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**NEW ZEALAND PERSONNEL CONSULTANTS AND
THE SELECTION PROCESS**

A thesis presented in partial fulfilment
of the requirements for the Degree of
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at Massey University

Natalie Joy Harris

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ABSTRACT

A survey of New Zealand personnel consultants was conducted which focused on the managerial selection process. Overall, the results were found to be similar to other New Zealand and overseas studies for the use and perceived validity of selection methods. Personnel consultants do not appear to have an accurate perception of the validity of most selection methods. They also frequently use those selection methods which are not particularly valid.

The correlation between the reported validity of the 27 selection methods included and the perceived validity of these selection methods was small (Spearman's $\rho = 0.319$). As was expected, the respondents' perception of the validity of the managerial selection methods included in the questionnaire had a stronger relationship with their use of those selection methods ($\rho = 0.622$, $p < .01$). However, when one looks at the individual Pearson product moment correlations for each individual selection method, only half were significant.

The correlation between use and reported validity was only slight. Surprisingly it was also negative ($\rho = -0.220$). A disturbing result was found when calculating this relationship using only the most frequently used selection methods. The correlation was again negative, however, it was a lot stronger, $\rho = -0.62$ ($p < .05$). This means that for the most frequently used selection methods the higher the reported validity of a selection method the less often personnel consultants used it and the lower the level of validity the more frequently personnel consultants used it.

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CHAPTER ONE:

INTRODUCTION

Since the early 1980s there has been increasing interest in the use and perceived validity of management selection methods in Europe and the United States of America. More recently, surveys of New Zealand organisations and personnel consultants have been conducted (Mills, 1991; Dakin and Armstrong, 1989; Waugh, 1991; Harris, 1991). However, much of the New Zealand research relating to management selection has been conducted on a small rather than on a national scale.

This report presents and discusses the findings of a nationwide New Zealand survey of personnel consultants. The report focuses on many aspects of the managerial selection process, for example, job analysis, and the use of various selection methods. For the purposes of this report, management is defined as supervisory positions and above.

The objective of this study is to determine the level of use and perceived validity of 27 selection methods and to compare them with the reported validity of those selection methods. In addition this study attempts to determine the impact of selection-related publications on selection practices of personnel consultants.

The 27 selection methods included in the survey are application forms; biodata; self and peer assessments; work sample tests; casual one-to-one and panel interviews; situational one-to-one and panel interviews; references; assessment centres; cognitive tests; mechanical tests; perceptual tests; paper and pencil, and projective personality tests; medicals; curricula

vitae; realistic job previews; unassembled testing; graphology; astrology; genetic testing; job tryouts; academic achievement; age; and work experience.

In this study 'reported validity' refers to the findings of various meta-analyses relating to the validity of selection methods in general. The reported validity coefficients used for this study can be found in Appendix I. 'Perceived validity' refers to how well respondents think the selection methods predict future job performance.

Some selection methods included in this survey have not been validated specifically for managerial selection. Where this was the case, the most recently reported validity coefficient for that selection method is used. For example, the results of the meta-analysis carried out by Hunter and Hunter (1984), who analysed the validity of selection methods for entry level jobs, was used for both age and work experience.

There is a limited amount of published research in the area of use and perceived validity of management selection methods by personnel consultants in New Zealand. For example, Dakin and Armstrong (1989) focused on the use and perception of validity of 11 managerial selection methods by personnel/selection consultants.

Mills (1991) also sampled personnel consultants in the Hamilton and Central Auckland area, New Zealand, in his report on managerial selection methods. With respect to the perceived validity of selection methods, Mills (1991) noted that while personnel consultants said they kept up-to-date with the current literature regarding selection methods, they often did not give an accurate judgement of the methods' reported validity. The reported validity

referred to in Mills (1991) was taken from a meta-analysis by Hunter and Hunter (1984). Dakin and Armstrong (1989) also found there was little relationship between Hunter and Hunter's (1984) reported validity and the estimated validity of those selection methods.

National surveys of New Zealand organisations which employed personnel managers were conducted by Lim (1981), Waugh (1991), and Harris (1991). Lim (1981) found the most important management selection method was structured interviews followed closely by unstructured interviews. Harris (1991) found the most frequently used management selection methods in New Zealand organisations were references, curricula vitae and ordinary/casual interviews. The selection methods perceived as most valid were work experience, assessment centres, and situational interviews.

Similar studies have been carried out in Australia (Vaughan and McLean, 1989), the United States of America (Harris and Dworkin, 1990; Ahlburg, 1992), and the United Kingdom (Robertson and Makin, 1986; and Shackleton and Newell, 1991). These studies generally found organisations tended to use less valid methods of selection more regularly than valid selection methods.

