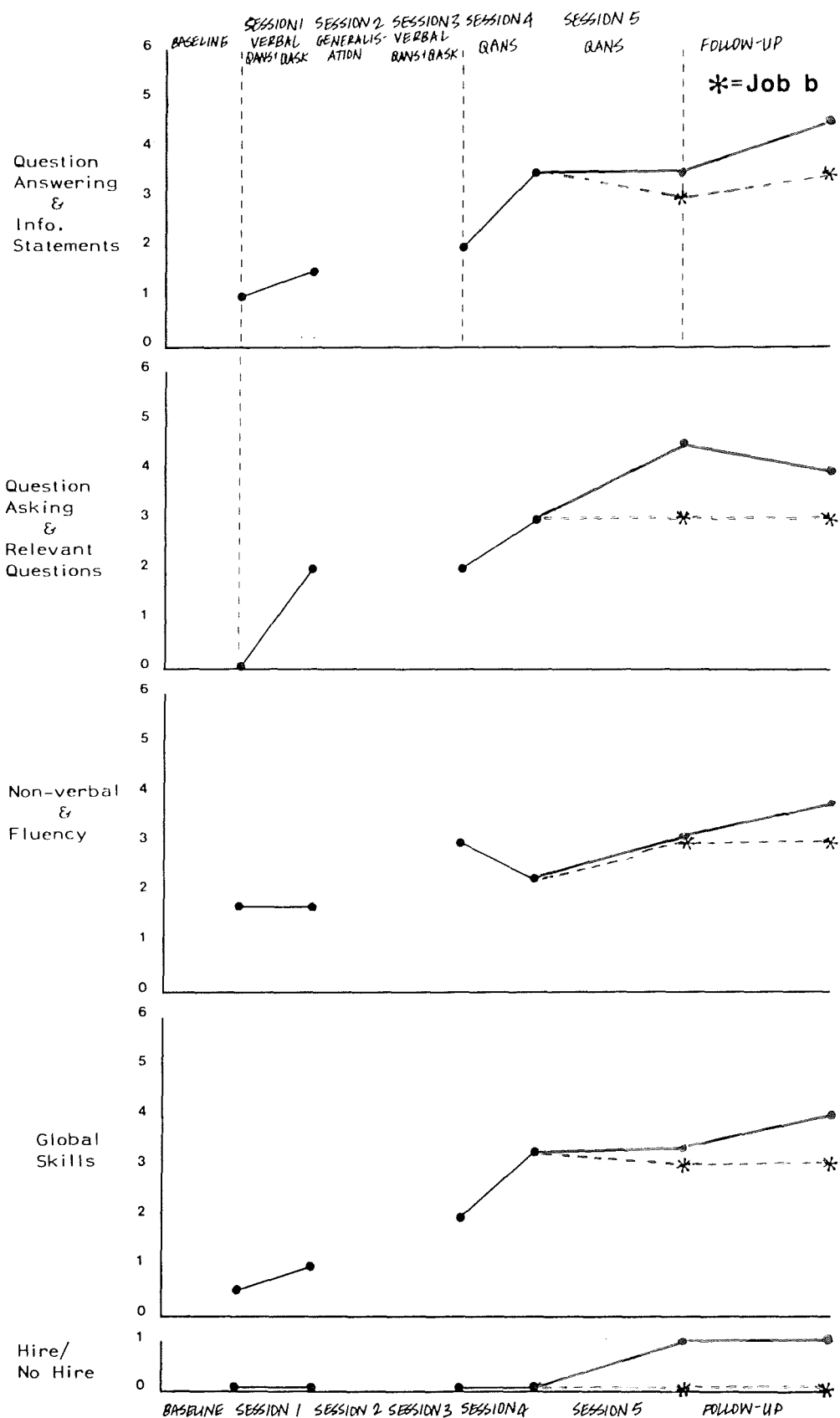
Results :

1. Videotaped assessment interviews.

Ratings of specific and global skills at interview are presented in the graphs on the following page :-

Job A - General clerkess.

Job B - Shelf-stacking in Safeway.



Ratings of Specific and Global Skills from Assessment Interviews -S8

FIGURE 9

From the foregoing graphs it can be seen that :-

- the first session of 'verbal training' leads to an increase in ratings of QASK and REL but little improvement in relation to QANS, INFO, and global skills.
- two subsequent training sessions focusing on generalisation and further 'verbal' training made virtually no difference to ratings of verbal skill, but did result in some improvement in non-verbal skills and global skills. However, this improvement was not reflected in a positive hiring recommendation.
- despite repeated explanations S8 had continued difficulty in understanding the meaning of questions asked of her, and information given. Accordingly, two further sessions focused solely on understanding questions asked and responding appropriately. During these two sessions roleplays were divided into even smaller segments in an attempt to clarify problematic points e.g. looking at one question at a time, discussing its meaning in detail, and practising different approaches to coping with that same question. Much repeated practice of each individual question was required before attempting to link questions together. Following the second of these two training sessions, a positive hiring recommendation for Job A was obtained for the first time. Unfortunately, this training effect was not found to generalise to Job B for which a negative hire/no hire rating was made. At follow-up a similar pattern emerged, with maintenance of treatment effect found for Job A, but not Job B. In retrospect, it appears that a greater number of training sessions would have been required to achieve a stable and enduring treatment effect. The treatment effects that were obtained may also have been influenced by a change in S8's domestic circumstances. Just prior to the assessment following Session 5, the relationship

between S8 and her step-mother deteriorated further and her grandmother volunteered to have her stay with her. She took a great interest in her, the inappropriate behaviour ceased and S8 appeared happier and less nervous than before.

## 2. Self-report data.

### i) General Health questionnaire.

Baseline	Post(1) 'Verbal'	Post (2) 'Generalisation'	Post (3) 'Verbal'	Post(4) 'QANS'	Post(5) 'QANS'	Follow-up
4	1	1	0	0	1	0

S8's baseline score was borderline, thereafter she scored either zero or '1'. These results should be interpreted with extreme caution as it is possible that S8 may not have conceptualised her difficulties in the terms used by the GHQ.

### ii) Self-rated anxiety at interview.

Pre-10	-	-	Pre-5	-	Pre-5	Pre-5
Post-5	-	-	Post-8	-	Post-0	Post-2

### iii) Interview training questionnaire.

Because S8 had difficulty in completing detailed questionnaires, the ISQ and the SDQ below were not administered at each assessment phase, but only at baseline, after the final training session, and at follow-up.

Baseline	Post (5) 'QANS'	Follow-up.
T = 24	T = 29	T = 30
R = 0	R = 5	R = 4
IR = 0	IR = 0	IR = 0

S8's total score on the ISQ did not increase greatly during training. However, her score for relevant questions did improve and parallels



the increase in ratings of this skill based on the videotaped assessment interviews.

iv) Social difficulty questionnaire.

Baseline	Post(5) 'QANS'.	Follow-up
T = 61	T = 60	T = 46
P = 36	P = 44	P = 26
A = 13	A = 9	A = 12
G = 12	G = 7	G = 8

S8's scores for the 'peers' section indicate a deficit in this area at baseline and post-training, with some improvement at follow-up.

She does not rate herself as having significant difficulty in her relationships with adults during any of the three assessment phases; with the exception of her step-mother, this may be a fairly accurate appraisal as most adults showed a greater understanding of S8's problems than her peers would be likely to.

Her score for the 'general' category was just above the cut-off point at baseline but reduced slightly during training.

S8's difficulty at interview appeared to be a manifestation of wider problems in other areas of social functioning.

### Social Validation.

Subjective evaluations of post-training performance were carried out by the Careers Officer who had previously validated the results of the group study. In this instance agreement on positive hiring recommendations was achieved in 62.5% of cases, but closer inspection of the data is revealing. Five of the eight subjects responded well to training and for these five, the agreement rate rose to 80%, with a negative hiring recommendation being made for S5 whose manner of speech was stylised and rather formal. The other three subjects did not make as much progress, their performance was less consistent and two of these subjects were given negative hiring recommendations by the Careers Officer. It may also be relevant that the raters who had previously assessed the single case studies were more familiar with psychological and psychiatric problems, so that they may unwittingly have made more allowances for the individuals concerned, whereas the Careers Officer was more stringent in her evaluation.

### Employment outcome data.

At five year follow-up, these results were obtained:-

S1 - Not long after completing interview training, S1 stopped seeking work due to becoming pregnant. At follow-up she said that she had not looked for employment since her daughter was born, as she was fully occupied in caring for her. However, in 1986 she successfully completed an Open University course on pre-school development which was quite an achievement in view of her scores on the MHV and PM at baseline. Having been diagnosed as suffering from schizophrenia in 1980, it was especially interesting to learn that she had not required further depot injections or contact with Psychology or Psychiatry since shortly after the initial six weeks follow-up.

S2 - At follow-up S2 reported that he had not been employed since completing interview training. It was only at this interview that it was learned from S2's mother (in his absence) that the two jobs he had had prior to interview training had been in situations in which a family member or friend also worked. She felt that he would not have coped without this support, furthermore she believed that he could not hold down a job at present due to impaired concentration, and a need for substantial supervision. Since completing interview training S2 had had no further contact with Psychology or Psychiatry.

S3 - Shortly before completion of interview training S3 began voluntary work with the elderly. At follow-up she was still involved in this work on a daily basis and was in the process of applying for an Auxiliary Nursing post working with the elderly. She said that she felt quite confident about her ability to cope with an interview; she also mentioned that she felt stronger within herself and had not required further referral to Psychology (or Psychiatry).

S4 - Could not be contacted at follow-up.

S5 - At follow-up S5 reported that he had been employed, on a temporary basis, for periods ranging from 4 weeks to 6 months, in the following capacities:-

- clerical officer
- assistant caretaker
- canteen assistant
- porter

He also said that he is shortly due to finish a one year pre-nursing course at a local college. He has had 'A' grades for all modules, and is awaiting the results of 5 'O' levels. He has just obtained a summer job as an Auxiliary Nurse. In view of his previous difficulties it was felt that S5 had coped very well. About a

year ago he was re-referred to myself, but at the initial interview it emerged that the presenting problem, had been resolved. That apart, he had not required referral to Psychology or Psychiatry.

S6 - Some time after completing interview training, S6 obtained a job as a machinist. She was made redundant after one year, due to closure of the factory. After a short period of unemployment she obtained her present job, also as a machinist. At follow-up she was coping very well, seemed much happier, and had not required re-referral to Psychology (or Psychiatry.)

S7 - Towards the end of interview training, S7 obtained employment as a children's nanny. She held this position for some months, but resigned because of excessive demands from her employer (from information obtained from S7, it did appear that she was being exploited). Shortly afterwards she married, her husband was unemployed, and she stopped looking for work. At follow-up she said that she was due to move South as her husband had obtained a job, she intended looking for work once she moved, and was confident about her presentation at interview. She had not required further psychological or psychiatric intervention.

S8 - At follow-up S8 had successfully completed two 1 year training schemes. One involved working in a Children's Home, the other in an Eventide Home. She had recently participated in a Restart programme, and was making considerable effort to find work.

#### Summary.

In terms of employment outcome, apart from S5, S6 and S8, the results are disappointing. This may be due either to lack of maintenance of treatment effect, or to the current employment situation. At the initial follow-up a few months after training, there was evidence that treatment effects were well-maintained in most cases. It is possible that the effects subsequently diminished, but on the

other hand, unemployment is rife in the Airdrie/Coatbridge area, and it may not be realistic to expect better results. It should also be remembered that S1, S2 and S7 were not looking for employment at follow-up.

At the time of training, certain subjects had significant mental health problems, and it is encouraging that, of the seven contacted, none had been re-referred to Psychology or Psychiatry. Six of the seven seemed to have made very good progress, and had not required re-referral; in the case of S2 it was apparent that he had continuing problems but these were contained within a large, and very supportive family. Very few facilities for the head-injured exist within Lanarkshire, at follow-up contact with Headway in Glasgow was suggested.

It was noted earlier that, immediately after interview training, short-term psychological intervention in relation to other problems was required by S3, S5, S6 and S7. S1 attended a psychiatric outpatient clinic for a few months. Obviously subjects' improved mental health cannot be attributed solely to interview training, but in terms of improved GHQ scores, it did appear to make some contribution to this end.

#### Summary of all single case studies.

Taking the results of all 8 single case studies together, it appears that they may be sub-divided into two fairly distinct groups. For 5 cases (S1, S3, S4, S5, S6), the results are very encouraging and relatively clear-cut, there is evidence of a positive response early in treatment (four of the five achieve positive hiring recommendations following session 2), this progress is generally well-maintained throughout treatment and at follow-up; there is evidence of generalisation of treatment effect to a different interviewer, asking different

questions about a different job, and broadly speaking, improvement in a specific skill is contingent upon the introduction of training for that particular skill.

The remaining 3 subjects (S2, S7 and S8) tend to be slower to respond to training, S2 and S8 only achieved positive hiring recommendations following the final session of training, and in both cases, the follow-up results are equivocal. While in some instances, there is evidence of improvement in specific skills contingent upon training, concurrent change in global skills and hire/no hire is often absent, as is evidence of generalisation of treatment effect. For two of these cases (S7 and S8) the eventual response to treatment is confounded by variables unrelated to treatment. For S7, the introduction of medication because of problems in other areas of her life, also greatly enhanced her ability to cope with the interview situation. Her previous performance in assessment interviews was characterised by high levels of anxiety, medication was introduced before relaxation training had been thoroughly learned, a resultant decrease in her anxiety then facilitated improved performance. However, it should be noted that positive results were obtained at follow-up when S7 had withdrawn from all medication.

At the time of the final training session and at follow-up S8's domestic circumstances had improved considerably. This most probably facilitated improved performance, but given the severity of the initial deficits, it is unlikely that this alone would have led to positive change. It seems more probable that her improvement is attributable both to interview training, and to progress in other areas of her life.

