Orientations to work: the effects of work experience and a search for other influencing factors

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ORIENTATIONS TO WORK : THE EFFECTS OF WORK EXPERIENCE AND A SEARCH FOR OTHER INFLUENCING FACTORS.

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ABSTRACT

In order initially to attempt a resolution of that part of the controversy between W W Daniel and J H Goldthorpe that concerns the strength of factors at work and outside it that may influence Orientations to work and hence to contribute to the wider debate on the nature and place of the Orientations approach, this study examines the effect of initial work experience on 'naive' subjects.

The samples used in the study are degree students, one year of whose course is spent in industry, employees of a branch of F W Woolworth and mature part-time students following a course for works managers. The initial definition of Orientations and the instruments used in measurement are extensions of those provided by R Bennett. The instruments are validated by comparisons between certain of the samples.

The comparisons then made between students before and after their industrial placement year show that only one student sample differs from the others. This difference cannot be explained with reference to the effects of industrial experience and is tentatively attributed to changes in the economic environment. A search for other factors influencing Orientations is then made within the samples. The variables that appear most influential are the current job and gender of the Woolworth employees; for the other samples none of the factors examined has significant influence. The results of these parts of the study do not provide a complete resolution of the Daniel - Goldthorpe controversy.

Finally, prompted by the experience and results of the study, a review and restatement is made of the nature and place of Orientations in the social action perspective towards work. A central position is given to 'control', viewed as the freedom of action available to the actor. This provides a framework into which much work in the fields of industrial sociology and psychology, previously not included in the action perspective, may be integrated. The scope of the Orientations approach in both research and management is thus considerably extended.

CONTENTS

PREFACE

This thesis describes a research project undertaken over a period of some three years from August 1978. Initially the research was concerned with the effects of a one year work experience programme on the Orientations to work of students on a degree course in Business Studies. This involved both comparative studies of different students and a longitudinal study of one group of students before and after their work experience. The major purpose of this was to attempt to resolve the dispute between J H Goldthorpe and his colleagues and W W Daniel over the importance of factors external to work and those internal to work on individuals' Orientations to work.

At an early stage of the study, a number of research instruments designed to elicit information on Orientations to work were tested and validated. In order to assist in this process of validation a sample of employees of a branch of F W Woolworth was used as a comparison with the students, as was a small sample of works managers. The Woolworth's sample was also used to gain information to help in the search for factors that might influence Orientations to work.

This thesis therefore deals with a number of distinct but closely related areas. Broadly these are the nature of the concept of Orientations to work as understood towards the start of the study, the methodology of measuring Orientations, the effects of initial work experience on the students' Orientations, the influence on Orientations of other factors such as age, gender, marital status, length of employment and present job and lastly the implications of the findings of this research for the

concept of Orientations to work and its operationalization.

The order in which these areas are presented above and in the thesis is to a large extent the order in which they occurred as the research progressed. Concurrent with this progress the researcher also benefited from a learning process. It is to allow the reader to follow both the development of the study and the learning associated with it that the thesis is written and structured in its particular form.

INTRODUCTION

The term Orientations to work and the concepts attached to it have excited much interest and prompted considerable discussion, research and controversy. From a sociological viewpoint the origins of the Orientations to work approach lie in the 'action' approach (see for example Silverman, 1970, ch. 6). This approach, unlike many previous attempts to understand the nature of behaviour in industrial and other settings, is concerned to take account of the actor's own definition of the situation which surrounds him. The movement towards an action approach in sociology necessarily represents a shift towards a more psychologically based inquiry into behaviour, although the social factors that make up the situation in which the individual is placed are by no means ignored. However, as the individual's definition of this situation becomes a central feature in understanding and explaining his and others' actions, so the knowledge of how he arrives at this definition becomes more important - hence the shift towards psychology.

Much of the discussion over the nature of Orientations and what factors affect them has taken place in the Journal of Management Studies and two of the main protagonists are J H Goldthorpe and W W Daniel. In the controversy between them, Goldthorpe seems to be suggesting in his studies that it is the influences external to the work situation, such as education, socialization, community and so forth that are more important in affecting the behaviour of people at work and possibly outside it, than are the factors internal to work, including technology, membership of work groups, supervisory style and so on, that are given prominence by Daniel. Further Daniel argues that because the priorities of people may change over time and between contexts, so the influence

of the external and internal factors may also vary. This presents Orientations to work as dynamic rather than static as the work of Goldthorpe and his colleagues seems to imply.

The whole question of the nature and definition of Orientations to work is taken up in more detail in Chapter 1 (below), however, the central feature of the Daniel - Goldthorpe controversy provides the rationale for one major part of the current research study.

If the factors internal to the work situation are important influences on Orientations to work as Daniel (1969) claims, then the first major experience of full-time work by 'naive' subjects could be expected to affect and indeed change their Orientations.

On the other hand, if it is the factors external to work or those preceding full-time work that are the more influential, the prior Orientations of 'naive' subjects may be expected to remain relatively stable (see Goldthorpe et al, 1968).

As part of a four year degree course in Business Studies, students at Huddersfield Polytechnic spend a year (the third year of the course) in industrial or commercial placements. A considerable majority of these students have not previously experienced full-time paid employment. Thus they provide an excellent opportunity for assessing the impact of a first experience of work on the Orientations to work of 'naive' subjects.

If their Orientations are in some way assessed at the end of the second year (prior to industrial training) and again on their return from

industry a true longitudinal study of the effects can be made. Also comparisons can be undertaken between different groups of students at different stages of their progress through the degree course. Although these groups are not matched exactly, unlike the longitudinal study, they are very similar in many background factors such as age, education and socio-economic status. These comparisons may give support to the findings of the longitudinal study. The report of the findings of these studies forms Chapter 4 of this thesis.

A prerequisite for this part of the research and indeed for any research employing the concept of Orientations to work is a valid and operable definition of the concept. The discussion in Chapter 1 attempts to provide such a definition.

Once this definition is arrived at, reliable and valid measures of the various dimensions and elements contained within the definition are required. This process involves the construction and testing of measures or instruments. In order to facilitate this process, it was thought that it would be useful to employ the instruments on a sample that could be expected to be different in its Orientations from the students. Since the Daniel - Goldthorpe controversy had not, at this stage, been resolved, it was necessary that the members of this comparative sample should differ from the students both in terms of the factors external to work and those that are internal to work. For this purpose the employees of the Huddersfield branch of F W Woolworth were used. The report on the use of this sample in the construction and validation of the instruments is contained in Chapters 2 and 3.

In addition to the Woolworth's sample, a small group of mature students attending a part-time course for works managers was also tested as part of the validation process. It was thought that this group might have similarities with the supervisory and managerial members of the Woolworth's sample. They also share one feature with the students, a willingness to extend their education. In this respect it might be expected that some of their Orientations to work, for instance those related to psychological or personal growth, might show similarities with those of the students. In other respects they might well be expected to differ as both their social backgrounds and work experience are different from those of the students. Thus they provide an additional comparison for testing the validity of the instruments and for examining the nature of Orientations to work. The report on their use is contained in Chapters 2 and 3.

Once the validation process has been successfully completed, the comparison between students may be undertaken to assess the effect of industrial experience. Returning to the general question of what factors influence Orientations to work, all the samples provide opportunities to discover these. For instance the student samples allow for some assessment of the influence of gender to be made. This is also the case with the Woolworth sample but this sample can also provide information on the influence of such variables as age, marital status, length of time employed, nature of present job and so forth. It was also intended to gain information on the organizational climate of the Woolworth's store to assess the impact of this on Orientations to work, unfortunately the instrument used to do this was not very successful (see p 41).

At this stage, two strands in the research are apparent. The first concerns the nature and definition of Orientations to work and the development and validation of instruments capable of measuring those elements and dimensions that are included in the definition. The establishment of the definition in Chapter 1 is largely based on the work of Bennett (1975) although the relationship with expectancy theories of motivation is not a feature of his work. The definition accepted at an early stage of the research is essentially similar to that of Bennett (the only difference being the addition of a fourth element, Control over other people). Thus the instruments that were developed, tested and used throughout the research were designed with this definition as a central feature.

The second strand of the research concerns the use of the instruments: firstly to assess the effects of initial work experience on the Orientations to work of students and secondly to search for other factors that might influence Orientations, thereby in both cases attempting to contribute to a resolution of the Daniel - Goldthorpe controversy.

At a later stage of the research, the interpretation of the results of the various comparisons undertaken led to a questioning of the place of Orientations in the process leading to action. Early on it had been assumed that the relationship between Orientations and action or behaviour was a relatively direct one, modeled on the place of needs and expectancies in motivation theories. As the main area of research in the study concerned Orientations rather than action, little attempt was made to construct a model of the process of behaviour into which

Orientations might fit. However a number of factors that became apparent throughout the research prompted a reappraisal of this situation. These included a questioning of the nature of Control (the element added to Bennett's list) and the interpretation of the results of the comparisons undertaken in the second strand of the study. In order to suggest ways in which further investigation of Orientations might proceed from the point reached in this research, it appeared useful to consider more fully the question of how Orientations and action may be linked. The discussion of this question forms the final part of the main body of the thesis and constitutes an attempt to place the Orientations approach in the context of the development of industrial Sociology and Psychology and to show how it may be used to interpret the findings of many researchers. As a result of this discussion a model of action emerges that places Orientations in a central position and that uses the concept of the individual's perception of his own control over his own destiny as one of the main explicative devices of both attitudes and behaviour.

CHAPTER 1 THE MEANING AND NATURE OF ORIENTATIONS TO WORK

Meaning of the Term Orientations to Work

Although the term has been widely used (see for example Daniel, 1969, Goldthorpe et al, 1968, Beynon and Blackburn, 1972, Brown, 1973 and 1974, Bennett, 1972, Wedderburn and Crompton, 1972) there has been considerable variation in the ways in which the concept has been interpreted and put into operation. Few of the authors mentioned above have attempted a rigorous definition before using the term or concepts involved. (This point is argued forcefully by Bennett).

This lack of rigorous definition makes comparison between studies somewhat difficult and possibly more semantic than behavioural.

A central argument revolves around the origins of Orientations to work and the influence of factors external or internal to work on the behaviour and attitudes of people at work. Also of importance in this argument is the distinction in the concept between the two dimensions of Orientations, that is the Desires or wants dimension and the Expectations or beliefs dimension.

Desires and Expectations as Dimensions of Orientations to Work

There is considerable theoretical and research justification for drawing such a distinction. Firstly the whole area of motivational theory and research from the relatively naive views of early theorists with their somewhat unquestioning ideas of 'economic man' through the more sophisticated need theorists (eg. Maslow, 1943, Murray, 1938, McClelland, 1961) to the expectancy theories of motivation (Vroom, 1964, Lawler and Porter, 1968, House, 1971) suggests that the actions of people at work are at least partially a product of the needs, desires

and wants of the individuals, whatever may be the origins of those needs. The lists of major needs vary with the theorist: Maslow's five-part hierarchy ranging from physiological through safety, love or social, and esteem needs to the summit of self-actualising needs can be compared with McClelland's concentration on the need for achievement while paying some attention to two other needs from Murray's list, the needs for power and affiliation. A central feature of these theories is that people do have needs to fulfill and it can be argued that these basic needs will generate Desires or wants in any situation. These theories in drawing up lists of needs also contribute to the argument of what 'types' or elements of orientations to work could be included in the concept of Orientations. (See pp 15ff).

Secondly the concept of Expectations (expectancy) has become a very important feature of modern motivational theory. In operationalising Murray's theory McClelland (1961) and Atkinson (1966) adopt the idea of expectancy as part of the motivational process. They hypothesise that motivation to perform an action is the product of the strength of the need or motive, the subjective probability of successful action and the expectancy that a particular action will lead on to the satisfaction of a need. In algebraic form

$$Ma = n \times P \times E$$

where Ma is the motivation to perform action "a", n is the strength of the need, P is the subjective probability that action "a" can be performed successfully and E is the expectancy that action "a" will lead to the satisfaction of need n.

This concept of expectancy is also important in other motivational

theories, in particular those of Vroom (1964), Porter and Lawler (1966), House (1971) (for a short review of the development of expectancy theory see Wahba and House, 1974). The feature of expectancy common to all these theories is that it is a subjective estimation and although later theories may divide the expectancy into expectancy I, that effort is likely to lead on to a particular action or level of performance and expectancy II, that this action is likely to lead to a further outcome or desire, the essential factor is that it is the actor's subjective estimate of the probabilities involved that is the major determinant of his motivation to perform a certain action. Clearly whether he is successful or not is dependent, not only on expectancy and the strength of his needs or desires, but on his ability (and his estimation of this) and other external constraints, possibly including the technology and the organisational setting.

As the expectancy is a subjective estimate of probabilities, it would seem justified to try to estimate its value using self-report techniques such as questionnaires. In order to produce a numerical quantity representing its value, Likert scaling or an equivalent method has more face validity than a score based on an interview and considerably more face validity than using an observational technique which requires the inference of an expectancy from an observed series of actions. The concept of Orientations as put forward by Bennett requires a measure of Expectations (rather more loosely defined than expectancy) and the current research follows him in his choice of measures. In using a rather less rigorous definition of Expectations compared with that of expectancy, some predictive power may be lost: as evidenced by the research of Graen (1969) in regard to the splitting of expectancy into parts I (effort-performance) and II (performance-outcome).

However the use of the Orientations approach has been mainly in attempting to explain broad aspects of behaviour at work (eg. Daniel, 1969, Goldthorpe et al, 1968, Beynon & Blackburn, 1972) and the effects of various factors usually viewed in broad terms. (Factors such as technology, position in the life cycle and educational experience). The concept is probably not appropriate to the explanation of specific actions or series of specific actions as is the case for modern formulations of expectancy theories of motivation. The underlying cognitive assumptions of these two approaches are very similar, it is the level of generality that differs. It could be argued that the Orientations approach is a poor substitute for expectancy theory, which is claimed to be able to explain both specific actions and more general behaviour, whilst the Orientations approach is only suitable to the more general level. In answering this criticism it is claimed that the operationalisation of expectancy theory is extremely complex, many of the empirical tests of the theory try to hold constant all but one of the variables (eg. Hunt & Hill, 1969) and thus avoid many of the complications inherent in the theory. In starting from a more general level, it is not denied that some predictive or explicative power may be lost, but it is argued that what remains may be valuable in dealing with such areas as occupational choice and behaviour at work over relatively long periods. It may also be that people only have ill-defined and broadly-based views of their own Desires and Expectations in relation to their work. If this is the case the argument for the Orientations approach as an explainer of behaviour or action (rather than as a predictor) is very strong. This point is very important for the use of the Orientations approach in the context of the 'action' approach and is taken up in the Conclusions

(chapter 6).

A further justification of this formulation and measurement of the Orientations approach is that as Edwards (1961) has shown, expectancies may not be the same as objective probabilities. In particular although mathematically the sum of the probabilities of a mutually exclusive and exhaustive set of events should be 1, people may assign a probability greater than 0.5 to both the occurrence and the non-occurrence of an event. Likert scaling of Expectations allows respondents to indicate how likely they believe certain outcomes to be; but it does not in any way force them to treat those outcomes as being an exhaustive list or to indicate that the achievement of one may exclude that of another, although they are at liberty to do this if they so wish. This might be a weakness of the research instrument if it were to be used as a measure of expectancy(ies) in a particular situation; but that is not its purpose in this research. As Wahba and House (1974) point out "it is also reasonable to assume that factors such as habit, past experience, availability of information and individual differences may affect employee expectancies of outcomes" - these factors may indeed also affect 'Expectations' and the design of the research instruments allows for this to happen and to affect the resultant scores.

A Definition of Orientations to Work

The foregoing discussion requires some form of synthesis in order to produce a definition of Orientations that will be operable and consistent with previous research evidence. The definition provided by Bennett (1974) is "... an expression of how the individual views his

situation in terms of what he *desires* from it and the extent to which he *expects* these desires to be achieved or not." (Bennett's italics).

This definition seems to provide the necessary synthesis, firstly it is couched in terms that place it firmly in the context of the 'action' approach and secondly it makes a distinction between desires and expectations that fits in with the conclusions of expectancy theories of motivation.

Although this definition does not include a statement on how the two dimensions, Desires and Expectations are to be combined, in Bennett's own research the combination is multiplicative.

This combination is in line with the bulk of Expectancy theory (eg. Vroom 1964, Lawler 1970). However Wahba and House (1974) do raise the question of whether the scores on valence and expectancy could be added rather than multiplied together. As expectancies are generally seen as a form of probability there is some mathematical justification for combining them multiplicatively with valences. In the current research the phrasing of the Expectations questionnaire is suggestive of probability and for this reason the scores on Expectations and Desires are multiplied together to produce the Orientations score. (At an early stage of the study a comparison was made between additive and multiplicative Orientations scores and at the relatively crude level of statistical comparison used (ie. rankings) there was a large measure of agreement between the two sets of scores). (See Appendix D, page D12).

Nowhere in the definition is there the suggestion that Orientations are either entirely fixed or flexible. Bennett makes the point that

the influence on an individual's Desires and Expectations are varied, including past experience of work and life, current situational variables at work and home, personality, skills, abilities, etc. Some of these influences are relatively stable, some subject to rapid change. Thus the results of these influences, Orientations, are likely too to have some stability but also to be subject to some change. The question of the extent and origins of changes in Orientations is problematic and forms one basis of the current research.

Further to the flexibility or otherwise of Orientations is the question of whether they can be viewed as containing a dominant element. Agreeing with Brown (Parker et al, 1973), Bennett points out that in his opinion Orientations are neither unidimensional nor mutually exclusive; although there is the possibility that the individual may express a preference or priority at the time of measurement. (See also Daniel, 1973).

Given the above definition of the concept of Orientations the next key question concerns the elements of or types of Orientation that should be included in a study of Orientations to work.

Types or Elements of Orientations

There have been a number of differences in the types of Orientations that have been identified: Goldthorpe et al (1968) identified three major Orientations, a) instrumental, where work is viewed primarily as a means to an end external to work, b) bureaucratic, where work is seen in terms of service to an organisation in return for a set of rewards, both economic and non-economic, and c) solidaristic, where work is seen as involving some group activity with its attendant

meanings as well as being something with economic meaning. These types of Orientation have been used not only by Goldthorpe et al but by a number of other investigators (eg. Smith, 1978, Beynon and Blackburn, 1972).

One argument in favour of these three types or elements of Orientation is that they are closely allied to the three ideal types of involvement put forward by Etzioni (1961), that is a) calculative, where the organisational member has low commitment to the organisation itself but views his relationship in terms of extrinsic satisfaction, b) alienative, where there is little desire to remain in the organisation but the member is by force of circumstances required to do so, even if temporarily; and c) moral, where commitment to the organisation itself is high on the part of the member. Although there is not a perfect match between these three and the typology of Goldthorpe and his colleagues, it is claimed by Smith (1978) and Wynn (1980) that they are compatible.

However, one particular criticism that could be made of the Luton study is in its definition of "instrumentalism". This definition is clearly exclusive of the other two categories or elements of Orientation, in that low scores on instrumentalism are given to what could be said to constitute the other two, ie. solidaristic and bureaucratic Orientations and high instrumentalism scores are given in the absence of the other two elements. (See below).

The affluent worker: industrial attitudes

'Instrumentalism' Scores			
Item	0	1	2
Nature of attachment to present employment: Reasons given for staying at present firm	Level of pay not mentioned	Level of pay together with other reasons	Level of pay only
Involvement with workmates: Feelings about being moved away from present mates and level of out-plant association with workmate friends.	Would feel 'very upset' or 'fairly upset' if moved *and* visits with or has arranged outings with workmate friend(s).	Would feel 'very upset' or 'fairly upset' if moved *or* visits with or has arranged outings with workmate friend(s).	Would not feel upset if moved and does not visit or have arranged outings with workmate friend(s).
Organisational participation: Participation in work-based clubs and societies and attendance at union branch meetings.	Participates in at least one club or society* *and* attends 'regularly' or 'occasionally' at branch†	Participates in at least one club or society *or* attends 'regularly' or 'occasionally' at branch.	Does not participate in any club or society and does not attend branch 'regularly' or 'occasionally'.

* ie. attends at least twice a year.
† ie. approximately once a month or once a year respectively

(Source: Goldthorpe et al, 1968, p.160).

This view of orientations that stresses not just a dominant, but almost a mutually exclusive orientation conflicts with much of motivational theory and research (eg. Edwards, 1961) and industrial sociological theory (Parker et al, 1972, Beynon and Blackburn, 1972). Indeed Daniel (1973) has shown that increases in wages (ie. related to an instrumental orientation) may be important when negotiating a productivity agreement,

while job satisfaction (ie. a non-instrumental Orientation) is stressed in the later context of working under that agreement. He argues further, as noted below, that different considerations are likely to be involved in explaining job choice, behaviour at work and leaving a job (Daniel, 1969). This suggests that a "dominant" Orientation, if there is one, may vary with the situation and in Daniel's view particularly with the situation at work. Central to Daniel's criticism of the action approach or more specifically the way in which it has been applied by Goldthorpe and his colleagues, is the contention that factors internal to the work situation may have an important intermediary effect on the way in which Orientations, based on external factors or prior experience, affect behaviour at work. Goldthorpe (1970) replies to this criticism by agreeing with it; but pointing out that in the particular cases of the Luton sample, the externally determined Orientations appeared to be more influential in the behaviour and attitudes of the workers than did the internal factors.

The Luton researchers found that although the workers on the assembly-lines disliked the actual tasks, this was not associated with marked dissatisfaction with the job, the firm as an employer or with management and supervisors. This is explained with reference to the workers' predominantly prior "instrumental" Orientation. An Orientation which, when shared by workers at the other two factories in the study, was associated with similar attitudes and behaviour, despite the differences in the technology employed in these factories. Whether there were similarities or differences in other factors such as organizational climate or structure does not emerge from the study. One factor which does emerge was that there was a preponderence of workers with high instrumentalism scores in certain similar jobs within the various plants.

That is amongst holders of "semi-skilled" jobs (eg. process workers, machinists and assemblers).

Brown (Parker et al, 1977) contends that the "affluent" workers of the Luton studies were atypical in at least two respects: one, that they had an overriding priority in their Orientations (instrumental in the case of the semi-skilled workers) which would not be expected to be the case with most other workers (cf however Wedderburn and Crompton, 1972) and two, that their Orientations were largely or completely influenced by non-work factors, again Brown expects that work experience would affect the Orientations of most workers. (See also Beynon and Blackburn, 1972). This as Brown points out from his own research (Brown, 1973, 1974) is particularly true of new entrants into an industry or organisation, a point particularly relevant to the current research and strongly supported by the work of Wanous in the US (eg. Wanous, 1973, 1974).

Thus the measure of instrumentalism and its implied definition used in the Luton studies is not adopted in this research. In only one research instrument used in this study is there an attempt to use mutually exclusive choices (the paired statements questionnaire, see below p 36). This measure is intended to produce a ranking of the chosen elements for each individual along the Desires dimension, its wording does not really allow the respondent to take Expectations into account. There is some evidence (Maslow, 1943, Vroom, 1964) that needs and the resultant Desires of individuals are ranked and this instrument attempts to see if when forced to produce a ranking respondents can actually do so. The other instruments do allow the respondent to take account of mutual exclusivity but only to a very limited extent and question order may well be influential if they chose to do so.

Further criticism of the approach used in the Luton studies towards a definition of Orientations is that the researchers seem to have concentrated overmuch on choice of and attachment to a job in their measurement of Orientations. They then attempt to use these measures to explain workplace behaviour. This, as Daniels has pointed out, is in contradiction of much research on occupational motivation which, he reports, requires sharp distinctions to be drawn between the three areas of job choice, intrinsic satisfaction and job quitting. (Daniel quotes Herzberg et al, 1959 and Lodahl, 1963 as important sources).

Daniel himself does not provide any suggestions about what types of Orientations may be identified, nor is that surprising in the light of his criticism of the action approach as applied at Luton.

Bennett (1974) has proposed a different set of Orientations elements, based partly on his own research. These relate to the concepts of "economic man", "social man" and "self-actualising man" referring to the ideas contained in the writings respectively of such authors as F W Taylor, E Mayo and A H Maslow. From these he arrives at three basic types or elements of Orientations to work, a) economic - concerned with money and security which he calls *instrumental*, b) social - concerned with friendship and social relations called *relational*, and c) personal - concerned with job interest and the use and development of abilities called *personal growth*.

The research undertaken here uses these three elements as well as a fourth - control, related to control over others and to a lesser extent control by others.

The addition of the Control element was prompted by a research study

by Smith (1978) in which he used the concept of Orientations to work (the Goldthorpe typology) to investigate distribution of control, job satisfaction, attitude to supervision and absenteeism in a manufacturing company. In the course of the study Smith attempted to produce a synthesis between the Orientations approach and Etzioni's (1961) typologies of involvement and control in organizations. He posits a connection between Orientations and involvement that, following Etzioni, may be expected to affect the success of the use of three major types of control: coercive, utilitarian and normative. This connection between Orientations or more properly "view of work" and involvement in or "attachment" to work is also central to the argument for abandoning the Orientations approach proposed by Wynn (1980).

In choosing Control as an element of Orientations it is argued that the intervening step of including "involvement" or "attachment" is unnecessary. The general formulation of the definition of Orientations used in the current research allows for the direct effect of Orientations on behaviour. The need or desire to control others is also present in many of the investigations into the types of needs that individuals possess: eg. Murray's 'need for dominance', McClelland's 'need for power'. Additionally control over others is a central feature of business and other organizations and may be seen as a manipulable reward by organizational members.

It could be claimed that the Control element is a part of the Personal growth element. Although there may be some overlap, it is suggested here that control may be a consequence of Personal growth but is not wholly contained within that element and is sufficiently different from it to warrant specific attention.

To return to the question of a synthesis between exisiting research evidence and the operability of the concept of Orientations to work, do these four elements provide that synthesis?

In the area of work motivation there are certainly indications that the four elements are likely to cover the needs identified by various authors. Alderfer (1969) proposes a modification of Maslow's hierarchy in which he includes three basic needs: existence, relatedness and growth. Unlike Maslow he suggests that all three needs may be influential at the same time, further he posits that these three needs include all the five levels of need put forward by Maslow. It is suggested by Bennett that his own typology of Orientations includes all those needs of Aldefer's theory.

The list of motives (needs) proposed by Murray (Morgan and King, 1966) runs to some 17 different areas. Those certainly subsumed by the four elements of Orientations proposed for this study are achievement (included in personal growth), affiliation, autonomy, dominance and harm avoidance (a part of instrumentality, see the discussion of the Seagrass study (Wedderburn and Crompton, 1972) below (p 23) and control. The other needs may be partly related to the elements of Orientations but are not necessarily completely covered by them. However, the ones chosen do cover those needs identified by Murray that have received the most attention from his followers such as McClelland (1961), Atkinson and Feather (1966) and Stringer (1966).

The various formulations of expectancy that have been proposed all suffer from the same operational difficulty - what outcomes or worker goals should be considered by the researcher as relevant to the motivation of an actor to perform a particular action or set of actions?

From the action approach the answer would be to concentrate on those that the actor himself sees as relevant. This provides an initial problem for the researcher of identifying these for every actor in every situation. If there is no correspondence between the outcomes found relevant by different actors in similar situations, there can be no explanation of behaviour at any other level than that of the individual. However, Lawler has suggested that a simplifying assumption may be made: "I would like to argue that the reward value of outcomes stems from their ability to satisfy one or more needs. Specifically relevant here is the list of needs suggested by Maslow." (Lawler, 1969). Following the previous line of argument presented above, Alderfer's list subsumes Maslow's and Bennett's includes Alderfer's, so the present research starts a little further along the line than Lawler's starting point.

The more specific Orientations, including those towards outdoor work, wages, intrinsic job quality, security, promotion and work status, identified by Blackburn and Mann (1979) would also be covered in a broad fashion by the four elements of Orientations suggested above.

With regard to the Instrumental Orientation, Wedderburn and Crompton (1972, p147) found that, in their Seagrass study, one aspect of present employment most valued by the workers was job security and security in the sense of regularity of income. The authors argue that this emphasis on job security could be described as instrumental in this case as there had been a history of unemployment in the area. In the present research the questionnaires include questions on pay, regularity of income and job security and these are grouped together for coding purposes under the heading of Instrumental Orientations (supported by the Seagrass and Luton studies). The validity of the assumption underlying this grouping is discussed below when consideration is given to the computer

analysis of association between questions on the different questionnaires, which were intended to measure the same elements of Orientations to work.

Further support for the choice of the four elements chosen for this study comes from the Michigan Organizational Assessment Package (Nadler et al, 1975), Question 2 of a shortened form of which is reproduced below (Figure 1). This instrument is intended as a measure of the valence of certain outcomes considered likely to be of use to managers in assessing the work motivation of their employees.

Figure 1 *Question 2:* Different people want different things from their work. Here is a list of things a person could have on his or her job. How *important* is each of the following to you?

How important is ...?	Moderately important or less			Quite important			Extremely important
a) The amount of pay you get	(1)	(2)	(3)	(4)	(5)	(6)	(7)
b) The chances you have to do something that makes you feel good about yourself as a person	(1)	(2)	(3)	(4)	(5)	(6)	(7)
c) The opportunity to develop your skills and abilities	(1)	(2)	(3)	(4)	(5)	(6)	(7)
d) The amount of job security you have	(1)	(2)	(3)	(4)	(5)	(6)	(7)
How important is ...?							
e) The chances you have to learn new things	(1)	(2)	(3)	(4)	(5)	(6)	(7)
f) Your chances for getting a promotion or getting a better job	(1)	(2)	(3)	(4)	(5)	(6)	(7)
g) The chances you have to accomplish something worthwhile	(1)	(2)	(3)	(4)	(5)	(6)	(7)
h) The amount of freedom you have on your job	(1)	(2)	(3)	(4)	(5)	(6)	(7)
How important is ...?							
i) The respect you receive from the people you work with	(1)	(2)	(3)	(4)	(5)	(6)	(7)
j) The praise you get from your supervisor	(1)	(2)	(3)	(4)	(5)	(6)	(7)
k) The friendliness of the people you work with	(1)	(2)	(3)	(4)	(5)	(6)	(7)

As can be seen questions a) and d) refer to Instrumental Desires, b), c), e), f) and g) refer to Personal growth as to some extent does h), question k) is related to friendship Relations as to some degree is i). The Control element does not appear much here although it could come into questions i) and f). This is a reflection of the use for which the questionnaire is designed and the fact that it is a shortened version. Later in the article of which this questionnaire forms a part the authors state: "... this is a general questionnaire. Since it is hard to anticipate in a general questionnaire what may be valent outcomes in each situation, the individual manager may want to add additional outcomes to questions 1 and 2." (Nadler et al, 1975). This is what has been done in the present research with regard to the Control element.

At this point it is possible to summarise the discussion above and arrive at a definition of Orientations to work that is supported by theory and empirical evidence, that is believed to be operable and that is sufficiently broadly based to be used to analyse much work behaviour.

The defintion that forms the basis for the research undertaken in this study is that Orientations to work:

a) consist of two dimensions - Desires and Expectations,

b) that these combine multiplicatively and

c) that there are at least four elements of Orientations that may be called: Control (C), Instrumentality (I), Friendship Relations (R) and Personal Growth (P).

The Influence of Work and Non-Work Factors in Orientations

As pointed out above one area of controversy has been the extent to which behaviour at work is affected by background factors external to the work situation (eg. education, socialisation, previous experience) and current situational factors internal to work (eg. climate, supervision, technology). The Seagrave study (Wedderburn and Crompton, 1972) concentrates on factors internal to the work situation although the authors accept as a major limitation of their study that it "stopped at the factory gate". This is interesting as they use the concept of Orientations repeatedly in the report of the study and claim that the bulk of the workers had primarily instrumental attitudes to work (as with many other writers the terms Orientations and attitudes are used almost interchangeably).

However, the Brompton study (Beynon and Blackburn, 1972) does attempt to take account not only of work factors but also non-work factors. In the particular case of the women working at Brompton, much of the explanation of their behaviour and of the differences between their behaviour and attitudes and those of the men, arises from reference to factors external to work, including amongst other things, their position in the labour market and the alternative possibilities of employment in the region. A further important point made in this study is that work experience may itself produce changes in Orientations, and thus the implied permanence of the Orientations in the Luton study should be avoided. Blackburn and Mann (1979) also support this view in pointing out that historical factors may also influence Orientations.

Bennett (1974) suggests from his own research that Orientations are *likely* (Bennett's italics) to be a function of both "personal" variables, derived in the main from ex-work factors, and "job/ situational" variables. The ex-work factors that he mentions include whether the males in his study had a working wife, which seemed to affect Instrumental and Relational Orientations but not Personal growth, their age, income and membership of clubs.

In a later article (Bennett, 1978), Bennett lists twelve major "job/situational" variables. These are conditions, climate, incentives and rewards, managerial style, organisational objectives, resources, size, structure, nature of tasks, technology, work group relations and the external environment of the organisation.

In the current research one of the main influences on Orientations studied is that of work experience. This may well be affected itself by job/situational variables but these are not separately identified and studied. Rather the broad effects of work experience on Oreintations is considered. This involves an attempt to investigate one area of interest common to most of the studies using the concept of Orientations to work, that is the degree to which Orientations are subject to change, either over time or because of changes in the variables that affect Orientations. However the main subjects of this research, the students are unlike the majority of those people studied by the researchers cited above, particularly in terms of education and social class (see Profile of students p 40a).

The Luton studies as discussed above are criticised by Brown (Parker et al, 1977) and others for the view contained within them of Orientations (at least of the workers studied there) as being relatively fixed. This assumption leads the researchers to explain the work

behaviour and attitudes, particularly job satisfaction, as being related more to external factors than to internal factors such as the technology that was employed. Experience in the job seemed to have little influence on Orientations, especially those of the semi-skilled workers.

In contrast to this view there is considerable evidence that suggests for one group at least, new entrants to an organisation, that early experience of the job and organisation can have marked effects not only on their behaviour but also on their attitudes, particularly their Expectations. The work of Wanous (1977) in the US is of particular relevance to this point.

Effect Of and On Organisational Entry

The processes of organisational entry have received some considerable attention, notably in the US, and the results of these research studies give foundation to the first hypothesis that the present study examines.

Wanous (1976) reviews three studies that measured Expectations in regard to jobs and/or the changes that took place in these Expectations as a result of organisational entry. The study by Dunnette et al (1973) compared job turnover among college graduates between those that left their first job with less than four years experience ("terminators") and those that stayed longer ("stayers"). Amongst the "stayers" Expectations were not met except in the case of salary, which was close to Expectations (see also Wanous, 1972).

For the "terminators", there were few discrepancies between (remembered) Expectations and experience in the first job. The fact that they had left the first job may have influenced their memory and perception of

it. Their new jobs were reported as meeting or exceeding Expectations. There are methodological problems associated with this study as respondents were asked to recall their pre-entry Expectations rather than using a longitudinal technique.

The Ward and Athos (1972) study did measure student Expectations and Desires as well as recruiter perceptions pre-entry; but unfortunately did not follow up any changes that might have taken place after entry.

The research reported by Wanous that he himself carried out was largely cross-sectional between "outsider" (prior to entry) - "newcomer" (shortly, about two months, after entry) - "insider" (after more experience, about nine months) groups of MBA students and was related to business schools as the organisations. These groups were compared with telephone operators from a previous study (Wanous, 1972), although the time periods involved in this case were different: about one month for newcomers and about three months for "insiders". In summary his findings suggest that changes in Expectations did take place: generally they decline but the decline was more significant in relation to "intrinsic" factors, ie. for the MBA students those concerning the educational process itself, eg. the quality of teaching, than in relation to "extrinsic" factors, those tangential to the learning process, eg. flexibility in program planning. For the telephone operators organisational entry produced a decline in Expectations in both sets of factors. The time required for such changes to occur was shorter for the telephone operators than for the MBA students and this is explained by Wanous in terms of the differences between the psychological contracts (Schein, 1968) in the two situations.

An early conclusion of Wanous (1972) was that not only were Expectations about new organisations naive and somewhat unrealistic but so were Expectations about new occupations: this again is of particular import for the present study. A consequence of naive Expectations about organisations appears to be that job turnover among new entrants is relatively high. It is suggested by a number of researchers (eg. Gomersall and Meyers, 1966, Weitz, 1956, Wanous, 1973) that this turnover might be reduced by the use of realistic job previews and a subsequent finding was that the realistic job preview also appeared to improve job performance (Gomersall and Meyers, 1966 and Wanous, 1973). The use of the realistic job preview has been the centre of much work by Wanous (1973, 1974, 1977) and others (eg. Ilgen and Seely, 1974). The research study described herein does not pursue the use of realistic job previews, not least because the students in the study entered a very wide variety of organisations.

However the results of the research of Wanous and others do suggest that the "naive" Expectations of new entrants to organisations are likely to change as a result of experience in those organisations. Although there was no attempt in the current research study to discover the Expectations of the students regarding the specific employing organisations in which they were to spend their industrial training year, their general Expectations about work were discovered by the use of various questionnaires. One hypothesis that is tested in the current study is that these general Expectations also change as a result of the process of organisational entry and of the experience of paid employment. That these Expectations are likely to change is also supported by the work of Carter (1962) and Lipset and Malm (1955).

The report on the testing of this hypothesis is contained in chapter 4.

In order to present as clear a picture as possible of how the various themes contained in the research study were examined, a description of the chronological development of the study may prove useful and is provided below.