This report has been divided into six chapters. Chapter Two focuses on previous research relating to the use, perceived validity, and reported validity of the 27 selection methods included in this survey. Chapter Three outlines the methodology adopted, and assumptions made in this present research. The results of this survey are presented in Chapter Four followed by a discussion of the findings and recommendations for future research in Chapter Five. The final chapter presents conclusions based on the findings of this research.

CHAPTER TWO:

LITERATURE REVIEW

2.1 Introduction

This chapter focuses on research relating to the 27 management selection methods included in this survey. The reported validity for each selection method will be discussed as will some studies which have examined the use and perceived validity of those management selection methods in New Zealand, Australia, the United Kingdom (U.K.), and the United States of America (U.S.A). While the focus of the present research was solely on personnel consultants, this review includes studies which had samples comprised of personnel consultants or personnel managers.

2.2 The Point-to-point Relationship

Asher and Sciarrino (1974) studied the validity of realistic work samples and their predictive validity. They noted "information with the highest validity seems to have a point-to-point correspondence with the criteria" (Asher & Sciarrino, 1974, p.519). The point-to-point relationship refers to the correlation between the content of the selection method and the criterion, i.e. the content of the job. If the point-to-point relationship between the job and the selection method is high, then the validity of the selection method will also be high provided the applicants' responses are evaluated fairly and consistently. For example, in situational interviews each applicant is asked the same set of job-related questions such as critical incident type questions. Situational interviews have a relatively high validity coefficient of 0.38 (Robertson, Gratton, & Rout, 1990). Astrology, on the other hand, is in no way related to the content of the job and has a validity coefficient of

zero (Bok, 1975, cited in Gauquelin, 1985).

Asher and Sciarrino's (1974) study discussed the high point-to-point relationship and validity of work samples in particular. The importance of a point-to-point relationship between the criterion and all selection methods has since been supported by Smith and George (1992). They extended the theory to other selection methods and demonstrated that the point-to-point theory can be applied to most selection methods to help explain their relative success or failure. For example they discussed the low validity coefficient of references, $r = 0.14$, (Reilly & Chao, 1982) and demonstrated how this selection method could be improved by providing the referee with details relating to the critical tasks and requirements of the job. Smith and George (1992) suggested if the referee(s) understood what was involved in the new job he or she may be able to give a more valuable/reliable estimation as to whether or not an applicant would be suitable for the job.

Another selection method Smith and George (1992) discussed was interviews. They focused on the validity of various types of interviews and used the point-to-point relationship theory to explain the varying levels of validity found for interviews such as unstructured and situational interviews.

2.3 Interviews

Over the years the interview has received varying amounts of support as an employment selection method. Much of the research reports only low levels of validity for selection interviews. Reilly and Chao (1982), for example, found a mean validity coefficient of 0.19 for interviews, while Hunter and Hunter (1984) reported a mean validity coefficient of

0.14. However, there appear to be some types of interviews with a higher degree of validity than others. For example, unstructured panel interviews have been found to be more valid than unstructured one-to-one interviews (Wiesner and Cronshaw, 1988). There also appears to be increasing support for situational interviews (Robertson, Gratton, and Rout, 1990).

2.3.1 One-to-One Interviews

There are many forms of one-to-one interviews. This section focuses on unstructured, structured, and situational or behavioural one-to-one interviews. In a structured interview, each applicant is asked the same set of pre-determined questions. The applicants' responses for each question are then compared against pre-determined 'ideal' answers (Dessler, 1991). In unstructured or semi-structured interviews, applicants are often asked different questions with no set way of evaluating their responses.

Minor (1970) found there was no significant relationship between semi- or unstructured interviews and performance ratings. Structured interviews, on the other hand, have received some positive reports with respect to predicting future job performance. Wiesner and Cronshaw (1988), in their meta-analysis of employment interviews, reported a corrected mean validity of 0.63 for structured interviews.

A factor to consider about structured interviews is that while at face value they appear to be valid, their reported validity is dependent on the job relatedness or the point-to point relationship between the content of the vacant position and the questions asked. For example, an interview could be structured because the interviewer has a set of predetermined questions he or she asks each interviewee. However, the results of the

interview may not be particularly valid if the questions asked are not job related, i.e. if there is no point-to-point relationship between the questions and the content of the vacant position.