In retrospect, it appears that S2 and S8 might have benefitted from a longer period of training, as their post-training progress was not as well-maintained at follow-up as was that of other subjects.

For S2 the two areas which showed the greatest decrement at follow-up were aggressive gesturing, and aggressive verbalisation. At the time of the baseline assessment, these were the most salient problems, and it is possible that training was simply not long enough to counteract such entrenched behaviours.

Some further evidence for dividing subjects into 'good' and 'poor' responders is provided by data from the Interview skills questionnaire (ISQ) and the Social difficulty questionnaire (SDQ).

ISQ results for the 'good' responders:-

S1 - No baseline data available, but post-training performance well-maintained at follow-up.

S3 and  
- Substantial improvement in scores pre-post training.  
S4

S5 - Consistent improvement in scores pre-post training.

S6 - Score for relevant questions improves pre-post training, total score remains virtually the same.

ISQ results for the 'poor' responders:-

S2 - Scores drop dramatically at follow-up.

S7 - Substantial improvement only occurs following the introduction of medication.

S8 - Score for relevant questions improves pre-post training, total score remains virtually the same.

From the following SDQ results it appears that, in general, 'good' responders are those whose difficulty at interview is not part of a wider social skills problem:-

S1 and  
- No baseline data available, scores for all three categories  
S3 are below cut-off at post-training and follow-up.

S4 - No substantial difficulty in relation to peers or adults, pre or post-training; score for 'general' category is just above cut-off pre and post-training.

S5 - He is probably the one exception to the pattern suggested above, in that he has highly significant difficulty in relating to peers. However, his scores for the 'adult' category do not indicate problems in this area, and this may be of some relevance to the proposition above.

S6 - Some borderline scores, but no substantial social skill problems.

In contrast, for the three 'poor' responders, difficulty at interview seems part of a wider social skill problem :-

S2 - Post-training scores indicate problems in 'adult' and 'general' categories, at follow-up these problems are exacerbated, and difficulties are also evident in relation to peers.

S7 - Scores for 'peers' and 'general' categories indicate substantial problems in these areas.

S8 - Problems are apparent in relation to 'peers' pre and post-training, but not at follow-up.

The findings above are consistent with intuitive expectations i.e. that those with a specific, focal difficulty at interview will respond well to appropriate intervention, whereas those with more pervasive social skills deficits may require much more extensive help focusing on a variety of areas of social functioning before substantial improvement takes place in relation to any one area.

As a general point it is interesting to note that for most subjects, throughout training, there is considerable correspondence between results of videotaped interviews and scores on the two self-report questionnaires above, whether change is indicative of improvement or deterioration.

As outlined earlier, changes in symptomatology during training were assessed by the GHQ. One interesting finding is that for S3



and S5, reduction in GHQ scores to below the cut-off occurred simultaneously with their first positive hiring recommendation. (They completed the GHQ prior to the videotaped interview, and in addition they were not aware of their scores for these interviews). It appears that enabling adolescents to develop skills which will increase the possibility of a positive outcome from job interviews may help alleviate emotional distress as assessed by the GHQ.

Those aspects of the training programme which appear crucial to improved performance are of particular interest. From examination of the five rather more clear-cut cases, it appears that the most pronounced increases in specific and global skills occur following training of verbal skills (either separately for question answering and question asking, or combined), this corroborates Kelly et al's (1979) finding that improvements in verbal skills are particularly important in relation to outcome. Of the five subjects who responded well, three received 'verbal training' (two received one session, one had two sessions) and two received separate sessions on question answering and question asking. Of the latter two, one (S1) did not appear to benefit more by having two separate sessions on the two areas, but the other subject (S6) showed substantial increases in ratings of both 'question answering' and 'question asking' contingent upon separate training for each. However, training on 'question asking' seems to have some added effect in that some further improvement in ratings of 'question answering' was seen following the 'question asking' training session. It is perhaps relevant that S6 showed a greater degree of self-perception than most of the other subjects, she was particularly aware of verbal deficits and very highly motivated to change. In such instances, separate training sessions for 'question answering' and 'question asking' may be indicated, but generally it appears worthwhile to give an initial session

of 'verbal' training encompassing both areas, and the results obtained will indicate whether further intervention in this area is necessary. Somewhat surprisingly, minimal treatment effect accrues from relaxation training and training of non-verbal skills. In the case of relaxation, this indicates that anxiety at interview is more readily resolved by measures that focus on skill acquisition rather than the reduction of anxiety symptoms per se. In relation to non-verbal skills, there is no obvious reason why treatment was not effective, but it is significant that in certain instances, generalisation training or feedback from the baseline videotaped assessment had more effect on non-verbal skills than a session focusing on non-verbal skills alone. It is possible that working on non-verbal skills in isolation was counter-productive and made subjects too aware of this aspect of their functioning, whereas information and coaching for non-verbal skills given in the context of generalisation training or feedback from videotaped assessments was more beneficial.

The three less clear-cut cases do not form a particularly consistent pattern. For S2 generalisation training appeared to be the most beneficial component with regard to both specific and global skills, while 'question answering' training had no effect on that particular skill, although surprisingly, it did lead to a slight increase in ratings of QASK and REL. It is also interesting that the 'question asking' training session was more effective in reducing the number of irrelevant questions asked by S2 than in increasing ratings of QASK and REL.

As stated earlier, S7's performance increases substantially following the introduction of medication. Apart from medication, the training session which had most effect on the specific skill targeted, was that which focused on question asking. This led to an increase in ratings of QASK and REL but no change in the hire/no hire rating

was evidenced. For this subject the session which had least effect on the skill concerned was that devoted to question answering. A similar finding was observed for S2; the contrast between the 'good' and 'poor' responders is particularly marked in relation to the training session on question answering. The results from S8 suggest a tentative explanation for this. The initial verbal session including question answering was ineffective, but two other sessions specifically focusing on question answering were reasonably productive. If it were feasible to have subjects' assessment interviews rated prior to the next training session, slow responders could be identified readily, and further sessions on question answering provided. Any differential in the amount of training for this skill required by 'good' versus 'poor' responders could then be systematically assessed.

The general pattern that emerges from the above results is that training of verbal skills is crucial in relation to outcome. Second to 'verbal' training, generalisation training appears to exert a very positive influence on various aspects of subjects' interview performance. The need to assess generalisation of treatment effect and the often disappointing results of such endeavours have been frequently emphasized in the interview training literature, but the majority of studies have not focused on promoting generalisation during training. The introduction of a Careers Officer with a different professional background, knowledge and interview style had a very positive effect in many of the cases above, and would tend to indicate that more attention should be paid to this in future.

On the two occasions that playback and feedback from the baseline videotaped assessment interview were incorporated, the effect was not dramatic. Further research would be required to clarify its role, but from the two cases involved it seems likely that such

feedback is particularly helpful where non-verbal deficits are especially pronounced.

The order in which skills are trained is an area requiring further investigation, but the present results indicate that the following order may be appropriate, with the number of sessions required for each part being determined by the extent of specific skill deficits:-

- Part 1 - training of verbal skills.
- Part 2 - generalisation training (with particular reference to non-verbal skills).
- Part 3 - replay of videotaped baseline assessment interview with detailed feedback (possibly relevant only if non-verbal deficits seem entrenched).

## CHAPTER 10

### DISCUSSION.

#### Introduction :

Much of the rationale for interview training derives from evidence of an association between unemployment and impaired mental health. If obtaining employment prevents either retardation of 'normal' psychosocial development, or emergence of mental health problems, then the development of methods to help individuals with especial difficulty in obtaining employment would appear a legitimate area for psychological intervention. In the present study certain subjects were doubly disadvantaged, i.e. in addition to their difficulty in coping at interview, they had what may appear to be directly associated mental health problems e.g. following several unsuccessful job applications they were characterised by loss of confidence and self-esteem, and various somatic symptoms of anxiety.

The context for the present research was provided by a summary of various studies of the relationship between unemployment and mental health. Based on an adult population, Liem and Liem's longitudinal study (1979) found that at one and four months following redundancy, unemployed subjects reported higher levels of psychiatric symptoms than matched controls. Significantly, those who found new jobs by the fourth month had initially reported symptom levels similar to those who remained continuously unemployed but appeared even less stressed than controls (continuously employed) following their return to work. This finding led Liem and Liem to conclude that the relationship between unemployment and impaired mental health is causal in nature. Hepworth (1980) examined various factors which may moderate the psychological impact of unemployment for adults. She found duration of unemployment to be important, in that this variable was negatively correlated with scores on the

Present Life Satisfaction Scale and positively correlated with scores on the General Health Questionnaire.

Adolescents' views of unemployment are highlighted by Gillies et al's (1985) finding that British youth are more worried about unemployment than anything else, including nuclear war. This is understandable given that youth in general and school-leavers in particular are highly represented among the unemployed (Gurney, 1980b). Gurney concluded that unemployment inhibits psychosocial development in school-leavers, he appeared to minimise the implications of this, but Tiggemann and Winefield (1984) stressed the gravity of evidence of retarded 'normal' development.

Feather's (1982) cross-sectional study found that longer unemployment was associated with lower self-esteem scores; there was also a trend in this direction for depressive symptomatology. Particularly pertinent for the present research are Feather and Barber's (1983) findings in relation to unsuccessful job applications. As expected, a statistically significant relationship was found between length of unemployment, and number of unsuccessful job applications. More importantly, there was also evidence of an association between more frequent unsuccessful job applications and higher scores on the Beck Depression Inventory.

Some information about the importance attached to interview performance by interviewees themselves is provided by Gurney's (1981) study of the causal ascriptions made by employed vs. unemployed subjects. Between baseline and second assessment, unemployed girls' scores changed on two items, one of which indicated that they attributed their lack of employment to poor performance in the interview situation. Variation in interview presentation was also noted by Lavercombe and Fleming (1981) as one factor which may influence duration of unemployment.

The most thorough and well-designed study of the effects of unemployment upon adolescents is that of Banks and Jackson (1982). Their subjects were very similar to those involved in the present group study. Banks and Jackson's results indicated that unemployment is associated with elevated risk of experiencing symptoms of minor psychiatric disorder. Longitudinal evidence showed that the experience of unemployment was more likely to create increased symptoms rather than the other way around. The reduction in General Health Questionnaire scores for those who found work indicated that obtaining employment had a protective influence.

The foregoing studies, taken as a whole, provided substantial evidence of the detrimental effect of unemployment on psychological functioning. It appears that mental health may also be affected by various factors relating to unemployment, one example is the evidence of an association between more frequent unsuccessful job applications, and higher scores on the Beck Depression Inventory.

Based on the evidence above, it appears that there is considerable need for interventions aimed at reducing the frequency of unsuccessful job applications, thereby potentially avoiding psychological problems relating to unemployment. The research reported in this dissertation represents one attempt to meet this need.

#### 1. Rationale for methodology adopted in present study.

The present research was designed to incorporate a comparison of various alternative methods of enhancing interview skill, and a series of single case studies utilising information derived from the group study.

Previously, interview training has been compared with a discussion-based approach (Schinke et al, 1978; Heimberg et al, 1982), but neither of these studies included a follow-up assessment, therefore it appeared appropriate to replicate and extend this comparison

incorporating an evaluation of maintenance of treatment effect, i.e. IVT vs. 3 Discussion.

Studies of interview training for adults, Speas (1979), and social skills training, Melnick (1973), have emphasized the importance of videotape feedback as a component of training, therefore in the present group study the interview training programme was compared with three programmes involving differing amounts of videotape feedback. The first of these three groups received 3 sessions devoted solely to videotape feedback, i.e. IVT vs. 3 Video. This group was equated with the interview training group in terms of time, but it was thought that if videotape feedback was as powerful a medium as has sometimes been suggested, significant changes might be achieved in less than three sessions. As a result, the second video group received one session of videotape feedback i.e. IVT vs. 1 Video. Based on work with adults, Speas (1979) concluded that videotape feedback has greatest effect in combination with other components generally incorporated in interview training programmes, therefore the standard interview training programme was compared with the same programme shortened to include one session of videotape feedback i.e. IVT vs. IVT + Video.

To date, there have been no studies comparing interview training with written materials alone. It is possible that the effective components of the interview training programme are not the methods of social skills training employed, but the written materials included in training. If this were the case, use of written materials alone would be much more cost-effective than the standard interview training programme, therefore this comparison was included in the group study i.e. IVT vs. Handout.

Treatment comparison studies generally require a condition to control for the non-specific effects of being in treatment, therefore the



interview training group was compared with an Attention control group.

Lastly, the single case studies were conducted to assess how well the methods of interview training generalised to a clinical population, and to facilitate a micro-analysis of process variables and individual sessions of the interview training programme.

## 2. Summary of aims of present research and implications of results.

Data from the six treatment comparisons in the group study and from the series of single case studies facilitated an evaluation of these issues, previously outlined in Ch.5:-

- (i) the differential effectiveness of alternative treatments for interview skills deficits.
- (ii) the extent of generalisation of treatment effects.
- (iii) the degree of social validation of treatment effects.
- (iv) the extent to which treatment effects are maintained.
- (v) the amount of treatment required to enhance interview skill.
- (vi) the differential effectiveness of individual sessions of the interview training programme.
- (vii) the identification of skills that are critical to effective presentation at interview.
- (viii) the differential effectiveness of interview training for different populations.
- (ix) the identification of variables affecting rate and process of change.
- (x) the role of intelligence in relation to treatment outcome.

### (i) The differential effectiveness of alternative treatments for interview skills deficits.

Results of the group study indicate that the interview training

programme, with or without the video component\*, modifies interview skills deficits more effectively than the following procedures:-

discussion; video feedback alone; written materials.

The superiority of the two experimental groups - IVT and IVT + V - is evident in relation to all 4 verbal skills -question answering, informational statements, question asking and number of relevant questions. Further differences favouring IVT and IVT + V are seen in relation to fluency, listening skills, interest, presentation, and most importantly, probability of hire.