CHAPTER 2 STAGES IN THE DEVELOPMENT OF THE STUDY

(Appendices referred to in this chapter will be found in the order of Appendix A through to Appendix D towards the end of the thesis after Chapter 6.)

Two Major Strands in the Study

As noted in the Introduction there are two major strands running through the study, these are firstly, the development of instruments capable in some way of measuring Orientations to Work and their component parts. The second included the use of these instruments on samples of students on the BA(Hons) course in Business Studies at Huddersfield Polytechnic to study the effects on Orientations and their component parts, of the experience of a one year industrial training period undertaken as the third year of the four year thick sandwich degree. The purpose of this was to examine the relative stability of Orientations and to investigate the effects on Orientations of Work and Non-Work factors.

These two strands are clearly not unconnected and the progress of the research reflected this. For instance, in order to provide a minimum test of the instruments and their ability to measure Desires and Expectations in relation to the four elements of Orientations chosen for study, a sample of Woolworth's employees was used as a comparison with samples of students. It was beleived that because of the natures of the backgrounds of Woolworth's employees and of their relatively unskilled jobs there would be differences in the Orientations to work of this sample when compared with the student samples. If the instruments were measuring Orientations to work or at least something similar, then they ought to have been capable of showing up these expected differences.

However, the investigation of the Woolworth's sample was in itself interesting and allowed a number of hypothesis relating to Orientations to work to be examined (the second strand) as well as assisting in

establishing the usefulness and validity of the research instruments (the first strand).

Similarly the investigation of the relationships between specific items in the instruments, for example, to see whether those believed to be testing the same element were in fact doing so, contributed both to the development and verification of the instruments and to a further understanding of the relationships between the four elements chosen as central to Orientations.

The progress of the research study is a reflection of both these major strands and although one might have been dominant at a particular stage, the other was still present and influential. Figure 2 (below) shows the chronological development of the study.

Figure 2

Timetable of Events in the Study

August	1978	Initial construction of Instruments
November	1978	Pilot Survey - Samples of BA Accountancy and HND Business Studies students.
		Initial Analysis and Revision of Instruments (Appendix C)
June	1979	Administration of Instruments to BABS 2 78/79 (Appendix B)
September	1979	BABS 4 79/80
		Initial comparisons of Students (Appendix D)
February	1980	Administration of Instruments to Woolworths 80
		Validation of Instruments (chapter 3)
May	1980	Administration of Instruments to Works Managers 80
		Validation of Instruments (chapter 3)
June	1980	Administration of Instruments to BABS 2 79/80
September	1980	BABS 4 80/81
		Comparisons between and within Samples (chapters 3, 4 & 5)

Initial Instrument Development and Pilot Survey (see also Appendix C for examples of instruments used and early discussion of results)

From the starting point provided by the discussion above, the first stage of the study was to develop and test research instruments that would be capable of providing measures of Desires and Expectations on the four elements of Orientations that had been chosen. They were administered to a sample of first year students on the BA Accountancy and HND Business Studies course at Huddersfield Polytechnic in October/November 1978.

Those following Bennett were all self-report questionnaires of one type or another. There were two of similar construction to measure Desires and Expectations on the four elements. These consisted of sixteen questions (twelve for Expectations), four (three) of which were believed to relate to each of the four elements, followed by a five point Likert scale. For the Desires dimension this ranged from "Very Desirable" through "Desirable", "Cannot Decide" (the neutral response), "Undesirable" to "Very Undesirable". For the Expectations dimension from "Not at all" through similarly to "All the time" in response to the question of how often the respondents expected the various features to occur in a job (see Appendix B for an example of the questionnaires).

Three of the Desire questions were 'negative', in the sense that it was believed that a strong desire for the particular element under scrutiny would be represented by a response of "very undesirable". All the Expectations questions were "positive".

From these questionnaires a score on each element for each Dimension may be obtained. However, the level of statistical analysis used at this stage of the project was extremely low. Averages of these scores

across groups of people were used and this, as discussed later, is not an acceptable method for data of this type (ordinal data).

The second test following Bennett is the "Paired Statements" questionnaire. This test is, it is believed, related more to Desires than to Expectations and the wording of its heading is intended to confirm this. The test asks respondents to choose between pairs of statements each of which is thought to be representative of a particular Orientations element. All this test is capable of doing is to produce a ranking of the four elements, although in some cases, where the respondent is "inconsistent" (see Appendix C for a discussion of the levels of inconsistency in this test) the ranking may be incomplete or non-existent. Again the level of statistical interpretation initially used on this test was also inadequate. It is not acceptable to average ranks across a sample in the way in which it was done to obtain a comparison with other tests. A rank correlation coefficient would be the most statistically acceptable method of comparison.

The other tests were not used by Bennett, but were developed specifically for the present research study. They included the "statement" questionnaire, which also involved Likert scaling, and was intended to measure Desires. Also two straightforward open-ended questions were used, one each for Desires and Expectations. Additionally a simple test on job characteristics which asked respondents to indicate on a five point scale the importance they would attach to the four elements of Orientations was employed. (In use with later samples the scale was extended to ten points). Finally a Ranking Score test consisting of a list of nine items, two for each element and a dummy item was used. Respondents were asked to rank the nine items and a ranking score for each element was constructed by adding the ranks of the two related

items. This procedure also shows the inadequate level of statistical knowledge present in the research at this time. Although there is strong justification for adding together Likert scaling scores, there is none for the adding together or averaging of straightforward ranks in the way in which it was done.

One test of a very different nature was tried out at this stage. A development of the Thematic Apperception Test (TAT), much used by McClelland and others in research on basic motivational needs, was developed. It was intended that a "neutral" picture of people engaged in some activity would be presented to the respondents and they would then describe the situations and suggest how they would feel if they were present. The rationale of the TAT and other tests has been treated at length by many writers (see eg. Morgan and King, 1966). In brief it is believed that the respondent will project his underlying personality and in particular his needs onto the situation. Careful analysis of the responses, by trained personnel, should reveal what those underlying needs are and how strongly they are felt by the respondent. This test was not pursued in the present research, mainly for practical reasons - it was felt to be difficult, if not impossible, to establish a panel of people sufficiently qualified to interpret the results and there was some indication that the level of response to this type of testing was lower in content than for less open-ended types of test. Also the picture used was so "neutral" that many respondents were unable to give any account of what was going on in the situation. This is not to suggest that tests of this type may not yield useful results in the field of Orientations to work, at least in so far as the Desires dimension is concerned.

A further point at issue at this stage in the study was the way in which an overall Orientations score on each element could be arrived at. Bennett's typology (Bennett, 1974) provides that the scores on Desires and Expectations should be multiplied together to achieve an Orientations score. This, as suggested above (p10) is in line with much modern motivational theory. At this stage both multiplicative and additive combinations were used; but again the level of analysis used for comparing the results was weak. A rank correlation coefficient would have been much more appropriate and meaningful than the methods actually employed (see Appendices C and D). It is to be noted that the usefulness of any combined Orientations score is questioned (see below p D11) as a result of the comparisons between samples undertaken at a later stage in the project. A further Orientations score obtained by the combination of the statement questionnaire score and that of the ranking score proved unacceptable statistically as it did not combine like with like. As before analysis of these results by means of an average (the method used at this stage) has very little, if any, meaning.

Use of Selected Instruments on BA(Hons) Business Studies Students (see Appendix D for the initial report of the use of the instruments on two student samples).

As a result of the analysis of the instruments used in the pilot survey, some were rejected (see Appendix C). Those accepted at this stage were the two Likert scaling questionnaires developed from Bennett's Desire and Expectations tests, the paired statements questionnaire (which had generally produced a ranked list of the four elements on the Desires dimension) and the simple ten-point rating scale questionnaire on the perceived importance of the four elements. These tests were

developments of those used in the pilot study and included the changes recommended in Appendix C as a result of that pilot study.

The tests were administered to a sample of second year students on the BA(Hons) Business Studies, immediately after their end of year examinations in June 1979. The sample is henceforth referred to as BABS 2 78/79.

The test instruments, cited above, were given to them with a stamped addressed envelope for reply. This allowed them to complete the questionnaires at their own convenience and to return them before or after they left the Polytechnic at the end of the term. Of the 42 in the sample, 30 completed and returned the questionnaires: a response rate of approximately 70%. An important feature of this group (and the other second year students tested later) is that, in general, they have not experienced full-time, paid industrial or commercial work.

The same package of test instruments was administered to a second group of students in September, 1979, immediately after their year's experience in business and on their return to the Polytechnic and in that environment (which might have affected their reactions). This group was about to commence their fourth and final year of the degree and are referred to as BABS 4 79/80. Of the 40 students in this group, 31 completed and returned the questionnaires: a response rate of 78%. For the two groups together, the response rate was some 74%.

Although the two groups are not comparable in a strictly longitudinal way, some comparison seemed acceptable and was undertaken both at this stage of the research (see Appendix D) and, using more acceptable statistical techniques, at a later stage (see chs. 4 & 5). The reasons for undertaking the comparison lie in the second strand of the

research, that is the attempt to study the effects of work experience on Orientations to work.

In their third year of the course students on the BA Business Studies degree are placed for a period of at least twelve months with a commercial or industrial organisation. During this period they are employed and paid by the organisation and engage in a variety of, usually, junior managerial tasks. The degree of responsibility and the types of tasks vary with the organisations and the individuals - some are involved in finance, others in marketing or personnel and some cover a range of functional areas. The common factor and the one that makes the samples suitable for this investigation is that each student is being employed in a business environment at some level of management and is to a great extent cut off from the educational and academic environment which he/she has experienced, often continuously since the age of five. The educational background of each group is similar, as is the course of study that they have experienced to date. (A brief Profile of the students is included as App. E). The major difference between the groups is that one has been in industry or commerce for one year and the other has not. The simple difference in age, it is suggested, is of little importance compared with the effects of the industrial training year.

It is interesting to note however that the first of the strands identified above, the development of the instruments, was still being pursued at this stage, and Appendix D contains a number of references to the nature of what is being tested at this stage.

Woolworth's Staff

As mentioned briefly above, a group to compare with the students was sought, in order to assist in development and testing of the instruments. The manager of the Huddersfield branch of F W Woolworth Ltd. generously agreed to the giving over of two training sessions to the completion of the questionnaires and those people present on the two mornings in question provided the sample.

In addition to those questionnaires used with the BABS 2 78/79 and BABS 4 79/80 samples, one intended to obtain certain personal details was included. The purpose of this was to extend the analysis of the second strand of the research (that concerned with the effects of work experience and the search for other factors influencing Orientations). Also a questionnaire on organisational climate was included. This had been adapted from one produced by Schein (1968) to reflect mainly those elements of climate thought likely to affect the four elements of Orientations used in the present research.

Unfortunately this climate questionnaire caused problems at the analysis stage. After analysis of the results using cross-tabulations it was found that the level of relationship between each of the questions supposedly related to the same element of climate was very low and not statistically significant. Because of this the data from this questionnaire, although included in the computer records for each Woolworth's employee, were not further analysed.

The results obtained from this sample's questionnaires form the basis for many of the comparisons between samples that were used to establish the validity of the instruments. They also contributed to the analysis of specific questionnaire items which led to the retention or rejection of items for the purposes of constructing scores for each Orientations element along the two dimensions of Desires and Expectations.

Because of the various purposes involved in the choice of this sample, the results from it are not confined to one section of the research report.

Woolworth's 80

The administration of the questionnaires to this sample took place over two weeks in February 1980. The manager of the local branch of the company generously gave up two training morning periods (approximately half an hour in each case). As the time period was short the questionnaires were divided into two sets of three - the first set consisting of one on personal factors, the paired statements and the organizational climate questionnaires, the second set consisting of the questionnaires on Desires, Expectations and Importance rating.

Each of the first sets was numbered and respondents were asked to remember the number and were given a piece of paper with the number on to aid their memory. The questionnaires were collected at the end of the first session, rather than asking respondents to bring them with them the next week, in order to minimise the number lost. No request for individual's names was made as it was considered unnecessary to obtain this information and also because it was thought that this would increase the chances of the respondent's answering the questions a) at all and b) honestly.

The second sets of questionnaires were presented a week later and in only one case was there a failure to remember the number of the first set. However some respondents who had been present the first week were absent the second week, thirteen in all (10 Female, 3 Male); these were excluded from the data analysis as no information from the

Expectation and Importance questionnaires was known for them. There were also eleven (9F, 2M) people who were present in the second week but who had not been there in the first. These are included in the analysis for comparisons between the Woolworths sample and the sample of students, but in the various analyses within the Woolworth sample they are excluded except where the only personal factor involved is the sex of the respondent, ascertained by visual inspection.

The total number filling in one or both sets of questionnaires was 85 (74F, 11M) of which 16 were not included in the data analysis; 13 (10F, 3 M) for the reason above and 3 (3F) because they had filled in the questionnaires in such a way that reliable results could not be obtained, for example leaving a large number of questions unanswered. This left a sample of 69 (61F, 8M). Of these there was information on the Desires, Expectations and Importance rating questionnaires for all and on the other three questionnaires for all but 11 (9F, 2M).

Works Managers '80

As a further comparative group, thought to be dissimilar from both the Woolworth's staff and the students involved in the study, a small group of mature male part-time students on the course leading to the Diploma in Industrial Management was chosen. This group of eight people all filled in the questionnaires on Expectations and Desires, the Paired Statements test and a slightly adapted Importance rating questionnaire. (Like the one given to the Woolworth's sample, this required them to recall the importance they had attached to the four elements when they chose their job). The size of the sample being so small, may make the results of comparisons between this group and the others questionable.

However, in some cases where the instruments are being compared the data from this group are included. (To some extent this depends on the stage in the research project where these analyses were carried out as the data from this group were not collected until May 1980).

BABS 2 1979/80

This sample of students were given the same set of tests as BABS 2 78/79 and BABS 4 79/80 under the same conditions as had obtained for BABS 2 78/79. That is to say the questionnaires were administered in June 1980, after the end of year examinations and prior to their leaving for their industrial training year. Of 49 students (17F, 32M,) 38 (13F, 25M) completed the questionnaires, a response rate overall of 78%.

The main purpose of obtaining data from this sample was to use them as a direct comparison with the data from the other second year group BABS 2 78/79.

BABS 4 80/81

This group of students is in fact BABS 2 78/79 returning after their one year of industrial training. They were tested, in similar fashion to BABS 4 79/80, on their return to the Polytechnic in October 1980. Of the 30 (10F, 20M) students who had completed questionnaires in June 1979, 29 (10F, 19M) also completed the questionnaire in October 1980, in addition 6 (2F, 4M) others did so. This allowed two sets of comparisons to be made: one, a longitudinal comparison between the same 29 individuals who differed only as a result of a year's experience including industrial training, and two, comparisons between groups of different students at similar or different stages in their development.

A list of all the possible comparisons between the different groups of students is included below and the results of these comparisons are included in chapters 4 and 5.

Groups of Different People at the Same Stage of Development (Independent Samples)

BABS 2 78/79 with BABS 2 79/80

tested June 79

BABS 4 79/80 with BABS 4 80/81

October 79

Groups of Different People at Different Stages of Development (Independent Samples)

BABS 2 78/79 with BABS 4 79/80

June 79 October 79

BABS 2 79/80 with BABS 4 79/80

June 80 October 79

BABS 2 79/80 with BABS 4 80/81

June 80 October 80

Groups of the Same People at Different Stages of Development (Matched Pairs)

ie. Longitudinal

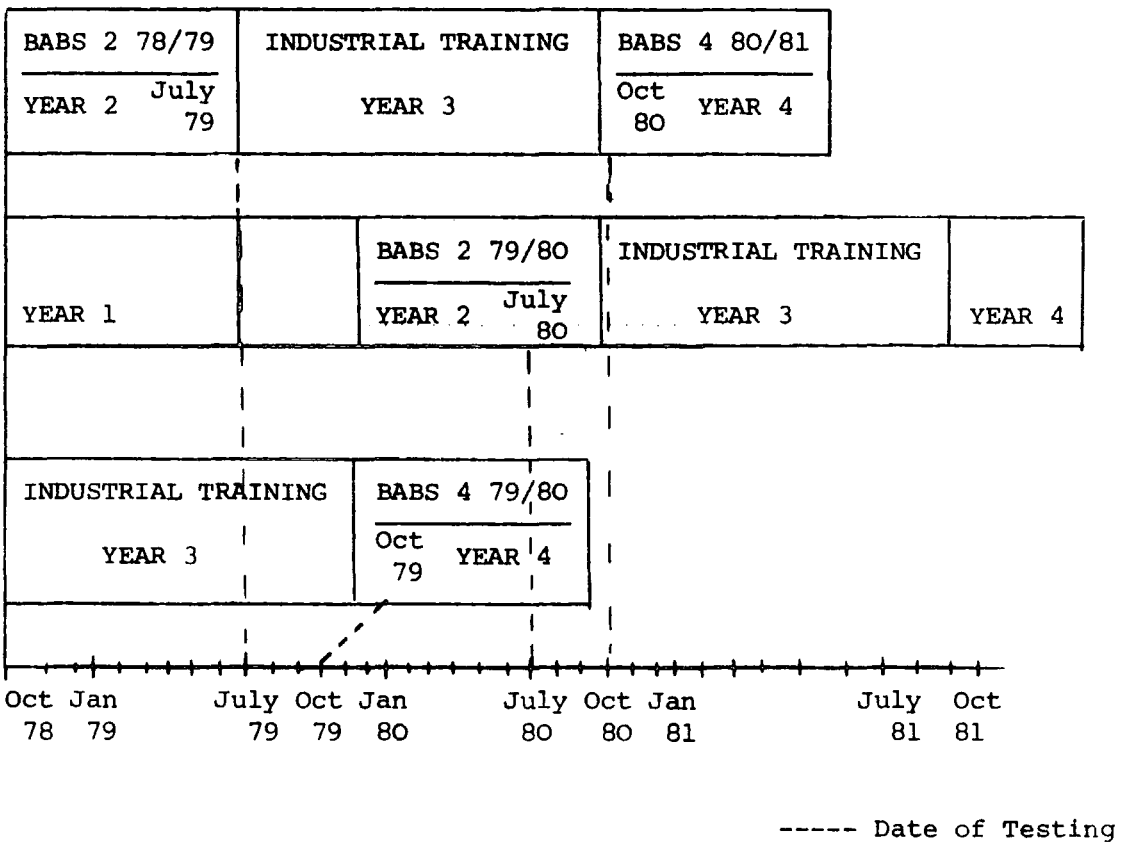
BABS 2 78/79 with BABS 4 80/81

June 79 October 80

In addition to these comparisons between samples of students, analysis within samples was undertaken as was analysis of the comparisons between these samples of students and the other samples (such as the Woolworth's

employees) in order to pursue the two major strands of the study. The reports of these analyses are contained in chapters 3, 4 and 5. Also shown below (Figure 2) is a representation of the progress of the student samples through their courses and of the dates when they filled in the questionnaires.

Figure 3 Progress of Student Samples through the BA Business Studies Course



CHAPTER 3 VALIDATION OF INSTRUMENTS

(Appendices referred to in this chapter will be found in the order of Appendix A to Appendix D towards the end of the thesis after Chapter 6.)

(Tables referred to in this chapter will be found in numerical sequence towards the end of the thesis, after Appendix D and before the References.)

3.1 COMPARISONS BETWEEN SAMPLES

Comparisons Between Woolworths 1980 and Students (BABS 2 78/79, BABS 2 79/80 and BABS 4 79/80)

Following the first strand identified in the study (see p33), the reason for these comparisons was to apply the research instruments to two fundamentally different groups of people in order to establish whether they would show up any differences and if those differences were in the anticipated directions. This does not necessarily prove the efficacy or validity of the test instrument, as there is an element of circular reasoning contained in the process. One is testing a proposition, that the instruments will show up differences, against another unproven proposition, that there are differences between the groups. However on an a priori basis, there are good reasons to suppose that the Woolworths group, consisting, as it does, largely of female respondents in relatively low skilled positions would have, at the least, different Expectations about work from those of degree level students, who in the main had not experienced full-time work on a permanent basis. Their Desires might well also be expected to differ as a result of their particular work and personal circumstances, educational background and socio-economic status.

If the test instruments had failed to show up any differences at all between the two groups, then this would certainly have raised serious questions as to what the instruments were assessing. Either they would have been insensitive to any differences in Desires, Expectations and Orientations although they were testing these, or there were no differences in Desires, Expectations and Orientations or they were testing something else where again there were no differences.

Table 2a shows unquestionably that on all the dimensions tested, except for what is thought to be Instrumental Desires (IDES)* there are differences between the two groups and the level of significance in all cases of differences is extremely high ($\rho \leq 0.0016$). Thus whatever is being tested is in line with the a priori propositions that some aspects of work attitudes would differ between the two groups. The research instruments are worded in such a way as to suggest that they test Desires, Expectations, and hence Orientations, and Importance. They do show differences between the groups on all but one of these at a highly significant level and it is therefore taken as a not unreasonable working hypothesis that the research instruments do test the Desires, Expectations, hence Orientations, and Importance attached to the four elements, Control, Instrumentality, Relations and Personal growth.

The other interesting feature of Table 2a is the one element (IDES) that appears not to differ significantly between the two groups. This may be due to the nature of those particular items in the battery of tests (ie. it may be a technical anomaly of the tests) or it may be a reflection of a genuine lack of difference. On the first point it is interesting to note that in Table 2c the IDES questions do show a difference (although $0.05 > \rho > 0.01$) between the male students and the admittedly few male Woolworths respondents.

*Abbreviations used in the Tables and analyses are as follows

C - Control, I - Instrumental, R - Relational, P - Personal growth,

DES - Desires (obtained from the Desires questionnaire)

EX - Expectations (obtained from the Expectations questionnaire)

IMP - Importance (obtained from the Importance scaling questionnaire)

R - Ranking (obtained from the Paired Statements questionnaire)

ORIENT - Orientations (obtained by multiplying DES by EX scores)

Thus CDES is the Desires score for the Control element and so on.

This is also the case for Table 2e where the male employees of Woolworths are shown as different ($\rho < 0.01$) from the female students on this item (IDES).

On the second point, if the tests are accepted as capable of performing their expected functions, then it is necessary to explain why Instrumental Desires alone of all the items tested show no difference between the two groups as a whole. The Importance questionnaire gives little assistance, for the groups differ on this, although as pointed out elsewhere the nature of the questions posed to the two groups differed: the students being asked to project towards a future job and the Woolworths employees being asked to remember the importance they attached to the various elements when they entered employment with Woolworths.

It may be that in the general terms of the questions on Instrumental Desires connected with work, the level of Desires of the two groups are similar although if concrete salary figures were used, the groups would differ. The finding does suggest that money in particular may well be as much of a feature of the students' wants and desires as it is for the Woolworths employees, although the chances of obtaining the level of instrumental rewards that they want (IEX) are seen as being different by the two groups (and judging by median levels, lower for the Woolworths employees than for the students). See Table 1.

Table 2b is almost identical to 2a and shows that the conclusions for the groups as a whole are directly applicable to the females in the two groups. Table 2c, which shows the comparison between the males in the two sets of samples is interesting as it is almost an inverse copy of the other two. Although the Woolworths male group is small, there is no evidence here for rejecting the null-hypothesis that the male students

and male Woolworths respondents are drawn from the same population except in the case of Instrumental Desires.

It is argued that these findings are due less to the simple variable of gender than the results of differences in gender. In the Woolworths sample, the males tended to occupy positions of responsibility and control and are in that sense similar, especially to the male students, but also to the students as a whole, in terms of the positions they might expect to occupy in their working career. The case for the female Woolworths employees is different. On the whole they occupied low-skilled and relatively low control positions (it is because of this that they were chosen as a comparative sample).

Tables 2d and 2e generally confirm the above and show again that IDES is a considerably anomalous item in the comparisons. Table 2f is a repetition of Table 2a, but with the students of BABS 4 80/81 (this is BABS 2 78/79 returning after their industrial training year) included. It is almost identical to Table 2a.

On the basis of these comparisons there is strong evidence that these tests are capable of distinguishing between samples predicted to be different from a priori evidence. There must remain some question over what the IDES item is testing but from the general nature of the questions included in this item, it is suggested that it tests a rather more general (and perhaps less quantifiable from the respondent's point of view) desire or want, than is the case for the other elements on the two dimensions.

Works Managers 80

In order to continue the process of validation the Works Managers sample was compared both with samples of students and Woolworths employees.

It is predicted that the Works Managers will differ from the Woolworths employees as a whole on most, if not all of the items, largely because of the prominence of the female employees in that group. Again IDES would be a likely exception.

However the Works Managers may well be similar to the male Woolworths sample as they occupy similar positions in the organizational hierarchy and may well have similar backgrounds.

For the comparison with students, Personal Growth may be similar on both dimensions as both groups are involved in courses of study. The Control element may be different, as the Works Managers are or soon will be in a position where they can reasonably expect to have a fair degree of control over others. Their Desires for this element may however, be similar to those of the students as both groups have chosen career paths that are in some way likely to lead to a managerial position. The results of the comparisons are shown in Tables 3a, 3b and 3c.

In relation to the Woolworths employees as a whole, the only items showing no differences are IDES, REX, RORIENT and IIMP. The Relational findings are somewhat unexpected but may be explained by the nature of the work that the two samples are engaged upon.

Both types of work may well present about the same level of opportunities for establishing "workmate" relationships. In the retail setting the generally good opportunities for association may be slightly reduced by the physical layout, in the case of the Works Managers by the hierarchical arrangement as well as physical layout. However the median levels of the two groups are the same and relatively high (16). (Table 1) They do however, differ on their Desires on this element ($\rho < 0.05$) and so the nature of their Expectations may be different although the degree is similar.

On the Control element, Desires, Expectations and Orientations and Importance are all different ($\rho \leq 0.001$), although as Table 3b shows, this is not the case for the comparison with the male Woolworths employees. These findings are as anticipated and give strong justification for the inclusion of the Control element in the analysis, although the same conclusions can be drawn for the Personal Growth element.

For the comparison with the students the main differences relate to the Control element which is as anticipated for the Expectations dimension, on which the Works Managers have a higher median level than the students; but not on the Desires for Control where the Works managers have a lower median level. In addition there are some differences ($0.5 < \rho < 0.1$) on IDES, REX, RORIENT and PIMP. The difference in IDES is interesting and can be compared with that noted earlier between female students and the male Woolworths employees. It is suggested from Table 3b that the Works Managers and the male Woolworths employees are very similar and so the students (including a large minority of females) could be expected to differ from the Works Managers on IDES as the female students did from the Woolworths males.

These comparisons do give reasonable support to the consistency of the test instruments and to the contention that the instruments are measuring what was intended of them. From this position it is possible to embark on a series of comparisons between samples of students in order to study the effects on their Orientations and the constituent dimensions and elements of Orientations of the work experience of the one year industrial training period. The results of these comparisons are reported in Chapter 4.

3.2 COMPARISONS BETWEEN TESTS

In addition to the use of the various tests on each sample for the comparisons between and within samples, the results from the tests were compared one with another across samples and groupings of samples.

The purpose of this was twofold: (a) to establish whether certain tests are interchangeable and (b) following this to establish whether the dimensions being measured, Desires, Expectations and Importance, bear relationships to each other, and whether these relationships vary between samples.

Comparison Between Importance Rating and Desires, Expectations and Orientations

The first question investigated concerning the Importance rating questionnaire was how closely it was associated with the Desires, Expectations and Orientations questionnaires scores over the six samples BABS 2 78/79, BABS 4 79/80, BABS 2 79/80, BABS 4 80/81, Woolworth's employees and Works Managers 80. For the purpose of this analysis the different headings to the questionnaires and therefore the possible differences in what was being measured were ignored (this point is taken up elsewhere, see Appendix B p. B11)

Each Importance rating was compared with its equivalents on Desires, Expectations and Orientations using both the Kendall and Spearman rank correlation coefficients. The results associated with these pairings are shown in table 4a below.

This suggests that for the three elements, Control, Relations and Personal growth the Importance measure shows a reasonable correlation with each on the two dimensions of Desires and Expectations and on overall Orientations. Although the correlation coefficients are in each of these cases significant at $\rho < 0.01$ none of the coefficients is of a remarkably high value. The highest values are for the Control element, then the Relational and Personal growth elements and finally the Desires dimension of the Instrumental element.

These results suggest that there is some connection between Importance and the other dimensions; but that the Importance test is not testing quite the same attitudes and could not be used as a complete alternative to the other tests. It is however, a useful complement.

One interesting feature is the relationship on the Instrumental (I) element. For these aggregated samples IIMP correlates with IDES but there is no significant correlation with either IEX or IORIENT. This suggests that these respondents make much more distinction between what they desire in Instrumental terms and what they expect, than they do between Desires and Expectations in the other three elements.

It would be reasonable to expect from these results that there would be significant but probably low correlations between Desires and Expectations: this is discussed below (see pp 58ff).

In addition to the aggregated samples, each was analysed separately to see if these relationships between the Importance and the other measures held in each case. The results of these analyses are shown below in Table 4b.

Comparison between Tests: Paired Statements and Desires, Expectations, Orientations and Importance Scores

Table 5a below shows Kendall and Spearman rank correlation coefficients for the 182 people in the five samples studied up to September 1980. That only 144 to 149 appear in the table is due mainly to the fact that some Woolworths staff were not present on the occasion when the Paired Statements questionnaire was filled in. Also for a few respondents the questionnaire did not produce a ranking and for a very few no Desire, Expectation or Orientations score was produced. Table 5b shows the same information for all the samples studied in the main research. (ie. at November 1980) As can be seen there is very little difference in the results shown by the two tables.

With respect to the Relational element, there is no significant relationship between RR and RDES nor between RR and REX. However when these two are multiplied to produce RORIENT this is significantly related ($\rho \leq 0.05$) to RR. There would seem to be some form of compensating error involved here.

With regard to Instrumentality, the relationship between IR and IDES is not significant, the IR-IEX correlation is negative and very low (Kendall's rho = -0.007). This suggests that for the Instrumental elements at least the respondents have a divergent view of what they would like and what they expect to get from work. Following from this the relationship between IR and IORIENT is also weak and not significant.

For the other two elements, Control and Personal growth the Paired Statements test seems to measure much the same things as the Desires and Expectations questionnaires and hence Orientations. None of the coefficients is markedly high however and thus the Paired Statements test probably cannot be used as a direct substitute for the other tests. This conclusion would also be applicable to the relationships between the Importance scores and the ranks of the Paired Statements test.

The Relationships Between Desires and Expectations

Table 6a below shows rank correlation coefficients for Desires and Expectations for each element across all the samples in the study.

What this table suggests is that there is a significant correlation between Desires and Expectations on the Control, Personal Growth and Relational elements, although none of the coefficients is markedly high. The significant relationships are strongest on Control, less strong on Personal Growth and weakest on the Relational element. For the Instrumental element there is no significant correlation.

These results fit in with the results of the comparisons between the different tests.

Table 6b below shows a similar analysis but on a sample by sample basis.

For only one sample is there a significant ($\rho < 0.05$) correlation between IDES and IEX, this is BABS 2 78/79. For all the others there is no such relationship, indeed for the Woolworths sample the correlation is negative, although not significant.

The one element that shows a significant correlation for DES and EX for every sample is Control. For the Works Managers the coefficient is noticeably high (Kendall's rho = 0.7485). Given the position of Works Managers within industrial organizations and the importance of day-to-day control over the activities of the shop-floor, this is not a surprising finding. It is suggested that in the case of the Woolworths sample the relationship could be expected, in that both Desire for and Expectations of Control would be low amongst the mainly female shop-floor retail assistants. This is confirmed by the median levels (13 for CDES and 8 for CEX, see Table 1 below).

Concerning the other elements, for only two student samples BABS 2 78/79 and BABS 4 80/81 (the same people for the most part) is there a significant correlation ($\rho < 0.01$) on Personal Growth and only BABS 4 80/81 show a significant relationship ($\rho < 0.01$) on the Relational element.

This suggests that the year in industry undertaken by these students has brought about some changes. Before these students left the Polytechnic environment there was no correlation between RDES and REX, by their return one has come into being. This is not confirmed by the other student samples, BABS 2 79/80 and BABS 4 79/80 each showing a similar lack of relationship on all but the Control element. From Table 1, the median values suggest that for BABS 2 78/79/BABS 4 80/81 it is REX that has altered and in fact increased, whereas the other two groups of students show a comparatively low median value for REX. The nature of the particular experiences of the members of the sample during the year in industry may go some way towards explaining these differences and perhaps BABS 4 79/80 did not have as much success in finding new friends or maintaining existing friendship relations as did BABS 4 80/81.

Comparing the results of Table 6b with 6a suggests that the relationships between Desires and Expectations can be regarded as generally weak or non-existent for all the elements save Control. This is encouraging for the validation of the Instruments, in that they appear to be sensitive enough to point up differences between the dimensions of Desires and Expectations. It also gives support to a formulation of the concept of Orientations that includes these two dimensions. Finally it suggests that the Control element is in some way different from the other elements, in that one can anticipate a correlation between Desires and Expectations on Control for a varied set of samples, which is not likely to be the case for the other elements.

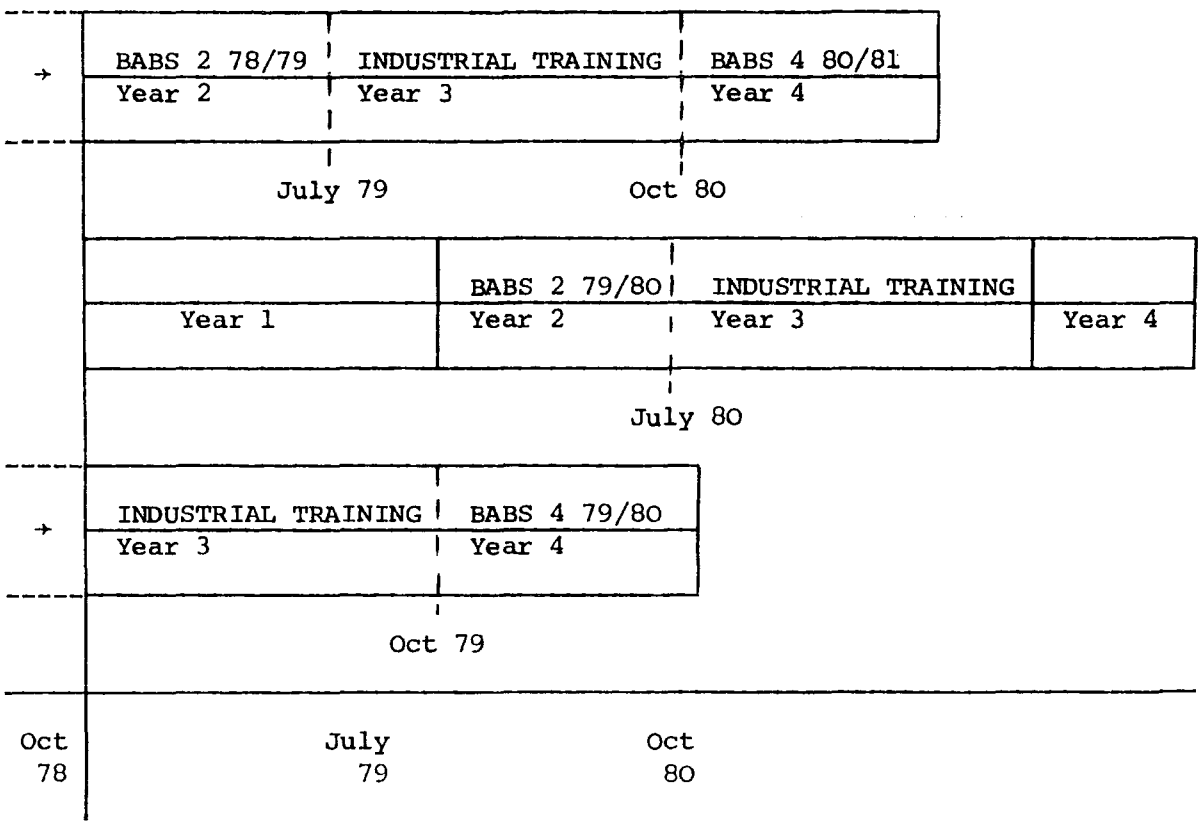
CHAPTER 4 THE EFFECTS OF WORK EXPERIENCE

(Appendices referred to in this chapter will be found in the order of Appendix A through to Appendix D towards the end of the thesis after Chapter 6.)

(Tables referred to in this chapter will be found in numerical sequence towards the end of the thesis, after Appendix D and before the References.)

4.1 COMPARISONS BETWEEN SAMPLES OF STUDENTS

As noted earlier, p45, there are four samples of students included in the research. Two of these samples are the same people for the most part, that is BABS 2 78/79 and BABS 4 80/81 (29 people completed questionnaires at both stages of testing). The progress of these students through the BA Business Studies course is shown by means of the same diagram as was included earlier (see p46).



The list of possible comparisons between these groups has also been noted above (see p45). The statistical technique used for all comparisons except the longitudinal one between BABS 2 78/79 and BABS 4 80/81 was the Mann-Whitney U (also called the Wilcoxon Rank Sum W) Test. For the longitudinal comparison as there were 29 respondents who formed their own controls, the technique used was the Wilcoxon matched pairs signed ranks test.

If the industrial training year has effects on Orientations or their constituent dimensions of Desires and Expectations, then the longitudinal comparison between BABS 2 78/79 and BABS 4 80/81 may be expected to show these up. Similarly it might well be expected that the other comparisons of year 2 students and year 4 students would show these effects.