A more recent development is the situational interview. This selection method has received positive reports thus far (Robertson, Gratton, and Rout, 1990; Latham and Saari, 1984). Situational interviews are a variation of the structured interview. The difference is situational interviews are made up of job specific and often critical incident type questions. Consequently, situational interviews have a high point-to-point relationship with the vacant position. Thus, it is not surprising there is growing evidence supporting the situational interview as a valid predictor of future job performance (Arvey, Miller, Gould, and Birch, 1987; Campion, Purcell, and Brown, 1988; Weekly and Gier, 1987). Robertson, et al. (1990) found situational interviews correlated significantly with performance in administrative jobs with a mean corrected correlation of 0.38.

Despite differing views as to the validity of interviews, they are still frequently used in New Zealand and in overseas organisations for selecting managers. Robertson and Makin (1986) carried out a study to find which management selection methods were being used by organisations in the U.K. Only one percent of respondents did not use interviews when selecting managers. They also found 66 percent of the responding organisations always used two or more interviews when considering applicants.

A similar survey of human resource managers was conducted in the U.S.A. by Harris and Dworkin (1990). Their study aimed to examine the frequency of use and the perceived

validity of selection methods when selecting superior management trainees, accounting clerks and production workers for entry level positions. For selecting superior managerial trainees, Harris and Dworkin (1990) found unstructured interviews and references were the most commonly used selection methods. However, despite the high frequency of use in managerial trainee selection, unstructured interviews did not appear in the top three for perceived accuracy. So while U.S.A. human resource practitioners surveyed believed unstructured interviews were not as valid as other selection methods, unstructured interviews along with references, were still the most frequently used method for selecting superior managerial trainees (Harris and Dworkin, 1990).

Research focusing on the use of management selection methods in New Zealand is not abundant. However, the currently available research has reported similar findings to that of overseas research. Dakin and Armstrong (1989) examined the use and perceived validity of 11 management selection methods in New Zealand. Their survey consisted solely of personnel consultants. Interviews were ranked as the most frequently used selection method and second with respect to perceived validity. In their research however, Dakin and Armstrong (1989) did not differentiate between the type of interviews used by personnel consultants (for example, situational or structured). Therefore, no conclusions can be drawn from their report as to the validity of the interviews used by New Zealand personnel consultants. Ahlburg (1992) replicated this study in the U.S.A. and found interviews were ranked third for effectiveness and first for use which is similar to Dakin and Armstrong's (1989) findings.

Unpublished reports of the use and reported validity of management selection devices in

New Zealand are those of Mills (1991), Harris (1991), Lai (1981) and Lim (1981). Mills (1991) surveyed personnel consulting firms in the Hamilton and Central Auckland region. None of the 30 consultants interviewed used panel interviews when selecting managers. Instead, they all reported using one-to-one interviews. However, he did not determine whether or not they used situational interviews when selecting managers. Mills (1991) also found that while 100 percent of personnel consultants used interviews, only 23.3 percent of the consultants designed the interview around the job description and person specification.

Lai (1981) carried out a survey of public and private sector organisations in Palmerston North. Interviews were reportedly used as the main screening device by 95 percent of the respondent organisations. As was the case in Dakin and Armstrong (1989) and Mills (1991), Lai (1981) did not distinguish between the particular styles of interviews used.

The findings of both Mills (1991) and Lai (1981) may be limited because their samples were taken from one particular region. The results of these studies may not be representative of New Zealand as a whole. Their sample sizes were also small (Lai, 1981, $n = 40$, and Mills, 1991, $n = 30$).

Lim (1981) focused on the perceived importance of structured interviews, unstructured interviews, external assessment and psychological tests. Respondents were asked to rate the importance of these four selection methods on a scale of one to five. Lim (1981) found structured interviews were perceived as the most important selection method, followed closely by unstructured interviews.

Taylor, Mills and O'Driscoll (1991) combined the results of two surveys which focused on the use of selection methods in New Zealand organisations and by personnel consultants. They found employment interviews were used to select managers by 97 percent of organisations surveyed. Only references were used by a higher percentage of organisations (99 percent) while personal histories also were used by 97 percent of the organisations surveyed.

Harris (1991), in a combined survey with Waugh (1991), studied the use and perceived validity of 28 selection methods in New Zealand organisations. The sample was made up of 378 members of the New Zealand Institute of Personnel Managers (IPMNZ). While the survey was national it excluded those organisations which did not have a member of staff affiliated with IPMNZ. Waugh (1991) focused on general selection while Harris (1991) focused on managerial selection.

Harris (1991) and Waugh (1991) divided interviews into several sub-categories. One-to-one interviews, both casual and situational, and panel interviews, again casual or situational. Interviews which were not situational/behavioural were deemed to be casual. That is, if an interview was structured, but not specifically job related it was deemed to be casual. These classifications were consistent with Smith's (1990) division of interviews into casual and situational. Casual interviews do not focus on the content of the job and therefore have a low point-to-point relationship with the position, thus the low level of validity for casual interviews.