Ratings of the non-verbal skills of smiling and fidgeting did not produce between-group differences, these skills changed little during training, but it should be remembered that at baseline, most subjects had less pronounced deficits in non-verbal skills vs. verbal ones, therefore there was less room for change.

Similar results were obtained by Schinke et al (1978), and Heimberg et al (1982) who found interview training to be more effective than a discussion-based procedure, this result is confirmed by the present study. They worked with populations similar to that of the current group study but did not include follow-up data. As in the present research, Schinke et al, and Heimberg et al adopted a preventative approach, attempting to intervene before adolescents with especial difficulty at interview find their problems becoming entrenched and affecting other aspects of their functioning.

Many vocational counsellors have relied heavily on discussion-based procedures, but results of the three studies mentioned above indicate that a shift towards active, skill-orientated approaches would be more productive and cost-effective.

\*Footnote.

Video component/training signifies one session devoted to viewing subjects' baseline interviews, group discussions of same and feedback from the author.

As social skills training and interview training have grown in popularity, it has been implicitly assumed that it is necessary to invest in videotape equipment before embarking on training. However, while video recordings are an extremely important part of pre and post-training assessment, the following results indicate that video feedback during training itself is less important. Therefore, as long as video equipment is temporarily available during assessment, it is largely optional whether or not it is constantly on hand throughout training. In the present group study the interview training (IVT) programme was compared with the following three groups :

1 Video, 3 Video, and IVT + Video.

Taking the results for Time 2 alone, while the difference between the IVT and IVT + Video programmes reached significance on only one occasion, there was a trend favouring IVT rather than IVT + V. In 19 instances the Scheffe test revealed IVT to be superior to various alternative procedures, this was true of IVT + V on 11 occasions, whereas it was expected that these positions would be reversed, i.e. that the inclusion of video feedback in the IVT programme should have yielded more positive results than the original IVT programme alone. While these results consist of trends rather than significant differences, it does appear that for the population reported in this dissertation, spending further time on developing particularly important skills was more beneficial than the inclusion of a new component of training.

As noted above, IVT and IVT + Video were found to be superior to various alternative procedures, including 1 Video and 3 Video. These results indicate that for group study subjects, video feedback is not particularly useful in isolation. Data from the single case studies suggest that it may be relevant for subjects with very pronounced non-verbal deficits, providing it is used in conjunction

with other techniques.

The results for IVT and IVT + V are somewhat at variance with those of Speas (1979) who found that training involving modelling, roleplay and video feedback was more effective than modelling and roleplay combined, or either of the two components in isolation. The reason for this difference may lie in the total duration of training. In Speas' study each group (apart from the 'modelling alone') group received 9 hours of training, as opposed to around 4 hours in the present study. It is possible that with more time, the video component could have been included without sacrificing certain other elements of training. Despite the above differences, Speas' conclusion that there is no simple way to develop complex verbal and non-verbal skills in adults, also seems applicable to the present study with adolescents.

Having established that either or both of the experimental groups were generally superior to the alternative procedures, i.e. 3 Discussion, 1 Video, 3 Video, Handout and Attention-control, it may be useful to consider which of the remaining groups achieved results closest to these two groups. The alternative procedure which ranked second or third (i.e. behind one or both experimental groups) in terms of effectiveness at Time 2, was identified as follows:-

- 1 Video was the most effective alternative procedure in 12 analyses.
- 3 Video       "       "       "       "       5 analyses.
- 3 Discussion "       "       "       "       2 analyses.

(If all the alternative groups were ranked according to mean scores, the 3 above would occupy first, second and third places with Handout and Att.C being ranked fourth and fifth respectively).

Taking the results for 1 Video and 3 Video together, in 17 out of 19 analyses, procedures involving videotape feedback come closest

to the comprehensive IVT or IVT + V programme.

Rather surprisingly, 1 Video subjects tend to achieve slightly more positive results than 3 Video ones. It seems that initial exposure to videotape feedback is facilitative, whereas prolonged exposure does not have an additive effect, but instead results in a somewhat weaker treatment effect. This suggests a distinction has to be drawn between appropriate repetition of important information, as in IVT vs. IVT + V and excessive use of one technique, as in 3 Video. The key here is the nature of the population involved, it seems that for subjects in the group study, variety is important, and prolonged exposure to one technique results either in inattention to other crucial variables, or in a decrement in concentration and reduced retention of information.

Data from the two single case studies who received one session of video training indicate that this session had some effect, but the effect was not dramatic. While video training may be helpful where non-verbal deficits are especially pronounced, the limited data from the single case studies would tend to suggest that in most cases, other methods of training, such as generalisation training, may lead to similar, or greater improvements in non-verbal skills.

Although the importance of video in training may be open to question, it plays a vital role in assessment. Some studies of interview training have used audiotape assessments on the basis that verbal skills have been shown to be more important than non-verbal ones in relation to outcome. Audiotape assessments may be sufficient where individuals display appropriate non-verbal skills, but it cannot be assumed that this will be the case. Many subjects are characterised both by inadequate non-verbal and verbal skills, and only videotaped interviews provide a comprehensive assessment in such cases. This is borne out by one of the single case studies - S2 - whose baseline assessment interview featured a variety of

aggressive gestures which, apart from the sound of his fist coming in contact with the table, would not have been picked up in an audiotape assessment. Videotape assessment also provides more data on which to base an assessment of social validation.

While videotape feedback is generally less effective than IVT or IVT + V, there is a trend for one session of videotape feedback to be more effective than three sessions of discussion. The former is clearly more economic, both in terms of time and money, providing that videotape facilities are available. It appears that the 3 Discussion group is slightly more effective than the Handout group, however, these groups were not equated for time, and this factor may account for the difference. While discussion and written materials are both relatively ineffective in isolation, they may have a role to fulfil as part of a comprehensive training programme, which also includes modelling, roleplay, coaching and generalisation training.

In retrospect, one further comparison could have been included in the group study. While written materials alone are relatively ineffective, it could be argued that their use in conjunction with a single session of interview training might produce significant change. This would have involved the following comparison:-

IVT vs. Handout + 1 session of IVT.

However, results of the IVT vs. IVT + Video comparison in the present study would suggest that curtailing certain aspects of the IVT programme reduces its effect and this would agree with Heimberg et al's (1982) findings concerning four vs. two interview training sessions. It seems likely that this additional comparison would be of limited relevance.

As would be expected, the Attention control group emerges as by far the least effective.

In studies like this, inevitably there are practical problems. One

concerns the number of subjects in each group. Ten easily distracted adolescents possibly need more than one therapist. Therefore, either an additional therapist, or a reduction in the number of subjects in each group might be beneficial to both subjects and therapists alike! In Hood et al (1982) each group consisted of five rather than ten subjects. Consequently, each adolescent participated in more roleplays, and it appeared that this encouraged greater involvement in training, thus reducing the potential for boredom and disinterest.

It was noted earlier that subjects in the present study displayed a less than optimal level of reliability in relation to filling in questionnaires. If greater compliance could be achieved in this area, the scope of potential assessments would be widened e.g. evaluation of mental health; collection of post-school follow-up data. With regard to the assessment of mental health, one measure which would be usefully incorporated is the General Health Questionnaire. The reasons for its inclusion would be two-fold:-

- i) as a screening test for non-psychotic disorders (at this stage, while still at school, adolescents would not be expected to have mental health problems related to unemployment).
- ii) its use in investigating the relationship between unemployment and mental health has been noted previously. With the inclusion of post-school follow-up data (re mental health; performance in job interviews; and employment status), studies like the present one could provide further longitudinal data along similar lines to Banks and Jackson (1982). In the present study, such data collection was impractical. While some subjects were very well-motivated and reliable, others tended to miss school fairly often, and ensuring their cooperation after leaving school would have been virtually impossible. In addition, the main function of the present study

was to evaluate the differential effectiveness of alternative methods of developing interview skill, and the above proposal would have represented a move into a slightly different, albeit associated area. With reference to the issue of differential effectiveness, as noted earlier, the present study provides convincing evidence of the superiority of IVT and IVT + V over the alternative treatments involved.

(ii) The extent of generalisation of treatment effects.

As noted when the topic of generalisation was first introduced, it is not sufficient to incorporate measures to assess generalisation of treatment effect, without first attempting to promote generalisation during training. In the present group study session 2 was devoted to attempting to promote generalisation of treatment effect. Five single case studies also had one session allocated to generalisation training (practical constraints on the Careers Officer's time precluded the inclusion of generalisation training for all eight subjects).

Results from the group study at Time 2, indicate that in relation to verbal skills, there is considerable evidence of generalisation of treatment effect to Job B i.e. a different interviewer, a different job, and different questions. Analyses of data for Job A indicate that non-verbal skills show little change. Therefore, it would be expected that there should be less evidence of generalisation to Job B for non-verbal skills vs. verbal ones, and this was indeed the case.

For seven of the eight single case studies there is good evidence of generalisation of treatment effects to Job B at post-training, and where assessed, at follow-up; the only subject whose results did not conform to this pattern was S8 who achieved negative hiring recommendations for Job B at post-training and follow-up. This subject had great difficulty in understanding questions asked of



her, and it seems that considerably more treatment time would have been necessary to facilitate transfer of training.

For a number of single case studies, the session devoted to generalisation training resulted in considerable increments in skills, particularly non-verbal ones. It is clear therefore, that time spent on promoting generalisation of treatment effect is time well-spent.

Experience with the adolescents in the present study suggests two further methods of promoting generalisation. The first would involve arranging for participants to be interviewed by a Careers Officer or Disablement Resettlement Officer as appropriate, very shortly before the commencement of interview training. Many of the adolescents involved in the present research initially lacked sufficient information about the jobs they were interested in, the above suggestion would resolve this problem. The second method of promoting generalisation and increasing use of newly-developed interview skill would entail adding another session following interview training. This session would aim to enhance job-finding strategies i.e. utilising all possible sources of job vacancies, following these up and completing application forms etc. Although subjects were encouraged to become more active in seeking employment, it was felt that structured, specific help in this area was warranted.

With regard to the assessment of generalisation, whenever possible, post-training interviews should be conducted with potential employers. However, there are obvious and substantial practical limitations to the implementation of this recommendation.

(iii) The degree of social validation of treatment effect.

It is quite possible to obtain results that are statistically significant, but clinically irrelevant to the subject e.g. in interview

training, subjects may improve significantly in terms of specific skills such as eye contact and posture without corresponding changes in overall presentation. Therefore, it is important to have an objective assessment of the social importance of results conducted by someone with special expertise in judging the behaviour under consideration. Subjective evaluation of the results of the group study and the single case studies was carried out by a Careers Officer with personnel management experience. For the group study, agreement between the Careers Officer's hire ratings and the original rater's hiring recommendations was achieved in 69.69% of cases. For the single case studies the agreement rate for all subjects taken together was 62.5%, but the separate results for 'good' vs. 'poor' responders are illuminating. For the 5 'good' responders, the agreement rate rose to 80% with a negative hiring recommendation being made for S5 who was extremely self-conscious and spoke in a rather stylised, formal manner. Two of the three 'poor' responders were given negative hiring recommendations, although these subjects had made some progress, this was less marked than in other cases, and more liable to vary from interview to interview.

Obviously, the background and experience of the Careers Officer was very different from both the original rater, and the rater who provided reliability data. The Careers Officer had considerably greater knowledge of the jobs and particular companies involved, and appeared more stringent in her evaluation of the amount of job and company-specific information provided by subjects. Although less positive than had been hoped for, the figures obtained provide a reasonable degree of social validation of the results of training. Under normal circumstances, subsequent employment data constitute the ultimate validation of interview training. At 5 year follow-up, positive results were obtained in 3 out of 7 single case studies.

While this proportion was somewhat disappointing, the employment situation has deteriorated dramatically in the last few years, therefore employment data may no longer constitute a realistic measure of treatment outcome.

(iv) The extent to which treatment effects are maintained.

Various studies of interview training for adolescents have failed to include follow-up data. If the skills developed during training are to be useful to the subject they must be durable as not all interviews will coincide with the end of training. Therefore, it is important that studies of interview training assess the degree to which treatment effects are maintained. The present group study incorporated a follow-up of 2-4 months, the results of which indicate that treatment effects are well-maintained. If feasible, it would have been useful to obtain follow-up data after subjects left school. This could have taken the form of a questionnaire completed after job interviews, giving data on perceived performance, and resultant job offers/rejections. However, in view of the practical problems already mentioned, it is unlikely that many subjects could have been relied upon to complete such assessments over an extended period of time. The only alternative would have been to interview subjects individually at home, however, there are obvious time constraints with 72 subjects.

Data for the single case studies indicate that for five of seven subjects, treatment effects are well-maintained at follow-up for both Job A, and Job B where available. Length of follow-up ranges from 5 weeks to 4 months, the modal value being 4 months. For the two subjects (S2 and S8) for whom treatment effects were not generally well-maintained, both achieved positive results for one of the two interviews, but the effect was not consistent.

As noted earlier, a five year follow-up re employment outcome

produced positive results in 3 out of 7 single case studies. With one exception, subjects' mental health appeared to have improved considerably, and none of the subjects who were unemployed at follow-up lacked confidence in their ability to present themselves effectively at interview.

(v) The amount of treatment required to develop interview skills.

Results of the group study indicate that 3 sessions of interview training are generally required to produce significant changes in skill which are reflected in positive hiring recommendations. While it may be possible to develop certain specific skills more quickly, unless these improvements are reflected in the 'probability of hire' measure they are of very limited relevance.

One session of video training, while tending to be slightly more effective than 3 Video, 3 Discussion, Handout and Attention Control procedures, is still significantly less effective than three sessions of interview training.