In order to establish whether each group of year 2 and year 4 students was similar to the other group at the same stage of its degree studies, BABS 2 78/79 and BABS 2 79/80 were compared and then BABS 4 79/80 was compared with BABS 4 80/81. If the samples in each set are similar, the comparative analysis may be used to attempt to support the longitudinal one.

BABS 2 78/79 compared with BABS 2 79/80

Table 7a shows the results of the comparison between these two samples. Table 7b and 7c show comparisons between the female and male members of the two groups respectively.

Table 7a shows that their desires related to work, as measured in the research, do not differ to a statistically significant degree. Although the one-tailed probability associated with RDES is < 0.05, this statistic is not appropriate to testing a non-directional hypothesis (there was no

suggestion that one group would have a higher value for RDES than the other).

The picture in relation to Expectations is very different. For Control, Instrumentality and Personal Growth, the two groups are significantly ($\rho < 0.01$) different and so too for Friendship Relations although the significance is lower ($\rho < 0.05$). For each of these elements the median value for the BABS 2 78/79 group is higher than for the BABS 2 79/80 group (see Table 1). This suggests that the earlier group (78/79) had higher expectations than the latter or that they expected to be able to obtain the four elements more often in their future jobs than did the latter group.

Because of these differences in Expectations, differences in three of the Orientations scores are also significant ($\rho < 0.01$) but not for the fourth or Relational Orientation.

The groups as a whole, or differentiated by gender, do not differ significantly on the Importance they attach to the presence of the four elements in a future job, as tested by the Importance Rating questionnaire.

When analysed by gender, the differences are similar to the grouped results with one or two variations. The female students differ significantly ($\rho < 0.01$) on IEX and PEX and ($\rho < 0.05$) on CEX. The males differ ($\rho < 0.01$) on CEX and ($\rho < 0.05$) on IEX. Thus it would appear that the female respondents in these two samples differ slightly less than the males in their Expectations of Control but more than the males on Expectations of Instrumental rewards and Personal Growth. These consequently affect the differences or lack of them in their respective Orientations to Personal growth, Control and Instrumentality. In each case where a significant difference does exist, the median value for the

BABS 2 78/79 (or chronologically earlier) group is higher than that of the BABS 2 79/80 group.

Whatever the causes of these differences (and some tentative suggestions are put forward in the second part of this chapter) this somewhat unanticipated finding makes the comparisons between the second year and the fourth year students more complex than it was at first thought. The two groups of second year students cannot be aggregated for the purpose of comparison with an aggregation of the fourth year groups. So each must be compared in turn with BABS 4 79/80 and BABS 4 80/81. Similarly differences found between BABS 2 and BABS 4 students may not be so easily explained with reference to the experience of an industrial training year.

BABS 4 79/80 Compared with BABS 4 80/81

Tables 8a, 8b and 8c show respectively the comparisons between the two samples as a whole, the female and the male members of the two samples.

Unlike the year 2 samples, these two do not appear to differ. The only exceptions to this are for the females on Personal Growth Expectations ($\rho < 0.05$) and hence PORIENT ($\rho < 0.05$) and for the males on Personal Growth Desires ($\rho < 0.05$). Although they had undergone industrial training in two different calendar years, it is suggested that the impact of the worsening economic climate was less for these groups than for the BABS 2 79/80 group. BABS 4 79/80 would be expected to suffer the same hesitation over the economic indicators as BABS 2 79/80, they were after all about to start their last year of the degree course before taking up full-time employment. However they, unlike BABS 2 79/80 had successfully completed a year in industry and were tested at a time

(October 79) when they had just returned to the relatively sheltered environment of the Polytechnic. The median levels of their expectations are higher than those of BABS 2 79/80 on all elements save Control (on which they were equal).

Although BABS 4 80/81 had experienced a year in industry at a later date, when the general economic situation had deteriorated further, they also were tested on their return to the Polytechnic. It is possible that for both these samples this "cushion" of a year's sheltered study masked the impact of the general economic situation and also that successful completion of the industrial training period improved or reinforced their confidence in their own abilities to obtain their desired levels of satisfaction of their needs on the four elements.

BABS 2 78/79 Compared with BABS 4 79/80

Tables 9a, 9b and 9c show very few significant differences between the samples BABS 2 78/79 and BABS 4 79/80. Table 12a shows no grounds at all for rejecting the hypothesis that the two samples are drawn from the same population for any of the elements tested by the Desires, Expectations, Orientations, and Importance questionnaires. The values of Z for the Mann-Whitney U Test are extremely low in almost all cases and the values of ρ very high.

Only Table 9b shows any significant differences. This suggests that the two groups of female respondents differ in their Expectations of Personal growth at work and hence in their overall Personal Growth Orientation. The median values for PEX are 17 for the BABS 2 78/79 and 14.5 for the BABS 4 79/80 female groups (see Table 1).

The male respondents do not show any significant differences.

These results are not supportive of a hypothesis stating that the experience of the one year's industrial training alters Orientations to work of 'naive' subjects except in so far as the Expectations of Personal Growth for the female respondents in these samples do differ. If this is as a result of the year in industry this finding should be confirmed by the longitudinal comparison between BABS 2 78/79 and BABS 4 80/81 (see p 68).

Comparisons between BABS 2 79/80 and BABS 4 79/80

Tables 10a, 10b and 10c reflect the previous sets of tables (7a, b, c, 8a, b, c, 9a, b, c). The BABS 2 78/9 and the BABS 2 79/80 samples have been shown to be different in their Expectations and hence three of the Orientations, while the BABS 2 78/9 and BABS 4 79/80 samples have been shown to be essentially similar across all the tests - this would lead one to expect the BABS 2 79/80 and BABS 4 79/80 samples also to differ on their Expectations and hence also some of their Orientations.

This is to some extent the case. On Expectations of Control and Instrumentality they do differ significantly ($\rho < 0.01$) and for the Personal Growth Expectation the difference is very nearly significant ($\rho = 0.0506$), but they do not differ significantly on Relational Expectations. These lead to differences in the Control and Instrumental Orientations ($\rho < 0.01$) and to a lesser extent on Personal Growth ($\rho < 0.05$). The Relational Orientation is interesting as the value of ρ is extremely high ($\rho = 0.9594$), this again shows some sort of compensation between the Desires and Expectations scores which when multiplied together produce sets of Relational Orientation scores that are almost identical when tested by the Mann-Whitney U Test.

When compared by gender (Tables 10b and c) the female students in these two groups also differ on Expectations of Control ($\rho < 0.01$) and Instrumentality ($\rho < 0.05$) but not on any of the Desire elements and only on the Instrumental Orientation ($\rho < 0.05$).

The males show a difference on Desires for Control ($\rho < 0.05$) which is definitely not apparent for the females ($\rho = 0.9743$) as they do also on Expectations of Control ($\rho < 0.01$). This leads to a difference on Control Orientations ($\rho < 0.01$) and there are also differences, again presumably because of compensating Desire and Expectation scores on the Instrumental ($\rho < 0.05$) and Personal Growth ($\rho < 0.05$) Orientations. These two groups of males also show a difference ($\rho < 0.05$) on the importance they attach to Personal Growth factors in a future job.

What these four sets of results suggest is that generally there is little if any significant difference between the groups of students on their Desires about work (compare this with the analysis of differences between these samples of students grouped together and the Woolworths sample. See pp 48ff). This lends support to a hypothesis that the Desires dimension of Orientations is relatively stable and is the product of personality, socialization and educational experience at least in so far as students are concerned.

However the Expectations dimension of Orientations does differ between two of the four comparisons. (BABS 2 78/79 with BABS 2 79/80 and BABS 4 79/80 with BABS 2 79/80) especially with regard to Control and Instrumentality and less markedly with Personal Growth. In each case the median levels of BABS 2 79/80 are lower than those of the other two groups. This it has been suggested may be due to the general economic climate surrounding the groups at the time of testing. This might be

thought to affect the Expectation of Instrumental rewards more directly than the other elements. However it may be that because of the difficulty in obtaining any job, the Expectations of that rung of the managerial ladder on which they are likely to start may also be depressed thus affecting Expectations of Control and Personal Growth.

The combined Orientation scores reflect the findings above. That is that Control, Instrumental and Personal Growth Orientations do differ also between the same two sets of comparisons and this appears to be attributable to the differences in Expectations rather than any differences in Desires. Comparatively Desires, Expectations and Orientations with regard to friendship Relations do not differ between the samples except in the case of REX for the BABS 2 78/79 and BABS 2 79/80 samples and almost significantly between BABS 2 79/80 and BABS 4 79/80; but these differences are not great enough to outweigh the similarities on Desires when scores are combined to produce ORIENT scores.

It is suggested that at this stage, those differences which do occur are largely because one sample, BABS 2 79/80 is different from the other three. The differences are not due to any experience of industrial training or previous work experience. This contention may be tested by the longitudinal comparison undertaken in the next section, that is between BABS 2 78/79 and BABS 4 80/81.

BABS 2 78/79 Compared with BABS 4 80/81

The results of this longitudinal comparison are shown in Tables 11a, 11b and 11c. For none of the elements, nor for any of the dimensions is there any evidence in these results to support the contention that the people in these groups have changed as a result of the industrial training period.

4.2 COMPARISONS BETWEEN SAMPLES OF STUDENTS: COMMENTS

The foregoing analyses and their associated tables (3a, b, c to 11a, b, c) lead to the conclusions that the differences noted are due more to the 'anomolous' sample BABS 2 79/80 than to the effects of industrial training.

Where there are differences between this sample and the others they are concerned with Expectations about work rather than with Desires for or the Importance attached to the four elements studied. Where overall Orientations differ between this sample and the other students, it can generally be explained with reference to Expectations.

The Desires of all the students with respect to the four elements show very few differences. Indeed the only significant differences on the Desires dimension for the students is on the Desire for Control between the males of BABS 2 79/80 and BABS 4 79/80 ($\rho < 0.05$) and on Desires for Personal growth for the males of BABS 4 79/80 and BABS 4 80/81 ($\rho < 0.05$).

When these findings for the students Orientations to work are coupled with those of the students - Woolworths comparisons, the picture in relation to what variables affect Orientations is not particularly clear. The students tend to have similar social and educational backgrounds but do not share these with the Woolworths sample. They also differ from the Woolworths employees in the extent and nature of their work experience. That the effect of the one year's work experience on Desires, Expectations and Orientations is minimal suggests that Orientations and their constituent dimensions are more influenced by factors external to work than by work experience (giving support to the position of Goldthorpe and his colleagues in the Orientations controversy described

above, Introduction & ch 1). Whether the differences between the students and the Woolworths employees on Desires are due to a different set of factors (eg. non-work background factors) from those leading to differences in Expectations (eg. work experience factors) is not demonstrated by the comparisons undertaken. The examination of the Woolworths sample itself, reported below (ch 5), may clarify the situation as information was obtained about variables such as the length of time that the Woolworths respondents had worked at the store.

The central problem in relation to the students is to explain why the one group BABS 2 79/80 is different from the others. One possible cause of the differences might be that one or more of the samples contained a greater proportion of students with some considerable degree of previous full-time work experience than the others. If this were so, then the ages of the members of the respective groups would be expected to differ; this, in fact is not the case (see Tables 12a, b, c below).

Another possible cause is that the economic climate surrounding the groups was markedly different, thus providing lower Expectations in one group than in the other. It is not possible to quantify such an idea unambiguously but certain economic indicators may help to reflect the environment.

In a climate dominated by high and rising unemployment, rapid inflation, high interest rates, large and increasing numbers of bankruptcies and much adverse media comment on the state of the economy, students encouraged to take an interest in economics as part of their course might well feel a depressing effect on their Expectations of the type of job or career they might obtain at the end of their course. This depression of Expectations may be even more marked as these students have just been involved in the process of obtaining a placement for their industrial training year. That this climate had worsened between the times of testing of the two samples is shown by the table of economic indicators below (see Figure 4 p.72).

Where there are differences in Expectations, the median levels of the BABS 2 79/80 group on the measures are lower than those of the other student groups. If it were due to the economic climate why then are the other groups not similarly affected?

The BABS 2 79/80 group were tested in July 1980, immediately after the end of the academic year in which each member of the group had been striving to gain an industrial placement for the next year. They were tested just before they were about to leave the relatively sheltered environment of the Polytechnic for a year in industry.

Figure 4 Economic Indicators 1979/80

Economic indicators (seasonally adjusted)

UBLISHED MONTHLY months or monthly averages)	Unit	1979	1979 1st qtr	1979 2nd qtr	1979 3rd qtr	1979 4th qtr	1980 1st qtr	1980 2nd qtr	1980 3rd qtr	1980 Sept
Industrial production	1975=100	112.7	110.1	114.8	112.7	112.5	110.4	106.1	102.5	100.3
Unemployment (excl school-leavers)	000s	1,304.0	1,356.7	1,304.2	1,266.8	1,286.7	1,377.8	1,492.3	1,695.2	1,784.4
" " "	% of all employees	5.4	5.6	5.4	5.2	5.3	5.7	6.2	7.0	7.4
Retail sales (volume)	1976=100	102.0	100.6	106.0	99.1	101.0	102.5	100.7	99.4	98.6
Exports f.o.b.	£m	3,391	2,791	3,553	3.547	3,672	3,975	3,938	3,971	3,922
Imports f.o.b.	£m	3,667	3,320	3,715	3,711	3,934	4,186	4,038	3,740	3,553
Balance of payments current balance	£m	-203	-405	-103	+2	-213	-54	-23	+306	+444
£'s effective exchange rate (average for month)	21.12.71=100	67.8	64.1	67.4	71.0	68.8	72.2	73.4	75.4	76.1
Official reserves (end of period)	$m	22,719	21,947	22,070	22,751	22,719	26,963	28,172	27,637	27,637
0 Money supply: Sterling M3 (end of period)	£m	55,620	50,640	52,690	54,180	55,750	56,860	58,720	63,850	63,850
1 Retail prices	Jan 1974=100	223.5	208.9	216.6	231.3	237.6	248.8	263.2	268.9	270.2
2 Tax and price index	Jan 1978=100	113.2	107.2	112.0	115.0	118.7	125.2	132.2	135.5	136.3
3 Average earnings (older series)	Jan 1974=100	247.9	231.5	244.1	250.5	265.5	276.1	290.1	302.4	305.0
4 Average earnings (whole economy)	Jan 1976=100	150.9	140.2	147.4	153.9	161.8	168.7	178.2	188.1	194.0

ource Economic Progress Reports - HM Treasury

One other group BABS 2 78/79 had already been tested in July 1979 when the economic climate was certainly not as poor as when their industrial placement search had taken place in the period nine months preceding this date.

The first of the fourth year groups had also been tested earlier in October 1979, immediately after their return to the Polytechnic. This re-entry into an academic environment may have affected their view of their prospects in industry and commerce. Also at this time they had generally not started looking for a permanent position to take up on completion of their degree.

The second of the fourth year groups BABS 4 80/81 were tested, also on their return from industrial training, in October 1980. They might well have been expected to have first hand experience of the worsening economic climate, but not specifically in relation to the search for either a permanent job or a temporary one year placement. As noted earlier their Expectations as well as all the other measures had not altered significantly.

A summary of the conclusions related to the students would contain:

a) No support for the view that one year's experience in industry or commerce alters the Orientations to work of these new entrants into the world of work.

b) No support for the view that the one year's industrial training experience alters the Expectations of the students about work.

c) Some support for the hypothesis that the Desires dimension of Orientations is relatively stable.

d) That the differences where they existed, between the students' Orientations to work might be explained by reference to the wider economic climate rather than to industrial experience.

e) That differences in Orientations can be explained by reference to their constituent dimensions of Desires and Expectations.

CHAPTER 5 THE SEARCH FOR FACTORS INFLUENCING ORIENTATIONS TO WORK

(Appendices referred to in this chapter will be found in the order of Appendix A through to Appendix D towards the end of the thesis after Chapter 6.)

(Tables referred to in this chapter will be found in numerical sequence towards the end of the thesis, after Appendix D and before the References.)

5.1 COMPARISONS WITHIN SAMPLES: STUDENTS

Males Compared With Females

In addition to comparisons between samples, some analysis within samples was undertaken. Tables 13a, b, c and d show comparisons between the male and female members of the four samples.

The only significant differences concern either Expectations or Importance ratings except for BABS 4 80/81 and BABS 2 78/79 which also included Orientations. The most noticeable is the difference on PEX producing a difference on PORIENT. This is maintained through the industrial training year, for the two samples concerned are BABS 2 78/79 which becomes BABS 4 80/81, although the significance of the difference is lower in the later group.

It is not possible from these results to make any general statements about differences between the female and male students except to remark that these are few, do not concern Desires, only concern Personal Growth on the Expectations dimension but may concern Control, Instrumentality or Personal Growth on the Importance measure.

These findings suggest that gender is a far less important influence on Orientations and their constituent dimensions than other factors such as educational and social background at least for students with a limited experience of work or a lack of such experience.

5.2 COMPARISONS WITHIN SAMPLES: WOOLWORTHS

The use of this sample in the first strand of the study, ie. establishing valid measures, has been discussed above (see ch 3.1). This section deals with its use in the second strand, that of examining the nature of Orientations to work and their constituent dimensions. The sample provided an opportunity to study the effects of various personal and work related factors on Orientations.

Information was obtained by questionnaire (see p 42) on the gender (referred to in the tables and discussion as SEX), ages (AGE), marital status (MARSTAT), number of children (CHIL), occupational status (PRSJOB), length of time employed at Woolworths (EMPLYT) of the respondents and whether they had been out of work for more than one year since leaving school (OOW).

Based on the previous research carried out in the field of attitudes and orientations to work (see ch 1) it is possible to set up a number of hypotheses concerning the factors above and Orientations to work.

It might well be expected that there would be differences between the sexes in this sample in their Orientations. It is suggested that the main reasons for this may lie in the different socialization of males and females, differences in education and factors associated with work experience. The number of males in the sample is small compared with that of the females and there was a tendency for the males to be unequally distributed over the various jobs in the store (see Table 14a below). Because of these factors any conclusions on differences based on gender must necessarily be very tentative.

Some research has suggested that the life cycle of an individual may be an important factor in his/her Orientations to work (eg. Bennett ,1978, Brown,1973). Thus the age of a person may have an effect on the way in which he/she views work. This is probably not a simple relationship because age may be tied up with employment experience and a number of the other personal factors studied in this research. The older age groups may well have become more resigned to what their work is like and expect less in the way of personal growth in work than younger less experienced workers. They may also have more commitments outside work than the younger people, particularly the youngest group in this sample. It is possible that they have made adjustments not only in their Expectations but also in their Desires about work as a result of finding that some desires are perhaps easier to fulfill than others. However their being older may enhance the expectation of having a degree of control over others based on their greater experience and maturity.

Other factors may also be referred to under a general heading of factors 'not directly related to work'. Marital status (MARSTAT) may also affect their Orientations, both in terms of Desires and Expectations. The unmarried and particularly the young single woman may view work in a less instrumental way than her newly married counterpart, trying to set up a home, or the married mother who may view work as something of an economic necessity. Having children thus may also affect Orientations, particularly on the instrumental element.

It was thought that the experience of being out of regular employment for more than a year during the working career might have an effect on Orientations, again probably in relation to instrumentality. Those women who had left work early in married life to start and raise a family and had then returned to permanent employment might have a greater need for money or a greater awareness of the value of instrumental rewards.

Under a general heading of 'work-related' factors, some research (eg. Carter, 1966. Wanous, 1972, Mansfield, 1971) has suggested that new entrants to work in general (eg. school leavers), and to organizations in particular (people changing jobs), may have unrealistic or 'naive' expectations of what the new situation will be like. This state of affairs is likely to alter with experience of the organization and so one might expect that the Expectations and thus the Orientations of respondents would vary with the varying lengths of time for which they had been employed at Woolworths ie. with EMPLYT.

It is also expected that the type of job occupied by the respondent may affect or be affected by the Orientations to work of that individual. (see eg. Daniel, 1969) In particular those in supervisory or managerial positions are likely to have a greater expectation of control over others than those people in jobs of lower occupational status. They may also exhibit a greater desire for control and possibly for Personal growth as well.

Regrouping of Data and Statistical Analysis Used

In order to use the Mann-Whitney U Test most of the original categories employed for AGE, MARSTAT etc were merged. The Mann-Whitney U Test can only compare two samples at a time, and the possible number of pairings of all the categories used is very large. This problem could be overcome by crosstabulating and using the χ^2 test but unfortunately this leads to expected frequencies that are too low for meaningful results (see p A4 below). Thus whichever test is to be used some of the categories would have to be merged. As the Mann-Whitney Test is the more powerful, it was preferred for use with the measures of Desires, Expectations, Orientations and Importance ratings. For Tables 14a to 14f which show the relationships between personal and work-related variables the χ^2 test was preferred as it is especially suitable for 2 x 2 tables.

Relationships Between Personal and Work-Related Variables

Table 14a shows a significant ($p<0.05$) relationship between sex and occupational Status. Table 14d shows a very close connection ($p<0.01$) between age and marital status in this sample (as in the general population). Interestingly there is no significant relationship between age and occupational status though there is a tendency for the younger respondents to be in shopfloor jobs. Similarly there is no significant relationship between occupational and marital statuses. (Tables 14b and 14c).

Males Compared With Females

Table 15a shows the results of a comparison between the female and male Woolworths respondents.

Unlike the students, there are many differences between these respondents. Noticeably the Desires dimension shows differences on all the elements ($\rho < 0.01$ for C, $\rho < 0.05$ for I, R and P). Also three of the elements on Expectations show differences ($\rho < 0.01$ for C, I and P). As a result of these, there are differences on three of the Orientations ($\rho < 0.01$ on C, I and P).

It is on Relational Expectations that it is not possible to distinguish between the females and males, as well as on Importance ratings of I, R and P.

These findings are in line with arguments that suggest that Orientations are a product both of factors directly related to work and those not directly related. Both the work experience and background non-work factors are likely to be different between these two sets of people. It is not, however, possible to say from this analysis how these different factors affect Orientations and this question is pursued further below.

Other Factors Not Directly Related to Work

Tables 15b to 15e show the results of comparisons within this sample based on the factors referred to above as 'not directly related to work'.

Age is seen to have no relationship with any of the elements and dimensions, save that of the Importance rating of Control. For this the older age group have a higher median level than the younger. This finding is in line with the expected influence of seniority on Control.

Being or having been married is significantly related to CDES, IDES, IEX and IORIENT (Table 15c). Interestingly the married group have a lower median level of Desire for Control and lower median levels of Desires for, Expectations of and Orientations to Instrumental rewards. The direction of these findings, particularly on Instrumentality is somewhat unexpected. Perhaps the single (and generally younger) respondents have not become as settled in their attitudes to this aspect of work and still have possibly unrealistic views on the level of instrumental rewards available. Also, being single they may have to support themselves and their activities outside work without the aid of a second person's income.

For the married respondents, having children was related to PDES, REX, RORIENT and PORIENT. Those with children have higher median scores on the Personal growth dimensions than those without but lower median levels on the Relational Expectations and Orientations. The Relational findings may be due to the increased opportunity for those without children to pursue friendships made at work outside it or possibly a greater willingness to do this. However why those with children should both want and expect more Personal growth at work is interesting and not easily explained. This relationship may well benefit from further study.

The experience of being out of work for more than a year during the respondent's early career appears to affect the desire for friendship Relations and the Expectation of Instrumental rewards (Table 15e). Those who have had such an experience appear to desire friendship Relations at work more than those who have not, although they did not attach more importance to this element in the choice of their job. This

finding suggests that having been without a full-time job may involve a level of loneliness or a lack of opportunity to participate in as wide a set of friends, other than those close to their home life, as those in work. They may seek to broaden this network of friendships when they return to work.

These respondents also have a lower median level of Expectations of Instrumental rewards. This may be due to a lack of seniority in their job produced by their absence from full-time employment, although this is not borne out by statistical analysis (see Table 14e). Table 15f does not show up a relationship between length of employment at Woolworths and Instrumental Expectations either, although the questions on Instrumentality do not take account of the gradations within and between different pay scales at different levels of occupational status, figures for which were not available.

Factors Related to Work

The two factors examined were the length of time that the respondents had been employed at Woolworths (EMPLYT) and their occupational status (PRSJOB).

Only the Control element shows any relationship with length of time employed ($\rho < 0.05$). For those employed less than one year the median score on the Control Orientation and Importance of Control in choosing their job was lower than for those employed more than one year. The median levels on Expected Control were surprisingly the same. (Table 15f). In most organizations seniority may be expected to have a bearing on the effective control given, this may be because of the individual's being better known and having experience of tasks specific to the

organization. That the median levels on CEX are the same is probably a reflection of an odd distribution of scores as the Mann-Whitney test does show a difference on CEX between the two sets of employees. It is also likely that seniority might lead to increased training opportunities and so PEX might be expected to differ with EMPLYT. This is not confirmed. The training programmes in the store were not only available to everyone; it was the practice that everyone took part in the weekly Tuesday morning programme (indeed it was during two of these that the questionnaires were distributed, filled in and collected). These sessions were attended by all employees from the store manager to the newest shopfloor recruit.

Information on the respondents' current job was obtained by use of an open-ended question. This information was rearranged orginally into four categories; in the analysis these were reduced to two: shopfloor and other (white-collar, supervisory and management). Table 15g shows the results of the analysis using these two categories. On the Desires dimension Control is the only element showing a difference ($\rho < 0.01$). This may be because people in these positions have chosen them as a result of a comparatively strong desire to control others and/or they have developed relatively strong Desires as a result of the experience of control in these positions. However the length of time employed at the store does not appear to affect the Desire for control (see Table 15g) so factors outside the workplace may be the more influential. In this research the only factor that appears to have this influence is being married rather than single.

For Expectations, Control also differs with occupational status. It also differs with length of time employed (see above), so that this expectation may be more a product of factors directly related to work than those not directly related. However the 'external' factors that influence job choice may also be active on Expectations in general and Expectations of Control in particular.

Instrumental and Personal growth Expectations also differ with occupational status ($\rho < 0.01$ and $\rho < 0.05$ respectively). In Woolworths as in most organizations the opportunities for gaining instrumental rewards and for self-development may be expected to be greater the higher up one is in the organizational hierarchy. The median levels confirms the direction of these differences. However both of these Expectations are, as noted above, connected with factors not directly related to work (IEX with MARSTAT and with OOW and PEX with CHIL). It is not possible to say from this research which set of factors is the more important although the lack of a relationship between length of time employed and these two Expectations is noteworthy.

The results for overall Orientations are reflections of those for Desires and Expectations. The Importance rating shows no differences on either the Instrumental or the Relational element for all the personal and other variables. CIMP varies with SEX, AGE, EMPLYT and PRSJOB while PIMP only varies with PRSJOB.

5.3 COMPARISONS WITHIN SAMPLES : WOOLWORTHS : SUMMARY AND COMMENTS

CDES	found to vary with		MARSTAT* PRSJOB*
IDES	_____ "	_____	MARSTAT*
RDES	_____ "	_____	OOW*
PDES	_____ "	_____	CHIL*
CEX	_____ "	_____	EMPLYT* PRSJOB**
IEX	_____ "	_____	MARSTAT* OOW* PRSJOB**
REX	_____ "	_____	CHIL*
PEX	_____ "	_____	CHIL* PRSJOB*

*$\rho < 0.05$ **$\rho < 0.01$

Taking each element in turn: Control is related to Occupational status along both the Desires and the Expectations dimensions. Desire for Control is related to Marital status and Expectations of Control to length of time employed.

Instrumental Desires and Expectations are related to Marital status. Instrumental Expectations are also related to having been out of work and to Occupational status.

Relational Desires are connected with having been out of work and Relational Expectations to having or not having children.

Both Dimensions of Personal growth are related to having or not having children and Personal growth Expectations to Occupational Status.

No particularly clear pattern emerges. Each factor seems capable of influencing both the Desires and the Expectations dimensions. However the age of respondents is the one factor investigated that has no influence on Desires, Expectations or Orientations (in fact it is only related to the rated importance of Control in the choice of a job).

Length of time employed also is a factor that seems to have little influence, being related only to Expectations of Control.

As far as this sample is concerned the factors not directly related to work appear to be those that are more capable of distinguishing between respondents in terms of their Orientations to work and the constituent dimensions of Orientations.

The factor of Occupational status is the most influential, particularly on Expectations; but the reasons that have led to an individual occupying that status have not been studied in this research. These may include factors directly related to work, such as experience of certain jobs (a "developmentalist" view eg. Ginzberg 1951, Super 1960). They may also include factors not directly related to work, such as position in the life cycle, personality, intelligence etc (a "differentialist" view eg. Holland 1966, Roe 1957).

The findings from the Woolworths sample coupled with those from the students give little support to a "work-related" Developmentalist view of Orientations to work. The measures of development used in the research, age and length of time employed are however fairly crude. These findings do give limited support to a view of Orientations to work being affected by factors external to the work situation or not

directly related to work. The pattern of these influences on the elements and dimensions of Orientations is however not a very clear one, although as with the students the results tend to support the view of Goldthorpe and his colleagues rather more than that of Daniel.

CHAPTER 5

SUMMARY of Factors Affecting Orientations and Their Dimensions

		DESIRES		
DIMENSION				
ELEMENT	CONTROL	INSTRUMENTALITY	FRIENDSHIP RELATIONS	PERSONAL GROWTH
AFFECTED BY	GENDER (W) ** MARITAL STATUS* PRESENT JOB	GENDER (W) * MARITAL STATUS*	GENDER (W) * OOW*	GENDER (W) * CHILDREN*
DIMENSION		EXPECTATIONS		
AFFECTED BY	GENDER (W) * TIME EMPLOYED* PRESENT JOB**	GENDER (W) * MARITAL STATUS OOW* PRESENT JOB**	CHILDREN**	GENDER (S) * GENDER (W) ** CHILDREN* PRESENT JOB*
DIMENSION		ORIENTATIONS		
AFFECTED BY	GENDER (W) ** TIME EMPLOYED* PRESENT JOB**	GENDER (W) ** MARITAL STATUS** PRESENT JOB**	CHILDREN**	GENDER (S) * GENDER (W) ** CHILDREN** PRESENT JOB*
DIMENSION		IMPORTANCE		
AFFECTED BY	GENDER (S) * GENDER (W) * AGE** TIME EMPLOYED** PRESENT JOB**	GENDER (S) *		GENDER (S) * PRESENT JOB*

(W) Woolworths
(S) Students

**$\rho < 0.01$
*$\rho < 0.05$

CONCLUSIONS AND IMPLICATIONS

CHAPTER 6 CONCLUSIONS AND IMPLICATIONS

As noted in the Introduction and elsewhere there are two strands running through the study. The first concerns the definition of Orientations to work and what should be included in it. This leads on to the development and validation of instruments capable of measuring the various dimensions and elements included in the definition.

The second strand of the study concerns an analysis of the effects of work experience on the elements and dimensions of Orientations and a search for other factors that may influence them.

With reference to the first strand, it was suggested earlier (see ch 1) that Orientations to work consist of two dimensions - Desires and Expectations. This suggestion is based on the work of Bennett (1972) and on Expectancy theories of motivation. (eg. Vroom, 1964 , Lawler, 1970). In the current study, to the three elements of Orientations put forward by Bennett: Instrumental, Relational and Personal Growth, a fourth, Control over others, is added. The arguments for doing so have been presented earlier (see p 20). In brief these were that other researchers have considered the relationship between Orientations and the pattern of control in organizations and have suggested that the need for control over others may be strong in some individuals, also that this control is a central feature of all organizations and that it is sufficiently different from Personal growth to warrant specific attention.

On this last point the analysis of the relationships between the questions on the questionnaires does suggest that there is a very close connection in the minds of the respondents between Control and Personal Growth (see Appendix B). There is also a close relationship between the Expectations of Control and those of Instrumental rewards; but not between these elements on the Desires dimension. In the context of organizations, where control over others and instrumental rewards increase as one moves up the hierarchy, this is a not unexpected finding. There are however differences in the extent to which the personal variables investigated for the Woolworth sample affect Control and Personal Growth (see Ch5.2) suggesting that neither of these elements wholly subsumes the other. The question of whether the definition of control is used in this study is adequate is taken up below (see pp 99ff).

With reference to the second strand it was put forward as a hypothesis (see Introduction) that if factors internal to work are influential on Orientations then the one year's industrial training period undertaken by the students in the study may be expected to alter their Orientations. It is concluded as a result of the comparisons made between students, especially in the longitudinal study, that the hypothesis above is not confirmed. This conclusion is supported by the finding that for the Woolworth sample there were no statistically significant differences on three of the four elements of Orientations (Control being the exception) between people employed at the store for different lengths of time.

This conclusion raises doubts about the hypothesis that Expectations are more subject to change than are Desires (p 14 and Appendix D). For the students in the longitudinal study neither Desires nor Expectations changed as a result of their industrial training. This was the case for this group as a whole and for the males and females analysed separately. However differences did exist between the non-matched samples of students; these were generally due to differences in Expectations although two cases of differences in Desires did emerge. From the results of the study it is not possible to confirm the hypothesis relating to the relative permanence of Expectations and Desires, nor to refute it. It is certainly the case however that Expectations are not as subject to change as a result of an important experience such as the industrial training period as was thought. One possible explanation of this may be that the students did not see their experience as being real work, merely a training exercise. However the findings on the effects of time employed for the Woolworths sample suggest that even for people who are in full-time paid employment Expectations are relatively fixed.

This raises the question whether Orientations to work can, as earlier supposed (p 30), be taken as being similar to Orientations to specific organizations. Wanous has demonstrated that Expectations related to specific organizations do change over relatively short periods of time as a result of experience in the organization. The Expectations towards work of the students did not change, nor did time employed at Woolworths appear to affect Expectations except for Control. It is thus indicated that the Orientations to work of the respondents in this study are not necessarily the same as their Orientations towards specific organizations.

The findings of the study do lend support to the findings of Goldthorpe and his colleagues that the external factors influencing the Orientations of the Luton workers were stronger than the internal work factors. That this should also be the case with a very different type of sample, students, is of particular interest. In the students' case they do not have a dominantly instrumental Orientation as did the Luton workers; indeed for the students no one Orientation was dominant, although in many cases the Personal Growth Orientation scored higher than the other three Orientations. (Whether the Luton workers would have shown such a dominant Instrumental Orientation had measures such as Bennett's been used is open to question).

The attempt to assess the impact of organizational climate on the Orientations of the Woolworth employees was not successful as the instrument used was not adequate (see p41) and so it is impossible to say from this research whether Daniel's view on the importance of the effects of internal work factors is valid for the Woolworths employees, although some small measure of support for his position is given by the impact of present job on the Orientations and their constituent dimensions of the Woolworths employees. The analysis of the various samples undertaken to try to discover some of the factors affecting Orientations yielded some conclusions. In the case of the students gender did not appear to be an important influence. In the very few cases where differences were shown to exist between the males and females of a sample these were in respect of Expectations of Personal growth and of some of the Importance measures. For the Personal growth Expectations the difference persisted even after the industrial training period, although its statistical significance was reduced. The Importance measures did not show this

persistence, indeed differences on two of the elements appeared only after the industrial training.

In the Woolworth sample gender does appear at first sight to be an important factor. However there is a significant relationship between gender and present job in this sample and many of the differences shown by gender are also shown by present job. It is only on the Desires dimension of Instrumentality, Friendship Relations and Personal growth that males and females differ where the shopfloor and other categories of present job or occupational status do not.

It is concluded that although gender may have some influence on the Desires dimension of Orientations it is not as important an influencing factor as the consequences of gender, such as educational and occupational opportunities.

As noted above in the study of the Woolworth sample the most noticeable factor apart from gender is the present job or occupational status of the respondents. This factor produces differences on the Desires dimension for Control and on the Expectations dimension for Control, Instrumentality and Personal growth, thus producing differences on these three Orientations. In each of these cases the median score for the shopfloor employees is lower than that for the 'other' (higher status) employees. The other factors investigated were length of time employed, age, marital status, number of children and whether the respondent had at some time been out of work for more than one year. Although each of these factors did have some influence on one or more of the elements along one or more dimension, none of them seemed to be as important influences as gender or present job.

Of the factors examined for the Woolworths sample only time employed and present job may be seen as in some way factors internal to work, all the rest are external. It is interesting to note that the two most persistent influences are present job and gender, one of which is partly internal and the other of which is essentially external to work.

Of all the elements, Friendship Relations is the one that is least affected on any dimension by the factors investigated. Further research is required to establish what other factors may produce variations in this element of Orientations. Other samples in other work situations may show that factors such as organizational climate and technology can influence this element. The nature of the work done by many of the Woolworths respondents is such that there are many opportunities to satisfy desires for Friendship Relations at work and this may have been a factor in their choice of job. In other work this may not be the case and so may affect this Orientation or knowledge of this type of work situation may influence the job choice of certain individuals.

It is also concluded that it may be useful to continue to conceive of Orientations as being composed of the two dimensions of Desires and Expectations and to give more weight to these separately than to their combination. In this research reference is made to these dimensions in order to explain differences in Orientations. This is partly as a result of the definition of Orientations adopted early in the research and partly because of a belief that this may be a more realistic view of the way in which individuals perceive their work. From the managerial point of view, if this is true, it may be misleading to have information on an overall Orientations score, as this gives no indication of how strong are the influences of the separate dimensions on this score. If,

as has been suggested in this research, the two dimensions are not as fixed as each other (although neither of the dimensions in this study appears to be very malleable) it may be useful for managers to have information on the respective strengths of Desires and Expectations. Furthermore it may not be possible for managers to change the work situation sufficiently to meet very strong Desires or Expectations. They may however be able to change the Expectations, particularly if they are unrealistic, within the context of the organization. Also strong Desires coupled with weak Expectations may lead to a lowering of motivation, knowledge of the weakness of Expectations may allow management to make changes that will strengthen Expectations and thus increase motivation.