Harris (1991) found casual interviews were the third most commonly used selection method

out of 28 in New Zealand organisations. Situational interviews were the 13th most frequently used selection method. Thirty of the 216 respondents had never heard of situational interviews. While situational interviews were not as well known as casual interviews they were perceived as the third best predictor of future job performance. Casual interviews ranked 10th out of 28 selection methods for perceived validity. Despite the fact situational interviews were perceived as more valid than casual interviews they were used less frequently than casual interviews by the New Zealand organisations surveyed.

2.3.2 Panel Interviews

Another form of interview is the panel or board interview where two or more people interview an applicant at one time. Panel or board interviews are an alternative approach to selection which can help decrease some interviewer bias such as the 'similar to me' bias. This bias occurs when an interviewer, often unwittingly, prefers applicants like themselves. Another benefit of panel interviews, according to Dessler (1991) is they often draw out more meaningful responses than one-to-one interviews because of the wide range of questions put forward by the panel.

Landy (1976) studied the validity of panel interviews in police officer selection over a one year period. There were 399 applicants (all white males) of whom 150 were selected. He found the performance of police officers could be predicted from the averaged interview factor scores, but not from the averaged recommendations of each of the interviewers. Therefore, while the individual members of the panel did not have an accurate perception of the 'best' candidate, if their overall ratings were combined, a more accurate decision regarding the future performance of the applicants could be made.

Wiesner and Cronshaw (1988) also studied the validity of panel or board interviews. They hypothesised that board interviews would be more valid than one-to-one interviews particularly when the final selection decision was based on statistically combining the interviewers' ratings rather than the interviewers discussing the applicants and then reaching a consensus. Contrary to their hypothesis and the findings of Landy (1976), board ratings based on a consensus decision were found to be more valid than statistically combining the individual ratings of the panel interviewers when using structured interviews.

There is a lack of research relating specifically to the validity of situational panel interviews. However, according to Latham, Saari, Purcell, and Campion (1980), situational interviews have a high inter-observer reliability coefficient of 0.79 for foreperson positions. They also noted this form of interview had a high level of internal consistency thus the reasonably high level of validity, $r = 0.38$ (Robertson, et al. 1990).

Panel interviews appear to be less frequently used than one-to-one interviews. Robertson and Makin (1989) found 65.6 percent of the British organisations surveyed did not use panel interviews. The frequency of use was low for all organisations surveyed regardless of how many managers they recruited each year. Two years later, Shackleton and Newell (1991) reported a slight increase in the use of panel interviews in British firms from 34.4 percent to 36.9 percent.

Panel interviews were also included in the Australian study conducted by Vaughan and McLean (1989). They found only ten percent of respondents always used panel interviews while 57 percent never used panel interviews. Smaller organisations tended to use panel

interviews more often (53 percent) than organisations with over 1,000 employees (38 percent).

Harris (1991) found the use of ordinary or casual panel interviews in New Zealand organisations was reasonably high with a mean ranking of seventh out of 28. However, the mean frequency of use was considerably less for situational panel interviews which ranked 19th out of 28. As with one-to-one interviews situational panel interviews were perceived as more valid than ordinary panel interviews, however, they were used less often. Situational panel interviews were ranked ninth out of 28 for mean perceived validity while ordinary or casual panel interviews were ranked 14th. The reason for this is unclear as personnel managers were not asked why they were not making more use of selection methods they perceived as highly valid (for example, situational interviews) than selection methods perceived as less valid (for example, causal interviews).

Another selection method which has received varying reports of validity depending on the particular type of method used is psychological testing.

2.4 Psychological Tests

Psychological tests can be divided into several subcategories, these include cognitive, mechanical, perceptual, and personality tests. Each test aims to measure a different construct. Cognitive ability tests measure an individual's intelligence, while tests of mechanical ability examine the individual's mechanical knowledge. Perceptual tests generally involve some kind of comparison, for example, the test may require the individual to find matching pairs in a long list of number series. Personality tests are used

to establish a personality profile for individuals.

2.4.1 Personality Tests

Many people seem to believe that knowledge of an individual's personality will help them determine the future job performance of that individual. Research has shown, however, personality is not an accurate predictor of managerial performance (Stone 1985), nor of non-managerial performance (Guion and Gottier, 1965). Personality tests are generally standard tests which are not related specifically to a particular job or the content of the job. Thus, the point-to-point relationship between the position and this particular selection method is generally low. It follows that the validity of personality tests as a selection method is low. Schmitt, Gooding, Noe and Krich (1984) reported a validity coefficient of 0.21 for personality tests.