The differential effectiveness of 3 sessions vs. 1 is in accord with Heimberg et al (1982) who found four sessions of interview training to be superior to two. While three/four interview training sessions produced significant changes in the present study, and in Heimberg et al, different populations may require many more sessions. For two of the single case studies (S2 and S8) it appeared that four/five training sessions were inadequate, and possibly these subjects should have been seen as more similar to Kelly et al's (1980) population, than to the rest of the single case studies. Kelly et al spent around 13 hours in training mentally handicapped subjects, and the treatment time for the two individuals above was clearly too short to allow for sufficient overlearning to take place.

For some single case studies, positive hiring recommendations were achieved following two training sessions. All subjects received

more than two sessions, but it is possible that two may have been sufficient for certain subjects with very focal problems. However, it is debatable whether the treatment effects obtained following two sessions of interview training would have been maintained at four months follow-up.

(vi) The differential effectiveness of individual sessions of the interview training programme.

Information regarding the effectiveness of individual sessions of the interview training programme is provided by the single case studies. Training sessions focused on verbal skills appeared most important of all, these sessions led to pronounced increases in both specific and global skills. For some single case studies, question answering and question asking were trained in separate sessions, for others the two skills were trained together. In most cases, combined training of question answering and question asking seemed as effective as allocating one session to each, therefore it is suggested that, in future, a combined session on both skills should be used initially, as the results obtained will indicate whether further, separate sessions are necessary.

Second to verbal training, generalisation training appeared to exert a very positive influence on various aspects of subjects' interview performance. Interestingly, in certain instances, generalisation training had more effect on non-verbal skills than a session working on non-verbal skills alone. It is possible that working on non-verbal skills in isolation was counterproductive and made subjects too aware of this aspect of their functioning, whereas information and coaching for non-verbal skills given in the context of generalisation training was more beneficial.

While various studies of interview training have attempted an assessment of generalisation, few have made a systematic effort

to promote generalisation during training. Results of generalisation training in this study indicate that this is a feature which should be emphasized in future research.

For the single case studies, video feedback was incorporated on only two occasions. It had some effect, generally in relation to non-verbal skills, but less than had been anticipated. However, there were indications that such feedback may be beneficial for a minority of subjects with very pronounced non-verbal deficits.

As noted above, training focused specifically on non-verbal skills was generally unproductive. The same was true of relaxation training, which unlike other components was included only when anxiety at interview presented a significant problem. Even in such instances, the anxiety was more readily resolved by measures focusing on skill acquisition, rather than the reduction of anxiety symptoms per se.

On the basis of present results, it would seem appropriate to spend considerable time on the training of verbal skills, then to train non-verbal skills indirectly during a generalisation session, with a further session allotted to video feedback and training if pronounced non-verbal deficits persist.

(vii) The identification of skills that are critical to effective presentation at interview.

Information pertaining to critical interview skills is provided mainly by the group study. Results of the stepwise logistic regression analysis indicate that expressing interest, and answering questions fully and appropriately is particularly important in relation to success at interview. While previous studies in this area have generally involved graduate populations, the results are similar to the present ones.

The importance of question asking in relation to outcome has been

emphasized in various studies of interview training (Hollandsworth et al, 1978, Furman et al, 1979; Kelly et al, 1979; and Kelly et al, 1980). While question asking seems important, increases in this skill alone will not usually produce significant changes in global ratings or 'probability of hire' ratings. The 3 Video group in the present research was superior to the Attention control group on question asking, but a corresponding improvement in global skills did not take place. Data from the present single case studies indicate that while substantial change either in ratings of question answering and informational statements; or question asking and N. of relevant questions will not produce positive hiring recommendations, improvement in both areas generally will.

Results of the stepwise logistic regression analysis based on group study data, tended to emphasize verbal skills more than non-verbal ones. However, this may only apply to populations which are not characterised by severe non-verbal deficits. Data from one of the single case studies tends to support this view, S5 improved substantially on all four verbal skills, but a positive hiring recommendation was not achieved until improvement in non-verbal skills took place. However, most of the results from the single case studies corroborate earlier findings emphasizing the priority of verbal skills. Nevertheless, before deciding on the content of any interview training programme, it is advisable to have baseline assessment interviews rated to determine the extent of non-verbal deficits in the particular population concerned.

(viii) The differential effectiveness of interview training for different populations.

The programme of interview training used in the present study appears effective in developing interview skill in lesser-qualified school-leavers, and adolescent psychiatric outpatients. The latter generally

require more sessions of training, and in the case of mentally handicapped or head-injured subjects, still more sessions would be required to ensure maintenance and transfer of training.

In the present research, single case studies were individually trained. More extensive comparison of the effectiveness of interview training for lesser-qualified school-leavers and adolescent psychiatric outpatients would have been facilitated by having 10 additional psychiatric outpatients trained as a group rather than as individuals. Unfortunately, time constraints precluded this for the present study.

In retrospect, certain additional assessment measures might have been appropriate for the single case studies. As in Hepworth (1980) and Banks and Jackson (1982) the GHQ was administered to most single case studies in the present research. However, Hepworth (1980) also used the Present Life Satisfaction Scale, and found length of unemployment correlated negatively with it, and positively with the GHQ, therefore it might have been useful to include the PLS. As well as the GHQ, it might have been worthwhile to obtain more detailed information about symptoms of depression and anxiety in single case studies, possibly through the use of the Zung depression and anxiety scales (1965, 1971). This information might have facilitated a more thorough examination of alterations in symptomatology during training, and might also have provided some indication of factors which may moderate the impact of interview training. With reference to alterations in symptomatology during training, it is interesting to note that for two of the six subjects to whom the GHQ was administered, reduction in GHQ scores to below the cut-off occurred simultaneously with the first positive hiring recommendation. Feather and Barber (1983) found evidence of an association between more frequent unsuccessful job applications and higher scores on the Beck Depression Inventory.



Results of the present study indicate that enabling adolescents to develop skills which will increase the likelihood of a positive outcome from job interviews may reduce symptomatology as assessed by the GHQ.

- (ix) The identification of variables affecting rate and process of change.

Preliminary data are provided by the single case studies. Those whose difficulty at interview was not part of a wider social skills problem tended to respond more favourably to interview training. Additionally, those single case studies who saw interview training as highly relevant to their difficulties and were highly motivated, tended to respond well (S3, S5 and S6). For most subjects, initial level of anxiety did not appear related to eventual outcome (one possible exception was S7 who received anxiolytic medication, but treatment effects do not appear entirely due to this factor as she had withdrawn from all medication some time before the follow-up assessment). It is also relevant that subjects who were very anxious initially, responded better to training focused on the acquisition of skill, rather than the reduction of anxiety per se. This result is similar to that obtained by Marzillier, Lambert and Kellett (1976) in their evaluation of social skills training vs. systematic desensitisation for socially unskilled/anxious subjects.

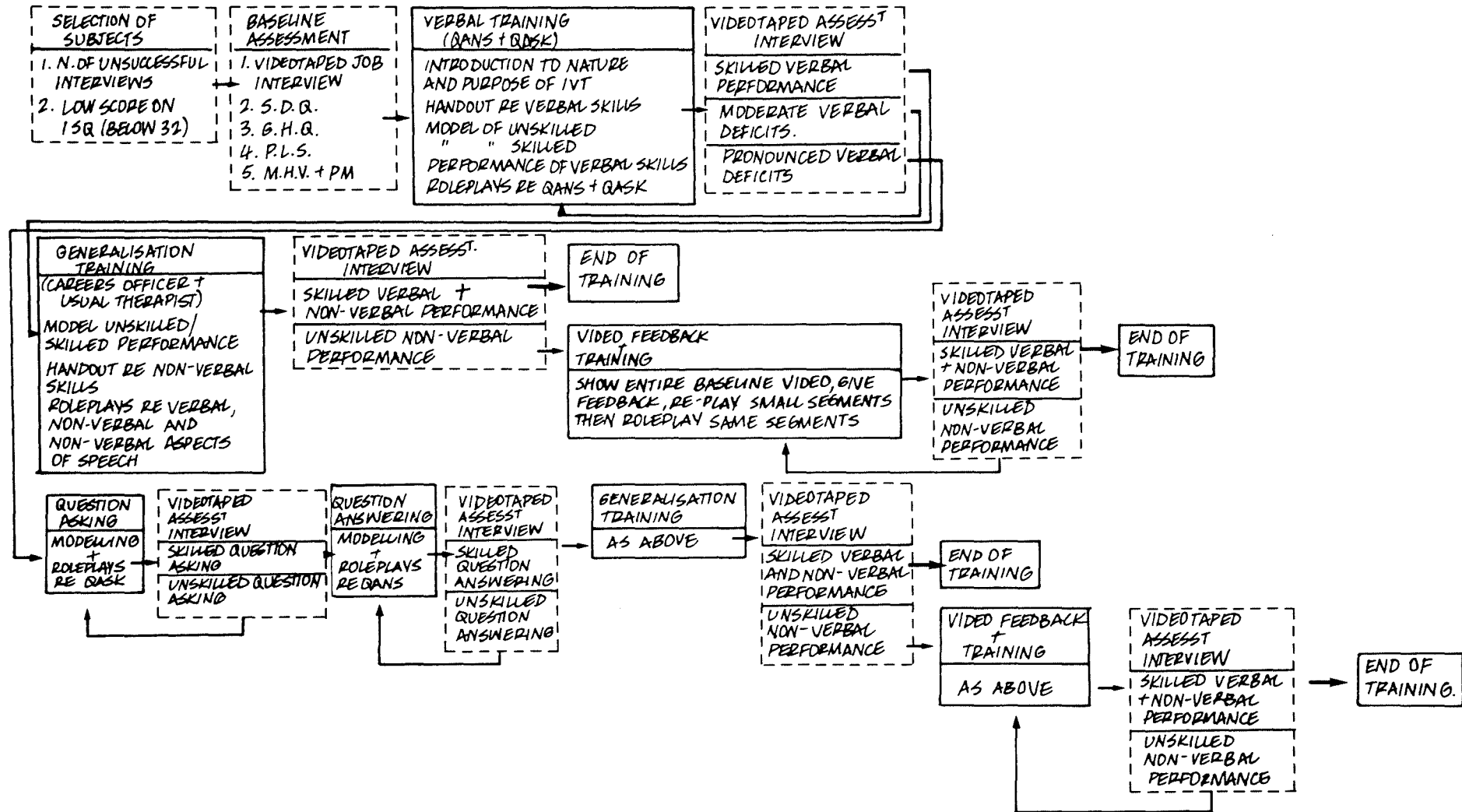
- (x) The role of intelligence in relation to treatment outcome.

Conclusions regarding the role of intelligence in relation to outcome are based on a correlational study of IQ and ratings of 'presentation' for subjects in the group study. The results indicate that there is no consistent pattern relating IQ to outcome. For the population involved in the group study, it appears that interview training is effective irrespective of the subject's level of intelligence. This is encouraging as it had been speculated that possibly only

those subjects at the higher end of the range of IQ sampled would benefit significantly from interview training. While IQ and outcome appear unrelated in the 'average', 'dull normal' and 'borderline' range of the population, limited experience with handicapped subjects suggests that, while positive results may be achieved, considerably longer time requires to be spent in training if such changes are to be maintained, and shown to generalise outwith the treatment situation.

Based on information obtained from the single case studies, a model of assessment and treatment is presented in the flow chart (Figure 10) on the following page:-

# Flow Chart of Assessment and Treatment Model for Single Case Studies



### 3. Conclusions and recommendations for future research.

Results of the present multiple group comparison indicate that three sessions of interview training, with or without a video component, modify interview skills deficits more effectively than the following procedures:-

discussion; video feedback alone; written materials.

Improvements are seen in relation to specific and global skills and 'probability of hire' ratings; assessments of generalisation and social validation yielded quite positive results. Previous studies do not appear to have examined whether intelligence is related to outcome, the present results indicate that for the population involved, interview training is effective irrespective of the subject's level of intelligence.

The contribution of videotape playback and feedback was less than had been anticipated. On the basis of the present results it would appear that programmes of interview training should place greater emphasis on traditional methods of social skills training, such as modelling, roleplay, feedback, coaching and discussion than on the routine inclusion of videotape feedback. Videotaped recordings have a vital role to play in assessment, but their importance in training is debatable. This conclusion is based mainly on the results of the present group study, which showed that the inclusion of video feedback in the IVT programme did not produce more positive results than the original IVT programme alone. In fact, there was a trend favouring IVT vs. IVT + Video. Results of the two single case studies who received video feedback may be seen either as 'icing on the cake' for most subjects, or as of real benefit for a small proportion.

The present findings relating to critical interview skills are

generally supportive of previous studies which emphasize the priority of verbal aspects of behaviour. The importance of question asking in relation to outcome has frequently been stressed, results from the present study indicate that while question asking is important, the ability to answer questions is just as relevant.

Active attempts to promote generalisation within training represent a recent development, and results of the single case studies in particular, suggest that continued emphasis on this issue is important. Data from the single case studies also indicate that a slightly extended version of the interview training programme used in the group study is also effective with adolescent psychiatric outpatients. This is especially true for those whose difficulties at interview are focal and specific, rather than simply one manifestation of a pervasive interpersonal problem.

The recommendations for future research noted throughout this chapter can be summarised as follows:-

1) Assessment of mental health problems.

It would be worthwhile to include the GHQ in future studies of interview training for lesser-qualified school-leavers, firstly as a screening test, and secondly, if feasible, as a pre-leaving and post-leaving school assessment, providing longitudinal data on the effect of unemployment on mental health.

Further research into the effectiveness of interview training for adolescent psychiatric outpatients should incorporate more detailed measures of depression and anxiety, such as the Zung scales. These data would facilitate a more thorough examination of alterations in symptomatology during training; and identify factors which may moderate the impact of training.