Although the conclusions do not resolve the argument between Goldthorpe and Daniel in favour of the position of one or the other in relation to the major influences on Orientations to work, they do tend to support the stance of Goldthorpe and his colleagues rather more than that of Daniel. There are however weaknesses and omissions in the study (for example the inadequacy of the organizational climate questionnaire) that leave some of the questions open.

One way of interpreting the results of the comparisons undertaken would be to consider them in the light of a slightly different view of Orientations to work. Rather than simply dividing Orientations into a number of elements, one central concept may be proposed that is common to all of these. This is the concept of the actor's control over his own actions (also seen as limitation/freedom of choice of action). This concept may also be viewed along the two dimensions of Desires and Expectations. That is to say the type and extent of control (freedom of choice of action) that the actor wishes to exercise and that he expects to be able to exercise in certain situations. This control may also be seen in relation to whatever elements are found to be important for various actors; certainly the three proposed by Bennett (1974) may well be chosen as a starting point, as may be those included in the Goldthorpe typology (instrumental, solidaristic, bureaucratic and professional).

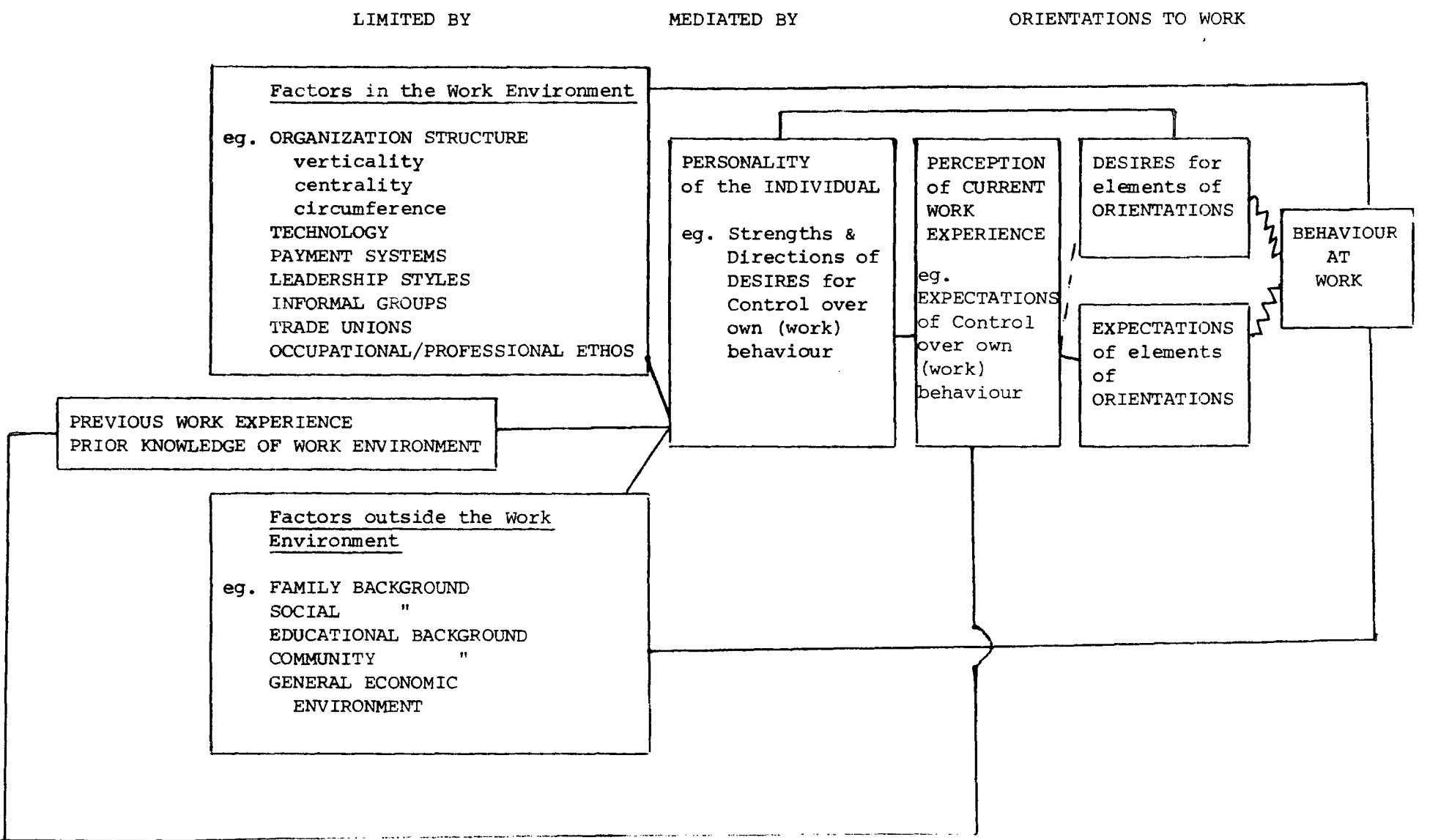
Approaching Orientations from this standpoint allows two broad but connected ways of analysing the action of the individual. The first is an "objective" (ie. from an observer's position) examination of the control that is exercised on the individual by other agents, for example

the organization, the economy, the technology and so on. This allows an "objective" estimation of what control is left in the actor's hands. The second is an "action" approach to discover the fields in which and the extent to which the actor himself desires and believes he will have control over his own actions and destiny. This second approach permits a "subjective" estimation of control and certainly involves an increased contribution from psychology compared with much of the current writing on Orientations to work. The personality of the individual, both in terms of structure and dynamics, may be seen as an important mediating variable between factors defining the work situation and the actor's perception of it. Another important aspect of personality in this framework of Orientations relates to the individual's Desires for control over his own (work) behaviour. Individuals are known to differ in their needs for power or dominance and it seems reasonable to suggest that they may well differ in their needs (Desires) for freedom of choice of action.

From this concept of control it is possible to develop a framework of Orientations to work and such a framework is shown below (Figure 5). The diagram shows some of the factors that may affect Orientations and proposes certain relationships between these. It is necessarily incomplete, for example neither the abilities nor the intelligence of the individual are included, although both these and the actor's perception of them may well affect behaviour. Also the complexity of the relationships between variables has been reduced by their being grouped under a number of (arbitrary) headings. Similarly only a tentative attempt has been made to suggest the direction and sequencing of causation.

ORIENTATIONS TO WORK (at a specific time)

THE INDIVIDUAL'S CONTROL OVER HIS BEHAVIOUR



The first of the two approaches outlined above concerns mainly the sets of factors grouped at the left hand side of the diagram: Factors in the work environment, Previous work experience and Factors outside the work environment. The second approach concerns particularly the Perception of current work experience and Orientations to work.

The justification of the framework and the inclusion in it of the various factors derive from many sources in Organizational and Industrial Sociology and Psychology. Considering first the factors whose analysis may be seen as being "objective", there is a wealth of theory and research to which one may turn.

One aspect of control that has received much attention is that of organizational control. This area is concerned with the extent to which and the ways in which organizations manage to influence the behaviour of their members in directions which are believed by others, usually more senior in the organizational hierarchy, to serve the interests of those organizations.

The history of enquiry in this area is relatively long in terms of the history of sociology. The writings of Max Weber on authority and bureaucracy (Weber ,1948) were not the first but were certainly one of the major early contributions to the area. The formal theory of authority, derived from Weber, has provided many other writers with a starting point for their work in this field. Much of the output of the "Classical Management" school (e.g Fayol,1949, Urwick,1947) concentrated on the structural implications of the formal theory and many of the prescriptive suggestions emanating from this school are firmly based on Weber's work.

Another influence on these writers was certainly the work of Taylor and others of the "Scientific Management" school. The search for scientifically rational ways of organizing the productive process has created a type of organizational control that is inherent both in the technological processes themselves and in the managerial structures and behaviour that are allied to the technology.

The hierarchical arrangement of most organizations confers differential control not only over the actions of other people but over the individual's own work activities. Autonomy and time span of discretion (Jaques, 1956) are generally increased the further up the hierarchy the individual is placed. This may affect Orientations to work, particularly in the area of Expectations. Also individuals may differ in the extent to which they would find autonomy and control over their own work desirable. If so there are important implications for the design of organizational control structures. Questions may be raised about the suitability of the common trend towards more "people-oriented" or "human-relations" based management styles for certain employees. D Smith's (1978) research suggests that a traditional autocratic pattern of control was felt to be appropriate by many of the employees of a northern textile firm and this is explained with reference to their Orientations to work. McGregor's rejection of Theory X assumptions and his promotion of Theory Y based management styles may well need to be treated with some caution, especially if Smith's findings are common to other types of employee.

In order for the observer to examine the control exercised on the individual by organizations, Schein's (1971) model of organizational structure may be useful. He views organizations as containing three dimensions: verticality (rank), centrality (inclusion) and circumference (function or division). Verticality refers to the hierarchical structure of authority as evidenced by such things as organization charts. Centrality is a difficult concept in that apart from being difficult to measure, it may involve both a subjective element (feelings of being included in decision-making which may be more appropriately studied by an action approach) and an objective aspect (being trusted with company secrets). The circumference dimension is the one that is probably most tied up with technology although this is not the only influence on how organizations are divided up into functions or divisions.

In addition to the organization structure, technology is an important factor that may limit or extend the freedom of action of the individual. That the control involved in technology has important effects on the attitudes and behaviour of those working with it has been the subject also of much theory and research. Marx's analysis of alienation, developed* by authors such as Blauner, has been a central part of many studies of behaviour in work organizations. The individual's relative lack of control over his part in the productive process has on many occasions been advanced as one of the reasons for his behaviour and attitudes. These include the use of Blauner's notion of "powerlessness" in attempting to explain differences in attitudes between employees in different industries and the use of lack of autonomy or opportunities for self-actualization as explanations of stress in various occupational groups (eg. Fletcher & Payne, 1980).

*according to Watson "trivialised" is a more appropriate word (see Watson T J, 1980, p137).

The ways in which technology affects behaviour and attitudes are central areas of industrial sociology. From the work of the IFRB and the NIIP (eg. Myers, 1927), through Mayo (1949), Woodward (1958), the Tavistock Institute (eg. Emery & Trist, 1965) to Goldthorpe and his colleagues (1968) and beyond there have been many attempts to construct frameworks within which the effects of technology can be analysed and to some extent explained.

Caution is required in making broad generalisations about the effects of technology and technical change on work experience and behaviour. A major criticism of much of the early work in this area is that it is deterministic and treats technology as the main (indeed sometimes the sole) variable. As Wedderburn and Crompton (1972) point out technology does not necessarily act directly on the individual. It may be a mediating variable in that it affects both the personal discretion of the employee and the power relationship between the employee and his superiors. Technology may perhaps be more usefully seen as setting limits on relationships, behaviour and attitudes rather than determining them and in particular setting limits on the individual's control over his own actions. If technology is viewed in this way then the individual's expectations of what work can provide may be affected. Experience of a particular technical process may thus bring about changes in Orientations to work (one of the points central to Daniel's criticism of the approach of Goldthorpe and his colleagues) and this may be as a result of the individual's realisation that his control is insufficient to transform his Desires about work into concrete Expectations. The research of R K Brown (1974) suggests that for the apprentices he studied there were changes in Orientations subsequent to their entry

into work. These changes may be explained with reference to the socialisation process, part of which may involve learning about the limits on behaviour that derive from technology and other sources.

Technology like other factors must not however be seen in isolation, there are many other facets of the work organization that influence and are influenced by it. Also in terms of Expectations other variables may interact with technology. Taking the Instrumental element of Orientations as an example, the expectation of being able to achieve a certain level of monetary reward may well be influenced by the payment system that is in operation in conjunction with the limits set by the technical arrangements, the presence of informal groups, attitudes of superiors and so on.

In addition to the technology and the organizational control structures, the list of other factors inside the organization that may affect the actor's freedom of choice of action is very long but would include such areas as informal group pressures, professional or skill ethos, trade union membership and policies and community attitudes. All of these areas have received considerable attention, often in isolation; it is suggested that the framework provided above may give an opportunity to integrate them into a coherent structure that leads on to an explanation of work behaviour and attitudes.

Prior experience of work environments may also be seen in the context of limiting the expected control of the individual over certain aspects of work. Thus the Orientations of the car workers in the Luton studies (Goldthorpe et al, 1968) were no doubt partly influenced by their prior work experience. Goldthorpe and his colleagues imply that this was not

a particularly important influence on the current Orientations of the workers that they studied. Many of them had previously worked in more highly skilled jobs where the level of autonomy and control over their own work behaviour was almost certainly higher than at the Vauxhall plant. However their "dominant" instrumental Orientation, if it had been present as a strong Desire in their former jobs, could be advanced as a reason for their leaving them. Particularly so if their Expectations of being able to satisfy this Desire were weak in their previous jobs and strong just prior to entry into Vauxhalls. For these workers, achieving control over a high level of earnings rather than over other aspects of work may well have been the dominant motive in their taking up the semi-skilled work of car assembly. It could also be that their circumstances outside work had changed so that the other Desires that had been present had to be down-graded in favour of the instrumental Desire. If this were the case and knowledge of the nature of work and pay at Vauxhalls were available to them, as it is reasonable to suppose, then their choice of job and their attitudes and behaviour at the time of the study can be explained in the context of their Desires for and Expectations of control over one particular aspect of work.

This facet of work, prior experience, demonstrates that time is a factor that needs to receive some attention in the study of Orientations to work. For example, what was at the time current work experience for the skilled workers before joining Vauxhall became prior experience after they had started work in the car assembly plant.

In looking at the progress through an organizational career or choice of occupation it is important for the observer to recognise that Orientations do not necessarily remain fixed, although one dimension may be more stable than the other. In saying that an individual or collection of individuals has a predominantly Instrumental Orientation to work, for example, one is saying that at the time when the statement was made this was the situation. Changes in any of the factors that influence the range of choice of action open to the actors may produce changes in their Orientations. However the indications from the current study are that changes in Orientations to work are not as likely as previously thought.

In order to avoid the criticism levelled at many studies from those of Mayo onwards that "they stop at the factory gates", it is necessary to include factors from outside the work environment in any framework of Orientations. The work of Goldthorpe and his colleagues, which receives support from the research reported in this thesis, is persuasive in suggesting that these factors may, for some employees at least, be not only important but possibly more important than those factors that are internal to work. Other studies have also shown the impact of factors such as family and community background on work attitudes and behaviour and one could cite as examples those of Dennis, Henriques and Slaughter (1956), Tunstall (1962) and many more.

The justification for the second or "action" approach included in the framework is inherently that provided in chapter 1 of this thesis. This includes the psychological area of expectancy theories of motivation.

Implications of the Framework and Suggestions for its Use

One question of import that is raised in the study concerns the relative stability of Orientations and their constituent dimensions. It can be suggested that in conceptualising Orientations as composed of two dimensions, Desires and Expectations, one is proposing that one dimension (Desires) is more stable than the other (Expectations). If this is the case then the socialisation process that takes place during and after entry to an occupation is more likely to affect Expectations than Desires. The research conducted in the present study does not provide much support for this hypothesis as there were no significant changes in Expectations for the students. In the case of the Woolworths employees only Expectations of Control over others varied between those employed for less than one year and those employed for longer.

However, as has been pointed out above (p 92) it may be that Orientations to work are not necessarily identical with Orientations to specific organizations. Similarly the relative stability of Expectations and Desires with respect to specific organizations may be different from those related to work in general. In either case the concept of control as seen in freedom (limitation) of choice could provide a useful starting point for an examination of both types of Orientation.

Two concepts used by Schein (1971) may also be helpful in analysing the effects of variables internal to the work situation on Orientations. These are "socialisation" and "innovation". The first refers to the process of learning and adaptation by the individual who is influenced by agencies in the work environment (the first approach of the framework); the second to the individual's influence on the organization (which is connected with the second approach). When the pressure of socialization is strong which, according to Schein, is prior to, during and just after

boundary passage (moving from one career stage to the next) the change in Expectations may be greatest. This may help to explain why the students showed no changes in Expectations regarding work as they may not have percieved their industrial training year as representing a boundary passage. When innovation is strong, after for example long service in an organization, coupled with promotions, Expectations may well be relatively stable. At this stage the individual is in a position to exert a fair degree of control over his own work behaviour. However if this expected level of control is not realised the individual may be dissatisfied and may leave the organization.

Differences between Desires and Expectations for any of the elements may be greatest when socialization is exerting a strong influence. Prior to entry there may be a "naive" belief that Desires will be satisfied. This may change as a result of early experience in an organization (see for example Wanous, 1977). As the individual learns more about the organization and his place in it, and acquires greater control over his own behaviour (innovation) so he may be better able to satisfy his Desires. Also he may alter these Desires to reduce the dissonance that could be present if his now more realistic Expectations are shown to be different from his Desires. An alternative of course is for the individual to seek another position where he believes his Desires are more likely to be met. Individuals no doubt also differ in the strength and relative permanence of their Desires.

In periods of high unemployment or abundant supply of skills similar to those of the individual, the process of change in Desires is more likely as the costs of leaving the existing situation are greater. Another strategy is for the individual to concentrate on those Desires

where there is some reasonable expectation of satisfaction and postpone satisfaction of the others to a more propitious time or try to satisfy them in another field, possibly outside work. This might explain the occupational choice and leisure activities of the Luton car workers in the study of Goldthorpe and his colleagues.

Also it seems reasonable to suggest that long-serving members of an organization will have a relative equivalence in the strengths of their Desires and Expectations. This is either because their Desires have been fairly consistently satisfied or because their Desires have changed as a result of their experience in work. Some indirect evidence for these propositions comes from Gowler and Legge (1975) who state "... in short people can become institutionalised within their jobs and as such, refuse to change or leave them". Studies of the Desires and Expectations of these "long-stayers" compared with those of people who have left organizations would be required in order to test the propositions.

Occupational choice is another area where it may be suggested that the concept of the actor's control over his own actions may be a particularly relevant basis for analysis and explanation. The extent to which the choice available to the individual is limited by factors such as education, abilities, personality and so on may be considered along with the range of opportunities provided by employers.

Many factors may be seen as limiting the prospective employee's objective chance of securing a particular type of job. These include factors that are commonly used as predictor variables by selectors, for example educational achievements, particular abilities and skills,

intelligence, personality traits, work history and many others. In the "differentialist" view of occupational choice (eg. Holland, 1966, Roe, 1957) these are matched with the supposed requirements of a job and this matching process is viewed mainly from the employer's perspective. There are at least two weaknesses in this approach: little attention is paid to the individual's perception of his own abilities, interests, skills and so on and of what a particular job requires. Secondly little attention is paid to the selector's perception of what is needed in a prospective job occupant and of the applicant involved. The first is clearly important for any realistic theory of occupational choice. If the individual for example believes (from an observer's viewpoint possibly erroneously) that he is unsuited to a particular job then it is unlikely that he will apply for it.

Similarly the selector's perceptions are important in explaining not necessarily how people may seek to enter particular occupations but in explaining why they end up in one job rather than another or fail to enter their "chosen" occupation.

The question of how the individual's perception of himself and of the requirements of occupations may change over time is at the core of the "developmentalist" approach to occupational choice (see eg. Ginzberg 1951, Super 1960). There are a number of agents involved in this process: parents, educational institutions, friends, relatives, career advisors and others including the mass media. One way in which the individual's control over his choice of job/occupation may be limited is through the expectations of others.

In objective terms it may appear to the observer that the range of choice of occupations open to, for example, one of the students in the present study is very wide indeed. However, although the student could choose to be, say, a car-worker, it is extremely unlikely that he would make or even consider making such a choice. The expectations of others and his own self-image, partly a product of the expectations of others, would effectively limit his control (in terms of range of choice) over this and other similar choices. It is not being suggested that the rôle of degree student (or any other rôle) is defined purely by the expectations of others; but it is certainly limited by these expectations. In this case as in many others, education and ability may be doubled-edged swords: while they open up some new opportunities, they effectively close others. At a simple level, in choosing to do a degree in Business Studies, the students are effectively choosing not to do an apprenticeship or a course in medicine etc. For the student who does want to be a car-worker, another set of expectations may defeat him: that of the selector who may feel that he is over qualified for the job and therefore represents a poor employment prospect.

During this process the Orientations to work of the individual may well be undergoing change both in Desires and in Expectations. Orientations to specific jobs may also be changing.

Again taking the students in this study as examples, their experience of particular jobs and of industry and commerce in general did not alter their general Orientations to work as measured in this study; but it may have affected their Orientations to different types of job or organization. This experience may increase the individual's control over his own future by, for example, demonstrating to him that the

nature of a sales department is such that it allows him a fair degree of freedom in his work behaviour or that a production department tends to limit this freedom. Depending on the individual's personality, reflected in his desire for control over his behaviour at work, one or other of these functional areas may appeal to him or be rejected by him. In either case the individual's control over his own future is increased as the ability to match his own desires with the requirements and benefits of the job is improved. It may also be that his own self-image is made more concrete as a result of the experience. An added advantage is that he may know more about the sort of qualities that a selector will be seeking for particular positions and organizations. Alternatively he is in a better position to reject a job or career because of his likely greater awareness of himself and what is entailed in that job or career.

As suggested elsewhere, a further hypothesis that could be tested is that managers in different functional areas, say accountants and marketing managers, have different Desires about both levels and areas of control; also that these functions do provide such different levels and areas. Similar studies could be made of employees in different industrial settings with particular attention given to the relationships between the technologies in operation and opportunities for the employee to control his own behaviour. In addition to this an "action" approach to the employees' Desires and Expectations would be necessary. Whether the employee compensates for his lack of control in those technologies that are especially limiting by seeking and expecting it outside work also needs to be investigated. The indications from research in the area of work and leisure activities suggests that the relationships may well be somewhat complicated (see for example Parker, 1971).

A point that is raised by the preceding discussion is that Orientations to work are only one aspect of the individual's Orientations to all aspects of life, both inside and outside work. However the concept of the individual's control over his own actions and destiny is appropriate to all activities. Thus examinations of, for example, attitudes and behaviour in relation to the family may also take the framework as a starting point.

Finally the framework may be used as a managerial device. In his latest work on the topic of Orientations to work, Bennett (1981) has suggested that the concept of Orientations may have major contributions to make to a new approach to managing personnel and its performance. The areas he considers most appropriate are selection, training, payment systems, design of tasks and the organization itself. There is little doubt that these areas are central to the effective functioning of organizations both from the viewpoint of employees and management. Also Bennett certainly demonstrates how an Orientations approach may prove of value to management and actually provides management with some of the necessary tools for its application to these areas. In doing this he employs a definition of Orientations and methods of measurement which are essentially similar to those of his earlier work (eg. Bennett 1974). The extension of the definition provided in the framework above coupled with Bennett's book gives an opportunity both to expand the research in this important area and to apply the Orientations approach to the practice of the management of organizations.

CONCLUSIONS AND IMPLICATIONS: SUMMARY

The main conclusions of the study fall into two broad areas: the first is concerned with the methodology of the Orientations approach and the second with the concept of Orientations and its use for researchers, practitioners and students as a heuristic device.

In the area of methodology the study demonstrates that certain instruments, notably the questionnaires on Desires and Expectations, based on those developed by Bennett (Bennett, 1974, 1975, 1981) do yield valid and useful data. Also the Importance measures demonstrate that what is considered important by respondents in choosing a job is not necessarily identical with that which they desire or expect in that job or in work in general. This point does give some support to the view of Daniel (Daniel, 1969, 1971) that an individual's Orientations may alter with the situation. Further these instruments are shown to be easily administered and particularly suitable to computer-based statistical analysis. Also they are readily adaptable to include more specific elements of Orientations, such as those proposed by Blackburn and Mann (Blackburn and Mann, 1979). In conjunction with interviewing techniques these measures would provide a powerful means of obtaining wide-ranging and detailed information on Orientations to work for researchers and practitioners.

For the practitioner, particularly in the personnel field, a wider knowledge of Orientations provided by these methods may assist in making decisions on selection, appropriate training or development, the design of payment schemes, leadership practices, the formation of work groups or management teams and in many other areas of management.

The relative success of the methodology also suggests that even though this study, while on the whole lending support to the position of

Goldthorpe, has not finally resolved the Goldthorpe-Daniel controversy, the means exist that could lead to a resolution of the conflict.

This point is also of relevance to the second area of conclusions, those that deal with the concept of Orientations to work. The giving of a central place in the concept to the individual's Desires for and Expectations of control over his own situation means that the conflict can be viewed in a different light. That is that individuals may differ or indeed be similar in their Orientations as a result of the influence of factors both inside and outside their work environment but the effects of these separate sets of factors are mediated by the individual's personality. The extent of the influence of these factors on Orientations and behaviour may well be more personality-based than either Goldthorpe or Daniel suggests.

It is in its use as an integrative mechanism that the Orientations approach presented in this chapter can make a major contribution to the understanding of attitudes and behaviour at work and elsewhere. It provides a framework into which much material already known and often taught on academic and other more practically-based courses can be placed, thus providing the student or trainee with a means of assessing the impact of a very wide range of factors on his and other peoples' (work) behaviour. Further it helps to see the connections between disparate concepts and information that might otherwise have remained isolated. By so doing the use of the Orientations approach may lead to a better understanding of behaviour at work and hence to an improved match between the attitudes, behaviour and practices of management and the attitudes and performance of employees.

APPENDIX A: STATISTICAL PROCEDURES

As mentioned in Chapter 2, the statistical procedures used became more sophisticated and acceptable as the research progressed. This reflects the learning process of the researcher. A brief description of this process is given below along with explanations of the statistical procedures.

Basic Terms and Procedures

Data may be divided up into a number of classes and for each class of data particular methods of analysis are appropriate (see eg. Siegel, 1956). It is a general principle that methods of analysis appropriate to the lower class of data may be applied to higher classes, but the reverse is not true. One method of classifying data is as follows.

Nominal Data: are data that have no real numerical meaning. For example, it is permissible to classify sex into two categories and give each a number (say 1 for female and 2 for male) for ease of analysis. The fact that males are given the number 2 does not imply that they are in any way numerically larger than females, who are assigned the number 1. A statistical test appropriate to this level is the χ^2 test. (This and other tests mentioned here are described below).

Ordinal Data: are data such as that obtained from attitude surveys using, for example, Likert scaling of the responses, or a ranked list of responses. In a ranked list, the most important item of say five, may be given the number 5 and so on down to 1 for the least important. The value 5 is clearly greater than 4 (that given to the second most important item) and 3 is greater than 2, but there is no guarantee that in the mind of the respondent that the differences in importance between these two sets of items is equal. The respondent may consider the item given value 5 as being vastly more important than all the

other items and that the differences between these others are very small but just noticeable. With this data 5 minus 4 does not necessarily equal 3 minus 2 and so the figures may not be treated as if the intervals between them are equal. Thus averaging of this type of data is not permissible. Appropriate tests for ordinal data are, for example, the χ^2 test again (ordinal data is classified higher than nominal, see above), the Tau B or Tau C test, rank correlation coefficients, the Mann-Whitney U test and the Wilcoxon signed ranks test. These are all non-parametric tests.

Interval or Continuous Data: is data such as that obtained from a thermometer where the intervals between successive numbers are equal. Thus 98^0F is as much above 97^0F as 1^0F is above 0^0F (ie. one degree of temperature on the Fahrenheit scale). Appropriate tests for this data include all those for both nominal and ordinal data plus parametric tests such as the t-test. Almost none of the variables used in this research study are of this class, the one exception being the Importance test which is continuous but not necessarily interval.

The χ^2-test (see Siegel (1956))

The simplest test used in the research is that of χ^2, this is a particularly versatile measure and may be used even on nominal data. It is also appropriate for use on data derived from one sample or from a number of independent samples.

In order to use this test some form of contingency table must be constructed. Taking two questions from the desire questionnaire, for example, CD1 and CD2, it is possible to cross-tabulate the responses from groups of respondents or from all the respondents and produce a table such as that below:

Score on CD1

Score on CD2		1	2	3	4	5	Totals
	1	a	b	c	d	e	
	2	f	g	h	i	j	
	3	k	l	m	n	o	
	4	p	q	v	s	t	
	5	u	v	w	x	y	
	Totals						z

Each cell contains the total number of respondents that answered the two questions in the way indicated. Thus cells a, g, m, s and y show respondents who scored equally on each question, ie. gave the same response to each. All other cells represent respondents who scored CD1 differently from CD2.

The χ^2 statistic is computed using the actual frequency in the cells and that which would be "expected". For cell "a" this expected frequency would be equal to $\frac{(a+b+c+d+e) \times (a+f+k+p+u)}{z}$, where z is the total number of respondents.

The χ^2 statistic as computed for the table is then compared with tables of χ^2 (in the case of the SPSS computer package this is done internally by the programme) and a level of significance for the computed χ^2 statistic can be determined, (again the SPSS package automatically prints this out).

Levels of Significance (ρ)

The meaning of this term is connected with the probability (ρ) of obtaining a calculated value of a test statistic such as χ^2 by chance. At the 0.05 level of significance, the calculated value of the statistic would occur by chance, on average five times in a hundred. At the 0.01 level, it would occur one time in a hundred and so on. The SPSS package prints out significance levels for the statistics generated to four decimal places for the χ^2 test, the Mann-Whitney U test and the Tau B and C tests and to three decimal places for rank correlation coefficients and the Wilcoxon signed ranks test. So a value of $\rho = 0.0000$ indicates that the probability of obtaining such a computed value of the test statistic by chance is less than 1 in 10,000.

As in most social science research, levels of $\rho < 0.05$ and < 0.01 are in general reported in this research. They are represented by * and ** respectively.

Problems Associated with the χ^2 Statistic

Cochran (1954) has observed that the χ^2 test may not be meaningfully be applied when there are cells in contingency tables that have "expected" frequency of less than 1. This is in fact the case in many of the comparisons between samples undertaken. In order to reduce this problem, Orientations scores were regrouped from the possible

range of 16 to 400 into twenty groups - 0-20, 21-40, etc. Even after this regrouping the expected frequency of some cells was less than 1. This is also true of some comparisons using the Desires and Expectations scores.

Thus the χ^2 test may not be anything other than an indication of differences rather than a determinant of the significance of those differences.

One possible way of overcoming this problem would be to regroup the Desires and Expectations scores as well so as to remove those cells with a lower than acceptable level of expected frequency. This would also probably achieve the necessary regrouping for the combined Orientations scores. This, although not an onerous task with the aid of the computer and a very simple programme, reduces the range of scores and involves a series of arbitrary merging of scores, that may mean that interesting differences are lost. An alternative to this is to use another statistical test, which does not require this regrouping of scores, but whose efficiency and meaning are not impaired by the problems associated with the χ^2 test; such a test is Kendall's Tau.

Kendall's Tau B or C

This measure of association is particularly appropriate to the verification of test items. Tau B is used for square tables (eg. a 5 x 5 table as shown (p A3) and Tau C for rectangular tables (eg. a 5 x 4 table where, for example, no respondent had chosen one particular response to one of the questions).

The statistics take the value of 1 if all scores lie along the major diagonal and all other cells are empty. That is to say, if each respondent has exactly the same response to one question as he has to the other. They take the value of -1 if the scores all lie along the minor diagonal, ie. each respondent who scores 1 on one question scores 5 on the other, those who score 2 on one question score 4 on the other, and so on.

Thus the presence of empty cells or cells with low expected frequencies presents no problems with these statistics.

The SPSS package also prints out levels of significance (ρ) for these statistics.

The Mann-Whitney U Test

For independent samples, that is for all comparisons between samples except that between BABS 2 78/79 and BABS 4 80/81 who are the same individuals but returning after a year of industrial training, the main statistical test used in the analyses in the main body of the research is that of the Mann-Whitney U Test. According to Siegel (1956) this is "one of the most powerful non-parametric tests, is appropriate to ordinal level data and is a most useful alternative to the parametric t test".

This test as computed by the SPSS package produces figures for the statistic referred to as the Mann-Whitney U (also called the Wilcoxon Rank Sum W). For large samples (the larger of the two samples greater than 20), another statistic, z, is calculated. This, when corrected for ties, allows rejection of the null hypothesis, ie. that the two samples come from the same population (or that there is no difference between them) when its value is such that the probability of its

occurrence is less than the usually accepted value of ρ (in this research values of $\rho < 0.05$ and $\rho < 0.01$ are both noted).

The programme produces figures for ρ, the probability related to the computed value of z, for a two-tailed test - that is, it is sensitive to any differences between the two samples, but does not work from the assumption that the scores from one sample are higher than those from the second sample. However, where this statistic shows there to be a significant difference between the two samples, it is possible from the crosstabulations carried out to obtain the χ^2 statistic to compute the median scores for each group and to compare them, thereby establishing the direction of the differences.

(For a one-tailed test of significance, where the assumption being tested is that one sample is stochastically larger than the other or that the "bulk" of the sample has higher scores than those of the other sample, the computed value of ρ is divided by 2 to give the probability of z having occurred by chance.)

The Wilcoxon Matched Pairs Signed Ranks Test

Two of the samples, as explained earlier, are composed of the same people. These are BABS 2 78/79 and BABS 4 80/81. Those members of these samples who responded to the questionnaires on both of the two occasions that they were presented can be treated in a "before and after" fashion. That is "before" the industrial training year and "after" it. An appropriate test for comparing these people is the Wilcoxon Matched pairs signed ranks test (each person is matched on all characteristics save one, ie. he/she acts as his/her own control).

This test is similar to the Mann-Whitney U Test in that it produces a z-statistic and the probability (ρ) of its occurrence. This again allows rejection of the null hypothesis, if ρ is sufficiently low.

Rank Correlation Coefficients

These may be used on ordinal data and are appropriate for comparing tests. If two tests are measuring the same variables in the same way, then the rank correlation coefficients between them should be of a reasonably high value. The highest possible value is 1 which shows perfect correlation between the rank orders in the tests. A value of 0 shows no correlation. Significance figures (ρ) are also produced for these statistics by the SPSS package and these are reported also.

The two rank correlation coefficients produced are those of Spearman and Kendall. It is noted by Siegel that on the same data the Spearman coefficient tends to have a higher numerical value than does the Kendall coefficient (Siegel 1956).

These coefficients may also be used for studying whether a relationship exists between say, Desires and Expectations, or Importance Ratings and Desires, etc.

Use of Statistical Procedures Through the Study

Initially the procedures used (see p 37f,Appendices C and D) were inappropriate to the type of data.

In trying to establish the usefulness and validity of the tests the first statistic used was that of χ^2. The weakness of this statistic is noted above. The Tau B and C statistics were also used as bases for retaining or excluding items from the Desires and Expectations questionnaires in the make up of Desires, Expectations and Orientations scores on each element.

However once all the data had been gathered, cross-tabulation of each item on the Desires and Expectations questionnaires against each other item were repeated. The results of this exercise are discussed in detail elsewhere (see p B6,9). These follow-up analyses do give strong support to the groupings originally made.

The use of the Mann-Whitney U, Wilcoxon Signed Ranks and Kendall and Spearman coefficients tests came towards the end of the study and are appropriate tests for the level of data and the type of comparisons made (see eg. Siegel 1956). The results from these tests do however, depend on the groupings of the data made earlier on. These groupings were made on the basis of one appropriate statistic (Tau B or C) and one possibly not very meaningful statistic (χ^2) applied to a comparison between two samples of students and the Woolworths sample.

APPENDIX B: CONSTRUCTION AND SCORING OF INSTRUMENTS

Desire Questionnaire as used on all samples in the main research. (example overleaf).

The desire questionnaire contains sixteen questions and a five box response scale ranging from "very desirable" through to "very undesirable". The neutral "cannot decide" response lies in the middle of the scale. Although the original questions were not numbered on the forms distributed, if they are in fact numbered from one to sixteen (as in the example included in appendix C) then comments on individual questions may be made with reference to these numbers.

Firstly each question was intended to be a measure of one of the four elements being investigated, that is Control, Instrumental, Relational and Personal growth. The table below shows the question numbers, the element supposedly being measured and the code used when referring to the question in the SPSS data analysis that was carried out.

Qu No	Element	Qu referred to as	Scored Left to Right
1	C	CD1	1-5
2	P	PD1	1-5
3	R	RD1	5-1
4	I	ID1	1-5
5	C	CD2	-;5
6	R	RD2	5-1
7	I	ID2	5-1
8	P	PD2	5-1
9	R	RD3	1-5
10	I	ID3	5-1
11	C	CD3	5-1
12	P	PD3	1-5
13	I	ID4	1-5
14	P	PD4	5-1
15	C	CD4	5-1
16	R	RD4	1-5

SE QUESTIONS REFER TO WHAT YOU WANT FROM WORK

H REGARD TO WORK, TO WHAT EXTENT WOULD YOU FIND THE FOLLOWING
IRABLE OR UNDESIRABLE ?