Smith and George (1992) noted if the personality test(s) is specifically related to the job then it may be more valid. The Sales Performance Indicator (SPI) developed in New Zealand has apparently has been validated for sales positions with the coefficient ranging between 0.50 and 0.60. However Smith and George (1992) also noted the author gave "no detail of the samples sizes, reliability, or statistics used" (p.65) to validate this selection method.

Personality tests were included in the Robertson and Makin's (1986) report on management selection methods in Britain. They found four percent of organisations always used personality tests, while 64.4 percent did not use them. The remaining respondents used personality tests to some extent in their management selection process. More recent

research by Shackleton and Newell (1991) has found an increase in the use of personality tests in the U.K. from 12 percent to 37 percent.

Mills (1991) reported 20 of the 30 consulting firms surveyed used personality tests when selecting managers. Fourteen of these consulting firms said they used personality tests "upon their clients' request". Six of the 20 consultants who used personality tests were prepared to give an estimate of the predictive validity of the personality test. While the reported validity of personality tests is fairly low all six personnel consultants inaccurately responded that personality tests had either a medium or high level of validity (Mills, 1991).

Smith (1990) suggested the use of personality tests had been on the increase in New Zealand organisations. Personality tests certainly appeared to be a very popular selection method among personnel consultants (Mills, 1991). Smith (1990) also suggested the increase in use may be, in part, due to consultants recommending that organisations use personality tests because the consultants "are often desperate to provide some novel input into an organisation to justify their fee" (p.12). However, personality tests are often not job related or relevant, are old and out of date, and are sometimes not culturally sensitive or relevant to New Zealand and New Zealand organisations.

Harris (1991) divided personality tests into two subcategories. In the first category were paper and pencil tests and in the second category were projective tests. Landy (1985) defined paper and pencil personality tests as being objective tests. Objective tests provide a clear stimulus and a set of responses, one of which should be chosen as the answer. Conversely, a projective test is made up of ambiguous stimuli and an individual's answers

are not confined to a set of restricted responses.

Surprisingly, the use of personality tests appeared to be low in New Zealand organisations for both projective, and paper and pencil tests (Harris, 1991). However, this may have been partly due to the possibility that personnel managers did not know whether they used either paper and pencil or projective personality tests. Alternatively, personality tests may not be used as frequently for management positions as non management positions. Overall, the ranking for the perceived validity of these two personality tests was fairly low, however, personnel managers still incorrectly perceived personality tests as 'adequate' predictors of future job performance.

Overall, generic personality tests have received lower levels of validity than other available psychological tests such as cognitive measures (Guion and Gibson, 1988).

2.4.2 Cognitive Tests

Cognitive tests aim to assess the applicant's intelligence and other intelligence-related abilities or aptitudes such as problem solving, memory, reasoning, thinking and other mental abilities (Avery and Baker, 1990).

Hunter and Hunter (1984) found the validity for cognitive ability tests was 0.53. Hartigan and Wignor (1989), however, suggested it may actually be lower. They reported a validity coefficient of 0.30. Overall, the general consensus is this form of psychological testing is likely to be a satisfactory predictor of future job performance (Guion and Gibson, 1988).

Shackleton and Newell (1991) found a promising trend in the use of cognitive tests in the U.K. In Robertson and Makin's (1986) survey, 9.3 percent of respondents indicated using cognitive tests in more than half of their management selection decisions. Seven years later Shackleton and Newell (1991) reported this selection method was now being used by 41.1 percent of organisations surveyed in more than half of their selection decisions.

In New Zealand, Dakin and Armstrong (1989), used an 11 point ranking scale, (with one the highest and 11 the lowest possible ranking) to rank use and estimated validity. They found cognitive tests received extremely low rankings (tenth out of 11) for both frequency of use and the 'experts' (personnel consultants) estimated validity while cognitive ability tests actually had the highest reported validity of the 11 methods included in their survey. Similar results were found by Ahlburg (1992) in the USA for selection experts. Post-Graduate students he also surveyed who had studied selection were more accurate when they ranked cognitive tests fifth for effectiveness.

Harris (1991) found personnel managers appeared to have a fairly accurate perception of the validity of cognitive tests although they were not used very often. Cognitive tests were ranked 14th out of 28 for frequency of use, while for their ability to accurately predict future job performance they were ranked fifth overall. Again, personnel managers were not frequently using the methods they perceived as highly valid as often as less valid selection methods.

Two other psychological tests which are not commonly used in New Zealand in the selection process are mechanical and perceptual tests.