Duration of unemployment was found by Hepworth (1980) to correlate positively with the GHQ and negatively with the Present Life Satisfaction Scale, therefore it would seem worthwhile to include the PLS in future work with adolescent psychiatric outpatients. A further issue in relation to duration of unemployment which does not appear to have been investigated, is whether length of unemployment is in any way associated with the outcome of interview training. Feather (1982) found a significant association between making less effort to find a job, and longer unemployment, and there are at least two possible explanations for this finding. The first possibility is that after being unemployed for a lengthy period, individuals may become less motivated because of past failed attempts to obtain work, or because the unemployment problem appears overwhelming, or both. Unless during interview training they can be encouraged to persist despite the lack of reinforcement in the current situation, such training may be of extremely limited relevance and benefit. The second possibility is that if individuals aged around 20 years have never had a job, or have not been involved in a reasonable number of training schemes, their lack of work experience may mitigate against success at interview, no matter how well they present themselves.

Hall et al (1981) appears to be the only study of interview training to have looked at the role of work experience. They found that subjects who reported no job history in the previous 5 years did not find employment regardless of treatment condition. The subjects were older ( $M = 30.5$  yrs.) than the present single case studies, they were also former heroin addicts, and these two factors may limit the extent to which Hall et al's results can be generalised.

However, this is a potentially important area requiring further investigation.

2) Generalisation and social validation of results.

Two further methods of promoting generalisation were suggested earlier. The first would involve subjects being interviewed by a Careers Officer, or DRO shortly before interview training commenced, to enable participants to acquire sufficient information about jobs they are interested in. The second consists of an additional session on job-finding strategies, following the interview training programme. The assessment of generalisation would be enhanced by the inclusion of post-training interviews with potential employers. It would also be useful in terms of both generalisation and maintenance of treatment effects to have questionnaires completed and returned after each real-life job interview following training. Unfortunately, as noted earlier, in many instances, practical considerations may preclude both these recommendations. However, if it were feasible to incorporate certain of the suggestions above, any further increases in the extent of generalisation of treatment effect may also enhance the results of social validation procedures, thereby providing increased evidence of the social importance of the results of interview training.

3) Practical and design considerations for future studies.

Future group studies might find it useful either to involve an additional therapist, or to reduce the subject numbers in each group. During roleplays involving the therapist and one adolescent, most of the group members in the present study concentrated well, and gave appropriate feedback, but there were a few who were more easily distracted and might have benefitted from greater individual attention.

In the present research, single case studies were individually trained. More extensive comparison of the effectiveness of interview training for lesser-qualified school-leavers and adolescent psychiatric outpatients would be facilitated by having the latter trained as a group rather than as individuals. At present, Kelly et al (1980) is the only well-designed study with a clinical population trained as a group. Their four subjects were mentally retarded and further work with other clinical groups of adolescents is indicated.

In addition, longer training time may be necessary for selected clinical subjects, whether trained in a group or as individuals. Mentally handicapped and head-injured subjects seem especially likely to require additional training time.

The fact that the Government's recent publication 'Action for Jobs' (1986, p.11) includes Azrin, Flores and Kaplan's (1975) Job-finding club which has an interview training component, confirms the importance of this area of research. Investigation into the effectiveness of interview training is one area in a range of potential studies, extending from reasons for failure at interview, the effect of unemployment on psychosocial functioning, through to productive employment of increased leisure time.

The methods of interview training described in this research provide adolescents with skills which will increase the likelihood of a positive outcome at interview. Such research contributes to current developments in the ever important area of increasing unemployment, and in view of recent trends, this can only grow in importance.



A P P E N D I C E S

APPENDIX A.

INTERVIEW SKILLS QUESTIONNAIRE.

BOY

The job interview is a situation that many people find very difficult. Questions about what you do in an interview are listed below, please choose the answer(s) that best describes what you would do in an interview:-

- 1) How worried do you feel about being interviewed for a job?
  - a) Not at all worried
  - b) A bit worried
  - c) Quite worried
  - d) Very worried indeed
- 2) How many job interviews have you been for?
  - a) More than four
  - b) Two or three
  - c) One
  - d) None
- 3) If you were going for an interview for a job as a labourer, which four of the following things would be most important?
  - 1) To dress in a suit
  - 2) To find out about the firm that is offering the job.
  - 3) To wash your hair and have a bath.
  - 4) To be polite to the interviewer e.g. by saying 'hello' and 'thank you' etc.
  - 5) To read your school notes on woodwork.
  - 6) To wear jeans
  - 7) To talk to the interviewer about construction work you've done at home
  - 8) To talk about the Office Practice course you took at school

9) To mention any part-time jobs you've had.

4) If you were going for an interview for a job as an apprentice joiner, which four of the following things would be most important?

- 1) To read your school notes on arithmetic and english.
- 2) To wear jeans
- 3) To talk to the interviewer about work you've done on cars.
- 4) To find out about the firm which is offering the job.
- 5) To read your school notes on woodwork and metalwork.
- 6) To wear a suit
- 7) To talk to the interviewer about woodwork you've done about the house
- 8) To mention any part-time jobs you've had
- 9) To tell the interviewer that you enjoy an office job.

5) If you were going for an interview for a job as an apprentice mechanic, which four of the following things would be most important?

- 1) To mention any part-time jobs you've had
- 2) To wear a suit
- 3) To talk to the interviewer about work you've done on cars
- 4) To tell the interviewer that you enjoy working in an office
- 5) To read your school notes on woodwork and metalwork
- 6) To find out about the firm which is offering the job
- 7) To wash your hair and have a bath
- 8) To be polite to the interviewer e.g. by saying 'hello' and 'thank you' etc.
- 9) To read your school notes on arithmetic and English

6) If you were going for an interview for a job as a clerk, which four of the following things would be most important?

- 1) To talk about the construction work you've done at home.
- 2) To read your school notes on woodwork and metalwork
- 3) To tell the interviewer you enjoy an office job
- 4) To be polite to the interviewer e.g. by saying 'hello' and 'thank you' etc.
- 5) To wear jeans
- 6) To read your school notes on arithmetic and english
- 7) To talk about part-time jobs you've done
- 8) To wear a suit
- 9) To talk about the Office Practice course you took at school.

7) Would you be embarrassed to look straight at the interviewer during an interview?

- a) Never
- b) Occasionally
- c) Quite often
- d) Most of the time.

8) During the interview, would you find it difficult to sit fairly still and keep your hands still?

- a) Not difficult at all
- b) A bit difficult
- c) Quite difficult
- d) Very difficult indeed

9) When the interviewer is explaining something, would you be embarrassed to show interest by nodding occasionally or saying 'mm' or 'yes'?

- a) Never
- b) Occasionally
- c) Quite often
- d) Most of the time.

10) Would you rush into answering questions without giving yourself enough time to think?

- a) Never
- b) Occasionally
- c) Quite often
- d) Most of the time.

11) Would you talk too much during an interview?

- a) Never
- b) Occasionally
- c) Quite often
- d) Most of the time.

12) Would you talk too fast and begin to trip over your words during an interview?

- a) Never
- b) Occasionally
- c) Quite often
- d) Most of the time

13) Would you give 'yes/no' answers in an interview?

- a) Never
- b) Occasionally
- c) Quite often
- d) Most of the time

14) Would you find difficulty in thinking of the answers and so take a long time to reply in interviews?

- a) Never
- b) Occasionally
- c) Quite often
- d) Most of the time

15) Would you tend to speak much more slowly than usual during an interview?

- a) Never
- b) Occasionally
- c) Quite often
- d) Most of the time

16) Please write down below, any questions you would ask the interviewer when he invites you to ask questions at the end of the interview:-

The job interview is a situation that many people find very difficult. Questions about what you do in an interview are listed below, please choose the answer(s) that best describes what you would do in an interview:-

- 1) How worried do you feel about being interviewed for a job?
  - a) Not at all worried
  - b) A bit worried
  - c) Quite worried
  - d) Very worried indeed.
- 2) How many job interviews have you been for?
  - a) More than four
  - b) Two or three
  - c) One
  - d) None
- 3) If you were going for an interview for a job as a hairdressing junior, which four of the following things would be most important?
  - 1) To wear jeans
  - 2) To find out about the firm which is offering the job
  - 3) To be polite to the interviewer e.g. by saying 'hello' and 'thank you'
  - 4) To wash your hair and have a bath
  - 5) To tell the interviewer that you enjoy an office job
  - 6) To mention any part-time jobs you've had
  - 7) To read your school notes on arithmetic and english
  - 8) To wear a skirt
  - 9) To say that you enjoy outdoor sports

4) If you were going for an interview for a job as a factory worker,  
which four of the following things would be most important?

- 1) To mention any part-time jobs you've had
- 2) To tell the interviewer that you enjoy  
an office job
- 3) To wear jeans
- 4) To find out about the firm which is offering  
the job
- 5) To wash your hair and have a bath
- 6) To read your school notes on arithmetic  
and english
- 7) To say that you would enjoy factory work
- 8) To wear a skirt
- 9) To talk about the Office Practice course  
that you took at school

5) If you were going for an interview for a job as a shop assistant,  
which four of the following things would be most important?

- 1) To tell the interviewer that you enjoy  
an office job
- 2) To wash your hair and have a bath
- 3) To be polite to the interviewer e.g. by  
saying 'hello' and 'thank you'
- 4) To mention any part-time jobs you've had
- 5) To read your school notes on arithmetic  
and english
- 6) To say that you would enjoy shop work
- 7) To wear a skirt
- 8) To say that you enjoy outdoor sports
- 9) To find out about the firm which is offering  
the job



- 6) If you were going for an interview for a job as a clerkess, which four of the following things would be most important?
- 1) To mention any part-time jobs you've had
  - 2) To wear a skirt
  - 3) To say that you would enjoy factory work
  - 4) To read your school notes on arithmetic and english
  - 5) To wear jeans
  - 6) To talk about the Office Practice course that you took at school
  - 7) To wash your hair and have a bath
  - 8) To be polite to the interviewer e.g. by saying 'hello' and 'thank you'
  - 9) To say that you enjoy outdoor sports
- 7) Would you be embarrassed to look straight at the interviewer during an interview?
- a) Never
  - b) Occasionally
  - c) Quite often
  - d) Most of the time
- 8) During the interview, would you find it difficult to sit fairly still and keep your hands still?
- a) Not difficult at all
  - b) A bit difficult
  - c) Quite difficult
  - d) Very difficult indeed

- 9) When the interviewer is explaining something, would you be embarrassed to show interest by nodding occasionally or saying 'mm' or 'yes'?
- a) Never
  - b) Occasionally
  - c) Quite often
  - d) Most of the time
- 10) Would you rush into answering questions without giving yourself enough time to think?
- a) Never
  - b) Occasionally
  - c) Quite often
  - d) Most of the time
- 11) Would you talk too much during an interview?
- a) Never
  - b) Occasionally
  - c) Quite often
  - d) Most of the time
- 12) Would you talk too fast and begin to trip over your words during an interview?
- a) Never
  - b) Occasionally
  - c) Quite often
  - d) Most of the time
- 13) Would you give 'yes/no' answers in an interview?
- a) Never
  - b) Occasionally
  - c) Quite often
  - d) Most of the time

14) Would you find difficulty in thinking of the answers and so take a long time to reply in interviews?

- a) Never
- b) Occasionally
- c) Quite often
- d) Most of the time

15) Would you tend to speak much more slowly than usual during an interview?

- a) Never
- b) Occasionally
- c) Quite often
- d) Most of the time

16) Please write down below, any questions you would ask the interviewer when he invites you to ask questions at the end of the interview:-

APPENDIX B

INTERVIEW QUESTIONS FOR JOB A (GENERAL CLERK)

- 1) What made you apply for the job?
- 2) What do you think you would like/dislike about it?
- 3) What subjects did you enjoy at school?
- 4) What other activities were you involved in at school?
- 5) What interests do you have outside school?
- 6) Are there any questions about the job that you would like to ask me?

APPENDIX C

ADVERTISEMENT FOR JOB A.

GENERAL CLERK for HENRY BOOT HOMES LTD.

To assist with the various duties  
involved in the wages and invoice  
department.

General office experience would be an  
advantage.

Prospects are excellent; terms and  
conditions of employment most attractive.

APPENDIX D.

Jobs chosen for Job B.

Care assistant  
Clerical work  
Factory work  
Hairdressing junior  
Nurse  
Nursery nurse  
Secretarial work  
Shop assistant  
Telephonist

Apprentice engineer  
Apprentice joiner  
Apprentice mechanic  
Apprentice painter and decorator  
Apprentice welder  
Army  
Auto-electrician  
Baker  
Bricklayer  
British Rail-porter  
Chef  
Farm work  
Fireman  
Footballer  
Navy-sonar operator  
Policeman  
RAF technician  
Sheet metal worker

## APPENDIX E

### INTERVIEW QUESTIONS FOR JOB B.

- 1) What interests you about being a \_\_\_\_\_?
- 2) Are you applying for any other types of job?
- 3) Have you any experience of \_\_\_\_\_?
- 4) Have you had any part-time jobs?
- 5) What subjects did you take at school?
- 6) What do you know about this company/this job?
- 7) Are there any questions that you would like to ask  
me about the job?