		VERY DESIRABLE	DESIRABLE	CANNOT DECIDE	UN-DESIRABLE	VERY UN-DESIRABLE	
osition that requires you to orders but not to give them	C	1	2	3	4	5	CD1
b needing little thought	P	1	2	3	4	5	PD1
nds at work who would help out if you were in a spot	R	5	4	3	2	1	RD1
enough pay to get by	I	1	2	3	4	5	ID1
perior who gives you precise tructions of what to do	C	1	2	3	4	5	CD2
ndly people to work with	R	5	4	3	2	1	RD2
b that will be secure difficult times	I	5	4	3	2	1	ID2
chance to use your common se	P	5	4	3	2	1	PD2
where you keep yourself to rself	R	1	2	3	4	5	RD3
y to save and invest	I	5	4	3	2	1	ID3
rtunities to influence sions	C	5	4	3	2	1	CD3
utine job	P	1	2	3	4	5	PD3
b with steady pay but little ce to increase earnings	I	1	2	3	4	5	ID4
chance to develop your ities and skills	P	5	4	3	2	1	PD4
sition where you supervise r people	C	5	4	3	2	1	CD4
b that takes you away from friends	R	1	2	3	4	5	RD4

PLEASE PUT A TICK IN THE BOX THAT IS THE MOST APPROPRIATE

THEN Please Turn to Next Page

Thus question one is referred to as CD1 as it is the first (1) of four intended to measure the strength of the Desires (D) for control (C) and so on.

The scoring of the questionnaire is on a Likert scale from 1 to 5, the neutral response receiving 3.

Half of the questions on each element are scored 5 for "very desirable" to 1 for "very undesirable"; that is, they are straightforward positive questions where the desirable or very desirable responses indicate a positive attitude towards the element concerned. These are questions no's 3(RD1), 6(RD2), 7(ID2), 8(PD2), 10(ID3), 11(CD3), 14(PD4) and 15(CD4).

The other half are scored in the opposite direction - 1 for "very desirable" to 5 for "very undesirable", as it was believed that a negative response, such as "undesirable" would in these cases indicate a desire for that element in question. Question 2PD1, for example, "A job needing little thought" is believed to indicate a weak desire for personal growth if the respondent were to regard this aspect of a job as being desirable and a strong desire if regarded as undesirable. The same was believed to be true of all the other questions scored in this same negative way: 1CD1, 2PD1, 4ID1, 5CD2, 9RD3, 12PD3, 13ID4, 16RD4.

In order to test whether the questions were measuring the same things in the same way the SPSS package on the ICL 2960 computer at Huddersfield Polytechnic was used to crosstabulate the scores of each respondent on each question in the first three samples tested; that is BABS 2 78/79, BABS 4 79/80 and Woolworths 1980.

At this stage, two tests of association/significance were used: firstly the χ^2 statistic. If this was significant at $p < 0.01$ then the Tau B or C (where appropriate) measure was investigated.

Table 1a following, formed the basis for the retention of rejection in the statistical analysis of specific items for the combined Desires score on each element. Table 1a shows for each test item, all those other items for which the statistic was significant at $p < 0.01$. Also shown by a tick (√) are significant levels ($p < 0.01$) of Tau B or C. If Tau B or C was not significant at this level, this is shown by a cross (x). Negative values of the Tau statistic are also indicated in the table.

Because of the problems associated with the χ^2 statistic (see pA4), it could be argued that the basis for the retention or rejection at this stage of test items is suspect. If this is so then all the results of the later analyses are also suspect as they all used combined Desires (also Expectations and Orientations) scores based on the groupings of tests items decided upon at this stage.

In order to establish whether the groupings were valid a more rigorous analysis of the items was undertaken later in the study. This involved using only the Tau statistic, which is particularly appropriate for comparing the scores of different test items. The χ^2 statistic was not used at all at this stage. The results of this analysis, which included all the samples from the main research are shown in Table 16b (for Desires) and Table 17b (for Expectations) and are discussed below.

Table 16a shows that certain questions do not appear to relate very closely to others supposedly testing the same element. This is particularly the case for RD3, which has no relation to RD1 or RD2 and the Tau statistic, although not significant, is negative for its relationship with RD4. RD3 was therefore excluded from the Relational Desires scores. CD2 is of a similar nature in its relationship to the other control items and was also excluded from the Control Desires score.

At one level the remaining control questions present no problems: that is they are related one to the other and the Kendall's Tau measure of association is positive and significant at the $\rho = 0.01$ level. However, there is also a fairly strong relationship between them and the P elements, this is particularly true of CD3 and CD4. This may well be explainable in that the desire for control may represent a desire for personal growth and achievement as well, as this is the means to gaining increased control and probably vice versa.

The instrumental questions present another problem that is also shared by the relational and personal growth questions. That is they are not so closely related one with the other. However, each is significantly related to at least one of the others supposedly measuring the same element, although in some cases the Kendall's Tau measure is not large or significant, eg. PD2. However, as there is this degree of inter-relatedness within the elements, which is generally rather better than between the elements, it was decided to maintain the groupings as they had been proposed.

Thus the scores used in the analysis of Desires for the four elements and the computation of Orientations are made up in the following way.

The Desires scores for the instrumental (I) desires are ID1 + ID2 + ID3 + ID4 similarly for personal growth (P) PD1 + PD2 + PD3 + PD4. In both cases if one of these values is missing the overall score is included in the analysis but is adjusted to an equivalent level (minimum 0, maximum 20) by multiplying by 4/3 and rounding to the nearest whole number. For the relational Desires the score is (RD1 + RD2 + RD4)4/3 and for control (CD1 + CD3 + CD4)4/3, here no missing values are accepted, the necessary adjustment having been made to retain the same range as the four questions on I and P. (These are automatically made by the inclusion of a short programme into the SPSS analysis). Where more values than mentioned above are missing the score is not included in the data analysis.

The totals are referred to as CDES, IDES, RDES and PDES.

Follow-up Analysis

As noted above (pB3) these groupings of test items may be suspect. Two questions may be raised: (i) are items omitted that could contribute meaningfully to a combined Desires score for a particular element and (ii) are any items included that on further analysis should not be?

The first is far less important than the second. Because of the adjustments made in total scores for an element when the score on one item is missing, the scores would remain comparable. All that would be lost is the small degree of flexibility provided by having one more item score to help distinguish between respondents. If the answer to the second question is in the affirmative, the situation is much graver. This would mean that items thought to be testing a particular element had been included in the score on that element even though they do not in fact test that element. Fortunately as Table 16b shows, all those items included in the later analyses do have significant ($\rho < 0.01$) relationships on the Tau statistic with at least two other items thought to be testing the same element. The only exception to this is ID4 which has a strong relationship with ID1 but not with the other two, ID2 and ID3. Although it could be argued that ID4 should be excluded because of this, it is argued that the strength of the association between ID4 and ID1, which itself is strongly associated with ID2 and ID3, is sufficient reason for its inclusion as part of the Desires score on Instrumentality.

Bennett Expectations Questionnaire

As with the desires questionnaire, there are sixteen questions divided equally between the four elements. However all the statements are positive, that is to say that a respondent indicating "very likely" as a response will score 5 and "very unlikely" will score 1 on the Likert scale on all the questions.

The supposed elements to which the questions referred were as follows:-

Qu No	Element	Qu referred to as
1	P	PE1
2	I	IE1
3	I	IE2
4	R	RE1
5	C	CE1
6	P	PE2
7	I	IE3
8	R	RE2
9	C	CE2
10	P	PE3
11	C	CE3
12	R	RE3
13	P	PE4
14	I	IE4
15	C	CE4
16	R	RE4

The table following has the same format as that for the Desire questions (above).

QUESTIONS REFER TO WHAT YOU BELIEVE WORK CAN PROVIDE FOR YOU

REQUENTLY DO YOU EXPECT YOUR WORK TO PROVIDE THE FOLLOWING OPPORTUNITIES ?

		VERY OFTEN	OFTEN	CANNOT DECIDE	NOT OFTEN	HARDLY EVER	
given responsibility for own work	P	5	4	3	2	1	PE1
crease the pay that you ve	I	5	4	3	2	1	IE1
ve a secure job	I	5	4	3	2	1	IE2
with people you like	R	5	4	3	2	1	RE1
ve orders to other people	C	5	4	3	2	1	CE1
t the credit for doing d job	P	5	4	3	2	1	PE2
ve some money	I	5	4	3	2	1	IE3
rk with friendly people	R	5	4	3	2	1	RE2
a leader	C	5	4	3	2	1	CE2
ve interesting work to do	P	5	4	3	2	1	PE3
in promotion to a position thority	C	5	4	3	2	1	CE3
ve friends who will start J	R	5	4	3	2	1	RE3
ve to another job if your ls too easy	P	5	4	3	2	1	PE4
n enough to enjoy your 8 hours	I	5	4	3	2	1	IE4
ervise other people	C	5	4	3	2	1	CE4
d friends outside work	R	5	4	3	2	1	RE4

PLEASE PUT A TICK IN THE BOX THAT IS MOST APPROPRIATE

THEN Please Turn to Next Page

The same procedure was used for the Expectations questionnaire as for the Desires questionnaire in deciding whether to retain or reject specific test items. Table 17a formed the basis for these decisions.

Table 17a also shows some problems. RE4 has no associations with any of the other relational questions and in fact could be treated from these results as a question concerned with control. It was however, rejected and a similar adjustment made as for Desires to the relational score on Expectations.

It is of note that item RE4 concerns finding friends outside work, while the other three questions on the R element are concerned with friendship at work. This suggests that, at least as far as Expectations are concerned, the respondents tended to draw a distinction between friends at work or "workmates" and friends outside work. This distinction has been noted by Goldthorpe et al (1968), amongst others and may suggest that these two groups of people represent different types of relationship. The value given to each may vary in degree as well as possibly in its nature. Unfortunately the Desire question RD4 that is similar to this Expectations one is sufficiently different for this distinction not to show up in the relationships between the Desires questions on the R element.

One very interesting feature is the way in which the control (C) Expectations questions are strongly related to each other but also to both the personal growth (P) and the instrumental (I) questions, though not to the first three relational (R) questions. There is also a strong relationship between two of the (P) questions and three (I) questions. These relationships suggest either that the research instrument is not particularly good at distinguishing between different elements of Expectations or that the respondents themselves do not

draw such sharp distinctions in their areas of expectation as has been suggested in some of the previous research (eg. Bennett, 1972a).

For reasons similar to those given above for the Desires questionnaire, the Expectations scores for the four elements were calculated as follows. For the relational element the score was (RE1 + RE2 + RE3) adjusted to be comparable with the other totals by multiplying by 4/3 and rounding to the nearest whole number. If one of these three values were missing the total score was excluded from the analysis. For the other three elements, all four question scores were added together. One missing value on these questions was allowed and a similar adjustment to that above made to make them comparable.

The totals are referred to as CEX, IEX, REX, and PEX.

Follow-up Analysis

As for the Desires so with the Expectations scores a follow-up analysis using the Tau measures was carried out. The results of this are shown in Table 17b. The same two questions (see pB7) are appropriate: are items left out which could contribute and are items included which do not have associations with their supposed fellows?

Table 17b demonstrates that the associations between 'fellow' items are significant ($\rho < 0.01$) in all cases save that of RE4 with RE2. RE4 was in fact excluded from the analysis. This may have been a mistake in the light of this follow-up; but not such a mistake as to invalidate the findings of the later comparisons.

It appears that the distinction between workmates and friends outside work discussed above is not as clear as was thought earlier on in the research. The levels of the Tau statistic are however lower for the associations between RE4 and RE1,2,3 than for those between these three (eg. RE1 and RE2 etc).

Orientations Scores

As remarked above (pp14ff) there may be some dispute as to how an Orientations score may be derived from the Desires and Expectations scores. Both Expectancy theories of motivation and Bennett's approach suggest that Orientations are the product of Desires and Expectations and the combination of scores should therefore be multiplicative. This was compared with an additive combination at an early stage of the research, but using inappropriate statistical techniques for analysing the results. There appeared at this stage to be little difference between the two methods. As a result of this and the strong influence of Expectancy theory, a multiplicative combination was used throughout the rest of the research.

The usefulness and meaning of the overall Orientations score as compared with the separate Desires and Expectations scores is questioned (see p95) after discussion of the results obtained from comparisons between and within various samples. It may therefore be of less importance to continue the discussion of how to combine the Desires and Expectations scores at this point.

In the analyses of the various samples and the tables contained therein the Orientations scores on each element are referred to as CORIENT, IORIENT, RORIENT and PORIENT.

Importance Rating

The importance rating questionnaire (included below) is the simplest of those used and asks the respondents to place a cross on a scale from 0 to 10 representing the importance to them of four factors in the choice of a job or occupation. The four factors are analogous to the four elements of Orientations considered in the study.

The heading of the questionnaire was varied slightly with different samples. For members of the Woolworths sample it asked them to indicate how important the factors in their present job were at the time when they chose it. For all these respondents, this represents a test of memory apart from anything else and may not represent the importance they currently attach to the four factors in their job. The manager of Woolworths in fact pointed this out in conversation after the administration of the questionnaires and said that the weighting of factors he made now was very different from when he first joined Woolworths. On consideration this heading may have been a mistake if one were seeking to establish a simpler means of measuring the present value of Orientations than that used by the other questionnaires. However to ask the Woolworths employees to indicate how important they would consider these factors in the choice of a future job, as the students were asked to do, is to ask a hypothetical question in many cases; for they may have no intention of changing jobs. If the importance of these factors has changed then this indicates that Orientations may also have altered.

The students were not in a position to indicate how important they considered the factors in their present job, as they either did not have one at the time of testing, or they had received a temporary place but had not at that time taken up this temporary employment.

It was felt that the question as phrased for them, which asks about their future employment, is less hypothetical certainly in the case of the fourth year students, who had just experienced one year in employment and who had a close interest in their future employment at the end of their final year of study.

If experience of paid employment were to change their Orientations, as is suggested in this study, then it could also be expected that it might well have an effect on the importance they attach to the four elements of Orientations. Thus it was anticipated that this test should also show a difference between the second year and the fourth year students. Both in the comparative and the longitudinal studies, there are, of course, the complicating factors of the change in the economy and the employment situation; perhaps more marked in the longitudinal study than in the comparative one. This is because the comparative study is carried out at approximately the same time relative to the wider economy, although the state of the economy may be of greater import to the fourth year students who have a shorter cushion of time in the relatively protected Polytechnic environment; whereas in the longitudinal study, measurements are made at an interval of over a year, a period in which a rapid deterioration had taken place in employment prospects and in the economy in general. This may well affect the comparability of the results for the BABS 2 78/79 sample who become the BABS 4 80/81 sample on their return from Industrial Training.

The data from this instrument may be at an internal level; but as they are compared with the ordinal data from the other tests for the purposes of analysis, statistical techniques appropriate to the lower level ordinal data are used.

In the tables and analyses the Importance scores on the four elements are referred to as CIMP, IIMP, RIMP and PIMP.

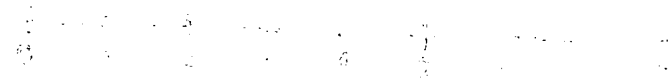
Paired Statements (example included below)

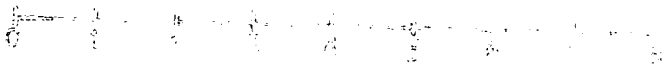
This instrument is discussed elsewhere (see Appendix C and p

It usually produces a ranking of the four elements, and because of the wording these are taken to be along the Desires dimension. The rankins produced are referred to as CR, IR, RR and PR.

For the purposes of comparing this test with others the most suitable statistical test is a rank correlation coefficient.

TANCE RATING





IRED STATEMENTS

r each of the following pairs of statements please indicate, by ticking
box, which of the pair you would choose, if both were available.

interesting and challenging job	OR	
ntrol over other people		
portunities to meet people at work	OR	
e chance to develop your abilities		
chance to buy more goods and services	OR	
ntrol over other people		
e opportunity to be a leader	OR	
portunities to meet people at work		
friendly atmosphere at work	OR	
re money to save and invest		
e chance to buy more goods and services	OR	
e chance to develop your abilities		
friendly atmosphere at work	OR	
interesting and challenging job		
e chance to buy more goods and services	OR	
e opportunity to be a leader		
ntrol over other people	OR	
portunities to meet people at work		
develop your abilities	OR	
[illegible]		
portunities to meet people at work	OR	
e chance to buy more goods and services		
e money to save and invest	OR	
interesting and challenging job		
friendly atmosphere at work	OR	
chance to develop your abilities		
portunities to meet people at work	OR	
re money to save and invest		
chance to buy more goods and services	OR	
interesting and challenging job		
trol over other people	OR	
riendly atmosphere at work		
interesting and challenging job	OR	
opportunity to be a leader		
e money to save and invest	OR	
trol over other people		

PLEASE TICK THE APPROPRIATE BOX

TESTS USED FOR BABS 4 79/80 & BABS 2 78/79

I would be extremely grateful if you would complete the questionnaires accompanying this letter and return them to me in the internal envelope provided. I am carrying out some research at the Durham University Business School and am interested in your attitudes towards work. I hope to follow up these tests later on and in order to do this it would be helpful if you would write your name below. The information in these questionnaires will remain STRICTLY CONFIDENTIAL and will not be used for any other purpose than my research.

I hope that this request does not inconvenience you in any way and I look forward to receiving the completed questionnaires in the near future.

Nigel van Zwanenberg.

Your Name _____ (Block Capitals Please)

BABS IV
79/80

For each of the following pairs of statements please indicate, by ticking the box, which of the pair you would choose, if both were available.

... interesting and challenging job	OR	☐
...ntrol over other people		
...portunities to meet people at work	OR	☐
...e chance to develop your abilities		
... chance to buy more goods and services	OR	☐
...ntrol over other people		
...e opportunity to be a leader	OR	☐
...portunities to meet people at work		
... friendly atmosphere at work	OR	☐
...re money to save and invest		
...e chance to buy more goods and services	OR	☐
...e chance to develop your abilities		
... friendly atmosphere at work	OR	☐
... interesting and challenging job		
...e chance to buy more goods and services	OR	☐
...e opportunity to be a leader		
...ntrol over other people	OR	☐
...portunities to meet people at work		
[illegible]	OR	☐
[illegible]		
...portunities to meet people at work	OR	☐
... chance to buy more goods and services		
...re money to save and invest	OR	☐
... interesting and challenging job		
...friendly atmosphere at work	OR	☐
... chance to develop your abilities		
...portunities to meet people at work	OR	☐
...re money to save and invest		
... chance to buy more goods and services	OR	☐
...teresting and challenging job		
...trol over other people	OR	☐
...friendly atmosphere at work		
... interesting and challenging job	OR	☐
... opportunity to be a leader		
...e money to save and invest	OR	☐
...trol over other people		

PLEASE TICK THE APPROPRIATE BOX

likely or unlikely do you think it is that work will provide you
the following opportunities ?

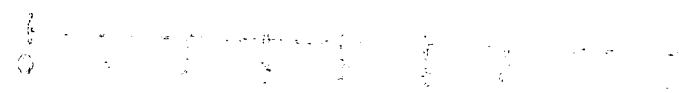
	VERY UNLIKELY	UNLIKELY	CANNOT DECIDE	LIKELY	VERY LIKELY
rom responsibility for work					
ease the pay that you					
a secure job					
th people you like					
orders to other people					
he credit for doing job					
some money					
with friendly people					
ise leadership					
interesting work to do					
promotion to a position rity					
friends who will stand by					
to another job if your mastifying					
nough to enjoy your sure					
ise other people					
riends outside work					

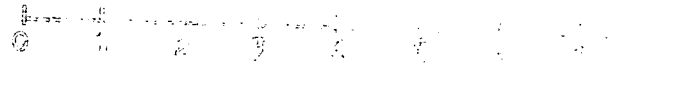
PLEASE TICK THE APPROPRIATE BOX

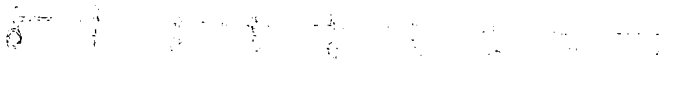
... great ... work, to what extent would you find the following ... quite ... undesirable

	VERY DESIRABLE	DESIRABLE	CANNOT DECIDE	UN-DESIRABLE	VERY UN-DESIRABLE
... that ... you to ... but not to give them					
...ding little thought					
... work who would help ... you were in a spot					
...gh pay to get by					
...or who gives you precise ...ions of what to do					
... people to work with					
...t will be secure in ... times					
... to use your common					
... you keep yourself to					
... save and invest					
...ties to influence ...					
... job					
...th steady pay but little ... increase earnings					
... to develop your ... and personality					
... where you supervise ...ple					
...t takes you away from ... outside work					

PLEASE TICK THE APPROPRIATE BOX







TS USED FOR WOOLWORTHS 80

PLEASE PUT A TICK IN THE APPROPRIATE BOX

AGE ☐ 16-20 ☐ 21-30 ☐ 31-40 ☐ 41-50 ☐ 51+

MARITAL STATUS ☐ Single ☐ Married ☐ Other (Widowed, Divorced, Separated)

NUMBER of CHILDREN ☐ 0 ☐ 1 ☐ 2 ☐ 3 or more

How long have you worked for Woolworths ? ☐ Under a year ☐ 1 year to 5 years ☐ 5 years or more

PRESENT JOB _____ (Please State)

Since you left school, have there been any periods of time of more than a year when you did NOT have a full-time job ?

☐ YES ☐ NO

If your answer is NO, please turn to next page

If your answer is YES, between what ages did this occur ? Please write in the ages in the space below - for example 21 - 33 years old and 36 - 40 years old

_____ years old

For each of the following pairs of statements please indicate, by ticking the box, which of the pair you would choose, if both were available.

An interesting and challenging job OR
Control over other people

Opportunities to meet people at work OR
The chance to develop your abilities

The chance to buy more goods and services OR
Control over other people

The opportunity to be a leader OR
Opportunities to meet people at work

A friendly atmosphere at work OR
More money to save and invest

The chance to buy more goods and services OR
The chance to develop your abilities

A friendly atmosphere at work OR
An interesting and challenging job

The chance to buy more goods and services OR
The opportunity to be a leader

PLEASE TICK THE APPROPRIATE BOX

Control over other people OR
Opportunities to meet people at work

The chance to develop your abilities OR
The opportunity to be a leader

Opportunities to meet people at work OR
The chance to buy more goods and services

More money to save and invest OR
An interesting and challenging job

A friendly atmosphere at work OR
The chance to develop your abilities

Opportunities to meet people at work OR
More money to save and invest

The chance to buy more goods and services OR
An interesting and challenging job

Control over other people OR
A friendly atmosphere at work

An interesting and challenging job OR
The opportunity to be a leader

More money to save and invest OR
Control over other people

THESE QUESTIONS REFER TO YOUR VIEWS ON WORKING IN YOUR PRESENT JOB

PLEASE SHOW THE EXTENT TO WHICH YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS BY TICKING THE MOST APPROPRIATE BOX

	DEFINITELY AGREE	AGREE	CANNOT DECIDE	DISAGREE	DEFINITELY DISAGREE
sually know who is in charge me, when I'm doing my job here					
you want to get paid more here re's nothing to stop you					
atmosphere here is pretty endly and relaxed					
main responsibility for ting work done rests on yourself					
re is a lot of red tape and m filling in this organization					
re are plenty of opportunities doing overtime					
is easy to get to know ple here					
re are good opportunities for ining here					
supervisors here really keep an eye on you					
only real rewards for working e are in cash					
can count on people here to p if you have a problem					
re's a good chance of getting moted, if you do your job well					

S USED FOR WOOLWORTHS 80

SE QUESTIONS REFER TO WHAT YOU WANT FROM WORK

H REGARD TO WORK, TO WHAT EXTENT WOULD YOU FIND THE FOLLOWING
IRABLE OR UNDESIRABLE ?

	VERY DESIRABLE	DESIRABLE	CANNOT DECIDE	UN-DESIRABLE	VERY UN-DESIRABLE
sition that requires you to orders but not to give them					
o needing little thought					
nds at work who would help out if you were in a spot					
enough pay to get by					
perior who gives you precise ructions of what to do					
ndly people to work with					
o that will be secure ifficult times					
chance to use your common e					
where you keep yourself to self					
y to save and invest					
rtunities to influence sions					
utine job					
o with steady pay but little ce to increase earnings					
chance to develop your ities and skills					
sition where you supervise r people					
o that takes you away from friends					

PLEASE PUT A TICK IN THE BOX THAT IS THE MOST APPROPRIATE

THEN Please Turn to Next Page

SE QUESTIONS REFER TO WHAT YOU BELIEVE WORK DOES PROVIDE FOR YOU

FREQUENTLY DOES YOUR WORK PROVIDE THE FOLLOWING OPPORTUNITIES ?

	VERY OFTEN	OFTEN	CANNOT DECIDE	NOT OFTEN	HARDLY EVER
oe given responsibility for r own work					
increase the pay that you eive					
nave a secure job					
oe with people you like					
give orders to other people					
get the credit for doing ood job					
save some money					
work with friendly people					
oe a leader					
nave interesting work to do					
gain promotion to a position authority					
nave friends who will stand you					
nove to another job if your k is too easy					
earn enough to enjoy your sure hours					
supervise other people					
find friends outside work					

PLEASE PUT A TICK IN THE BOX THAT IS MOST APPROPRIATE

THEN Please Turn to Next Page

choosing your present job, how Important were the four following factors ?

ould you please indicate the importance by putting a cross (X) on the cale provided - 0 represents no importance at all, 10 represents absolute nportance.

ay

0 1 2 3 4 5 6 7 8 9 10

Increasing importance →

riendship at work

0 1 2 3 4 5 6 7 8 9 10

Increasing Importance →

esponsibility for and control f other people's work

0 1 2 3 4 5 6 7 8 9 10

Increasing Importance →

evelopment of your own skills nd personality

0 1 2 3 4 5 6 7 8 9 10

Increasing Importance →

USED FOR BABS 4 80/81 & WM 80

For each of the following pairs of statements please indicate, by ticking the box, which of the pair you would choose, if both were available.

An interesting and challenging job OR
Control over other people ☐

Opportunities to meet people at work OR
The chance to develop your abilities ☐

The chance to buy more goods and services OR
Control over other people ☐

The opportunity to be a leader OR
Opportunities to meet people at work ☐

A friendly atmosphere at work OR
More money to save and invest ☐

The chance to buy more goods and services OR
The chance to develop your abilities ☐

A friendly atmosphere at work OR
An interesting and challenging job ☐

The chance to buy more goods and services OR
The opportunity to be a leader ☐

Control over other people OR
Opportunities to meet people at work ☐

The chance to develop your abilities OR
The opportunity to be a leader ☐

Opportunities to meet people at work OR
The chance to buy more goods and services ☐

More money to save and invest OR
An interesting and challenging job ☐

A friendly atmosphere at work OR
The chance to develop your abilities ☐

Opportunities to meet people at work OR
More money to save and invest ☐

The chance to buy more goods and services OR
An interesting and challenging job ☐

Control over other people OR
A friendly atmosphere at work ☐

An interesting and challenging job OR
The opportunity to be a leader ☐

More money to save and invest OR
Control over other people ☐

PLEASE TICK THE APPROPRIATE BOX

THESE QUESTIONS REFER TO WHAT YOU WANT FROM WORK

WITH REGARD TO WORK, TO WHAT EXTENT WOULD YOU FIND THE FOLLOWING DESIRABLE OR UNDESIRABLE ?

	VERY DESIRABLE	DESIRABLE	CANNOT DECIDE	UN-DESIRABLE	VERY UN-DESIRABLE
position that requires you to ake orders but not to give them					
job needing little thought					
riends at work who would help ou out if you were in a spot					
ust enough pay to get by					
superior who gives you precise nstructions of what to do					
riendly people to work with					
job that will be secure n difficult times					
he chance to use your common anse					
ork where you keep yourself to ourself					
oney to save and invest					
pportunities to influence ecisions					
routine job					
job with steady pay but little ance to increase earnings					
e chance to develop your ilities and skills					
position where you supervise her people					
job that takes you away from ur friends					

PLEASE PUT A TICK IN THE BOX THAT IS THE MOST APPROPRIATE

THEN Please Turn to Next Page

QUESTIONS REFER TO WHAT YOU BELIEVE WORK CAN PROVIDE FOR YOU

REQUENTLY DO YOU EXPECT YOUR WORK TO PROVIDE THE FOLLOWING OPPORTUNITIES ?

	VERY OFTEN	OFTEN	CANNOT DECIDE	NOT OFTEN	HARDLY EVER
given responsibility for own work					
crease the pay that you ve					
ve a secure job					
with people you like					
ve orders to other people					
t the credit for doing d job					
ve some money					
rk with friendly people					
a leader					
ve interesting work to do					
in promotion to a position thority					
ve friends who will stand u					
ve to another job if your is too easy					
rn enough to enjoy your re hours					
pervise other people					
nd friends outside work					

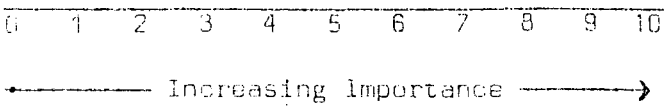
PLEASE PUT A TICK IN THE BOX THAT IS MOST APPROPRIATE

THEN Please Turn to Next Page

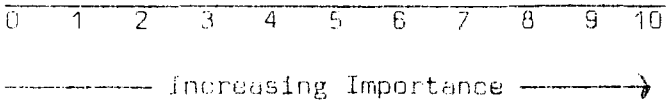
In choosing a job in the future, how important will be the four following factors ?

Would you please indicate the importance by putting a cross (X) on the scale provided - 0 represents no importance at all, 10 represents absolute importance.

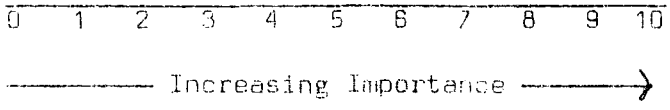
Pay



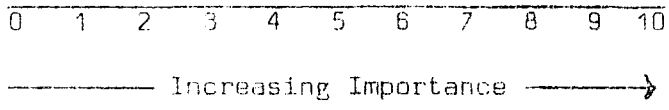
Friendship at work



Responsibility for and control of other people's work



Development of your own skills and personality



APPENDIX C: INITIAL REPORT ON PILOT SURVEY (PILOT TESTS USED ON FIRST YEAR STUDENTS ON BA ACCOUNTANCY AND HND BUSINESS STUDIES COURSES)

(Examples of each of the tests are included at the end of the appendix).

DESIRES DIMENSION

Bennett Questionnaire (adapted) (p C 23)

This questionnaire was adapted from Bennett's work by the addition of a fourth element (the desire to control others) to the three used by Bennett - Instrumental, Personal and Relational. The results are very definitely skewed, in that very few respondents chose answers scoring less than 2* on the Likert scale, even for the three questions for which "undesirable" was a high scoring answer. There were four questions connected with each element and the lowest recorded score was 6 (respondent 28) on any one element. A score of 4 or less on any element would represent an active desire to avoid that element. The lowest average score for all respondents was 2.81 on the Control element, this represents a choice of just less than "desirable" as the average answer for this element. The average scores are to some extent to be expected from this group, all of whom are first year students on either two or three year courses; the highest scoring element is that of personal growth and given the situation of the respondents within an atmosphere that stresses this as well as their choice of this particular path into their careers, this is hardly surprising. However, fifteen people placed the R element first or first equal, twelve the P element, nine the I element and five the C element. This suggests that the overall average score is not necessarily a good indication of their preferences.

*NB The questionnaires at this stage were scored from 0 to 4 rather than as later from 1 to 5.

Faced with this choice of questions, which include only three questions dealing with negative aspects of the elements (one each for P, R and I; difficulty was experienced in designing questions dealing with control as being controlled is not necessarily the opposite of controlling others), the skewed results are to be expected. A better design could include equal numbers of questions dealing with the positive and negative sides of each element, which at the very least should stimulate the respondent into thinking about his/her answers, rather than perhaps assuming that the bulk of "goods on offer" are worth having.

The questionnaire does reveal that the respondents were able, in most cases, to complete all the questions; but because two categories of answers were for the most part inoperative, the skewing probably detracts from the usefulness of the results. Also in most cases and in the average scores, there is some preference shown between certain dimensions - this ability to show preference is reflected in the ranking tests discussed later. However, in twenty-three cases, the respondent had a scoring profile that placed at least two of the elements on an equal footing and this was true for nineteen people in the other rating scale questionnaire using more general statements about work.

Statement questionnaire (see p C27)

This contained three statements of a general nature, such as "people should ..." or "work is ..." on each element and a five point rating scale from "strongly agree" through "neither agree or disagree" to "strongly disagree". Only two of the statements were of a kind where a strong desire would be reflected in a "disagree" answer. These related to the R and C elements. However, the skew in this questionnaire was less

marked than in the one adapted from Bennett, as the rather lower average scores showed.

It is likely that the individual's views on what he finds desirable for himself are different from what he finds acceptable or desirable in others or a generalised other. This is particularly reflected in the order of the median scores - in the Bennett questionnaire the order is PRIC in this questionnaire it is PCRI. Both put the P element first, but the movement of the C element from fourth to second place is perhaps a reflection of the nature of the questions about control in the two tests. In this test, the statements can be interpreted to mean an acceptance of control by others rather than control by the individual of others. It may be that someone with a strong desire to control others would score highly on this element in this test, but it is also likely that someone with a need to be controlled would also have a relatively high score. Thus the design of the statements needs to be revised, so that they test one thing or the other.

Again the most popular first (or first equal) choice was the P element, chosen by 21 respondents, the C by 12, R by 9 and most interestingly I was placed first by no-one. Also I was placed fourth or fourth equal by 24 out of the 33 respondents, compared with 14 on the Bennett questionnaire.

This test suggests that these respondents in general, have a view that work should provide opportunities for personal growth and not be largely a means to the end of earning a living. In some senses, possibly because of the phrasing of the statements, these two elements can be seen as opposites - work that provides <u>purely</u> instrumental rewards is very unlikely to be challenging or stimulating, thus one might well

expect that individuals with a strong or even dominant desire for personal growth at work, would tend to score lowly on the almost purely instrumental statements. The reverse is not necessarily true however, someone with a dominant desire for instrumental rewards may welcome and indeed desire opportunities for development at work. It is well accepted that most people expect to be paid for working, and thus statements that are of a less pure type of instrumentality may be more appropriate for those whose desires are strong in the other dimensions. Also the categories are not mutually exclusive, people seeking qualifications or training may have an instrumental attitude to these as well and see them as a means to increased earnings in the future.

Straightforward question

"What sort of things do you want work to provide?" (p C22)

This test could have presented a number of problems: first the ability of the respondent to answer such a cold, seemingly simple question without any cues. For job applicants who are rather closer to the situation of applying for jobs and thinking about what they do want from work, the question may have more meaning and pertinence; for this sample of first year students who are some way from this position, it proved rather difficult to answer for only a few. Some produced a rather short list (eg No.8), however, the majority were able to list quite a number of items - responses varied from a list of one-word types of items to a more explicative statement of the desired characteristics. Interestingly a small number indicated a ranking of the items, either directly as in the case of No.25 or indirectly as in the case of No.22 ("obviously the first thing I will look for ...").

The second problem is that of categorising or scoring the responses. Presumably the fact that a respondent mentions some job characteristic indicates its importance to him or her, but it also indicates that he or she has remembered it. It may be that desires are affected by expectations or the subjective estimate of chance of obtaining the desire in work; for people who have not worked permanently, some characteristics, such as control over or by others, may not come to mind, when thinking about jobs. Certainly the control element was mentioned less frequently than any of the others. However, satisfaction from work was frequently mentioned, although the sources of this satisfaction seemed in some cases to be vague or at least unreported; this presented a difficulty in placing the answers into the predetermined categories. All four categories were mentioned and certainly the replies indicate desires for financial reward but usually coupled with the chance for personal development and, for some respondents, friendly relations at work.

As a confirmation of the chosen categories of orientation, the test is valuable; but as a tool for research or use in selection, the problem of scoring the responses is paramount. Respondent 2 is an example of this - he appears to have a strong desire for personal development, yet the other tests (except the statement questionnaire) show a dominance of relational desire over personal growth. The only other characteristic he mentions is connected with instrumentality, yet this appears either third or fourth on the other tests. No.25 would appear to have a dominant instrumental desire yet this is confirmed only by the job characteristics questionnaire.

Paired statements (p C25)

In this test there are two statements on each element giving a total of eight statements. These are paired, so that the respondent is asked to choose on each occasion between statements attached to one element or another. Thus one control statement is paired with a personal growth statement in the first pair. There are in all three pairings of each element with each of the others, giving a total of eighteen pairings. One statement on each element is repeated five times and the other four times.

There are two levels of consistency in the answers. The first is that for each pairing of say control and personal growth, the respondent prefers one element to the other. Inconsistency at this level will still produce a preference of one over the other as there are an odd number (three) of pairings (ie. he may prefer P to C on one occasion but C to P on the other two, giving an overall preference of C to P). At this level most showed some inconsistency on at least one pairing and some on up to five (No.30), although there were four who were totally consistent (1, 8, 17, 19).

The other level is in the ranking of all four elements. If the respondent prefers C to P, P to I and I to R then, if he is consistent he should prefer C to R, P to R and C to I. If not, it may well be impossible to produce any ranking at all from the results, although in no cases did this happen. However, in five cases (Nos.7, 9, 20, 25 and 32) it was possible to say only that the respondent placed one element either categorically last or first and did not consistently rank the other three elements. If there were a greater proportion of people inconsistent at this level then the test would certainly lose some of its attraction.