2.4.3 Mechanical and Perceptual Tests

Often in pictorial form, spatial/mechanical tests require the individual to recognise and apply mechanical principles. Ghiselli (1973) reported a proficiency validity of 0.22 for spatial and mechanical ability tests. The Bennett Mechanical Comprehension test is an example of such a test. Mechanical tests have high face validity for blue collar workers and workers in unskilled positions because the content of these tests relate specifically to mechanical principles. That is, mechanical tests have a high point-to-point relationship with jobs which employ blue collar or unskilled workers. Perceptual tests on the other hand have high face validity for many clerical positions (Landy, 1985).

Perceptual tests generally require the individual to find either similarities or differences with sets of stimuli such as a series of numbers. Ghiselli (1973) reported a validity coefficient for perceptual tests of 0.23 to predict trainability and 0.25 for proficiency.

Mills (1991) found two of the 30 (6.7 percent) consulting firms surveyed occasionally used mechanical ability tests. One consultant used an external psychologist in this area however he or she did not know the name of the mechanical test used. The other consultant used the ACER Mechanical Comprehension Test. The overall ranking for use and perceived validity of mechanical tests by personnel managers was also low according to Harris (1991), 22nd and 17th respectively.

Personnel managers ranked perceptual tests a little higher for perceived ability to accurately predict future job performance. Perceptual tests ranked seventh out of 28 for perceived validity and 15th for mean frequency of use. Again, personnel managers did not appear to be using the selection methods they perceived as more valid as frequently as other

available, and often less valid, selection methods (Harris, 1991).

Vaughan and McLean (1989) found the majority of Australian organisations surveyed did not use psychological tests during the management selection process. Only 23 percent of the organisations reported using personality and I.Q. tests at some stage and these were generally organisations employing more than 1000 people.

Another form of selection testing which has received higher levels of validity than the various psychological tests are work sample tests.

2.5 Work Sample Tests

Work sample tests are tests which measure the skills required by the job in realistic or simulated working conditions (Landy, 1985). Work sample tests are valid predictors of performance because they have a high point-to-point relationship between their content and the content of the job. According to Smith, Gregg, and Andrews (1989) another advantage of using work sample tests is they can give the applicant a more realistic picture of the job content than many other selection methods because the applicant actually experiences parts of the job rather than temporarily viewing the job, or reading or hearing about the roles of the vacant position.

If an individual has a clear picture of the vacant position, its tasks, and the working environment he or she is more likely to make a rational decision about whether he or she would like to work there or not. Smith et al. (1989) also noted an employee is less likely to leave soon after accepting a position in the organisation if he or she had a realistic view

of what was expected of them in the job.

Asher and Sciarrino (1974) outlined two forms of work sample tests - motor and verbal. Motor ability work sample tests involve physical manipulation of limbs, for example, finger and arm dexterity. Verbal work sample tests include 'language-oriented' or 'people-oriented' problems, for example, an in-basket test. Asher and Sciarrino (1974) found realistic motor sample tests had the second highest validity coefficient (0.62) when the criterion was job proficiency (the most valid method was biographical information). Verbal tests did not rank quite as high, although they were still in the top 50 percent of the methods included in the study with a mean validity of 0.45 for proficiency and 0.55 for training.

Robertson and Kandola (1982) criticised Asher and Sciarrino's (1982) division of work samples into two categories as crude and limited. Instead, they extended work sample tests into four categories: psychomotor; individual/situational decision making; job related information; and group discussions/decision making.

Robertson and Kandola's (1982) first category, psychomotor work sample test, is similar to Asher and Sciarrino's (1982) motor skills category. The second type of work sample test is individual/situational decision making. This kind of work sample test relates to realistic yet hypothetical work situations and includes such techniques as in-basket exercises.

Job-related information tests are used to identify the level of information applicants possess about the organisation and the job for which they are applying. Job-related information

tests are generally paper and pencil tests and although they are not work sample tests as such, they test an applicant's knowledge of the position and the factors that may affect his or her performance if selected for the job.

Group discussions and decision-making tests, the fourth form of work sample test, involve evaluating an individual's input and contribution to discussions. Robertson and Kandola (1982) suggested this form of test is used for positions where an individual's contribution is very important, for example, group selling.

It appears the validity coefficients for these four individual types of work sample tests have not been determined, therefore in the present survey work sample tests were not divided into the four subcategories as defined by Robertson and Kandola (1982).

Work sample tests must accurately reflect the components of the job if they are to be valid. Over time, the components of a job may change and therefore the work sample tests will also need to be modified. Another important aspect of work sample tests is they should be validated for each job in an organisation individually because no two jobs require the exact same type and level of skills.

Harris and Dworkin (1990) included work samples in their study of organisations and human resource practitioners in the U.S.A. From a list of 14 selection methods, work samples ranked sixth for frequency of use with 56.8 percent of the respondents using them. Considering the reported validity of work samples is quite high (Asher and Sciarrino, 1974) the 'selection experts' appeared to be under-utilising the valid methods available to them.