## APPENDIX F.

NAME : \_\_\_\_\_ TAPE NO./I'V NO. \_\_\_\_\_

CONDITION : \_\_\_\_\_

RATING SCALE :

0	1	2	3	4	5	6
Very Poor			Average			Very Good

ITEM:

RATING :

## 1. Question answering

0	1	2	3	4	5	6

## 2. Informational statements

0            1            2            3            4            5            6

### 3. Question asking

0	1	2	3	4	5	6
1	1	1	1	1	1	1
1	2	2	2	2	2	2
1	3	3	3	3	3	3
1	4	4	4	4	4	4
1	5	5	5	5	5	5
1	6	6	6	6	6	6
1	7	7	7	7	7	7
1	8	8	8	8	8	8
1	9	9	9	9	9	9
1	10	10	10	10	10	10
1	11	11	11	11	11	11
1	12	12	12	12	12	12
1	13	13	13	13	13	13
1	14	14	14	14	14	14
1	15	15	15	15	15	15
1	16	16	16	16	16	16
1	17	17	17	17	17	17
1	18	18	18	18	18	18
1	19	19	19	19	19	19
1	20	20	20	20	20	20
1	21	21	21	21	21	21
1	22	22	22	22	22	22
1	23	23	23	23	23	23
1	24	24	24	24	24	24
1	25	25	25	25	25	25
1	26	26	26	26	26	26
1	27	27	27	27	27	27
1	28	28	28	28	28	28
1	29	29	29	29	29	29
1	30	30	30	30	30	30
1	31	31	31	31	31	31
1	32	32	32	32	32	32
1	33	33	33	33	33	33
1	34	34	34	34	34	34
1	35	35	35	35	35	35
1	36	36	36	36	36	36
1	37	37	37	37	37	37
1	38	38	38	38	38	38
1	39	39	39	39	39	39
1	40	40	40	40	40	40
1	41	41	41	41	41	41
1	42	42	42	42	42	42
1	43	43	43	43	43	43
1	44	44	44	44	44	44
1	45	45	45	45	45	45
1	46	46	46	46	46	46
1	47	47	47	47	47	47
1	48	48	48	48	48	48
1	49	49	49	49	49	49
1	50	50	50	50	50	50
1	51	51	51	51	51	51
1	52	52	52	52	52	52
1	53	53	53	53	53	53
1	54	54	54	54	54	54
1	55	55	55	55	55	55
1	56	56	56	56	56	56
1	57	57	57	57	57	57
1	58	58	58	58	58	58
1	59	59	59	59	59	59
1	60	60	60	60	60	60
1	61	61	61	61	61	61
1	62	62	62	62	62	62
1	63	63	63	63	63	63
1	64	64	64	64	64	64
1	65	65	65	65	65	65
1	66	66	66	66	66	

4. No. of relevant questions

\_\_\_\_\_

5. No. of irrelevant questions

--	--

## 6. Eye contact

0	1	2	3	4	5	6
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6

## 7. Posture

0      1      2      3      4      5      6

8. Smiling

0	1	2	3	4	5	6

## 9. Fidgetting

0	1	2	3	4	5	6
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6

## 10. Fluency of speech

0	1	2	3	4	5	6

## 11.Voice volume

0      1      2      3      4      5      6

## 12. Listening skills

0      1      2      3      4      5      6

### 13. Interest

0            1            2            3            4            5            6

## 14. Presentation

0	1	2	3	4	5	6

15. Would you give this person the job?

YES/NO.



DEFINITIONS OF SKILLS RATED FROM VIDEOTAPES:-

(QUALITATIVE RATINGS)

No.on  
rating  
form.

- 
- |                              |  |
|------------------------------|--|
| 1. QUESTION ANSWERING        | S. responds concisely, co-operates fully in answering questions and keeps to the subject at hand. (1) refers to source of definition given at end.   |
| 2. INFORMATIONAL STATEMENTS. | S. makes job-relevant statements which convey positive information about his/her skills, experience, qualifications or background. (2)   |
| 3. QUESTION ASKING           | <p>S. makes verbal initiations that request information from the interviewer. Excludes question feedback responses or requests for repetition of information/question. (3)</p> <p>Further guidelines for rating this item are as follows:-</p> <ul style="list-style-type: none"><li>- One point for asking at least one question unless that question is irrelevant.</li><li>- Two points for asking at least one good question or two not so good questions, e.g. if the subject asks about wages first, then about promotion prospects, rather than vice versa, which is more appropriate.</li><li>- Three points for one good question followed by a question which is</li></ul> |

QUESTION ASKING  
(Cont'd)

average.

- 4) Dependent not only on number  
    )
- 5) of questions but also on  
    )
- 6) quality.

6. EYE CONTACT

S. generally maintains appropriate eye contact when speaking to or listening to the interviewer.  
(1)

7. POSTURE

S. sits appropriately, neither slouched nor rigid, head approximately level.

8. SMILING

S. makes upward movements of sides of mouth and cheeks, with or without accompanying sounds of laughter. (3)

9. FIDGETING

S. moves hands in a way which is unrelated to content of speech e.g. touches face, strokes hair, twiddles thumbs, fiddles with rings. (3)

10. FLUENCY OF SPEECH.

S. speaks spontaneously, uses words well, is able to articulate thoughts clearly. (1)

Avoids meaningless noises e.g. 'umm', 'er' or irrelevant pauses during speech. (3)

11. VOICE VOLUME.

S. speaks clearly, is appropriately loud without whispers or shouts. (1)

12. LISTENING SKILLS.

S. makes verbal responses during listening role including acknowledgements e.g. 'mm', 'yes', 'I see' and question

12. LISTENING SKILLS

(Cont'd)

feedback responses, e.g. 'oh?' 'really?'

Also included are appropriate

head movements (up/down or side/side)

relating to an agreement or disagreement

with some aspect of conversation. (3)

13. INTEREST.

S. indicates current enthusiasm/interest

in the job; communicates interest/

enthusiasm non-verbally via tone

of voice, smiling etc.

14. PRESENTATION.

Overall rating of general performance

in the interview, incorporating

both verbal and non-verbal behaviour.

-----

SOURCE OF DEFINITIONS:-

1. HOLLANDSWORTH et al (1979) Relative contributions of verbal, articulative, and non-verbal communication to employment decisions in the job interview setting.
2. KELLY et al (1979) A group procedure for teaching job interviewing skills to formerly hospitalised psychiatric patients.
3. SPENCE (1981) Validation of social skills of adolescent males in an interview conversation with a previously unknown adult.

## APPENDIX G.

### A. What you can tell about people by the way they look:-

- |   |  |
|---|--|
| 1. Smiling                                  | do they smile too rarely or too frequently?  |
| 2. Eye contact                              | do they look at you too much or avoid looking at you - do they look interested in what is being said?              |
| 3. Listening skills                         | do they show their interest by nodding their head occasionally or saying 'mm' and 'yes'?                           |
| 4. Gestures                                 | do they use their hands too much while they speak or do they not use enough gestures? do they fidget a great deal? |
| 5. Posture                                  | do they sit too rigidly or do they slouch?   |
| 6. Physical appearance and personal hygiene | are they well dressed with tidy hair or do they not seem to care about their appearance?                           |

### B. What you can tell about people by the way they sound:-

- |                     |  |
|---------------------|--|
| 1. Volume of voice  | are they too loud or too quiet?                                      |
| 2. Clarity of voice | do they mumble and seem indistinct or are they easily heard?         |
| 3. Tone of voice    | is their voice monotonous or does it convey interest and enthusiasm? |
| 4. Speed of speech  | do they speak too fast or too slow?                                  |
| 5. Length of speech | do they like to talk too much or barely put two words together?      |

### C. The importance of what you say:-

1. Asking relevant questions - important to show interest by asking about things like:-
  - a) nature of job - if not enough details given
  - b) training schemes - how long and what do they involve
  - c) promotion prospects and responsibility
  - d) people you will be working with
  - e) wages, hours and holidays

2. Answering questions:-

- a) 'pause - think - speak' in reply to questions
- b) give full answers, not just one word replies where appropriate. Say why you liked things etc.
- c) make your answers positive rather than negative - avoid using 'just' and 'that's about all' etc. - sound interested
- d) think of the things you would like or dislike about the job
- e) try not to repeat things you have already said

3. Remember to be friendly and polite, e.g. by saying 'hello' and 'thank you' when the interview is over.

## APPENDIX H

### 1. Training

Do you have a training scheme?

I'd like to know about your training scheme.

What does your training scheme involve?

### 2. Promotion Prospects

Once I've finished training, what opportunities for promotion are there?

Are there possibilities for promotion within the firm?

What are the promotion prospects like?

### 3. Nature of the Job

Apart from \_\_\_\_\_ what else will the job involve?

Who will I be working with?

How much responsibility will I have once I'm trained?

### 4. Hours

What hours will I be working?

### 5. Holidays

How long are the annual holidays?

### 6. Wages

How much would I earn?

APPENDIX I

ANOVA TABLES - TIME 1.

QANS

Source	D.F.	Sum of squares	Mean squares	F.Ratio.	F.Prob.
Between groups	6	12.18	2.03	2.80	0.01
Within groups	64	46.40	0.72		
Total	70	58.59			

INFO

Between groups	6	17.72	2.95	3.54	0.00
Within groups	64	53.36	0.83		
Total	70	71.09			

QASK

Between groups	6	23.68	3.94	4.16	0.00
Within groups	64	60.62	0.94		
Total	70	84.30			

REL

Between groups	6	18.78	3.13	3.07	0.01
Within groups	64	65.19	1.01		
Total	70	83.97			

IRREL

Between groups	6	1.85	0.30	1.46	0.20
Within groups	64	13.44	0.21		
Total	70	15.29			

EC

Between groups	6	6.50	1.08	0.81	0.56
Within groups	64	84.96	1.32		
Total	70	91.46			

POS.

Source	D.F.	Sum of squares	Mean squares	F.Ratio	F.Prob.
Between groups	6	6.43	1.07	0.94	0.46
Within groups	64	72.34	1.13		
Total	70	78.78			

SMIL

Between groups	6	13.28	2.21	1.73	0.12
Within groups	64	81.64	1.27		
Total	70	94.92			

FIDG

Between groups	6	15.41	2.56	1.67	0.14
Within groups	64	98.29	1.53		
Total	70	113.71			

FLUE

Between groups	6	11.77	1.96	1.67	0.14
Within groups	64	74.87	1.16		
Total	70	86.64			

LIS

Between groups	6	9.75	1.62	1.79	0.11
Within groups	64	58.01	0.90		
Total	70	67.77			

INTR

Between groups	6	18.96	3.16	2.07	0.06
Within groups	64	97.40	1.52		
Total	70	116.36			

PRES

Between groups	6	9.80	1.63	2.21	0.05
Within groups	64	47.29	0.73		
Total	70	57.09			



HIRE

Source	D.F.	Sum of squares	Mean squares	F.Ratio	F.Prob.
Between groups	6	0.12	0.02	0.73	0.62
Within groups	64	1.81	0.02		
Total	70	1.94			

APPENDIX J

ANOVA TABLES - TIME 2.

(Analyses for each item - Job A are presented first, followed by  
analyses for each item - Job B.)

---

QANS

Source	D.F.	Set of squares	Mean squares	F.Ratio	F.Prob.
Between groups	6	62.91	10.48	20.36	0.00
Within groups	61	31.41	0.51		
Total	67	94.32			

INFO

Between groups	6	16.25	2.70	3.84	0.00
Within groups	60	42.32	0.70		
Total	66	58.58			

QASK

Between groups	6	95.51	15.91	15.88	0.00
Within groups	61	61.12	1.00		
Total	67	156.63			

REL

Between groups	6	85.36	14.22	11.31	0.00
Within groups	61	76.69	1.25		
Total	67	162.05			

EC

Between groups	6	10.68	1.78	5.57	0.00
Within groups	59	18.83	0.31		
Total	65	29.52			

POS

Between groups	6	9.13	1.52	9.04	0.00
Within groups	60	10.09	0.16		
Total	66	19.22			

SMIL

Source	D.F.	Set of squares	Mean squares	F.Ratio	F.Prob.
Between groups	6	8.58	1.43	3.44	0.00
Within groups	59	24.47	0.41		
Total	65	33.05			

FIDG

Between groups	6	7.91	1.31	2.07	0.07
Within groups	57	36.23	0.63		
Total	63	44.15			

FLUE

Between groups	6	25.34	4.22	10.19	0.00
Within groups	57	23.63	0.41		
Total	63	48.97			

LIS

Between groups	6	24.66	4.11	4.64	0.00
Within groups	61	53.93	0.88		
Total	67	78.60			

INTR

Between groups	6	38.55	6.42	5.45	0.00
Within groups	51	60.12	1.17		
Total	57	98.67			

PRES

Between groups	6	26.95	4.49	7.08	0.00
Within groups	60	38.06	0.63		
Total	66	65.01			

HIRE

Between groups	6	7.23	1.20	8.57	0.00
Within groups	61	8.57	0.14		
Total	67	15.80			

ANOVA TABLES - TIME 2 contd.

JOB B.

QANS

Source	D.F.	Sum of squares	Mean squares	F.Ratio	F.Prob.
Between group	6	68.84	11.47	13.93	0.00
Within group	60	49.39	0.82		
Total	66	118.24			

INFO

Between groups	6	66.15	11.02	9.17	0.00
Within group	59	70.92	1.20		
Total	65	137.07			

QASK

Between groups	6	78.17	13.02	13.14	0.00
Within groups	60	59.46	0.99		
Total	66	137.64			

REL

Between groups	6	51.70	8.61	5.33	0.00
Within groups	60	96.85	1.61		
Total	66	148.56			

EC

Between groups	6	6.05	1.00	2.41	0.03
Within groups	58	24.23	0.41		
Total	64	30.29			

POS

Between groups	6	4.17	0.69	3.33	0.00
Within groups	59	12.31	0.20		
Total	65	16.48			

SMIL

Between groups	6	6.38	1.06	2.27	0.04
Within groups	58	27.11	0.46		
Total	64	33.50			

FIDG

Source	D.F.	Sum of squares	Mean squares	F.Ratio	F.Prob.
Between groups	6	13.78	2.29	2.54	0.02
Within groups	56	50.48	0.90		
Total	62	64.26			

FLUE

Between groups	6	17.59	2.93	4.16	0.00
Within groups	56	39.39	0.70		
Total	62	56.98			

LIS

Between groups	6	28.05	4.67	5.76	0.00
Within groups	60	48.65	0.81		
Total	66	76.71			

INTR

Between groups	6	63.92	10.65	9.06	0.00
Within groups	50	58.79	1.17		
Total	56	122.72			

PRES

Between groups	6	30.72	5.12	5.43	0.00
Within groups	59	55.60	0.94		
Total	65	86.32			

HIRE

Between groups	6	8.29	1.38	9.81	0.00
Within groups	60	8.45	0.14		
Total	66	16.74			

APPENDIX K

ANOVA TABLES - TIME 3

(Analyses for each item - Job A, are presented first, followed by analyses for each item - Job B).