The results tend to suggest that the respondents were able to choose with some level of consistency, between the various elements and that their choices could be taken as being representative in most cases, of an underlying ranking of the various elements. Had this ranking not existed, then one would have expected a far greater incidence of inconsistency at the second level discussed earlier. It is possible to conceive of an arrangement of preferred pairings that could have been chosen, that is inconsistent at both levels and that yields no possible ranking whatsoever. (eg P>C, C>I, I>R, R>P, C>R, I>P). That this did not occur is at least indicative of the respondents having some ranked preferences. If a Likert score is given to the ranked positions of the elements for each respondent then the overall result (including or excluding those five inconsistent respondents) gives an order of P>R>I>C which happens to agree with that of the Bennett Questionnaire.

Job characteristics importance scaling (p C29)

Respondents were asked to show on a five point scale, the importance they would attach to the four characteristics, which were closely allied to the four elements of Orientation. The five point scale was almost certainly not long enough to produce significant differences in ranking, if that is what the respondent wished to do. As people are quite likely to tend towards the positive end of the scale, the one offered to them gave little opportunity to distinguish between the importance of the elements. However, there was no suggestion that they should produce a ranked order if they did not wish to do so. In only five cases were no characteristics scored equally, in twenty cases two were given equal weight and in seven cases three were scored equally and in one case two pairs were scored the same. The limitations of the length

of scale do not permit one to say that on this simple test the respondents did not rank the items; but there is an indication that they perhaps found difficulty in doing so at least as regards the choice between certain of the dimensions.

The test referred to the Importance of the characteristics and this may be somewhat different from the Desire for them. Respondents may take their Expectations into account as well as their Desires and it is also possible that they see some of the characteristics as being in some way connected.

A number of improvements can be suggested. Each characteristic could be followed by a seven or five point scale on which the respondent could mark the position of importance he attaches to the particular element - this would give him a greater chance of drawing fine distinctions between the characteristics, if he so wishes. By allowing positions between whole numbers, the scale is extended almost infinitely and a profile will emerge.

The wording of the introduction could be changed to include a Desires and for a second similar test an Expectations dimension in order to arrive at a combined position. For selection purposes both types may be useful. The separation of Desire and Expectation may give an indication of what information the selection interviewer may wish to give to comply with aspirations or to correct or amplify expectations. The combined test may be useful for initial short-list preparation, as may the separated one.

A test of this type has the attraction that it is simple, easily administered and relatively easily scored. It disadvantages also lie in its simplicity as the respondent may not be able to relate the rather bald descriptions of the characteristics to specific job and organisational contexts, nor to his own particular situation. There is also the clear possibility of cheating, although this, to be successful, would require a degree of double-guessing by the applicant about what was being looked for.

EXPECTATIONS DIMENSION

Bennett type questionnaire (p C24)

This consisted of three statements on each element scored on a five point scale ranging in expected frequency from "not at all" to "all the time". In this test all the categories are of a positive (or zero nature unlike the desire questionnaire. The average scores per question indicate Expectations of each element ranging from 2.26 to 2.76 indicating Expectations of the presence of the element on at least some occasions towards most occasions. On average the differences between the P and I elements was very small, and between these and the R element small. In some few particular cases there were marked differences in Expectations about certain elements, generally however, the differences were not great. The average per question was lower than that of the Desire questionnaire although this is probably to be expected because of the skewed nature of that test.

Sixteen respondents placed the R element first or first equal, eleven the P element, eight the I and six the C. Again the average is not a particularly good indication of the overall results.

The statements relating to the Personal element differ slightly from those of the desire questionnaire in that they relate less to opportunities for development through such things as training than to responsibility and interest in work. An improvement of this questionnaire would be the inclusion of a statement to this effect.

As the intention was to use the score on this test multiplied by that from the Desire questionnaire to obtain an overall Orientations score, it would seem reasonable that the same number of questions/statements on each element should be used in both cases. Also the statements in each test should be as similar as possible to point up any differences that may exist between Desire and Expectation. In Bennett's case the first point was not followed, there are four statements on the desire questionnaire to three on the expectations test. Although for the overall score this may make little differene, there is the possibility because of the multiplication and the small number of statements that differences could be exaggerated or possibly that opportunity is not given for differences in Expectations to emerge sufficiently. The question of consistency may also be important in considering the number of statements to be presented, although unlike the paired statements test, there is no necessity for the respondent to produce a ranking if he does not wish to do so. (Twenty out of the thirty-one did score at least two elements equally in terms of Expectation as did twenty on the Desire questionnaire).

An improvement might be to reword the answer boxes to make the respondents assess subjective probabilities more obviously, thus answers couched in terms such as "likely", "very likely" might be more useful and valid. (See the discussion of the ranking score for Expectations elements). This obviously also implies altering the introductory question slightly.

Ranking Score (p C26)

The list presented included two items related to each dimension of Orientation and one dummy item, "pleasant working conditions". In scoring the results this item was ignored although its effect on other positions was included. The ranked positions were scored out of nine and the two scores on each element added together. Respondents were given the opportunity to rank items equally, though in general they did not do so. (cf however, Nos.19 and 30). This would tend to confirm the conclusion from the straightforward question test, that these respondents can, and to some extent do, rank or distinguish probabilities in their Expectations about work. The results tend to show a fairly clear last place in the list of Expectations for most respondents although quite a number show equal or near equal first places. Compared with Bennett's test the range between first and last places is much greater even though there are only two items to each element compared with three in this test. The scoring is however of such a nature as to point up these differences and possibly to exaggerate them. This has clear implications for the use of this type of scoring in a combined Orientations score using the product of this test and the one on the Desires dimension.

There is some agreement between the tests in that in eighteen cases they give the same result for highest score (including equal scores) and in seventeen cases for lowest score. On averages the only agreement is that C is lowest, the other positions are interchanged.

The main use of this test seems to be as a means of giving some validity to a test of the questionnaire type. These respondents could distinguish, in the main, between subjective probabilities and produce ranked lists, which gives support to the idea of asking them to assess the probabilities of receiving certain rewards or being in certain situations at work via a questionnaire.

Straightforward Question (p C22)

"What sort of things do you expect that work will provide?"

Certainly most respondents drew a distinction between their desires and expectations. No.1 shows this most clearly, although Nos. 5 and 29 do not draw a distinction at all. For most, there is an expectation that work will not provide all that they want from it, although in at least one case, the respondent (No.15) argues that he will receive all he wants in the long run and No.24 also, as he hopes to make possible the things he expects.

There is a certain cynicism to some of the answers, that work will not be as interesting or rewarding as is hoped; but also realism in that financial reward is seen as being the most likely result of work. No.32 shows a clearly realistic outlook as well as an interestingly openminded attitude towards answering the question.

Also the answers suggest that the naivety of Expectations about work in these respondents is by no means total - they appear to have some knowledge of possible disappointments in their future jobs.

The technical problems of this test are essentially similar to those of the "Desire" questions: categorising and scoring of responses. Its value is also similar in that distinctions are drawn between Desires and Expectations, although this may be due to the fact that the questions were asked separately, and there appears to be some ranking of Expectations.

Picture Test (pp C18 - C21)

The picture was intended to be fairly neutral, so that respondents could read into it whatever they wished. However, not only was it neutral, it turned out to be rather indistinct, making it difficult to see if anything was happening. This made the first question extremely difficult to answer, although one person did in fact give a description that was essentially correct. Most favoured some description concerned with maps or plans or theatre stages.

Because of this problem, the second question concerning how the respondent would feel if present, was also problematical, although those who did produce some kind of explicative answer managed to convey some idea of their feelings.

The test certainly tested something, although the questions were not well enough designed to allow the categorising and scoring of results into the framework of four elements of Orientations. A clearer, though still neutral picture is also needed to make anything of a test of this nature.

The questions need to be non-directive in the sense of Orientations categories, but more positive in gaining information on attitudes towards work. Thus it might be better to ask, not what is happening, but what led up to this situation and which role the respondent would like to occupy if he were present and what he expects to happen as a result of his contribution (or lack of it) to the situation.

Categorising the responses will require some kind of content analysis, probably best done by a panel. This presents practical problems that the other tests in general do not. However, the responses of some of the people tested do suggest that, with a rather better designed and thought out test, some indications of Orientations and certainly attitudes about work can be gathered, which might well provide a useful comparison with tests of a different nature.

Overall Orientations Scores

Bennett

The key question concerns the multiplication of the Desire and Expectation dimension. Should this calculation take place? If so, should the two dimensions be equally weighted or should one dimension be given a dominant position in the calculation? This seems to be an extremely important point and one that depends on further research into the place these two dimensions have in determining people's Orientations. If one or other is easily changed, then presumably, from say a selection point of view, its importance as a predictor variable is diminished, as experience in a job may well alter the element and with it the Orientation. In this case separate scores on the two dimensions may be more valuable as well as some test of the possibility of changing the presumed malleable dimension. A priori one would suggest that the Expectations dimension is the one more likely to change (see eg. Daniel, 1969 , Brown and Brannen, 1970).

Work such as Vroom's (1964) and extensions of this by Wahba and House (1974) gives support to the idea of a multiplicative relationship between motive (or Desire) and Expectations, although the two latter do point out some problems associated with the theory of motivation as set out by Vroom and others. They do not however indicate whether a multiplicative or additive combination is to be preferred in expectancy theory. In the present survey first or first equal results are the same in 27 cases for the Bennett questionnaires and in 28 cases for the other tests for addition and multiplication - however skewess of results would require some weighting to balance the results.

The comments made on each of the Bennett questionnaires need to be taken into account before some decision can be taken on the best way of combining Desire and Expectancy. The predictive validity of the two combinations is probably the best test and addition or multiplication are as easy as each other if the results are to be handled by computer.

Statement questionnaire x ranking score

These did give different results compared with the Bennett tests for some cases and to the extent that they may well have been testing different aspects of similar dimensions this was to be expected. However the average scores show a similar ranking for the first two places and surprisingly similar average scores for the P and C elements as the Bennett questionnaire.

In individual cases there is agreement in 14 cases on the first placed element and in 16 cases on the fourth place. However, in most of the cases where there is a clearly dominant Orientation according to this measure, this is not matched by the Bennett tests.

For some individuals both sets of tests do suggest that they have one dominant Orientation but as mentioned above there is not necessarily agreement about which one it is or indeed if there is a dominance at all. The value of indirect tests or interviews as a means of confirming these tests is indicated here.

USED IN PILOT STUDY

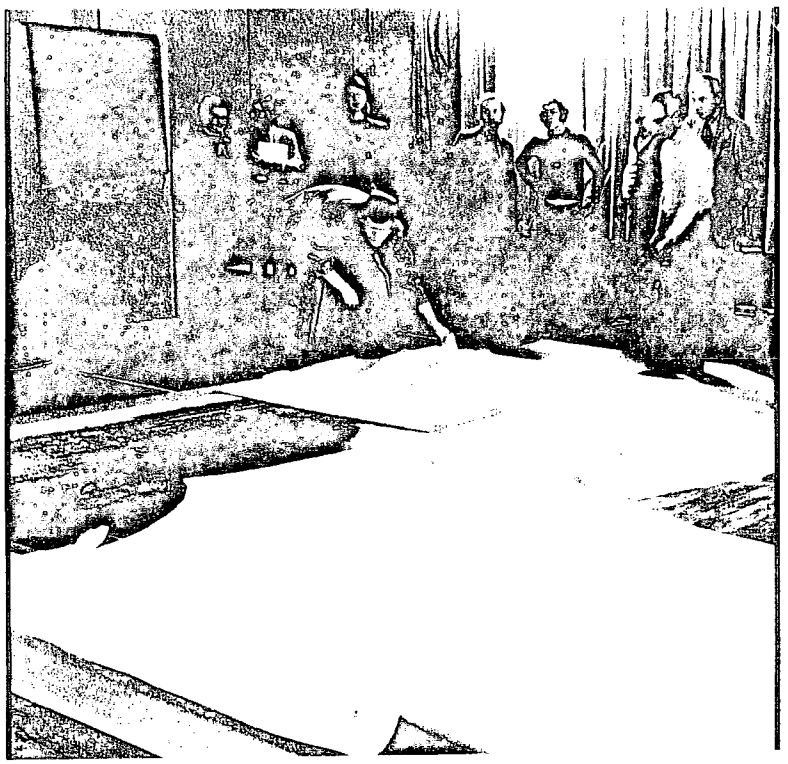
I would be extremely grateful if you would fill in the following tests and questionnaires. The purpose of them is to discover something about your attitudes towards work. At the moment I am trying to decide which of these tests are reliable and in order to do this I must ask you for your name. This is to allow any follow-up tests or interviews that may be required to establish reliability. The information given in these tests will remain STRICTLY CONFIDENTIAL.

Please remember that there are no correct or incorrect answers to the questions, it is simply your attitudes that are of interest.

Nigel van Zwanenberg.

Your Name : _____ (Block Capitals please)

Please look at the picture overleaf for a couple of minutes and then answer the questions on the following page.



What do you think is happening in this situation at work ?

Please explain how you would feel if you were present.(eg happy, unhappy,interested,uninterested,satisfied,dissatisfied etc.)

continue overpage

The tests from this point on DO NOT REFER to the Picture

What sort of things do you want work to provide ?

What sort of things do you expect that work will provide ?

our future job/occupation how desirable is
hat you will

PLEASE TICK THE APPROPRIATE BOX

	EXTREMELY UNDESIRABLE	UNDESIRABLE	CANNOT DECIDE	DESIRABLE	EXTREMELY DESIRABLE
a supervisory tion					
ure of having a job in icult times					
friends who would help out when you're in a spot					
a job that doesn't ire too much thought					
more than other people our age					
the chance to meet le at work					
rol part of the nisation					
yourself to self					
ble to influence sions					
an interesting job o					
just enough money et by					
ble to extend the e of your skills					
with friendly le					
and invest some y					
se others in r jobs					
ble to use your on sense					

ur future job/occupation how frequently
expect to have these opportunities ?

PLEASE TICK THE APPROPRIATE BOX

	NOT AT ALL	VERY SELDOM	ON SOME OCCASIONS	ON MOST OCCASIONS	ALL THE TIME
given responsibility ur own work					
rease the pay you eceive					
e a secure job					
with people you like					
e orders to other					
e some money					
the credit for doing job					
rcise leadership					
k with friendly people					
e interesting work					
e friends who will by you					
pervise other people					

For each of the following pairs of statements please indicate, by ticking the box, which of the pair you would choose, if both were available.

An interesting and challenging job OR
Control over other people

Opportunities to meet people at work OR
The chance to develop your abilities

The chance to buy more goods and services OR
Control over other people

The opportunity to be a leader OR
Opportunities to meet people at work

A friendly atmosphere at work OR
More money to save and invest

The chance to buy more goods and services OR
The chance to develop your abilities

A friendly atmosphere at work OR
An interesting and challenging job

The chance to buy more goods and services OR
The opportunity to be a leader

PLEASE TICK THE APPROPRIATE BOX

Control over other people OR
Opportunities to meet people at work

The chance to develop your abilities OR
The opportunity to be a leader

Opportunities to meet people at work OR
The chance to buy more goods and services

More money to save and invest OR
An interesting and challenging job

A friendly atmosphere at work OR
The chance to develop your abilities

Opportunities to meet people at work OR
More money to save and invest

The chance to buy more goods and services OR
An interesting and challenging job

Control over other people OR
A friendly atmosphere at work

An interesting and challenging job OR
The opportunity to be a leader

More money to save and invest OR
Control over other people

For the list below please rank the items by writing number 1. against the one you believe is the most likely to be present in your future job/occupation, number 2. for the second most likely and so on.

(If you feel unable to choose between certain items, please give them them the same number and then continue.)

	Write the number here
Friendly people to work with	.....
Pleasant working conditions	.....
Training and development programmes	.....
Promotion to a position of authority	.....
A regular salary review	.....
Chances to do increasingly difficult tasks	.....
Control over other people	.....
Meeting other people	.....
High starting salary	.....

Below are a number of statements. Would you please indicate how much you agree or disagree with these by ticking the appropriate box.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
People should not object to being given orders at work					
People should be able to continue their education after starting work					
As long as a job pays well it doesn't matter very much what it involves					
People at work should get on with the job and not spend time talking to others					
If work is to get done, someone needs to lead and others to follow					
Work is mainly a means of earning a living					
People should use all their abilities at work					
In the long run, friends are one's best asset					
Jobs should be challenging and stimulating					

PLEASE TICK THE APPROPRIATE BOX

PLEASE TICK THE APPROPRIATE BOX

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
One of the problems with organisations is that they give some people power over others					
People's pay should be increased regularly					
Work is alright if people there are friendly					

Below are four factors associated with work, that might affect your choice of job/occupation. Would you please indicate the importance you attach to each factor by writing in the space provided a number from 1 to 5 (see scale below)

	1	2	3	4	5
Importance	Very high	high		low	very low

	Write the number here
Pay	.....
Friendship relations at work	.....
Responsibility for & control over other people's work	.....
Use and development of your own initiative	.....

APPENDIX D: INITIAL REPORT ON EARLY STUDENT COMPARISONS

Objectives on Survey No.1

a) To gain further experience of the questionnaires adapted from the work of Bennett and the initial survey and to compare their findings.

b) To compare the two samples BABS 2 78/79 and BABS 4 79/80 in order to make an initial test of hypothesis 1.

Hypothesis 1

a) That experience of paid employment in a commercial or industrial setting will alter the Orientations towards work of individuals with little first-hand experience of work through changes in their Expectations concerning work.

b) That these changes in Orientations will not be as a result of changes in the individual's Desires concerning work.

The Questionnaires

Prior to the use of the questionnaires on these two samples, some initial testing was carried out using other students in the Polytechnic. A report on these is contained in Appendix C. As can be seen the test items used in the BABS 2 78/79 and BABS 4 79/80 samples were adapted and selected from those used in the initial trials.

The tests that were not pursued were, in relation to the Desire dimension of Orientations, the "statements questionnaires", and the straightforward question, "What sort of things do you want work to provide"; in relation to the Expectations dimension: the "Ranking Score" and the straightforward question and in relation to overall Orientations the "Picture test". The reasons for not using these tests are contained in Appendix C and are mainly concerned with the practicality of the tests and the difficulties of obtaining useful summarised results from them.

A copy of the questionnaires is attached. As can be seen the papers consist of an introduction and brief explanation of the purpose of the tests, including a request for the respondent's name (a request with which all respondents complied). Whether this request affected the response rate is open to question; but it was also explained verbally that no information from the tests would be divulged to any Polytechnic or other authorities, except in an aggregated form.

THE SURVEY

The results are shown below in tabulated form. The two samples cannot be compared on a one to one basis, as the individuals concerned in each group are not the same people, eg. respondent No.1 is BABS 2 78/79 is not the same person as respondent No.1 BABS 4 79/80. However, a broad comparison of the two groups can be undertaken.

Paired Statements

This questionnaire produces (usually) a ranked list of the Desires elements of Orientations for each individual. Aggregation over the samples is not however, possible. However, of the 29 respondents in BABS 2 78/79 who on this test produced a ranking showing a "first place", 22 put the personal growth element (P) in this position. In the other sample BABS 4 79/80, the figures are also 22 out of 29.

In neither sample did the female respondents place either (I) or (C) elements in this first position and only six males did so. It is also noticeable that for both groups of females the (C) element was placed last or next to last by all who produced a ranking showing these positions. For the (I) element this was true of 9 out of 10 in BABS 2 and 7 out of 10 in BABS 4. For males the figures for the (C) element in the last or next to last are 13 out of 19 for BABS 2 and 12 out of 18 for BABS 4. For the (I) element in these two positions: 15 out of 18 for BABS 2 and 10 out of 18 for BABS 4.

For the Relational element (R), the modal position for both males and females in BABS 2 78/79 was second, for females in BABS 4 79/80 it was second again, but for males, it was third as it was for BABS 4 79/80 taken as a group.

Thus, in relation to the Desire elements as shown by this questionnaire, it would appear that the predominant Desire is for Personal growth, a not unexpected finding considering the particular situations of the respondents. Also the Desire for Instrumental rewards is comparatively low as is the desire for Control over others (with a small number of individual exceptions).

The only differences between the two groups that seems to present itself is that of the position of the Relational Desire amongst the male respondents. If this is also shown by the other tests then it may assume some significance.

Importance Scale

Averages	BABS 2 78/79					BABS 4 79/80				
	C	I	R	P		C	I	R	P	
Males	6.7	7.2	7.0	8.3	PIRC	6.4	7.2	6.4	8.7	PIRC
Females	5.8	6.2	6.9	8.8	PRIC	5.3	6.3	6.6	8.1	PRIC
Group	6.4	6.9	6.9	8.4	PRIC	6.0	6.9	6.5	8.5	PIRC

Although this questionnaire was intended to provide an alternative method of measuring Orientations, the correlations between it and the multiplicative score on the Bennett type questionnnaires on each element ranged from 0.383 to 0.439 for the BABS 2 sample. These correlation coefficients are not significant at the 1% level but are at the 5% level. However, it might be suggested that this is a better measure of Desires than overall Orientations - this is not borne out by the correlations between

this test and the Bennett Desire questionnaire - the correlation of 0.514 between the two tests on the (I) element is significant at the 1% level but the correlations on the other elements are not.

This suggests that the test is measuring something other than Orientations or their Desire element, although what is being tested has some relationship with Orientations. Its main use has been in helping to offer suggestions for differences between and within the samples in relation to the other tests. For example, the greater importance attached by the female respondents to friendship relations at work as compared to the males, may help to explain the differences in the female respondents' Expectations and the position of the (R) element in the desires of the female members of BABS 4 compared to BABS 2.

As can be seen from the table above, there is little difference between each group as a whole - except for the lower importance given to both the (C) and (R) elements by the BABS 4 group. Similarly there is little difference when comparing females in one group with females in the other or males with males.

Bennett Desire Questionnaire

Averages	BABS 2 78/79					BABS 4 79/80				
	C	I	R	P		C	I	R	P	
Males	12.1	12.6	11.8	14.0	PICR	12.7	13.3	11.9	14.3	PICR
Females	11.7	12.4	11.7	14.2	PICR	10.3	12.6	12.0	14.0	PIRC
Group	11.9	12.5	11.8	14.0	PICR	11.9	13.1	11.9	14.2	PICR

The average scores for BABS 2 78/79 on this test show an overall dominance of the Personal growth (P) element in the Desires of the group concerning work. (A finding similar to that of the paired statements questionnaire). The instrumental (I) element is placed second and the control (C) and relational (R) elements third and fourth respectively (although the average scores are not markedly different).

The only apparent difference between males and females in this group is that on average the scores for the (C) and (R) elements are identical for the females; but the (C) element scores more highly than the (R) element for the males. This relegation of the (R) element to fourth or fourth equal differs from the findings of the Paired Statements questionnaire. However, the two tests are different in nature, one requiring a preference to be expressed and the other one not.

For the BABS 4 sample, the Personal Growth element (P) is again firmly in first place, the Instrumental element is second and the Control and Relational elements are on average equal third. There is again a difference between males and females in this sample over the (C) and (R) elements. The females expressing a stronger desire for friendship Relations than for Control over others, whereas the males definitely appear to favour control over friendship. In comparing the two samples, the only difference appears to be the preference the females who have experienced work, express for friendship over control. This may be as a result of their separation from friends during the training year and a greater importance attached to friendship relations by females compared with males. (This is confirmed to some extent by the results of the importance scale questionnaire for both samples).

The main conclusion from the comparison of the results of the two samples on this questionnaire and that of the paired statements would be to suggest that the Desire dimension of Orientations (except possibly for that element concerned with friendship relations) altered little as a result of the one year's experience of paid employment. Whether this applies to particular individual cases remains to be seen. In relation to Hypothesis 1 this finding tends to point to some confirmation of part (b) - that the <u>desires</u> of the groups concerning work were largely

unaltered, although the Relational element is perhaps more subject to change. One serious question that could be asked at this point is whether one year's experience is a sufficient time to produce changes in Desires and the individual's recognition of the needs underlying these Desires. If, however, the Expectations were found to have altered significantly in this period, this has implications for the relative stability of the two dimensions which, it is proposed, make up an individual's Orientations to work. Hypothesis 1 suggests that Desires are more stable than Expectations.

Bennett Expectations Questionnaire

Averages	BABS 2 78/79					BABS 4 79/80				
	C	I	R	P		C	I	R	P	
Males	11.7	11.6	10.9	11.1	CIPR	11.1	11.5	9.9	11.1	ICPR
Females	10.7	11.9	11.4	13.0	PIRC	11.0	11.7	9.7	10.5	ICPR
Group	11.3	11.7	11.1	11.7	PICR	11.1	11.6	9.8	10.9	ICPR

The results of this test do show some interesting comparisons both between the samples and within them, especially in relation to males and females.

The BABS 2 78/79 sample show clear differences between males and females in terms of their Expectations of finding the control element in work: the males consider it highly likely (average 11.7 out of a maximum of 16) and of the four elements they consider it the most likely. The females consider it less (average 10.7) and on average it appears to them the least likely of the four.

The personal growth element (P) comes out as the equal most likely for the group with the instrumental element (I) but this masks a clear difference between males and females. For the females it is the most likely element to be present in work and their Expectation of its presence is high (average 13.0 of maximum 16); for the males it scores on average 11.1, below both the (C) and (I) elements.

The instrumental element (I) is placed second by both males and females while the relational element (R) is placed fourth on average by males (10.9) and third by females (11.4).

In the BABS 4 79/80 sample, there is little difference between males and females, although the males on average see an equal likelihood of the (C) and (P) elements whilst the females consider (C) more likely than (P). Both estimate the instrumental element (I) as the most likely and the relational element (R) least likely of the four to present in work.

For the males in the two samples the difference that stands out is the "exchange" of places between (I) (seen as most likely by the post-work experience group) and (C) (seen as most likely by the pre-work experience group). There is a slight difference between the expectations on the (P) element - the BABS 4 group giving it equal likelihood with control (C). Neither group rates the likelihood of friendship relations very highly - this is particularly so in BABS 4 and is interesting when compared with the results of the paired statements questionnaire. Although that questionnaire was intended to test Desires about work, it does seem to show some agreement with this questionnaire which is designed to test Expectations. It may be that the link between

the two is somewhat stronger than Bennett's work for example, has suggested, or that the respondent's preferences expressed in the paired statements included an estimate of the probability of one or other element being present to a greater or lesser degree.

The female respondents show even more interesting differences. The pre-work experience group estimate the personal growth element as definitely the most likely (average 13.0) while the post-work group place it below both the instrumental and the control element with an average score of 10.5. The instrumental element scores roughly the same for both groups (11.9 for BABS 2 and 11.7 for BABS 4) but because of the difference in Expectations about the (P) element, it "moves" from second most likely to most likely. The control element also occupies a different place for the post-work group (second most likely) compared with BABS 2 (least likely) although again the average scores differ only a little (11.0 and 10.7). Estimates of the likelihood of satisfying relational needs also range between the two groups of females, average 11.4 for BABS 2 (third most likely) and average 9.7 (least likely) for the post-work experience group.

These results suggest that although the females in the samples desire fulfilment of their needs for personal growth, and this applies both before and after work experience, the training year does not appear to promote their Expectations of achieving this satisfaction, rather it reduces it. This may be due to their holding more unrealistic views on what work will provide than their male counterparts and/or receiving placements in industrial training that are less satisfying to them than those of the males in the samples. Possibly they suffer

from the sexual disparity in management and its attendant pro-male attitudes. This may also affect their Expectations about friendship relations at work, as they may feel a keener sense of isolation than the males. It is interesting, however, that the group that has finished their industrial training year view their chances of having control over others as greater than do the pre-work experience group.

Comparing each group as a whole shows the relegation of the personal growth element from its position as equal most likely (average 11.7) to third most likely (average 10.5) although it retains its position as the most desired element.

The relational element is rated as least likely by both groups and the estimate of likelihood is lower (average 9.7) in BABS 4 than in BABS 2 (11.1). This may be due to the special situation of the respondents having spent two years in the relatively closed environment of the Polytechnic and having no doubt built up friendship relations in this context, they are removed from it for a year. As their placement may well be some distance away from Huddersfield and particularly from any other friends in their year, this may produce a sense of isolation as regards this experience of work. This is not to suggest that this expectation is unrealistic, as the jobs or occupations which they enter at the end of the course may well have the same effect.

The expectation that instrumental rewards are the most likely of the four elements to be fulfilled is common to both groups although BABS 2 place it on a par with the personal growth element. This perhaps reflects a reasonably realistic view of the world of work, particularly in a climate of high unemployment. Although all the respondents had either been guaranteed a place in employment for the training year or had just finished a year's work at the time when they were tested, not

all were placed in jobs of their own choosing or of first preference. This is possibly reflected more particularly in the group returning from work, whose expectation of satisfying personal growth needs was noticeably lower than that of the other group, especially the females in this group.

However, the year's training does seem to have exposed the members of the BABS 4 group to some control over others and possibly affected their Expectations of this situation continuing in their further jobs or occupations.

Returning to Hypothesis 1, these results give some tentative support to part (a) as not only do they suggest a difference in the ordering of Expectations by the two groups but also some differences in the estimated probabilities that the groups attach to the four elements of Orientation to work. These differences seem to be more pronounced in the female respondents than in the males. However, given the small size of the samples and the problem of comparing the two groups, this conclusion must remain tentative. Further testing using the BABS 2 78/79 as its own control, may give increased support.

Orientations Scores

Averages	BABS 2 78/79					BABS 4 79/80				
	C	I	R	P		C	I	R	P	
Males	141.8	150.2	128.4	155.1	PICR	138.6	153.7	119.6	162.9	PICR
Females	126.0	147.9	132.3	185.6	PIRC	119.2	144.6	115.2	144.5	IPCR
Group	136.5	149.4	129.7	165.2	PICR	132.3	150.7	118.2	157.0	PICR

Addition of Desires and Expectations

Averages	BABS 2 78/79					BABS 4 79/80				
	C	I	R	P		C	I	R	P	
Males	23.7	24.3	22.7	25.0	PICR	23.3	24.8	21.9	25.8	PICR
Females	22.4	25.3	23.1	27.2	PIRC	21.9	24.1	21.6	24.4	PICR
Group	23.3	24.3	22.8	25.7	PICR	22.9	24.6	21.8	25.3	PICR

Whether the product of the two Bennett questionnaires or the sum of the two is used, the average results are similar. For the BABS 2 group as a whole the order in Orientations is (P), (I), (C), (R). For both males and females in this group the personal growth and instrumental Orientations are markedly stronger than the control and relational Orientations. For the females this is particularly true of the (P) element, which may well be said to be "dominant". The main difference between males and females in this group is the strength of the control and relational Orientations - the females have stronger Orientations to the relational element than to the control element while this is reversed for the males.

For the BABS 4 group as a whole the ordering of Orientations is equivalent to that of BABS 2 and shows a similar pattern in the average scores. That is there is no one dominant Orientation although the relational element appears relatively weak. The main variation within the group is that for males the personal growth Orientation is definitely stronger than the instrumental while for females they are the same (according to the product score). Compared with the BABS 2 sample, this represents a "strengthening" of the instrumental Orientation and a "weakening" of the relational Orientation for the female respondents. In line with Hypothesis 1, this is due more to differences in Expectations than to differences in Desires.

However, Hypothesis 1 is not completely supported by the results for each group taken as a whole, for there is no difference in the ordering of Orientations, thus it cannot be said that the experience of paid employment has altered the Orientations towards work of these individuals with little experience of work. Although the Expectations, particularly of the female respondents appears different between the groups, this difference is not large enough to change the pattern of Orientations. It may be that one year is not a sufficient time, that their Orientations are not as "naive" as was assumed or that their responses to the questionnaires are affected by the setting in which they answered them. (That is within an educational environment). The longitudinal study to be undertaken in September 1980 may however give more support to the hypothesis, as its results will allow direct comparison of individuals as well as group comparisons.

Summary

The results of the tests on the two samples give a limited amount of support to Hypothesis 1. The main part of the hypothesis, that Orientations towards work will alter as a result of paid employment is not confirmed by the tests. However, there is some indication that the Expectations dimension of Orientations is subject to alterations, especially as regards the Personal growth and friendship Relations elements.

The Desires dimension of Orientations is on the evidence of these results, much more stable than the Expectations dimension and there is very little difference between the post-work experience and pre-work experience groups in terms of their average scores on the four elements on this dimension.

An interesting feature of the results is the differences within the samples of the male and female respondents. The female respondents appear more subject to changes in Expectations as a result of work experience than do the males. These conclusions must remain tentative in view of the small sizes of the (female) samples and the fact that the samples are not strictly comparable in a longitudinal way.

APPENDIX E: PROFILE OF STUDENTS

Profile of the students

The majority of the students on the four year BA (Hons) sandwich course in Business Studies at Huddersfield Polytechnic are aged between eighteen and twenty years on entry to the course. They are generally unmarried and typically about one third of the intake of around fifty are female.

Most join the course directly from school. Their educational background is such that they have achieved two A level passes at about grade C, although some enter with other qualifications such as ONC/OND in Business studies. The range of A level subjects studied is very great and by no means all have studied business related subjects. An O level or its equivalent in Mathematics is also a requirement for entry. Mature students with work experience may also be admitted without formal qualifications but in a typical year only one ot two such students will be admitted. Another small minority, usually of the order of five students per year, enter the second year of the course after completing successfully one or two years of the HND in Business Studies at Huddersfield. Most of these have also joined the college straight from school.

Most of the students have attended grammar or comprehensive schools through to the sixth-form, although again a small number come from sixth-form colleges, public schools or technical colleges.

Although the occupations of the parents cover a wide range, the bulk of them would be classified broadly as middle or service class rather than working class. The job/occupational choices of past students indicate that most seek and find positions that could also be described as representative of the middle or service class.

The general lack of direct work experience and the factors above suggest that the typical student in the samples studied in this research is young

(aged between twenty and twenty-two when tested), of middle or service class home and educational background, aspiring to a middle or service class occupation and with a relatively naive view of work.