This was also the case in New Zealand organisations. Harris (1991) found while verbal skills work sampling ranked 12th for frequency of use out of 28 selection methods, motor skills ranked only 21st. This could be attributed to the fact that the survey was conducted for managerial positions rather than manual positions. Personnel managers may see verbal skills such as 'language-oriented' or 'people-oriented' skills as more important than motor skills such as finger and arm dexterity for managerial positions. Personnel managers also perceived that verbal skills were able to predict future job performance better than motor skills for managerial positions.

Another selection method which gives applicants a chance to see, first hand, what the job involves is job tryouts.

2.6 Job Tryouts

While there appears to be only a limited amount of research specifically on job tryout, Hunter and Hunter (1984) found it was a valid predictor of future job performance with a validity coefficient of 0.44. The main reason for this significant level of validity is the high point-to-point relationship between job tryout and the vacant position.

Job tryout and work experience were included in Dakin and Armstrong's (1989) management selection survey in New Zealand. Based on the reported validity of job tryout, it was ranked as the second most valid predictor of future job performance included in Dakin and Armstrong's (1989) survey, behind cognitive ability tests. However, job tryout received the lowest ranking for frequency of use and was incorrectly perceived by personnel consultants to be one of the least valid management selection methods. Ahlburg

(1992) also found job tryouts were not often used by USA experts. They ranked ninth for use and were surprisingly accurate with a ranking of second for perceived accurateness for on the same scale as Dakin and Armstrong's (1989). Harris (1991) also found the use of job tryout was extremely low, however it was correctly perceived as a fairly accurate predictor of future job performance by those personnel managers surveyed.

Another selection method which gives applicants an insight into the job for which they are applying is the realistic job preview (RJP).

2.7 Realistic Job Previews

RJPs are generally used to give applicants a more realistic picture of the organisation and what the job entails. RJPs tend to lower the applicants initial, and often inflated, expectations of the job to a more realistic level of expectation (Premack and Wanous, 1985; and Dean and Wanous, 1984). Premack and Wanous (1985) also found RJPs tended to increase an individual's organisational commitment, the initial job satisfaction, and the job survival of the successful applicant(s).

While the main focus of Premack and Wanous (1985) was the relationship between RJPs and job survival, they did look at the correlation between RJPs and job performance. During this study they found a moderating variable in the relationship between RJPs and job performance. The moderating variable was the medium used to present the realistic job preview. They found a corrected mean correlation for written job previews and performance of -0.02 and 0.15 for audio-visual job previews and performance. Audio-visual realistic job previews appeared to increase job performance while written job previews

were reported as having a small and negative impact on job performance. However, while there was a small relationship found between RJPs and job performance there is a lack of research focusing specifically on the ability of RJPs to predict future job performance.

Studies relating to the frequency of use of RJPs appears to be scarce. However, Harris (1991) found that overall, RJPs ranked quite highly, (eighth out of 28) for both mean frequency of use and mean perceived validity.

Another selection method which can be used to actually assess an applicant's level of potential ability on the job is the assessment centre.

2.8 Assessment Centres

An assessment centre is a procedure which uses several different assessment techniques and also several assessors/judges to evaluate the applicants taking part. The multiple assessment methods often include interviews, simulations, peer assessment, leaderless group discussions, and psychological testing. The validity of assessment centres appears to be quite high (Smith and Robertson, 1989). However, it depends upon the validity and job relatedness of the individual assessment techniques used in the assessment centre, that is, whether or not there is a high point-to-point relationship between the various assessment techniques and the content of the job.

Gaugler, Rosenthal, Thornton, and Benston (1987) found a corrected mean validity of 0.37 in their meta-analysis of 50 assessment centres. However, there was still a large variance in the individual corrected validity coefficients. After evaluating a considerable number of

possible moderating variables Gaugler et al. (1987) suggested the variance was a function of the assessees, the assessors, the assessment centre itself, and the quality of the validation effort.

While the assessment centre has received positive reports of its validity, organisations and selection consultants did not appear to use them regularly. Robertson and Makin (1986) found 21.4 percent of organisations surveyed used assessment centre exercises, however only 6.8 percent used them more than half the time. Five years later in the U.K. Shackleton and Newell (1991) reported 24.7 percent of the organisations surveyed used assessment centres more than half the time. In contrast, Vaughan and McLean (1989) found only ten percent of responding organisations in Australia used assessment centres and then they were used only occasionally. This also appears to be the case with New Zealand organisations (Harris, 1991; Mills, 1991; Lai, 1981; Taylor et al., 1991).