---

QANS

Source	D.F.	Sum of squares	Mean squares	F.Ratio.	F.Prob.
Between groups	4	13.51	3.37	2.98	0.02
Within groups	44	49.87	1.13		
Total	48	63.38			

INFO

Between groups	4	2.95	0.73	0.59	0.66
Within groups	43	53.51	1.24		
Total	47	56.46			

QASK

Between groups	4	10.56	2.64	2.24	0.07
Within groups	44	51.84	1.17		
Total	48	62.40			

REL

Between groups	4	8.79	2.19	2.05	0.10
Within groups	44	47.03	1.06		
Total	48	55.83			

EC

Between groups	4	0.47	0.11	0.18	0.94
Within groups	42	26.82	0.63		
Total	46	27.29			

POS

Between groups	4	2.52	0.63	1.68	0.17
Within groups	43	16.15	0.37		
Total	47	18.68			

SMIL

Source	D.F.	Sum of squares	Mean squares	F.Ratio.	F.Prob.
Between groups	4	8.33	2.08	2.86	0.03
Within groups	42	30.57	0.72		
Total	46	38.91			

FIDG

Between groups	4	4.54	1.13	1.07	0.38
Within groups	40	42.34	1.05		
Total	44	46.88			

FLUE

Between groups	4	5.20	1.30	1.72	0.16
Within groups	40	30.15	0.75		
Total	44	35.35			

LIS

Between groups	4	5.17	1.29	1.11	0.36
Within groups	44	51.24	1.16		
Total	48	56.42			

INTR

Between groups	4	13.99	3.49	2.18	0.09
Within groups	35	55.99	1.60		
Total	39	69.99			

PRES

Between groups	4	5.33	1.33	1.28	0.29
Within groups	43	44.60	1.03		
Total	47	49.93			

HIRE

Between groups	4	0.27	0.06	0.32	0.86
Within groups	44	9.27	0.21		
Total	48	9.55			

ANOVA TABLES - TIME 3 contd.

JOB B.

QANS

Source	D.F.	Sum of squares	Mean squares	F.Ratio	F.Prob.
Between groups	4	19.43	4.85	2.89	0.03
Within groups	43	72.27	1.68		
Total	47	91.71			

INFO

Between groups	4	31.97	7.99	3.95	0.00
Within groups	42	85.00	2.02		
Total	46	116.97			

QASK

Between groups	4	4.37	1.09	1.01	0.41
Within groups	43	46.43	1.07		
Total	47	50.81			

REL

Between groups	4	2.00	0.50	0.25	0.90
Within groups	43	85.81	1.99		
Total	47	87.81			

EC

Between groups	4	1.12	0.28	0.55	0.69
Within groups	41	20.95	0.51		
Total	45	22.08			

POS

Between groups	4	2.02	0.50	1.08	0.37
Within groups	42	19.66	0.46		
Total	46	21.69			



SMIL

Source	D.F.	Sum of squares	Mean squares	F.Ratio	F. Prob.
Between groups	4	13.28	3.32	4.00	0.00
Within groups	41	34.02	0.82		
Total	45	47.30			

FIDG.

Between groups	4	7.90	1.97	1.54	0.20
Within groups	39	49.79	1.27		
Total	43	57.69			

FLUE

Between groups	4	3.08	0.77	0.65	0.62
Within groups	39	45.88	1.17		
Total	43	48.97			

LIS

Between groups	4	11.06	2.76	2.37	0.06
Within groups	43	50.03	1.16		
Total	47	61.09			

INTR

Between groups	4	37.90	9.47	4.84	0.00
Within groups	34	66.45	1.95		
Total	38	104.35			

PRES

Between groups	4	9.40	2.35	1.56	0.20
Within groups	42	63.29	1.50		
Total	46	72.69			

HIRE

Between groups	4	1.24	0.31	2.81	0.03
Within groups	43	4.73	0.11		
Total	47	5.97			

APPENDIX L

Central tendency information for non-significant results at Time  
3 - Job A and Job B.

	Group	Count	Mean	S.D.
<u>Verbal items.</u>				
INFO - Job A	1	9	1.77	1.09
	2	11	1.22	1.42
	3	7	1.34	1.29
	5	11	1.77	0.87
	7	10	1.28	0.81
	Total	48	1.48	1.09
QASK - Job A	1	10	2.70	0.82
	2	11	2.18	1.60
	3	7	2.28	1.25
	5	11	2.72	0.64
	7	10	3.50	0.84
	Total	49	2.69	1.14
QASK - Job B	1	10	3.30	0.94
	2	10	3.00	1.33
	3	7	2.28	1.11
	5	11	2.90	0.70
	7	10	3.00	1.05
	Total	48	2.93	1.03
REL - Job A	1	10	3.00	1.33
	2	11	2.00	1.18
	3	7	2.14	1.21
	5	11	2.72	0.46
	7	10	3.00	0.81
	Total	49	2.59	1.07

	Group	Count	Mean	S.D.
REL - Job B	1	10	2.70	1.82
	2	10	2.20	1.47
	3	7	2.71	1.70
	5	11	2.72	1.10
	7	10	2.50	0.84
	Total	48	2.56	1.36

**Non-verbal items.**

EC - Job A	1	9	0.83	0.45
	2	11	0.67	0.77
	3	7	0.86	0.97
	5	10	0.88	1.01
	7	10	0.96	0.67
	Total	47	0.84	0.77

EC - Job B	1	9	0.94	0.47
	2	10	1.12	0.88
	3	7	0.67	0.75
	5	10	1.13	0.72
	7	10	1.08	0.66
	Total	46	1.01	0.70

POS - Job A	1	9	0.54	0.45
	2	11	0.55	0.72
	3	7	0.40	0.39
	5	11	1.00	0.77
	7	10	0.91	0.50
	Total	48	0.70	0.63

POS - Job B	1	9	0.61	0.39
	2	10	0.83	0.95
	3	7	0.40	0.52
	5	11	1.04	0.78
	7	10	0.78	0.49
	Total	47	0.76	0.68

	Group	Count	Mean	S.D.
SMIL - Job A	1	10	0.78	0.85
	2	10	0.51	0.93
	3	7	1.01	0.73
	5	10	1.72	0.90
	7	10	0.81	0.78
	Total	47	0.96	0.91
FIDG - Job A	1	9	0.79	1.37
	2	11	0.49	0.90
	3	6	0.00	0.14
	5	10	0.96	0.96
	7	9	0.91	1.15
	Total	45	0.67	1.03
FIDG - Job B	1	9	1.04	1.27
	2	10	0.71	0.98
	3	6	- 0.14	0.16
	5	10	0.89	0.88
	7	9	1.25	1.61
	Total	44	0.81	1.15

**Non-verbal aspects of speech.**

FLUE - Job A	1	10	1.70	0.82
	2	11	0.95	1.18
	3	6	0.66	0.37
	5	8	0.93	0.82
	7	10	1.20	0.71
	Total	45	1.13	0.89
FLUE - Job B	1	10	1.60	0.61
	2	10	1.49	1.47
	3	6	0.87	0.94
	5	8	1.08	0.69
	7	10	1.53	1.29
	Total	44	1.36	1.06

	Group	Count	Mean	S.D.
<u>General items.</u>				
LIS - Job A	1	10	1.97	1.23
	2	11	1.09	0.83
	3	7	1.32	1.06
	5	11	1.75	1.05
	7	10	1.38	1.17
	Total	49	1.51	1.08
LIS - Job B	1	10	2.42	1.34
	2	10	1.73	1.10
	3	7	1.21	1.28
	5	11	2.12	0.87
	7	10	1.20	0.75
	Total	48	1.78	1.14
INTR - Job A	1	10	2.45	1.62
	2	10	1.00	1.12
	3	4	1.13	1.26
	5	8	2.20	1.33
	7	8	1.56	0.72
	Total	40	1.73	1.33
PRES - Job A	1	10	1.75	0.95
	2	11	1.15	0.99
	3	7	1.32	1.03
	5	10	2.08	1.15
	7	10	1.66	0.95
	Total	48	1.60	1.03

	Group	Count	Mean	S.D.
PRES - Job B	1	10	2.55	1.27
	2	10	1.47	1.11
	3	7	1.60	1.44
	5	10	2.48	1.23
	7	10	1.86	1.11
	Total	47	2.02	1.25
HIRE - Job A	1	10	0.80	0.42
	2	11	0.72	0.46
	3	7	0.57	0.53
	5	11	0.72	0.46
	7	10	0.80	0.42
	Total	49	0.73	0.44
HIRE - Job B	1	10	1.00	0.00
	2	10	0.60	0.51
	3	7	0.71	0.48
	5	11	0.90	0.30
	7	10	1.00	0.00
	Total	48	0.85	0.35

APPENDIX M

ANOVA TABLES - TIME 4 - FOLLOW-UP.

QANS

Source	D.F.	Sum of square	Mean squares	F.Ratio	F.Prob.
Between groups	3	0.15	0.05	1.03	0.38
Within groups	34	1.69	0.04		
Total	37	1.84			

INFO

Between groups	3	0.75	0.25	3.55	0.02
Within groups	34	2.40	0.07		
Total	37	3.16			

QASK

Between groups	3	0.62	0.20	2.85	0.05
Within groups	34	2.48	0.07		
Total	37	3.11			

REL

Between groups	3	0.51	0.17	2.17	0.10
Within groups	34	2.70	0.07		
Total	37	3.21			

EC

Between groups	3	0.79	0.26	3.52	0.02
Within groups	33	2.47	0.07		
Total	36	3.27			

POS

Between groups	3	0.81	0.27	2.49	0.07
Within groups	34	3.68	0.10		
Total	37	4.50			

SMIL

Source	D.F.	Sum of squares	Mean squares	F.Ratio.	F.Prob.
Between groups	3	0.15	0.05	0.53	0.66
Within groups	34	3.24	0.09		
Total	37	3.39			

FIDG

Between groups	3	0.02	0.01	0.05	0.98
Within groups	34	4.32	0.12		
Total	37	4.34			

FLUE

Between groups	3	0.60	0.20	2.15	0.11
Within groups	34	3.20	0.09		
Total	37	3.81			

LIS.

Between groups	3	0.49	0.16	2.04	0.12
Within groups	34	2.72	0.08		
Total	37	3.21			

INTR

Between groups	3	0.74	0.24	0.88	0.46
Within groups	34	9.53	0.28		
Total	37	10.27			

PRES

Between groups	3	0.24	0.08	1.46	0.24
Within groups	34	1.86	0.05		
Total	37	2.10			

HIRE

Between groups	5	1.18	0.23	1.47	0.21
Within groups	42	6.73	0.16		
Total	47	7.91			



APPENDIX N.

Central tendency information for non-significant results at Time  
4 - Job A.

	Group	Count	Mean	S.D.
<u>Verbal items.</u>				
QANS	1	10	-0.11	0.14
	2	7	-0.08	0.10
	5	11	0.04	0.36
	7	10	-0.08	0.10
	Total	38	-0.05	0.22
QASK	1	10	0.02	0.35
	2	7	-0.15	0.28
	5	11	-0.31	0.25
	7	10	-0.13	0.14
	Total	38	-0.14	0.29
REL	1	10	-0.12	0.34
	2	7	0.03	0.29
	5	11	-0.30	0.28
	7	10	-0.12	0.18
	Total	38	-0.14	0.29
<u>Non-verbal items.</u>				
EC	1	10	-0.09	0.29
	2	6	-0.15	0.13
	5	11	0.20	0.33
	7	10	-0.10	0.22
	Total	37	-0.01	0.30
POS	1	10	-0.02	0.27
	2	7	0.28	0.56
	5	11	-0.10	0.25
	7	10	-0.10	0.21
	Total	38	-0.01	0.34

	Group	Count	Mean	S.D.
SMIL	1	10	-0.01	0.35
	2	7	-0.07	0.28
	5	11	0.00	0.38
	7	10	-0.15	0.13
	Total	38	-0.05	0.30
FIDG.	1	10	0.03	0.22
	2	7	0.04	0.44
	5	11	0.07	0.48
	7	10	0.00	0.19
	Total	38	0.04	0.34

**Non-verbal aspects of speech.**

FLUE	1	10	-0.05	0.18
	2	7	-0.05	0.09
	5	11	0.24	0.49
	7	10	0.06	0.22
	Total	38	0.06	0.32

**General items.**

LIS	1	10	-0.11	0.22
	2	7	-0.15	0.29
	5	11	0.13	0.38
	7	10	-0.07	0.17
	Total	38	-0.03	0.29
INTR	1	10	0.12	0.68
	2	7	-0.14	0.37
	5	11	0.19	0.65
	7	10	-0.09	0.12
	Total	38	0.03	0.52

	Group	Count	Mean	S.D.
PRES	1	10	0.00	0.21
	2	7	-0.15	0.18
	5	11	0.07	0.31
	7	10	-0.06	0.17
	Total	38	-0.02	0.23
HIRE	1	10	1.00	0.00
	2	6	0.50	0.54
	5	11	0.81	0.40
	7	10	0.80	0.42
	Total	37	0.77	0.34

# APPENDIX Q

Correlations for each group treated separately - IQ and 'presentation' at Time 3.

A value of 99.00 is printed if a coefficient cannot be computed.