- TO -

TABLES

Table 1

MEDIAN VALUES OF DESIRES, EXPECTATIONS, ORIENTATIONS AND IMPORTANCE SCORES

SAMPLES	BABS 2 78/79			BABS 2 79/80			BABS 4 79/80		
Median Scores for	BABS 2 78/79			BABS 2 79/80			BABS 4 79/80		
	Females	Males	All	Females	Males	All	Females	Males	All
	N=10	N=20	N=30	N=12	N=25	N=37	N=10	N=20	N=30
CDES	16	17	16.5	16	16	16	16	17	16
IDES	16.5	17	17	16	17	16.5	16	17	17
RDES	16	15.5	16	16.5	17	17	16	16	16
PDES	18	18	18	18	18	18	18	18.5	18
CEX	16	16	16	13	12	12	15.5	16	16
IEX	16	16[a]	16[b]	14	15	14	15.5	15.5	15.5
REX	15	15	15	13	13	13	13	13	13
PEX	17	15	16	13	14	14	14.5	15.5	15
CORIENT	12.5	13	13	11	10	11	12.5	13	13
IORIENT	13	14[c]	13.5[d]	11.5	12	12	13	14	14
RORIENT	12	12	12	12	11	12	11.5	11	11
PORIENT	16	13.5	14	12.5	12	12	14	14	14

a N=19
b N=29
c N=19
d N=29

Table 1 (contd)

MEDIAN VALUES OF DESIRES, EXPECTATIONS, ORIENTATIONS, IMPORTANCE SCORES

SAMPLES	BABS 4 80/81			Woolworths			Works Managers
Median Scores For	BABS 4 80/81			Woolworths			Works Managers
	Females	Males	All	Females	Males	All	All (Males)
	N=12	N=23	N=35	N=61	N=8	N=69	N=14
CDES	16	17	16	13[f]	18	13[j]	15
IDES	16	17	16	17	19	17	18
RDES	16	16	16	17[g]	16	17[k]	16
PDES	19	18	18	16	16.5	16	20
CEX	15	16	16	8	16.5	8	17
IEX	16	16	16	11[f]	14	12[j]	16
REX	16	16[e]	16[ee]	16[h]	14	16[l]	16
PEX	17	15	16	12[g]	16	12[k]	16
CORIENT	12.5	13	13	6[f]	16	6[j]	15
IORIENT	13	14	13	9[f]	13	9[j]	14
RORIENT	13	12[e]	12[ee]	14[i]	12	13[m]	14
PORIENT	17	14	15	10[g]	13.5	10[k]	16
CIMP				4	8	5	9
IIMP				8[g]	8	8[k]	8
RIMP				8	5	8	6.5
PIMP				7	8.5	8	9.5

e N=22
ee N=34

f N=59
g N=60
h N=58
i N=57

j N=67
k N=68
l N=66
m N=65

COMPARISONS BETWEEN SAMPLES - WOOLWORTHS AND STUDENTS

TABLE 2.a MANN-WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES STUDENTS (BABS 2 78/79 , BABS 2 79/80 and BABS 4 79/80) N_1=99
WOOLWORTHS 80 N_2=69

	U	W	Z (corrected for ties)		2 tailed p
CDES	1559.5	3837.5	-5.8717	N_2=67	0.0000**
IDES	3237.5	6008.5	-0.5827		0.5601
RDES	2192.0	6886.0	-3.9251	N_2=68	0.0001**
PDES	1459.0	3874.0	-6.3570		0.0000**
CEX	1659.0	4074.0	-5.6919		0.0000**
IEX	1118.5	3396.5	-7.2778	N_2=67 N_1=98	0.0000**
REX	2095.0	6584.0	-3.8782	N_2 66	0.0001**
PEX	1634.5	3980.5	-5.6747	N_2=68	0.0000**
CORIENT	1383.5	3661.5	-6.3827	N_2=67	0.0000**
IORIENT	1355.0	3633.0	-6.4957	N_2=67 N_1=98	0.0000**
RORIENT	1946.5	6568.5	-4.2297	N_2=65	0.0000**
PORIENT	1070.5	3416.5	-7.5730	N_2=68	0.0000**
CIMP	2416.0	4831.0	-3.2439		0.0012**
IIMP	2193.5	6884.5	-3.8814	N_2=68	0.0001**
RIMP	2445.5	6800.5	-3.1629		0.0016**
PIMP	2430.5	4845.0	-3.2172		0.0013**

COMPARISONS BETWEEN SAMPLES WOOLWORTHS AND STUDENTS

TABLE 2 b MANN-WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES { STUDENTS (BABS 2 78/79 BABS 2 79/80, BABS 4 79/80)
FEMALES (N_1=33)
{ WOOLWORTHS 80
FEMALES (N_2=61)

	U	W	Z (corrected for ties)		2 tailed p
CDES	381.0	2127.0	-4.8843	(N_2=59)	0.0000**
IDES	902.0	1463.0	-0.8404		0.4007
RDES	594.5	1155.5	-3.2611	(N_2=60)	0.0011**
PDES	356.0	2218.0	-5.1974		0.0000**
CEX	398.0	2178.0	-4.8391		0.0000**
IEX	269.5	2238.5	-5.7540		0.0000**
REX	613.0	1174.0	-2.8982		0.0038**
PEX	415.0	2126.0	-4.6453		0.0000**
CORIENT	310.5	2197.5	-5.4155		0.0000**
IORIENT	306.0	2202.0	-5.4653		0.0000**
RORIENT	554.5	1115.5	-3.2524		0.0011**
PORIENT	223.0	2318.0	-6.1902		0.0000**
CIMP	686.5	1887.5	-2.5533		0.0107*
IIMP	486.5	1047.5	-4.1144		0.0000**
RIMP	622.0	1183.0	-3.0876		0.0020**
PIMP	618.5	1955.5	-3.1087		0.0019**

COMPARISONS BETWEEN SAMPLES WOOLWORTHS AND STUDENTS

TABLE 2 c MANN-WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES { STUDENTS (BABS 2 78/79, BABS 2 79/80, BABS 4 79/80)
MALES (N_1=66)
{ WOOLWORTHS 80
MALES (N_2=8)

	U	W	Z (corrected for ties)	2 tailed p
CDES	201.0	363.0	-1.1274	0.2596
IDES	137.0	427.0	-2.2489	0.0245*
RDES	259.0	305.0	-0.0898	0.9285
PDES	215.0	251.0	-0.8733	0.3825
CEX	175.5	388.5	-1.5613	0.1185
IEX	195.0	231.0	-1.2188	0.2229
REX	222.0	334.0	-0.6822	0.4951
PEX	238.5	325.5	-0.4483	0.6539
CORIENT	177.0	387.0	-1.5219	0.1280
IORIENT	240.5	323.5	-0.4129	0.6797
RORIENT	225.0	331.0	-0.6252	0.5318
PORIENT	246.5	282.5	-0.3069	0.7389
CIMP	194.0	370.0	-1.2337	0.2173
IIMP	201.5	362.5	-1.1135	0.2655
RIMP	193.0	229.0	-1.2547	0.2096
PIMP	238.5	325.5	-0.4516	0.6515

COMPARISONS BETWEEN SAMPLES

Woolworths 80	Students (BABS 2 78/79)
Females	Males (BABS 2 79/80)
	(BABS 4 79/80)

TABLE 2d Mann-Whitney U - Wilcoxon Rank Sum W Test

Samples	Woolworths 80 Females (N_1=61)			Students Males (N_2=66)	
	U	W		Z corrected for ties	2 tailed p
CDES	671.0	2441.0	(N_1=59)	-6.3880	0.0000**
IDES	1866.5	3757.5		-0.7155	0.4743
RDES	1205.5	4584.5	(N_1=60)	-3.8724	0.0001**
PDES	786.5	2677.5		-5.9854	0.0000**
CES	715.5	2606.0		-6.2867	0.0000**
IEX	544.0	2314.0	(N_1=59)	-6.9731	0.0000**
REX	1142.5	1338.5	(N_1=58 N_2=65)	-3.8293	0.0001**
PEX	794.5	2624.5	(N_1=60)	-5.8275	0.0000**
CORIENT	530.5	2300.5	(N_1=59)	-7.0278	0.0000**
IORIENT	591.5	2361.5	(N_1=59)	-6.7299	0.0000**
RORIENT	1049.0	4309.0	(N_1=57 N_2=65)	-4.1521	0.0000**
PORIENT	480.5	2310.5	(N_1=60)	-7.3615	0.0000**
CIMP	1217.5	3108.5		-3.8619	0.0001**
IIMP	1447.0	4343.0	(N_1=60)	-2.6517	0.0080**
RIMP	1334.0	4583.0		-3.3126	0.0009**
PIMP	1389.5	3280.5		-3.0435	0.0023**

COMPARISONS BETWEEN SAMPLES

Woolworths 80 Males

Students (BABS 2 78/79)
Females (BABS 4 79/80)
(BABS 2 79/80)

TABLE 2 e Mann-Whitney U - Wilcoxon Rank Sum W Test

Samples	Woolworths 80 Males (N_1=8)		Students Females (N_2=33)	
	U	W	Z corrected for ties	2 tailed p
CDES	83.5	216.5	-1.6464	0.0997
IDES	39.0	261.0	-3.2036	0.0014**
RDES	131.0	167.0	-0.0343	0.9727
PDES	101.5	137.5	-1.0226	0.3065
CEX	71.0	229.0	-2.0327	0.0421*
IEX	110.0	146.0	-0.7328	0.4637
REX	117.5	182.5	-0.4836	0.6287
PEX	128.5	171.5	-0.1162	0.9075
CORIENT	72.5	227.5	-1.9696	0.0489*
IORIENT	94.0	206.0	-1.2879	0.1978
RORIENT	118.0	182.0	-0.4661	0.6412
PORIENT	120.5	156.5	-0.3817	0.7027
CIMP	86.0	214.0	-1.5347	0.1249
IIMP	58.5	241.5	-2.4645	0.0137*
RIMP	109.5	145.5	-0.7539	0.4509
PIMP	131.0	169.0	-0.0337	0.9732

COMPARISONS BETWEEN SAMPLES

Woolworths 80 with Students

TABLE 2f Mann-Whitney U - Wilcoxon Rank Sum W Test

Samples	Woolworths 80 (N_1=69)			Students (BABS 2 78/79, BABS 2 79/80, BABS 4 79/80, BABS 4 80/81) (N_2=134)	
	U	W		Z corrected for ties	2 tailed p
CDES	2018.0	4296.0	(N_1=67)	-6.4716	0.0000**
IDES	4405.0	7256.0		-0.5599	0.5756
RDES	2941.5	8516.5	(N_1=68)	-4.2225	0.0000**
PDES	2009.0	4424.0		-6.6782	0.0000**
CEX	2184.0	4599.0		-6.1971	0.0000**
IEX	1407.5	3685.5	(N_1=67)	-7.9976	0.0000**
REX	3033.0	7890.0	(N_1=66 N_2=132)	-3.5536	0.0004**
PEX	2105.0	4451.0	(N_1=68)	-6.2791	0.0000**
CORIENT	1788.5	4066.5	(N_1=67)	-6.9723	0.0000**
IORIENT	1718.0	3996.0	(N_1=67)	-7.1737	0.0000**
RORIENT	2784.0	7941.0	(N_1=65 N_2=132)	-4.0361	0.0001**
PORIENT	1450.5	3796.5	(N_1=68)	-7.9443	0.0000**
CIMP	3206.0	5621.0		-3.6012	0.0003**
IIMP	3036.0	8422.0	(N_1=68)	-3.9369	0.0001**
RIMP	3240.5	8420.0		-3.5280	0.0004**
PIMP	3203.0	5618.0		-3.6353	0.0003**

COMPARISONS BETWEEN SAMPLES

WOOLWORTHS 80 WITH WORKS MANAGERS 80

TABLE 3a MANN WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES	WOOLWORTHS 80 (N_1 = 69)			WORKS MANAGERS 80 (N_2 = 14)
	U	W	Z corrected for ties	2 tailed p
CDES	137.0	906.0 (N_1 = 67)	-4.1768	0.0000 **
IDES	391.0	680.0	-1.1311	0.2580
RDES	305.0	410.0 (N_1 = 68)	-2.1605	0.0307 *
PDES	154.5	916.5	-4.0301	0.0001 **
CEX	157.0	914.0	-3.9800	0.0001 **
IEX	113.0	930.0 (N_1 = 67)	-4.4653	0.0000 **
REX	455.5	560.5 (N_1 = 66)	-0.0856	0.9318
PEX	160.0	897.0 (N_1 = 68)	-3.9202	0.0001 **
CORIENT	116.5	926.5 (N_1 = 67)	-4.4194	0.0000 **
IORIENT	116.5	926.5 (N_1 = 67)	-4.4229	0.0000 **
RORIENT	401.5	506.5 (N_1 = 65)	-0.6918	0.4890
PORIENT	88.0	969.0 (N_1 = 68)	-4.8103	0.0000 **
CIMP	215.0	856.0	-3.2790	0.0010 **
IIMP	358.5	463.5 (N_1 = 68)	-1.4984	0.1340
RIMP	272.0	377.0	-2.6106	0.0090 **
PIMP	222.0	849.0	-3.2218	0.0013 **

COMPARISONS BETWEEN SAMPLES

WOOLWORTHS 80
MALES

WORKS MANAGERS
MALES

TABLE 3b MANN WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES	WOOLWORTHS 80 MALES (N_1 = 8)		WORKS MANAGERS 80 MALES (N_2 = 14)	
	U	W	Z corrected for ties	2 tailed p
CDES	51.0	87.0	-0.3483	0.7276
IDES	38.5	109.5	-1.2202	0.2224
RDES	54.5	93.5	-0.1065	0.9152
PDES	39.5	75.5	-1.1563	0.2476
CEX	55.0	91.0	-0.0696	0.9445
IEX	37.0	73.0	-1.3147	0.1886
REX	48.0	84.0	-0.5671	0.5707
PEX	44.5	80.5	-0.7935	0.4275
CORIENT	51.5	87.5	-0.3094	0.7570
IORIENT	52.0	88.0	-0.2813	0.7785
RORIENT	48.0	84.0	-0.5515	0.5813
PORIENT	35.0	71.0	-1.4456	0.1483
CIMP	53.5	89.5	-0.1733	0.8624
IIMP	44.5	103.5	-0.8305	0.4063
RIMP	52.0	88.0	-0.2819	0.7780
PIMP	41.5	77.5	-1.0461	0.2955

COMPARISONS BETWEEN SAMPLES

STUDENTS WITH WORKS MANAGERS

TABLE 3c MANN WHITNEY U - WILCOXON RANK SUM W TEST

	SAMPLES BABS 2 78/79 BABS 2 79/80 BABS 4 79/80 BABS 4 80/81 (N_1 = 134)			WORKS MANAGERS 80 (N_2 = 14)
	U	W	Z corrected for ties	2 tailed p
CDES	622.0	1359.0	-2.1310	0.0331 *
IDES	621.0	1360.0	-2.1360	0.0327 *
RDES	931.0	1036.0	-0.0473	0.9623
PDES	739.5.	1241.5	-1.3341	0.1822
CEX	546.0	1435.0	-2.6111	0.0090 **
IEX	877.5	1103.5	-0.4045	0.6858
REX	600.0	1353.0	-2.1995	0.0278 *
PEX	755.5	1225.5	-1.2050	0.2282
CORIENT	565.5	1415.5	-2.4542	0.0141 *
IORIENT	749.5	1231.5	-1.2490	0.2117
RORIENT	632.5	1320.5	-1.9622	0.0497 *
PORIENT	686.5	1294.5	-1.6576	0.0974
CIMP	502.0	1479.0	-2.8966	0.0038 **
IIMP	801.5	1179.5	-0.9159	0.3597
RIMP	757.5	862.5	-1.2055	0.2280
PIMP	620.5	1360.5	-2.1269	0.0334 *

TABLE 4a Rank Correlation Coefficients for IMPortance Related to DESires, EXPectations, ORIENTations and Ranking

Samples included Woolworths 80, Works Managers 80, BABS 2 78/79, BABS 2 79/80, BABS 4 79/80, BABS 4 80/81.

			Kendall ρ =		Spearman ρ =	
CIMP	with					
		CDES	0.4028	0.001**	0.5090	0.001**
		CEX	0.4147	0.001**	0.5242	0.001**
		CORIENT	0.4288	0.001**	0.5490	0.001**
		CR	0.3864	0.001**	0.4590	0.001**
IIMP	with					
		IDES	0.2602	0.001**	0.3231	0.001**
		IEX	-0.0373	0.470	-0.0549	0.423
		IORIENT	0.0623	0.225	0.0705	0.304
		IR	0.2059	0.001**	0.2536	0.001**
RIMP	with					
		RDES	0.3121	0.001**	0.3865	0.001**
		REX	0.2105	0.001**	0.2654	0.001**
		RORIENT	0.3003	0.001**	0.3816	0.001**
		RR	0.2006	0.001**	0.2457	0.001**
PIMP	with					
		PDES	0.3044	0.001**	0.3962	0.001**
		PEX	0.2377	0.001**	0.3082	0.001**
		PORIENT	0.3020	0.001**	0.3980	0.001**
		PR	0.2623	0.001**	0.3189	0.001**

TABLE 4b

	Woolworths		Works Managers		BABS 2 78/79	
	Kendall	Spearman	Kendall	Spearman	Kendall	Spearman
CIMP with						
CDES	0.2781**	0.3753**	0.2763	0.3531	0.3582*	0.4419*
CEX	0.3758**	0.4778**	0.2452	0.3222	0.2879	0.3753*
CORIENT	0.3988**	0.5148**	0.2488	0.3410	0.3491*	0.4457*
IIMP with						
IDES	0.1166	0.1458	0.4316	0.4918	0.3803**	0.4825**
IEX	0.0070	0.0048	0.1729	0.1868	0.0274	0.0334
IORIENT	0.0475	0.0598	0.2233	0.2610	0.1762	0.2215
RIMP with						
RDES	0.2215*	0.2762*	0.4054	0.5041	0.1874	0.2196
REX	0.2317*	0.2570*	0.5918**	0.7092**	0.0340	0.0314
RORIENT	0.2752**	0.3411**	0.6372**	0.7771**	0.1383	0.1804
PIMP with						
PDES	0.1222	0.1695	0.1374	0.1702	0.3641*	0.4591*
PEX	0.3010**	0.3913*	-0.0403	-0.0381	0.2553	0.3260
PORIENT	0.2898**	0.3982**	0.0000	0.0072	0.3407*	0.4611**

The significance of the correlation coefficients is shown by **$\rho \leq 0.01$

*$\rho \leq 0.05$

TABLE 4b (continued)

	BABS 2 79/80		BABS 4 79/80		BABS 4 80/81	
	Kendall	Spearman	Kendall	Spearman	Kendall	Spearman
CIMP with						
CDES	0.5352**	0.6409**	0.2321	0.3088	0.3623**	0.4222*
CEX	0.2755*	0.3444*	0.2547	0.3060	0.4468**	0.5361**
CORIENT	0.4186**	0.5150**	0.1842	0.2398	0.4174**	0.5153**
IIMP with						
IDES	0.3674**	0.4478**	0.3812**	0.4551**	0.4634**	0.5513**
IEX	0.2400	0.3018	-0.1915	-0.2336	0.4135**	0.4890**
IORIENT	0.3616**	0.4594**	0.0026	-0.0087	0.5316**	0.6443**
RIMP with						
RDES	0.3314*	0.4164**	0.3513*	0.4104*	0.3307*	0.4203*
REX	0.0586*	0.0751	0.1847	0.2292	0.1799	0.2244
RORIENT	0.2357	0.2784	0.3670**	0.4542**	0.2786*	0.3621*
PIMP with						
PDES	0.443**	0.5599**	0.1586	0.1785	0.3135*	0.3822*
PEX	-0.0376	-0.0334	0.0332	0.0348	0.3471**	0.4282**
PORIENT	0.2126	0.2708	0.0386	0.0687	0.3570**	0.4480**

The significance of the correlation coefficients is shown by $**\rho \leq 0.01$

$*\rho \leq 0.05$

TABLE 5a Comparison Between Tests

COMPARISON OF PAIRED STATEMENTS QUESTIONNAIRE WITH DESIRE, EXPECTATIONS, ORIENTATIONS AND IMPORTANCE SCORES.
RANK CORRELATION COEFFICIENTS FOR
PAIRED STATEMENTS COMPARED WITH DESIRE, EXPECTATION ORIENTATION AND IMPORTANCE SCORES.
SAMPLES INCLUDED IN THE ANALYSIS - WOOLWORTH, BABS 2 78/79, BABS 2 79/80, BABS 4 79/80, WORKS MANAGERS 80.

CR WITH	CDES	CEX	CORIENT	CIMP
KENDALL (N = 149)	0.3899	0.3441	0.3797	0.3864
SIGNIFICANCE (p=)	0.001**	0.001**	0.001**	0.001**
SPEARMAN (N = 149)	0.4507	0.4174	0.4620	0.4590
SIG. (p=)	0.001**	0.001**	0.001**	0.001**

IR WITH	IDES	IEX	IORIENT	IIMP
KENDALL (N = 144)	0.1081	-0.0070	0.0038	0.2059
SIG.	0.058	0.458	0.477	0.001**
SPEARMAN (N = 144)	0.1285	-0.0086	0.0058	0.2536
SIG.	0.062	0.459	0.472	0.001**

RR WITH	RDES	REX	RORIENT	RIMP
KENDALL (N = 147)	0.1055	0.1089	0.1310	0.2006
SIG.	0.061	0.051	0.023*	0.001**
SPEARMAN (N = 147)	0.1303	0.1306	0.1654	0.2457
SIG.	0.058	0.057	0.023*	0.001**

PR WITH	PDES	REX	PORIENT	PIMP
KENDALL (N = 149)	0.3464	0.1270	0.2605	0.2623
SIG.	0.001**	0.030*	0.001**	0.001**
SPEARMAN (N = 149)	0.3989	0.1557	0.3166	0.3189
SIG.	0.001**	0.029*	0.001**	0.001**

TABLE 5b Comparison Between Tests

COMPARISON OF PAIRED STATEMENTS QUESTIONNAIRE WITH DESIRE, EXPECTATIONS, ORIENTATIONS AND IMPORTANCE SCORES.
RANK CORRELATION COEFFICIENTS FOR
PAIRED STATEMENTS COMPARED WITH DESIRE, EXPECTATION, ORIENTATION AND IMPORTANCE SCORES.
Samples - All.

CR WITH	CDES	CEX	CORIENT	CIMP
KENDALL (N = 182)	0.4117	0.3568	0.3939	0.4172
SIGNIFICANCE (p =)	0.001**	0.001**	0.001**	0.001**
SPEARMAN (N = 182)	0.4758	0.4340	0.4794	0.4987
SIG. (p =)	0.001**	0.001**	0.001**	0.001**

IR WITH	IDES	IEX	IORIENT	IIMP
KENDALL (N = 178)	0.0984	-0.0460	-0.0224	0.1839
SIG.	0.114	0.447	0.710	0.003**
SPEARMAN (N = 178)	0.1188	-0.0556	-0.0271	0.2270
SIG.	0.114	0.461	0.720	0.002**

RR WITH	RDES	REX	RORIENT	RIMP
KENDALL (N = 180)	0.1398	0.1216	0.1557	0.2161
SIG.	0.023*	0.045*	0.008**	0.001**
SPEARMAN (N = 180)	0.1715	0.1505	0.1965	0.2640
SIG.	0.021*	0.044*	0.008**	0.001*

PR WITH	PDES	PEX	PORIENT	PIMP
KENDALL (N = 182)	0.3359	0.1640	0.2683	0.2352
SIG.	0.001**	0.007**	0.001**	0.001**
SPEARMAN (N = 182)	0.3880	0.1998	0.3242	0.3035
SIG.	0.001**	0.007**	0.001**	0.001**

TABLE 6a Comparisons between Tests: Desires compared with Expectations.

Rank Correlation Coefficients.

Samples: All

	Kendall	p=	Spearman	p=
CDES with CEX (N = 215)	0.4613	0.001**	0.5667	0.001**
IDES with IEX (N = 215)	0.0926	0.074	0.1077	0.115
RDES with REX (N = 211)	0.1675	0.002**	0.2050	0.003**
PDES with PEX (N = 216)	0.2852	0.001**	0.3716	0.001**

TABLE 6b Desires and Expectations

Rank Correlation Coefficients Desires and Expectations by Sample

	Kendall	Sign. ρ=	Spearman	Sign. ρ=
Woolworths 80				
CDES with CEX	0.3452	0.001**	0.4530	0.001**
IDEX with IEX	-0.0598	0.256	-0.1015	0.207
RDES with REX	0.1544	0.061	0.1732	0.084
PDEX with PEX	0.0425	0.321	0.0612	0.310
BABS 2 78/79				
CDES with CEX	0.4311	0.002**	0.5185	0.002**
IDEX with IEX	0.2722	0.032*	0.3188	0.043**
RDES with REX	0.0163	0.459	0.0196	0.460
PDES with PEX	0.4044	0.003**	0.4794	0.004**
BABS 4 79/80				
CDES with CEX	0.2460	0.046*	0.2933	0.055**
IDEX with IEX	0.0634	0.332	0.0958	0.304
RDES with REX	-0.0356	0.405	-0.0454	0.404
PDES with PEX	-0.1591	0.137	-0.2080	0.131
BABS 4 80/81				
CDES with CEX	0.4536	0.001**	0.5376	0.001**
IDES with IEX	0.2159	0.064	0.2505	0.073
RDES with REX	0.3769	0.005**	0.4404	0.005**
PDES with PEX	0.4731	0.001**	0.6044	0.001**
BABS 2 79/80				
CDES with CEX	0.2410	0.028*	0.3182	0.026*
IDES with IEX	0.1848	0.075	0.2384	0.075
RDES with REX	0.1563	0.115	0.1951	0.120
PDES with PEX	0.0515	0.343	0.0632	0.353
Works Managers 80				
CDES with CEX	0.7485	0.001**	0.8516	0.001**
IDES with IEX	0.1700	0.225	0.1588	0.294
RDES with REX	0.2780	0.112	0.3445	0.114
PDES with PEX	0.3654	0.054	0.4404	0.058

COMPARISONS BETWEEN SAMPLES OF STUDENTS

BABS 2 78/79 BABS 2 79/80

TABLE 7a MANN-WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES	BABS 2 79/80 (N_1=37)			BABS 2 78/79 (N_2=30)
	U	W	Z (corrected for ties)	2 tailed P
CDES	438.5	1136.5	-1.5105	0.1309
IDES	513.5	1061.5	-0.5388	0.5921
RDES	415.0	880.0	-1.8265	0.0678
PDES	507.0	1068.0	-0.6216	0.5342
CEX	246.0	1329.0	-3.9399	0.0001**
IEX	287.0	1288.0	-3.4290	0.0006**
REX	351.5	1156.5	-2.4397	0.0147*
PEX	325.0	1250.0	-2.9249	0.0034**
CORIENT	271.0	1304.0	-3.6005	0.0003**
IORIENT	337.0	1238.0	-2.7742	0.0055**
RORIENT	435.0	1073.0	-1.3322	0.0055**
PORIENT	333.5	1241.5	-2.8123	0.0049**
			N_1 = 38	
CIMP	519.5	1085.5	" -0.6345	0.5258
I	506.0	971.0	" -0.8049	0.4208
R	559.5	1024.5	" -0.1331	0.8941
P	493.0	1112.0	" -0.9658	0.3342

COMPARISONS BETWEEN SAMPLES OF STUDENTS

TABLE 7b MANN-WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES		BABS 2 79/80 Females (N_1=10)	BABS 78/79 Females (N_2=13)
U	W	Z (corrected for ties)	2 tailed P
CDES	59.6	125.5	-0.3558	0.7220
IDES	60.5	124.5	-0.2982	0.7656
R	63.0	118.0	-0.1293	0.8971
P	67.5	122.5	-0.1603	0.8726
CEX	33.5	151.5	-1.9867	0.0470*
I	21.0	164.0	-2.7603	0.0058**
R	42.0	143.0	-1.4600	0.1443
P	10.0	175.0	-3.4452	0.0006**
CORIENT	42.0	143.0	-1.4407	0.1497
I	29.5	155.5	-2.2459	0.0247*
R	48.5	136.5	-1.0423	0.2973
P	19.0	166.0	-2.8720	0.0041**
CIMP	57.5	112.5	-0.4789	0.6320
I	50.5	105.5	-0.9202	0.3575
R	55.5	129.5	-0.6095	0.5422
P	56.5	128.5	-0.5442	0.5863

COMPARISONS BETWEEN SAMPLES OF STUDENTS

TABLE 7c MANN-WHITNEY U - WILCOXON RANK SUM W TEST

	SAMPLES		BABS 2 79/80 Males (N_1= 25)	BABS 2 78/79 Males (N_2=20)
	U	W	Z (corrected for ties)	2 tailed P
CDES	178.5	531.5	-1.6787	0.0932
I	229.5	480.5	-0.4761	0.6340
R	172.0	382.0	-1.8340	0.0667
P	222.0	488.0	-0.6556	0.5125
CEX	102.0	608.0	-3.4236	0.0006**
I	15.0	559.0	-2.2991	0.0215*
R	165.5	499.5	-1.7387	0.0821
P	218.5	4915.5	-0.7266	0.4675
CORIENT	104.0	606.0	-3.3508	0.0008**
I	166.5	543.5	-1.9217	0.0546
R	199.5	465.5	-0.9139	0.3608
P	196.5	513.5	-1.2313	0.2182
CIMP	201.5	508.5	-1.7290	0.2589
I	233.0	443.0	-0.3959	0.6921
R	224.0	434.0	-0.6091	0.5425
P	206.5	503.5	-1.0058	0.3145

COMPARISONS BETWEEN SAMPLES OF STUDENTS

BABS 4 80/81 with BABS 4 79/80

TABLE 8a Mann-Whitney U - Wilcoxon Rank Sum W Test

Samples	BABS 4 80/81 N_1=35		BABS 4 79/80 N_2=31	
	U	W	Z corrected for ties	2 tailed p
CDES	539.0	1042.0	-0.0468	0.9627
IDES	509.0	1072.0	-0.4467	0.6551
RDES	520.0	1016.0	-0.2998	0.7643
PDES	466.5	1114.5	-0.9986	0.3180
CEX	479.5	1101.5	-0.8316	0.4056
IEX	514.0	1010.0	-0.3771	0.7061
REX	396.0	892.0 (N_1=34)	-1.7845	0.0743
PEX	447.0	943.0	-1.2411	0.2146
CORIENT	518.0	1063.0	-0.3178	0.7506
IORIENT	517.5	1013.5	-0.3257	0.7447
RORIENT	397.5	893.5 (N_1=34)	-1.7207	0.0853
PORIENT	501.5	997.5	-0.5311	0.5953
CIMP	462.5	958.5	-1.0428	0.2970
IIMp	482.5	978.5	-0.7903	0.4293
RIMP	489.0	985.0	-0.6798	0.4853
PIMP	500.0	996.0	-0.5617	0.5743

COMPARISONS BETWEEN SAMPLES OF STUDENTS

BABS 4 80/81 FEMALES WITH BABS 4 79/80 FEMALES

TABLE 8 b MANN WHITNEY U - WILCOXON BANK SUM W TEST

SAMPLES	BABS 4 80/81 FEMALES (N_1= 12)			BABS 4 79/80 FEMALES (N_2= 10)
	U	W	Z corrected for ties)	2 tailed p
CDES	53.0	108.0	-0.4823	0.6296
IDES	60.0	115.0	-0.0000	1.0000
RDES	51.0	106.0	-0.6507	0.5152
PDES	48.0	103.0	-0.8102	0.4178
CEX	53.5	121.5	-0.4459	0.6556
IEX	51.0	106.0	-0.6249	0.5320
REX	35.0	90.0	-1.7156	0.0862
PEX	22.5	77.5	-2.5004	0.0124*
CORIENT	60.0	115.0	0.0000	1.0000
IORIENT	49.5	104.5	-0.7106	0.4473
RORIENT	35.0	90.0	-1.6674	0.0954
PORIENT	27.0	82.0	-2.2073	0.0273*
CIMP	51.0	106.0	-0.6038	0.5460
IIMP	55.0	110.0	-0.3394	0.7343
RIMP	45.0	100.0	-1.0213	
PIMP	24.5	79.5	-2.4178	0.0156

COMPARISONS BETWEEN SAMPLES OF STUDENTS

BABS 4 80/81 MALES WITH BABS 4 79/80 MALES

TABLE 8 c MANN-WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES	BABS 4 80/81 MALES N_1= 23		BABS 4 79/80 MALES N_2= 21	
	U	W	Z (corrected for ties)	2 tailed p
CDES	227.5	486.5	-0.3416	0.7326
IDES	225.0	489.0	-0.3975	0.6910
RDES	238.0	476.0	-0.0850	0.9322
PDES	155.5	558.5	-2.0835	0.0372*
CEX	213.0	501.0	-0.6850	0.4933
IEX	238.5	475.5	-0.0721	0.9425
REX	197.5	428.5 (N_1= 22)	-0.8442	0.3986
PEX	229.0	485.0	-0.2974	0.7662
CORIENT	226.0	488.0	-0.3676	0.7132
IORIENT	240.0	474.0	-0.0356	0.9716
RORIENT	198.0	429.0 (N_1= 22)	-0.8128	0.4163
PORIENT	197.5	516.5	-1.0412	0.2978
CIMP	209.0	440.0	-0.7808	0.4349
IIMP	212.0	443.0	-0.7122	0.4763
RIMP	240.5	471.5	-0.0238	0.9810
PIMP	200.0	514.0	-1.0018	0.3164

COMPARISONS BETWEEN SAMPLES OF STUDENTS

TABLE 9a MANN-WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES		BABS 2 78/79 (N_1=30)		BABS 4 79/80 (N_2=30)
U	W	Z (corrected for ties)		2 tailed p
CDES	447.5	912.5	-0.0384	0.9694
I	426.5	891.5	-0.3563	0.7216
R	431.5	896.5	-0.2847	0.7759
P	404.0	869.0	-0.7046	0.4811
CEX	442.5	922.5	-0.1141	0.9092
I	411.5	953.5	-0.5812	0.5611
R	333.5	971.5	-1.5684	0.1168
P	377.5	987.5	-1.0830	0.2788
CORIENT	429.0	936.0	-0.3132	0.7541
I	430.0	935.0	-0.3002	0.7640
R	343.5	961.5	-1.4107	0.1583
P	411.0	954.0	-0.5825	0.5602
			N_2=31	
CIMP	435.5	959.5	-0.4306	" 0.6668
I	452.0	912.0	-0.1916	" 0.8481
R	358.5	1036.5	-1.5637	" 0.1179
P	463.0	928.0	-0.0294	" 0.9765

COMPARISONS BETWEEN SAMPLES OF STUDENTS

TABLE 9b MANN-WHITNEY U - WILCOXON BANK SUM W TEST

SAMPLES			BABS 2 78/79 Females (N_1=10)	BABS 4 79/80 Females (N_2= 10)
	U	W	Z (corrected for ties)	2 tailed P
CDES	45.5	109.5	-0.3542	0.7232
I	47.5	107.5	-0.1985	0.8427
R	46.5	108.5	-0.2809	0.7788
P	44.0	111.0	-0.4645	0.6423
CEX	48.0	103.0	-0.1594	0.8733
I	46.0	109.0	-0.3097	0.7568
R	37.0	118.0	-0.9982	0.3182
P	15.0	140.0	-2.6782	0.0074**
CORIENT	49.0	104.0	-0.0763	0.9392
I	43.0	112.0	-0.5606	0.5751
R	39.0	116.0	-0.8430	0.3992
P	20.5	134.5	-2.2678	0.0233*
CIMP	42.0	113.0	-0.6167	0.5374
I	46.0	101.0	-0.3076	0.7584
R	40.0	115.0	-0.7835	0.4333
P	27.0	128.0	-1.7730	0.0762

BABS 2 78/9 higher than BABS 4 79/80 on PEX and PORIENT

COMPARISONS BETWEEN SAMPLES OF STUDENTS

TABLE 9c MANN-WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES			BABS 2 78/79 Males (N_1=20)	BABS 4 79/80 Males (N_2=21)
	U	W	Z (corrected for ties)	2 tailed p
CDES	190.5	400.5	-0.5281	0.5974
I	184.5	394.5	-0.6779	0.4978
R	197.5	407.5	-0.3397	0.7841
P	156.5	366.5	-1.4609	0.1440
CEX	204.0	426.0	-0.1598	0.8730
I	187.5	442.5	0.5996	0.5488
			(N_1=19)	
R	165.5	423.5	-0.9399	0.3473
P	184.0	394.0	-0.6855	0.4930
CORIENT	202.0	428.0	-02106	0.8332
I	206.5	423.5	-0.0922	0.9266
R	161.0	428.0	-10652	0.2868
			(N_1=19)	
P	169.0	379.0	-1.0821	0.2792
CIMP	208.0	418.0	-0.0529	0.9578
I	206.0	424.0	-0.1075	0.9144
R	157.5	472.5	-1.3921	0.1639
P	168.0	378.0	-1.1182	0.2635

COMPARISONS BETWEEN SAMPLES OF STUDENTS: BABS 279/80 & BABS 479/80

TABLE 10a MANN-WHITNEY U - WILCOXON BANK SUM W TEST

SAMPLES			BABS 4 79/80 (N_1=30)	BABS 2 79/80 (N_2=37)
	U	W	Z (corrected for ties)	2 tailed p
CDES	438.0	1137.0	-1.5209	0.1283
IDES	480.0	1095.0	-0.9724	0.3309
RDES	435.0	900.0	-1.5580	0.1192
PDES	450.0	1125.0	-1.3574	0.1747
CEX	263.0	1312.0	-3.7141	0.0002**
IEX	316.0	1259.0	-3.0575	0.0022**
REX	508.5	1066.5	-0.5981	0.5498
PEX	401.5	1173.5	-1.9547	0.0506
CORIENT	280.5	1294.5	-3.4810	0.0005**
IORIENT	344.5	1230.5	-2.6871	0.0072**
RORIENT	551.0	1024.0	-0.0509	0.9594
PORIENT	369.5	1205.5	-2.3618	0.0182*
CIMP	579.0	1095.0	-0.1221 (N_1=31 N_2=38)	0.9028
IIMP	531.0	1027.0	-0.7191 "	0.4721
RIMP	468.0	964.0	-1.4824 "	0.1382
PIMP	504.5	1169.5	-1.0387 "	0.2990

COMPARISONS BETWEEN SAMPLES OF STUDENTS

TABLE 10b MANN-WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES			BABS 4 79/80 Females (N_1=16)	BABS 2 79/80 Females (N_2=13)
	U	W	Z (corrected for ties)	2 tailed p
CDES	64.5	120.5	-0.0323	0.9743
IDES	62.5	122.5	-0.1725	0.8630
RDES	60.5	115.5	-0.2884	0.7730
PDES	58.5	113.5	-0.4141	0.6788
CEX	23.5	161.6	-2.5963	0.0094**
IEX	26.5	158.5	-2.4351	0.0149*
REX	62.0	123.0	-0.1890	0.8501
PEX	42.5	142.5	-1.4112	0.1582
CORIENT	35.0	150.0	-1.8768	0.0605
IORIENT	33.0	152.0	-2.0365	0.0417*
RORIENT	62.5	122.5	-0.1572	0.8751
PORIENT	50.0	135.0	-0.9434	0.3455
CIMP	46.0	101.0	-1.2011	0.2297
IIMP	55.0	110.0	-0.6492	0.5162
RIMP	65.0	120.0	0.0000	1.0000
PIMP	43.0	98.0	-1.4052	0.1599

COMPARISONS BETWEEN SAMPLES OF STUDENTS

TABLE 10c MANN-WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES			BABS 4 79/80 Males (N_1= 21)	BABS 2 79/80 Males (N_2= 25)
	U	W	Z (corrected for ties)	2 tailed p
CDES	172.0	584.0	-2.0468	0.0407*
I DES	207.5	584.5	-1.2348	0.2168
R DES	193.0	424.0	-1.5724	0.1159
P DES	179.5	576.5	-1.8788	0.0603
CEX	120.5	635.5	-3.1667	0.0015**
I EX	183.0	573.0	-1.7851	0.0743
R EX	233.0	523.0	-0.6658	0.5055
P EX	203.0	553.0	-1.3269	0.1845
CORIENT	116.5	639.5	-3.2374	0.0012**
I ORIENT	173.5	582.5	-1.9812	0.0476*
R ORIENT	262.0	494.0	-0.0111	0.9911
P ORIENT	169.0	587.0	-2.0788	0.0376*
CIMP	216.0	540.0	-1.0376	0.2995
I IMP	235.0	466.0	-0.6231	0.5332
R IMP	178.5	409.5	-1.8871	0.0592
P IMP	174.0	582.0	-1.9879	0.0468*

COMPARISONS BETWEEN SAMPLES OF STUDENTS: BABS 2 78/79 WITH BABS 4 80/81

TABLE 11a WILCOXON MATCHED PAIRS SIGNED RANKS TEST

SAMPLES BABS 2 78/79 MATCHED WITH BABS 4 80/81

	CASES	TIES	Z	2 tailed p
CDES	29	8	-0.313	0.754
IDES	29	10	-0.563	0.573
RDES	29	14	-0.369	0.712
PDES	29	10	-1.147	0.251
CEX	29	7	-1.380	0.168
IEX	29	13	-0.569	0.569
REX	27	4	-0.730	0.465
PEX	29	4	-0.444	0.657
CORIENT	29	7	-1.153	0.249
IORIENT	29	7	-0.422	0.673
RORIENT	27	3	-0.300	0.764
PORIENT	29	6	-0.715	0.475
CIMP	29	8	-0.070	0.945
IIMP	29	4	-0.915	0.360
RIMP	29	4	-1.440	0.150
PIMP	29	11	-0.675	0.500

COMPARISONS BETWEEN SAMPLES OF STUDENTS

BABS 2 78/79 FEMALES WITH BABS 4 80/81 FEMALES

TABLE 11 b WILCOXON MATCHED PAIRS SIGNED RANKS TEST

SAMPLES	BABS 2 78/79 FEMALES (N_1= 10)		MATCHED WITH	BABS 4 80/81 FEMALES (N_2= 10)
	CASES	TIES	Z	2 tailed p
CDES	10	2	0.000	1.000
IDES	10	6	0.000	1.000
RDES	10	3	-0.676	0.499
PDES	10	6	-1.095	0.273
CEX	10	3	-0.169	0.866
IEX	10	5	-0.135	0.893
REX	10	4	-0.943	0.345
PEX	10	1	-0.059	0.953
CORIENT	10	4	-0.105	0.917
IORIENT	10	2	-0.280	0.779
RORIENT	10	1	-1.125	0.260
PORIENT	10	2	-0.420	0.674
CIMP	10	3	-1.183	0.237
IIMP	10	1	-0.415	0.678
RIMP	10	3	-0.338	0.735
PIMP	10	5	-0.674	0.500

COMPARISONS BETWEEN SAMPLES OF STUDENTS:

BABS 2 78/79 MALES WITH BABS 4 80/81 MALES

TABLE 11 c WILCOXON MATCHED PAIRS SIGNED RANKS TEST

SAMPLES	BABS 2 78/79 MALES (N_1 = 19)	MATCHED WITH	BABS 4 80/81 MALES (N_2 = 19)
	CASES	TIES	Z	2 tailed p
CDES	19	6	-0.419	0.675
IDES	19	4	-0.568	0.570
RDES	19	11	-0.210	0.834
PDES	19	4	-1.704	0.088
CEX	19	4	-1.477	0.140
IEX	19	8	-0.800	0.424
REX	17	0	-1.373	0.170
PEX	19	3	-0.569	0.569
CORIENT	19	3	-1.319	0.187
IORIENT	19	5	-0.282	0.778
RORIENT	17	2	-1.306	0.191
PORIENT	19	4	-1.079	0.281
CIMP	19	5	-0.973	0.331
IIMP	19	3	-1.293	0.196
RIMP	19	1	-1.459	0.145
PIMP	19	6	-0.454	0.650

TABLE 12a Ages of Students on Entry to the Course

	BABS 2 78/79	BABS 2 79/80	Totals
Over 20 on entry to course	7	6	13
Under 20 on entry to course	23	32	55
Totals	30	38	68

Calculated value of $\chi^2 = 0.23$ $\rho < 0.7$

TABLE 12b Ages of Students on Entry to Course

	BABS 2 78/79 or BABS 4 80/81	BABS 4 79/80	Totals
Over 20 on entry to course	6	6	12
Under 20 on entry to course	32	24	56
Totals	38	30	68

Calculated value of $\chi^2 = 0.02$ $\rho > 0.9$

TABLE 12c Ages of Students on Entry to Course

	BABS 2 79/80	BABS 4 79/80	Totals
Over 20 on entry to course	7	6	13
Under 20 on entry to course	23	24	47
Totals	30	30	60

Calculated value of $\chi^2 = 0.0$ $\rho = 1.0$

COMPARISONS WITHIN SAMPLES OF STUDENTS:

BABS 2 78/79 FEMALES WITH BABS 2 78/79 MALES

TABLE 13a MANN-WHITNEY u - WILCOXON RANK SUM W TEST

SAMPLES	BABS 2 78/79 FEMALES (N_1= 10)			BABS 2 78/79 MALES (N_2= 20)
	U	W	Z	2 tailed p
			corrected for ties	
CDES	81.0	136.0	-0.8668	0.3860
IDES	80.5	135.5	-0.8777	0.3801
RDES	81.5	173.5	-0.8592	0.3902
PDES	86.5	168.5	-0.6230	0.5333
CEX	75.5	130.5	-1.1195	0.2629
IEX	99.5	155.5	-0.0226	0.9820
REX	82.5	162.5 (N_2= 19)	-0.5913	0.5543
PEX	34.0	221.0	-2.9415	0.0033 **
CORIENT	75.0	130.0	-1.1080	0.2679
IORIENT	87.5	142.5	-0.5582	0.5767
RORIENT	87.5	157.5 (N_2= 19)	-0.3554	0.7223
PORIENT	51.0	204.0	-2.1710	0.0299 *
CIMP	70.0	125.0	-1.3447	0.1787
IIMP	54.5	109.5	-2.0450	0.0409 *
RIMP	99.5	155.5	-0.0229	0.9818
PIMP	72.0	183.0	-1.2508	0.2110

COMPARISONS WITHIN SAMPLES OF STUDENTS:

BABS 2 79/80 FEMALES WITH BABS 2 79/80 MALES

TABLE 13b MANN WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES	BABS 2 79/80 FEMALES (N_1 = 13)			BABS 2 79/80 MALES (N_2 = 25)
	U	W	Z corrected for ties	2 tailed p
CDES	153.5	262.5	-0.2844	0.7761
IDES	139.0	230.0	-0.7437	0.4571
RDES	140.0	231.0	-0.7099	0.4777
PDES	127.5	288.5	-1.1009	0.2709
CEX	157.5	258.5	-0.1548	0.8770
IEX	124.0	215.0	-1.2026	0.2291
REX	151.0	265.0	-0.3601	0.7188
PEX	118.5	209.5	-1.3693	0.1709
CORIENT	152.5	263.5	-0.3099	0.7566
IORIENT	130.5	221.5	-0.9950	0.3197
RORIENT	161.0	252.0	-0.0466	0.9629
PORIENT	154.0	245.0	-0.2639	0.7918
CIMP	162.0	253.0	-0.0156	0.9875
IIMP	97.5	188.5	-2.0462	0.0407 *
RIMP	121.0	212.0	-1.3035	0.1924
PIMP	108.0	308.0	-1.7043	0.0883

COMPARISONS WITHIN SAMPLES OF STUDENTS:

BABS 4 79/80 FEMALES WITH BABS 4 79/80 MALES

TABLE 13c MANN WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES	BABS 4 79/80 FEMALES (N_1 = 10)			BABS 4 79/80 MALES (N_2 = 21)
	U	W	Z corrected for ties	2 tailed p
CDES	68.0	123.0	-1.6275	0.1036
IDES	66.0	121.0	-1.6966	0.0898
RDES	97.5	167.5	-0.3322	0.7397
PDES	83.0	138.0	-0.9617	0.3362
CEX	91.5	146.5	-0.5825	0.5603
IEX	104.5	159.5	-0.0217	0.9827
REX	104.0	161.0	-0.0435	0.9653
PEX	85.5	140.5	-0.8356	0.4034
CORIENT	84.5	139.5	-0.8759	0.3811
IORIENT	83.5	138.5	-0.9262	0.3544
RORIENT	101.0	164.0	-0.1711	0.8642
PORIENT	74.5	129.5	-1.3130	0.1892
CIMP	63.5	118.5	-1.7689	0.0769
IIMP	67.0	122.0	-1.6660	0.0957
RIMP	99.5	165.5	-0.2361	0.8134
PIMP	73.0	128.0	-1.3869	0.1655

COMPARISONS WITHIN SAMPLES OF STUDENTS:

BABS 4 80/81 FEMALES WITH BABS 4 80/81 MALES

TABLE 13d MANN WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES BABS 4 80/81 FEMALES (N_1 =) BABS 4 80/81 MALES (N_2 =)

	U	W	Z corrected for ties	2 tailed p
CDES	109.0	187.0	-1.0482	0.2945
IDES	101.0	179.0	-1.3498	0.1771
RDES	107.0	247.0	-1.1139	0.2653
PDES	97.0	257.0	-1.4498	0.1471
CEX	129.5	207.5	-0.3062	0.7574
IEX	115.0	239.0	-0.87 29	0.3827
REX	96.0	246.0	-1.4300	0.1527
PEX	76.5	277.5	-2.1601	0.0308 *
CORIENT	119.5	197.5	-0.6486	0.5166
IORIENT	129.0	207.0	-0.3203	0.7488
RORIENT	92.5	249.5	-1.4453	0.1484
PORIENT	79.5	274.5	-2.0467	0.0407 *
CIMP	73.5	151.5	-2.3073	0.0210 *
IIMP	84.0	162.0	-1.9238	0.0544
RIMP	111.0	243.0	-0.9597	0.3372
PIMP	75.0	279.0	-2.2748	0.0229 *

Tables Relating to Ch 5.2

Tables 14a, b, c, d, e, f

Woolworths: PRSJOB by SEX, PRSJOB by AGE, MARSTAT by PRSJOB, MARSTAT by AGE, OOW by EMPLYT, OOW by PRSJOB

Table 14a PRSJOB by SEX

SEX PRSJOB

	Shop-Floor	Other (White Collar, Supervisory, Managerial)
Female	34	17
Male	1	6

Calculated value of $\chi^2 = 5.038$ $p < 0.05$ *

Table 14b PRSJOB by AGE

AGE PRSJOB

	Shop-Floor	Other
Under 20	13	3
Over 20	22	19

Calculated value of $\chi^2 = 2.624$ $p > 0.05$

Table 14c MARSTAT by PRSJOB

PRSJOB MARSTAT

	Single	Married etc (Divorced, Separated, Widowed)
Shopfloor	16	19
Other	11	11

Calculated value of $\chi^2 = 0.0018$ $p > 0.05$

Table 14d MARSTAT by AGE

AGE MARSTAT

	Single	Married etc
Under 20	16	0
Over 20	11	30

Calculated value of χ^2 = 21.868 $p < 0.001$ **

Table 14e OOW by EMPLYT

EMPLYT OOW

	Yes	No
Under 1 yr	0	16
Over 1 yr	9	31

Calculated value of χ^2 = 2.783 $p > 0.05$

Table 14f OOW by PRSJOB

PRSJOB OOW

	Yes	No
Shopfloor	11	24
Other	5	16

Calculated value of χ^2 = 0.093 $p > 0.05$

COMPARISONS WITHIN SAMPLES - WOOLWORTHS

WOOLWORTHS FEMALES WITH WOOLWORTHS MALES

TABLE 15a MANN-WHITNEY U - WILCOXON RANK SUM W TEST

SAMPLES	WOOLWORTHS FEMALES (N_1 = 61)			WOOLWORTHS MALES (N_2 = 8)
	U	W	Z corrected for ties	2 tailed p
CDES	61.5	446.5 (N_1 = 59)	-3.4017	0.0007 **
IDES	129.5	394.5	-2.1666	0.0303 *
RDES	139.0	175.0 (N_1 = 60)	-1.9747	0.0483 *
PDES	136.5	387.5	-2.0368	0.0417 *
CEX	63.5	460.5	-3.3996	0.0007 **
IEX	66.0	442.0 (N_1 = 59)	-3.3040	0.0010 **
REX	198.0	234.0 (N_1 = 58)	-0.6913	0.4894
PEX	77.0	439.0 (N_1 = 60)	-3.1291	0.0018 **
CORIENT	43.5	464.5 (N_1 = 59)	-3.7407	0.0002 **
IORIENT	43.5	464.5 (N_1 = 59)	-3.7420	0.0002 **
RORIENT	174.0	210.0 (N_1 = 57)	-1.0856	0.2777
PORIENT	60.5	455.5 (N_1 = 60)	-3.4451	0.0006 **
CIMP	129.5	394.5	-2.1634	0.0305 *
IIMP	235.0	271.0 (N_1 = 60)	-0.0991	0.9210
RIMP	150.0	186.0	-1.8022	0.0715
PIMP	160.5	363.5	-1.5846	0.1131

Table 15b WOOLWORTHS - AGE

MANN-WHITNEY U - WILCOXON RANK SUM W TEST

AGE	Under 20 (N_1=16)		Over 20 (N_2=41)	
	U	W	z corrected for ties	2-tailed p
CDES	253.0	507.0	-1.1045 (N_2=39)	0.2694
IDES	247.0	545.0	-1.4558	0.1455
RDES	276.5	412.5	-0.9420	0.3462
PDES	272.0	520.0	-1.0070	0.3139
CEX	237.0	373.0	-1.6263	0.1039
IEX	288.0	424.0	-0.5828 (N_2=40)	0.5600
REX	247.0	367.0	-0.9092 (N_1=15 N_2=39)	0.3633
PEX	238.0	374.0	-1.6145	0.1064
CORIENT	245.5	381.5	-1.2390 (N_2=39)	0.2151
IORIENT	311.0	465.0	-1.1640 (N_2=40)	0.8697
RORIENT	230.5	350.5	-1.2069 (N_1=15 N_2=39)	0.2275
PORIENT	260.0	396.0	-1.2185	0.2230
CIMP	162.0	298.0	-2.9779	0.0029 **
IIMP	317.5	453.5	-0.1951	0.8453
RIMP	248.5	384.5	-1.4520	0.1465
PIMP	303.0	489.0	-0.4509	0.6520

Medians	Under 20	Over 20
CIMP	3	5

Table 15c WOOLWORTHS - MARITAL STATUS

MANN-WHITNEY U - WILCOXON RANK SUM W TEST

MARSTAT Single (N_1=27) Married etc (N_2=30)

	U	W	z corrected for ties		2-tailed p	
CDES	249.0	885.0	-2.1939	(N_2=28)	0.0280	*
IDES	281.5	906.5	-1.9975		0.0458	*
RDES	310.0	688.0	-1.5637		0.1179	
PDES	287.0	901.0	-1.9096		0.0562	
CEX	399.0	777.0	-0.0965		0.9231	
IEX	269.5	891.0	-2.0088	(N_2=29)	0.0446	*
REX	342.5	707.5	-0.3590	(N_1=25 N_2=29)	0.7196	
PEX	372.0	750.0	-0.5328		0.5942	
CORIENT	347.5	786.5	-0.5166	(N_2=28)	0.6055	
IORIENT	219.0	942.0	-2.8416	(N_2=29)	0.0045	**
RORIENT	348.5	673.5	-0.2448	(N_1=25 N_2=29)	0.8066	
PORIENT	403.0	785.0	-0.0323		0.9743	
CIMP	341.5	719.5	-1.0251		0.3053	
IIMP	373.5	751.5	-0.5267		0.5984	
RIMP	369.5	747.5	-0.5835		0.5596	
PIMP	344.5	843.5	-0.9820		0.3261	

Medians	Single	Married etc
CDES	15	13
IDES	18	16.5
IEX	13	10
IORIENT	11.5	8

Table 15d WOOLWORTHS - Married Respondents - CHILDREN

MANN-WHITNEY U - WILCOXON RANK SUM W TEST

CHIL No Children (N_1=6) One or more (N_2=21)

	U	W	z corrected for ties	2-tailed p
CDES	48.5	69.5	-0.8573	0.3913
IDES	38.5	59.5	-1.6574	0.0974
RDES	56.0	103.0	-0.7239	0.4691
PDES	33.0	54.0	-1.9758	0.0482 *
CEX	64.0	95.0	-0.2719	0.7857
IEX	65.0	88.0	-0.0563	0.9551
REX	13.0	140.0	-3.0557	0.0022 **
PEX	30.0	51.0	-2.1314	0.0331 *
CORIENT	55.5	76.5	-0.4442	0.6569
IORIENT	56.5	77.5	-0.5365	0.5916
RORIENT	20.0	133.5	-2.5969	0.0094 **
PORIENT	16.0	37.0	-2.8999	0.0037 **
CIMP	48.5	69.5	-1.1149	0.2649
IIMP	57.0	78.0	-0.6812	0.4958
RIMP	60.0	99.0	-0.5048	0.6137
PIMP	48.5	69.5	-1.1225	0.2616

Medians	No children	One or more
PDES	13.5	16
REX	19	16
PEX	10	13
RORIENT	17	13
PORIENT	8	11

Table 15e WOOLWORTHS - Whether out of Employment for 1 year plus or not

MANN-WHITNEY U - WILCOXON RANK SUM W TEST

OOW	Out of employment for one year plus (N_1=16)		Not out of employment (N_2=40)	
	U	W	z corrected for ties	2-tailed p
CDES	227.0	332.0	-1.0563 (N_1=14)	0.2909
IDES	287.0	489.0	-0.6061	0.5445
RDES	211.0	565.0	-2.0389	0.0415 *
PDES	298.5	477.5	-0.3951	0.6928
CEX	319.5	456.5	-0.0091	0.9927
IEX	189.5	309.5	-2.0974 (N_1=15)	0.0360 *
REX	219.5	339.5	-1.4587 (N_1=15 N_2=39)	0.1447
PEX	267.5	508.5	-0.9622	0.3559
CORIENT	280.0	385.0	-0.0000 (N_1=14)	1.0000
IORIENT	203.5	323.5	-1.8325 (N_1=15)	0.0669
RORIENT	272.5	392.5	-0.3893 (N_1=15 N_2=39)	0.6970
PORIENT	250.0	526.0	-1.2812	0.2001
CIMP	214.0	562.0	-1.9426	0.0521
IIMP	244.0	532.0	-1.4458	0.1482
RIMP	311.5	464.5	-0.1587	0.8739
PIMP	316.5	425.5	-0.0645	0.9486

Medians	Out of employment	Not out of employment
RDES	19	16.5
IEX	9	12

Table 15f WOOLWORTHS - TIME EMPLOYED AT WOOLWORTHS

MANN-WHITNEY U - WILCOXON RANK SUM W TEST

EMPLYT Less than one year (N_1=9) More than one year (N_2=48)

	U	W	z corrected for ties	2-tailed p
CDES	152.0	197.0	-1.2640 (N_2=46)	0.2062
IDES	155.5	321.5	-1.3399	0.1803
RDES	199.0	278.0	-0.3832	0.7016
PDES	191.5	236.5	-0.5429	0.5872
CEX	126.0	171.0	-1.9821	0.0475 *
IEX	182.5	227.5	-0.6497 (N_2=47)	0.5159
REX	170.5	206.5	-0.3401 (N_1=8 N_2=46)	0.7338
PEX	189.0	234.0	-0.5969	0.5506
CORIENT	106.5	151.5	-2.3001 (N_2=46)	0.0214 *
IORIENT	202.5	247.5	-0.2017 (N_2=47)	0.8401
RORIENT	171.0	207.0	-0.3191 (N_1=8 N_2=46)	0.7497
PORIENT	184.5	229.5	-0.6956	0.4867
CIMP	99.5	144.5	-2.5754	0.0100 **
IIMP	194.0	239.0	-0.5037	0.6144
RIMP	209.0	268.0	-0.1575	0.8748
PIMP	165.0	312.0	-1.1336	0.2570

Medians	Employed under one year	Over one year
CEX	8	8
CORIENT	5	7
CIMP	3	5

Table 15g WOOLWORTHS - OCCUPATIONAL STATUS

MANN-WHITNEY U - WILCOXON RANK SUM W TEST

PRSJOB	Shopfloor (N_1=35)	Other (N_2=23)		
	U	W	z corrected for ties	2-tailed p
CDES	173.0	862.0	-3.4723 (N_1=33)	0.0005 **
IDES	310.5	770.5	-1.4790	0.1391
RDES	396.0	685.0	-0.1063	0.9154
PDES	339.5	741.5	-1.0136	0.3108
CEX	90.5	990.5	-4.9900	0.0000 **
IEX	155.5	867.5	-3.7781 (N_2=22)	0.0002 **
REX	360.5	613.5	-0.0444 (N_1=33 N_2=22)	0.9646
PEX	246.5	834.5	-2.5039	0.0123 *
CORIENT	64.0	971.0	-5.2843 (N_1=33)	0.0000 **
IORIENT	155.0	868.0	-3.7879 (N_2=22)	0.0002 **
RORIENT	354.0	625.0	-0.1558 (N_1=33 N_2=22)	0.8762
PORIENT	250.5	831.0	-2.4453	0.0145 *
CIMP	177.5	903.5	-3.6124	0.0003 **
IIMP	338.5	742.5	-1.0672	0.2859
RIMP	329.5	751.5	-1.1957	0.2318
PIMP	271.5	809.5	-2.1167	0.0343 *

Medians	Shopfloor	Other
CDES	12	16
CEX	7	16
IEX	10	14
PEX	12	13
CORIENT	5	12
IORIENT	8	13
PORIENT	10	11
CIMP	4	6
PIMP	8	8

Table 16a Showing Each Desire Question and those other Desire Questions Associated with it as indicated by the χ^2 test @ $\rho < 0.01$

Samples in the analysis: BABS 2 78/79, BABS 4 79/80 and WOOLWORTHS 1980

DESIRES

RD1	RD2 ✓ RD4 ✓ ID2 ✓ PD2 ✓ (CD2 -ve ✓)	RD2	RD1 ✓ ID2 ✓ ID3 ✓ PD2 ✓ CD2 ✓ (CD3 x)	RD3	(RD4 -ve x) (ID3 x) (ID4 x) PD1 ✓ PD3 ✓ (PD4 x)	RD4	RD1 ✓ (RD3 -ve x) (ID4 -ve x) (PD1 -ve ✓) PD3 -ve x)
ID1	ID3 ✓ ID4 ✓ PD3 ✓ CD3 ✓ CD4 ✓	ID2	ID3 ✓ RD1 ✓ RD2 ✓ (CD4 x) PD2 ✓	ID3	ID1 ✓ ID2 ✓ PD2 ✓ (PD3 x) PD4 ✓ RD2 ✓ (RD3 x) (CD1 x) CD3 ✓ CD4 ✓	ID4	ID1 ✓ PD3 ✓ (RD3 -ve x) (RD4 -ve x) (CD1 x) (CD4 -ve x)
PD1	(PD2 x) PD3 ✓ PD4 ✓ RD3 ✓ (RD4 -ve ✓) CD1 ✓ CD2 ✓ CD4 ✓	PD2	(PD1 x) (PD3 x) PD4 ✓ ID2 ✓ ID3 ✓ RD1 ✓ RD2 ✓ (CD2 -ve x) CD3 ✓ CD4 ✓	PD3	PD1 ✓ (PD2 x) ID1 ✓ ID3 x ID4 ✓ RD3 ✓ (RD4 -ve x) CD1 ✓ CD3 ✓ (CD4 x)	PD4	PD1 ✓ PD2 ✓ ID3 ✓ (RD3 x) CD1 ✓ CD3 ✓ CD4 ✓
CD1	CD3 ✓ CD4 ✓ PD3 ✓ PD4 ✓ (ID3 x) (ID4 x)	CD2	(CD4 -ve x) PD1 ✓ (PD2 -ve x) (RD1 -ve ✓) RD2 ✓ RD2 ✓	CD3	CD1 ✓ CD4 ✓ PD2 ✓ PD3 ✓ PD4 ✓ ID1 ✓ ID3 ✓ (RD2 x)	CD4	CD1 ✓ (CD2 -ve x) CD3 ✓ PD1 ✓ PD2 ✓ (PD3 x) PD4 ✓ ID1 ✓ (ID2 x) ID3 ✓ (ID4 -ve x)

✓ = Tau B or C where appropriate @ 0.01 prob.
x = Tau B or C $\rho > 0.01$
-ve = Tau B or C negative

TABLE 16b Relationships Between Desires Questions

Samples: All

		Tau B/C	p=			Tau B/C	p=
CD1 with	CD2	0.28175	0.0000**	CD2 with	CD1	0.28175	0.0000**
	CD3	0.33281	0.0000**		CD3	0.07978	0.0622
	CD4	0.31369	0.0000**		CD4	0.04489	0.2193
PD1,2,3,4,ID4,RD3	+		ρ<0.01**	PD1,3,4,	RD3	+	ρ<0.01**
RD2	-		ρ<0.01**	ID2,3,	RD2	-	ρ<0.01**
ID1,3	+		ρ<0.05*		RD4	-	ρ<0.05*
RD4	-		ρ<0.05	ID1,4, CD3, 4		+	ρ>0.05
RD1,ID2	-		ρ>0.05	RD1,PD2		-	ρ>0.05
CD3 with	CD1	0.33281	0.0000**	CD4 with	CD1	0.31369	0.0000**
	CD2	0.07978	0.06222		CD2	0.04489	0.2193
	CD4	0.35357	0.0000*		CD3	0.35357	0.0000**
PD1,2,3,4,ID1,3,RD3	+		ρ<0.01**	PD1,2,4,ID1,2,3		+	ρ<0.01**
ID2	+		ρ<0.05*	PD3		+	ρ<0.05*
RD1,ID4	+		ρ>0.05	RD4		-	ρ<0.05*
RD2,4	-		ρ>0.05	RD1,3,ID4		+	ρ>0.05
				RD2		-	ρ>0.05
ID1 with	ID2	0.20634	0.0005**	ID2 with	ID1	0.20634	0.0005**
	ID3	0.32400	0.0000**		ID3	0.33784	0.0000**
	ID4	0.32355	0.0000**		ID4	-0.03401	0.2956
CD3,4,PD3,ID2	+		ρ<0.01**	RD1,2,4,CD4,PD2,ID3		+	ρ<0.01**
				CD2		-	ρ<0.01**
CD1,PD2	+		ρ<0.05*	CD3		+	ρ<0.05*
				PD1		+	ρ<0.05*
				PD3		+	ρ>0.05
CD2, RD1,2,4	+		ρ>0.05*	CD1, ID2,	PD4	-	ρ>0.05
ID3 with	ID1	0.32400	0.0000**	ID4 with	ID1	0.32355	0.0000**
	ID2	0.33784	0.0000**		ID2	-0.03401	0.2956
	ID4	-0.00157	0.4900		ID3	-0.00157	0.4900
RD1,2,PD2,CD3,4	+		ρ<0.01**	PD3,CD1		+	ρ<0.01**
CD2	-		ρ<0.01**		RD3	+	ρ<0.05*
PD4,CD1	+		ρ<0.05*	RD1,CD2,3,4,PD1,2,4		+	ρ>0.05
RD3,PD3	+		ρ>0.05		RD2	-	ρ>0.05
RD4,PD1	-		ρ>0.05				

Table 16b Relationships Between Desires Questions (continued)

Samples: All

		Tau B/C	p=
RD1 with	RD2	0.26440	0.0000**
	RD3	0.05624	0.0966
	RD4	0.13863	0.0009**
ID2,3,PD2	+		ρ<0.01**
PD1	-		ρ<0.01**
CD3,4,ID1,4,PD3,4	+		ρ>0.05
CD1,2	-		ρ>0.05

		Tau B/C	p=
RD2 with	RD1	0.26440	0.0000**
	RD3	-0.04329	0.2087
	RD4	0.18994	0.0003
ID2,3,PD2	+		ρ<0.01**
CD1,2,PD1	-		ρ<0.01**
ID1	+		ρ>0.05
CD3,4,PD3,4,ID4	-		ρ>0.05

		Tau B/C	p=
RD3 with	RD1	0.05624	0.0966
	RD2	-0.04329	0.2087
	RD4	-0.00799	0.4484
CD1,2,3,PD1,3,ID1	+		ρ<0.01**
ID4,PD4	+		ρ<0.05*
CD4,PD2,ID3	+		ρ>0.05
ID2	-		ρ>0.05

		Tau B/C	p=
RD4 with	RD1	0.13863	0.0009**
	RD2	0.18994	0.0003**
	RD3	-0.00769	0.4484
ID2	+		ρ<0.01**
CD1,2,4,PD1,3	-		ρ<0.05*
ID1,PD2	+		ρ>0.05
CD3,ID3,4,PD4	-		ρ>0.05

		Tau B/C	p=
PD1 with	PD2	0.11567	0.0058**
	PD3	0.39979	0.0000**
	PD4	0.35506	0.0000**
CD1,2,3,4,RD3	+		ρ<0.01**
RD1,2	+		ρ<0.01**
ID2,RD4	-		ρ<0.05*
ID1,4	+		ρ>0.05
ID3	-		ρ>0.05

		Tau B/C	p=
PD2 with	PD1	0.11567	0.0058**
	PD3	0.06634	0.0796
	PD4	0.25549	0.0000**
CD1,3,4,RD2,ID2,3	+		ρ<0.01**
ID1	+		ρ<0.05*
CD2,RD3,4,ID4	+		ρ>0.05

		Tau B/C	p=
PD3 with	PD1	0.39979	0.0000**
	PD2	0.06634	0.0796
	PD4	0.19739	0.0009**
ID1,4,RD3,CD1,2,3	+		ρ<0.01**
CD4	+		ρ<0.05*
RD4	-		ρ<0.05*
ID2,3,RD1	+		ρ>0.05
RD2	-		ρ>0.05

		Tau B/C	p=
PD4 with	PD1	0.35506	0.0000**
	PD2	0.25549	0.0000**
	PD3	0.19739	0.0009**
CD1,2,3,4	+		ρ<0.01**
ID1,3,RD3	+		ρ<0.05*
ID2,4,RD1	+		ρ>0.05
RD2,4	-		ρ>0.05

Table 17a Showing Each Expectations Question and those other Expectations Questions Associated with it as indicated by the χ^2 test @ $\rho < 0.01$

Samples in the analysis: BABS 2 78/79, BABS 4 79/80 and WOOLWORTHS 1980

					EXPECTATIONS		
RE1	RE2 ✓ RE3 ✓ (PE4 -ve x) (CE4 -ve x)	RE2	RE4 ✓ RE3 ✓ (PE1 x)	RE3	RE1 ✓ RE2 ✓ (IE3 -ve x) (IE1 -ve) (IE2 x) PE2 ✓ (PE3 x) (PE4 -ve x)	RE4	CE2 ✓ CE3 ✓ CE4 ✓
IE1	IE3 ✓ IE4 ✓ PE2 ✓ PE4 ✓ CE2 ✓ CE3 ✓ CE4 ✓ (RE -ve x)	IE2	IE3 ✓ PE3 ✓ (RE3 x) CE4 ✓	IE3	IE1 ✓ IE2 ✓ IE4 ✓ CE2 ✓ CE3 ✓ CE4 ✓ PE2 ✓ PE4 ✓ (RE3 -ve x)	IE4	IE1 ✓ IE3 ✓ PE2 ✓ PE4 ✓ CE1 ✓ CE2 ✓ CE3 ✓ CE4 ✓
PE1	PE3 ✓ CE1 ✓ CE2 ✓ CE4 ✓ (RE2 x)	PE2	PE3 ✓ PE4 ✓ IE1 ✓ IE3 ✓ IE4 ✓ RE3 ✓ CE1 ✓ CE2 ✓ CE3 ✓ CE4 ✓	PE3	PE1 ✓ PE2 ✓ IE2 ✓ (RE3 x) CE1 ✓ CE2 ✓ CE3 ✓ CE4 ✓	PE4	PE2 ✓ IE1 ✓ IE3 ✓ IE4 ✓ CE1 ✓ CE2 ✓ CE3 ✓ CE4 ✓ (RE1 -ve x) (RE3 -ve x)
CE1	CE2 ✓ CE3 ✓ CE4 ✓ IE4 ✓ PE1 ✓ PE2 ✓ PE3 ✓ PE4 ✓	CE1	CE1 ✓ CE3 ✓ CE4 ✓ IE1 ✓ IE3 ✓ IE4 ✓ RE4 ✓ PE1 ✓ PE2 ✓ PE3 ✓ PE4 ✓	CE3	CE1 ✓ CE2 ✓ CE4 ✓ IE1 ✓ IE3 ✓ IE4 ✓ RE4 ✓ PE2 ✓ PE3 ✓ PE4 ✓	CE4	CE1 ✓ CE2 ✓ CE3 ✓ IE1 ✓ IE2 ✓ IE3 ✓ IE4 ✓ (RE1 -ve x) RE4 ✓ PE1 ✓ PE2 ✓ PE3 ✓ PE4 ✓

✓ = Tau B or C $\rho < 0.01$
x = Tau B or C $\rho > 0.01$
-ve = Tau B or C negative

Table 17b Relationships of Expectations Questions

Samples: All

		Tau B/C	p=			Tau B/C	p=
CE1 with	CE2	0.72244	0.0000**	CE2 with	CE1	0.72244	0.0000**
	CE3	0.48303	0.0000**		CE3	0.52427	0.0000**
	CE4	0.78637	0.0000**		CE4	0.73454	0.0000**
PE1,2,3,4,IE1,2,3,4	RE4	+	ρ<0.01**	PE1,2,3,4,IE1,2,3,4	RE4	+	ρ<0.01**
	RE2,3	+	ρ>0.05		RE2,3	+	ρ>0.05
	RE1	-	ρ>0.05		RE1	-	ρ>0.05
CE3 with	CE1	0.48303	0.0000**	CE4 with	CE1	0.78637	0.0000**
	CE2	0.52477	0.0000**		CE2	0.73454	0.0000**
	CE4	0.51551	0.0000**		CE3	0.51551	0.0000**
PE1,2,3,4,IE1,2,3,4,RE4		+	ρ<0.01**	PE1,2,3,4,IE1,2,3,4,RE4		+	ρ<0.01**
	RE3	+	ρ>0.05		RE2,3,		ρ>0.05
	RE1,2	-	ρ>0.05		RE1		ρ>0.05
IE1 with	IE2	0.14641	0.0067**	IE2 with	IE1	0.14641	0.0067**
	IE3	0.40869	0.0000**		IE3	0.26531	0.0000**
	IE4	0.45187	0.0000**		IE4	0.18257	0.0013**
PE1,2,3,4,CE1,2,3,4,RE4		+	ρ<0.01**	PE1,2,3,CE1,2,3,4,RE1,3		+	ρ<0.01**
	RE1,2,3	-	ρ>0.05		RE2	+	ρ>0.05
					PE4,RE4	-	ρ>0.05
IE3 with	IE1	0.40869	0.0000**	IE4 with	IE1	0.45187	0.0000**
	IE2	0.26531	0.0000**		IE2	0.18257	0.0000**
	IE4	0.54090	0.0000**		IE3	0.54090	0.0000**
CE1,2,3,4,PE2,3,4		+	ρ<0.01**	CE1,2,3,4,PE2,4,RE4		+	ρ<0.01**
	RE4	+	ρ<0.05*		PE1,3	+	ρ<0.05*
	PE1,RE 2,3	+	ρ>0.05		RE2,3	+	ρ>0.05
	RE1	-	ρ>0.05		RE1	-	ρ>0.05

Table 17b Relationships of Expectations Questions (continued)

Samples: All

		Tau B/C	p=			Tau B/C	p=
RE1 with	RE2	0.40190	0.0000**	RE2 with	RE1	0.40190	0.0000*
	RE3	0.31422	0.0000**		RE3	0.43490	0.0000**
	RE4	0.18795	0.0001**		RE4	0.12912	0.0147*
PE2,3,IE2		+	ρ<0.01**	PE2,3,IE2		+	ρ<0.05*
PE1		+	ρ>0.05	PE1,CE1,2,4,IE4		+	ρ>0.05
PE4,IE1,3,4,CE1,2,3,4		-	ρ>0.05	PE4,CE3,IE1,3		-	ρ>0.05
RE3 with	RE1	0.31422	0.0000**	RE4 with	RE1	0.18795	0.0001**
	RE2	0.43490	0.0000**		RE2	0.12912	0.0147*
	RE4	0.15505	0.0039**		RE3	0.15505	0.0039**
PE3,IE2		+	ρ<0.01**	PE2,3,4CE1,2,3,4,IE1,4		+	ρ<0.01**
PE2,CE2		+	ρ<0.05*	IE3		+	ρ<0.05*
PE1,4,CE1,3,4,IE4			ρ>0.05	IE2		+	ρ>0.05
IE1,3			ρ>0.05	PE1		-	ρ>0.05
PE1 with	PE2	0.18759	0.0001**	PE2 with	PE1	0.18759	0.0001**
	PE3	0.27545	0.0000**		PE3	0.31789	0.0000**
	PE4	0.15798	0.0010**		PE4	0.35184	0.0000**
CE1,2,3,4,IE1,2		+	ρ<0.01**	CE1,2,3,4,IE1,2,3,4,RE1,2,4		+	ρ<0.01**
IE4		+	ρ<0.05*	RE3		+	ρ<0.05*
RE1,2,3,IE3		+	ρ>0.05				
RE4		-	ρ>0.05				
PE2 with	PE1	0.27545	0.0000**	PE4 with	PE1	0.15798	0.0010**
	PE2	0.31789	0.0000**		PE2	0.35184	0.0000**
	PE4	0.19514	0.0004**		PE3	0.19514	0.0004**
CE1,2,3,4,RE1,2,3,4,IE1,2,3		+	ρ<0.01**	CE1,2,3,4,RE4,IE1,3,4		+	ρ<0.01**
IE4		+	ρ<0.05*	RE1,2,3,IE2		-	ρ>0.05

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Key to abbreviations

BJS	British Journal of Sociology
HMSO	Her Majesty's Stationery Office
ILSSR	International Library of Sociology and Social Reconstruction
JMS	Journal of Management Studies
OUP	Oxford University Press