## IVT group.

	PRES 1	PRES 2	PRES 3	PRES 4	PRES 5	PRES 6
MHV	0.31	0.10	0.32	0.10	0.32	99.00
	N=10	N=10	N=10	N=10	N=10	N=10
	p=0.19	p=0.38	p=0.17	p=0.38	p=0.17	-
PM	-0.61	-0.26	-0.14	-0.26	-0.14	99.00
	N=10	N=10	N=10	N=10	N=10	N=10
	p=0.02	p=0.22	p=0.34	p=0.22	p=0.34	-

## Handout group.

MHV	0.38	0.39	0.35	0.43	0.36	0.77
	N=11	n=9	n=10	N=12	N=11	N=7
	p=0.12	p=0.14	p=0.16	p=0.07	p=0.13	p=0.01
PM	0.37	0.38	0.56	0.66	0.72	0.73
	N=11	N=9	N=10	N=12	N=11	N=7
	p=0.12	p=0.15	p=0.04	p=0.01	p=0.00	p=0.03

## 1 Video group.

MHV	-0.26	0.24	-0.05	-0.12	-0.38	99.00
	N=11	N=10	N=9	N=7	N=7	N=2
	p=0.21	p=0.24	p=0.44	p=0.39	p=0.20	-
PM	0.14	0.45	0.66	0.34	0.58	99.00
	N=11	N=10	N=9	N=7	N=7	N=2
	p=0.33	p=0.09	p=0.02	p=0.22	p=0.08	-

## 3 Video group.

MHV	0.09	0.68	-0.48	99.00	99.00	99.00
	N=9	N=9	N=9	N=0	N=0	N=0
	p=0.40	p=0.02	p=0.09	-	-	-

	PRES 1	PRES 2	PRES 3	PRES 4	PRES 5	PRES 6
PM	-0.38	0.42	-0.17	99.00	99.00	99.00
	N=9	N=9	N=9	N=0	N=0	N=0
	p=0.15	p=0.12	p=0.32	-	-	-

Attention control group.

MHV	0.08	-0.11	0.08	-0.05	-0.20	-0.12
	N=11	N=11	N=11	N=11	N=11	N=11
	p=0.39	p=0.36	p=0.40	p=0.43	p=0.27	p=0.36
PM	-0.10	0.22	0.16	0.65	0.63	0.20
	N=11	N=11	N=11	N=11	N=11	N=11
	p=0.38	p=0.25	p=0.31	p=0.01	p=0.01	p=0.27

3 Discussion group.

MHV	-0.24	-0.34	-0.31	99.00	99.00	99.00
	N=9	N=9	N=8	N=0	N=0	N=0
	p=0.26	p=0.17	p=0.22	-	-	-
PM	-0.55	-0.28	-0.64	99.00	99.00	99.00
	N=9	N=9	N=8	N=0	N=0	N=0
	p=0.06	p=0.23	p=0.04	-	-	-

IVT + Video group.

MHV	0.52	0.41	0.09	0.41	0.09	-0.08
	N=10	N=10	N=10	N=10	N=10	N=10
	p=0.06	p=0.11	p=0.39	p=0.11	p=0.39	p=0.40
PM	0.53	0.18	-0.07	0.18	-0.07	-0.32
	N=10	N=10	N=10	N=10	N=10	N=10
	p=0.05	p=0.30	p=0.42	p=0.30	p=0.42	p=0.18

APPENDIX P

THE GENERAL HEALTH QUESTIONNAIRE

GHQ 28

David Goldberg

Please read this carefully.

We should like to know if you have had any medical complaints and how your health has been in general, **over the past few weeks.** Please answer ALL the questions on the following pages simply by underlining the answer which you think most nearly applies to you. Remember that we want to know about present and recent complaints, not those that you had in the past.

It is important that you try to answer ALL the questions.

Thank you very much for your co-operation.

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Have you recently

A1 - been feeling perfectly well and in good health?	Better than usual	Same as usual	Worse than usual	Much worse than usual
A2 - been feeling in need of a good tonic?	Not at all	No more than usual	Rather more than usual	Much more than usual
A3 - been feeling run down and out of sorts?	Not at all	No more than usual	Rather more than usual	Much more than usual
A4 - felt that you are ill?	Not at all	No more than usual	Rather more than usual	Much more than usual
A5 - been getting any pains in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A6 - been getting a feeling of tightness or pressure in your head?	Not at all	No more than usual	Rather more than usual	Much more than usual
A7 - been having hot or cold spells?	Not at all	No more than usual	Rather more than usual	Much more than usual

B1 - lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
B2 - had difficulty in staying asleep once you are off?	Not at all	No more than usual	Rather more than usual	Much more than usual
B3 - felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
B4 - been getting edgy and bad-tempered?	Not at all	No more than usual	Rather more than usual	Much more than usual
B5 - been getting scared or panicky for no good reason?	Not at all	No more than usual	Rather more than usual	Much more than usual
B6 - found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
B7 - been feeling nervous and strung-up all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual
<hr/>				
C1 - been managing to keep yourself busy and occupied?	More so than usual	Same as usual	Rather less than usual	Much less than usual
C2 - been taking longer over the things you do?	Quicker than usual	Same as usual	Longer than usual	Much longer than usual
C3 - felt on the whole you were doing things well?	Better than usual	About the same	Less well than usual	Much less well
C4 - been satisfied with the way you've carried out your task?	More satisfied	About same as usual	Less satisfied than usual	Much less satisfied
C5 - felt that you are playing a useful part in things?	More so than usual	Same as usual	Less use-ful than usual	Much less useful
C6 - felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
C7 - been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual

D1	-	been thinking of yourself as a worth- less person?	Not at all	No more than usual	Rather more than usual	Much than usual
D2	-	felt that life is entirely hopeless?	Not at all	No more than usual	Rather more than usual	Much more than usual
D3	-	Felt that life isn't worth living?	Not at all	No more than usual	Rather more than usual	Much more than usual
D4	-	thought of the possibility that you might make away with yourself?	Defin- itely not	I don't think so	Has crossed my mind	Definitely have
D5	-	found at times you couldn't do anything because your nerves were too bad?	Not at all	No more than usual	Rather more than usual	Much more than usual
D6	-	found yourself wishing you were dead and away from it all?	Not at all	No more than usual	Rather more than usual	Much more than usual
D7	-	found that the idea of taking your own life kept coming into your mind?	Defin- itely not	I don't think so	Has crossed my mind	Definitely has

A	B	C	D	TOTAL
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## APPENDIX Q

### QUESTIONNAIRE ABOUT SOCIAL DIFFICULTY

This questionnaire contains a list of items about social situations which many people find difficult. There are 4 possible answers to each item. You should circle the letter on the answer sheet corresponding to the answer which indicates how you feel. So for item (1) the question is "Do you feel shy with adults?" The possible answers are : Very shy/Quite shy/A little shy/Not shy at all. If you feel very shy with adults, you should circle 1.a. If you feel quite shy you should circle 1.b, and so on. Please read the questions as carefully and work as quickly as possible.

1. Do you feel shy with adults?
  - a. Very shy
  - b. Quite shy
  - c. A little shy
  - d. Not shy at all
2. Do you find it hard to make friends in a new place?
  - a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not hard at all
3. Do you stammer or stutter when you talk?
  - a. Always
  - b. Often
  - c. Sometimes
  - d. Never

4. How many friends have you?
  - a. A lot
  - b. A few
  - c. One
  - d. None
5. Do you feel worried about using the telephone?
  - a. Very worried
  - b. Quite worried
  - c. A bit worried
  - d. Not worried at all
6. Do you find it hard to take orders from an adult?
  - a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not hard at all
7. How many boys and girls don't like you?
  - a. A lot
  - b. A few
  - c. One
  - d. None
8. How shy do you feel with girls?
  - a. Very shy
  - b. Quite shy
  - c. A bit shy
  - d. Not shy at all
9. How shy do you feel with boys?
  - a. Very shy
  - b. Quite shy
  - c. A bit shy
  - d. Not shy at all

10. Do you find it hard to stand up for yourself?
  - a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not at all hard.
11. How afraid are you to ask a girl to go to a party or disco?
  - a. Very afraid
  - b. Quite afraid
  - c. A bit afraid
  - d. Not afraid at all
12. How afraid are you to ask a boy to go to a party or disco?
  - a. Very afraid
  - b. Quite afraid
  - c. A bit afraid
  - d. Not afraid at all
13. How worried are you about going on a bus on your own?
  - a. Very worried
  - b. Quite worried
  - c. A bit worried
  - d. Not at all worried
14. How hard is it to keep your temper when an adult won't let you do something?
  - a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not at all hard
15. How often do you get teased?
  - a. A lot
  - b. Quite a lot
  - c. Seldom
  - d. Never

16. How often do adults tell you off?
- a. Very often
  - b. Quite often
  - c. Seldom
  - d. Never
17. How often do you lose your temper?
- a. Very often
  - b. Quite often
  - c. Seldom
  - d. Not at all
18. How easily do you get embarrassed?
- a. Very easily
  - b. Quite easily
  - c. Not easily
  - d. Not ever
19. How often do you get into fights or arguments with other boys and girls?
- a. Very often
  - b. Quite often
  - c. Seldom
  - d. Never
20. Is it difficult for you to keep out of trouble?
- a. Very difficult
  - b. Quite difficult
  - c. A bit difficult
  - d. Not at all difficult
21. Do you find it hard to talk to adults?
- a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not at all hard

22. How many of your friends are a bad influence on you?
- a. All of them
  - b. Many of them
  - c. A few of them
  - d. None of them
23. How often do you get bullied by other boys or girls?
- a. Very often
  - b. Quite often
  - c. Seldom
  - d. Not at all
24. Do you feel uncomfortable at parties or discos?
- a. Very uncomfortable
  - b. Quite uncomfortable
  - c. A bit uncomfortable
  - d. Not at all uncomfortable
25. Do you feel nervous with adults you don't know?
- a. Very nervous
  - b. Quite nervous
  - c. A bit nervous
  - d. Not at all
26. Do you find it hard to talk to girls?
- a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not at all
27. Do you find it hard to talk to boys?
- a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not at all

28. Do you find it hard to get on with boys of your own age?
- a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not at all hard
29. Do you find it hard to get on with girls of your own age?
- a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not at all hard.
30. Do you feel uncomfortable if you are the centre of attention in a group?
- a. Very uncomfortable
  - b. Quite uncomfortable
  - c. A bit uncomfortable
  - d. Not at all
31. Do you find it hard to make friends with boys?
- a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not at all
32. Do you find it hard to make friends with girls?
- a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not at all
33. How much trouble do you have getting on with your parents?
- a. A lot
  - b. Quite a lot
  - c. A little
  - d. None

34. Do you find you are cheeky to your parents?
- a. Often
  - b. Quite often
  - c. Seldom
  - d. Never
35. Do you find it hard to go to an adult for help if you have a problem?
- a. Very hard.
  - b. Quite hard
  - c. A bit hard
  - d. Not at all hard.
36. Do you worry that you might make a fool of yourself in front of people?
- a. A lot
  - b. Quite a lot
  - c. A little
  - d. Not at all
37. Do you wish you had more friends?
- a. A lot more
  - b. A few more
  - c. One more
  - d. No more
38. Do you find it hard to keep your temper when an adult tells you off?
- a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not hard at all

39. How hard is it to phone a girl to ask her to go to a party?
- a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not hard at all
40. How hard is it to phone a boy to ask him to go to a party?
- a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not hard at all
41. How difficult is it to go into a room full of people?
- a. Very difficult
  - b. Quite difficult
  - c. A bit difficult
  - d. Not at all difficult
42. How difficult is it to meet adults you don't know?
- a. Very difficult
  - b. Quite difficult
  - c. A bit difficult
  - d. Not at all difficult
43. Is it hard to be with people you don't know very well?
- a. Very hard
  - b. Quite hard
  - c. A bit hard
  - d. Not a bit hard
44. How many friends came to your house to see you last week?
- a. More than 5
  - b. More than 3
  - c. More than 1
  - d. None



45. How many friends have come to your house to see you in the last fortnight?

- a. More than 5
- b. More than 3
- c. More than 1
- d. None

46. How many times have you been in a friend's house in the last week?

- a. More than 5
- b. More than 3
- c. More than 1
- d. None

ANSWER SHEET FOR QUESTIONNAIRE ABOUT SOCIAL DIFFICULTY

Circle the letter which matches the answer you choose for each question.

Name ..... Date of Birth .....

Date ..... Age .....

Father's Occupation .....

1. a b c d

24. a b c d

2. a b c d

25. a b c d

3. a b c d

26. a b c d

4. a b c d

27. a b c d

5. a b c d

28. a b c d

6. a b c d

29. a b c d

7. a b c d

30. a b c d

8. a b c d

31. a b c d

9. a b c d

32. a b c d

10. a b c d

33. a b c d

11. a b c d

34. a b c d

12. a b c d

35. a b c d

13. a b c d

36. a b c d

14. a b c d

37. a b c d

15. a b c d

38. a b c d

16. a b c d

39. a b c d

17. a b c d

40. a b c d

18. a b c d

41. a b c d

19. a b c d

42. a b c d

20. a b c d

43. a b c d

21. a b c d

44. a b c d

22. a b c d

45. a b c d

23. a b c d

46. a b c d

SCORE SHEET FOR QUESTIONNAIRE ABOUT SOCIAL DIFFICULTY FOR ADOLESCENTS.

Self Ratings of 0 - 3 for each Question

WITH PEERS		WITH ADULTS		GENERAL/MISCELLANEOUS.	
ITEM	SCORE	ITEM	SCORE	ITEM	SCORE
2		1		3	
4		6		5	
7		14		10	
8		16		13	
9		21		17	
11		25		18	
12		33		36	
15		34		41	
19		35		43	
20		38		Total	
22		42		MAXIMUM = 27	
23		Total			
24		MAXIMUM = 33			
26		DIFFICULTY WITH PEERS =			
27		DIFFICULTY WITH ADULTS =			
28		GENERAL SOCIAL DIFFICULTY =			
30		TOTAL SCORE =			
31		NAME =			
32		DATE OF BIRTH =			
37		<u>CONDITION</u> :			
39					
40					
44					
45					
46					
Total					
MAXIMUM = 78					

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