Harris (1991) found while assessment centres were perceived as having a high level of validity, with a ranking of second out of 28, they ranked a low 23rd out of 28 for frequency of use. The actual reason for the divergence between perceived validity and use was not determined. However, it could relate to the time and cost factor of using assessment centres. Taylor, et al. (1991) reported 14 percent of New Zealand organisations used assessment centres when selecting mangers, while 10 percent of consulting firms used this method when selecting managers.

Two selection methods which involve either the applicant or work peers, rather than psychologists or those individuals running the assessment centre, assessing each applicant

are peer assessments and self assessments.

2.9 Peer and Self Assessment

Peer assessments have been found to be accurate predictors of future job performance with a mean validity ranging from 0.41 to 0.49 (Smith et al. 1989). While peer assessments are reasonably cheap, they are sometimes not practical because the assessee and the assessors need a long period of getting to know one another if the ratings are to be accurate. Therefore, while peer assessments may be practical for internal selection and promotion they are not practical for external selection.

Harris (1991) found New Zealand organisations ranked peer assessments 16th out of 28 for mean frequency of use and 12th for perceived validity for selecting managers. According to the reported validity of the 28 selection methods used in Harris (1991) peer assessments were actually ranked fourth highest for reported validity. Personnel managers appeared to have underestimated the level of validity rather than over estimating it as they had done for more commonly used selection methods such as casual interviews and personality tests.

Self assessments, on the other hand, did not appear to be as valid as peer assessments. Mabe and West (1982) found a comparatively low mean validity coefficient of 0.29. Mabe and West (1982) noted that by adjusting the conditions under which the self assessment was made this form of assessment could be more valid. They suggested self assessments would be more valid if the self evaluation instructions use social comparison terminology, and if the individual has had self evaluation experience in the past.

George and Smith (1990) also examined self assessments. They sampled 85 applicants who were asked to carry out a self assessment before and after attending a selection assessment centre. George and Smith (1990) found self assessments were generally unrelated to the organisation's assessments. They also noted the self assessments completed after the assessment centre were significantly lower than the original, and possibly inflated, self assessments conducted before participating in the assessment centre.

Harris and Schoubrock (1988) studied relationships between self-peer assessments, self-supervisor assessments and peer-supervisor assessments. Peer-supervisor assessments had the highest mean correlation 0.62. The other two combinations were not nearly as highly correlated with a mean coefficient 0.36 for self-peer assessments and 0.35 for self-supervisor.

Smith (1990) suggested one of the reasons for the low reliability and validity of self-assessment is the individuals' self assessment often depends on their self-confidence and ability to express themselves well. He also noted this method of selection can discriminate against some cultures where it is not culturally appropriate for the individual to speak about his or her own skills and abilities. For example, in Maori culture it is more appropriate for an applicant's family (whanau) to discuss the individual's abilities and accomplishments. Thus in some situations, such as the one described, it would be inappropriate to use self assessments during the selection process.

Reilly and Chao (1982) reported a validity coefficient for self assessments of 0.15. They concluded that self assessments did not appear to be a promising alternative as a selection

method. More research is needed to reconcile these findings with those of Mabe and West (1982).

Personnel managers appeared to have a fairly accurate perception of the low validity of self assessments (Harris, 1991). With a reported validity of 0.15, self assessments had a fairly low validity ranking when compared with the validity coefficients of other selection methods included in the survey. Overall, self assessments were ranked twentieth (out of 28) for personnel managers perceived validity. Self assessments were also ranked fairly low for mean frequency of use, which was a promising result with respect to the low level of reported validity of self assessments.

A selection method which does allow or require input about the applicant from people who know them, for example previous employers, friends, or family (i.e. whanau), is the use of references.

2.10 References

References have received varying amounts of support for their ability to accurately predict future job performance. Smith and Robertson (1989) reported validity coefficient ranging from 0.17 to 0.26 for references, while Reilly and Chao (1982) found references had a mean validity of only 0.14. The main problem with written references is they often do not contain information relating specifically to the content of the position. They may also be inaccurate. For example, a positive reference may be written if an employer wants to get rid of a particular employee, while a less positive reference may be given if an employer wants an employee to stay on and not be accepted for the position for which he or she is

applying. Another possible problem with the use of references is the referee who either writes the reference or discusses the applicant with the selector may not know exactly what the job applied for entails. Consequently he or she may not be qualified to say whether or not the applicant would be suitable for the particular position.

Smith (1990) suggested a reference may be more positive if the referee knows the candidate will see it. He also noted it is increasingly difficult to use confidential references because the applicant may be able to gain access to the reference letter through the Official Information Act 1982. If the referee knows the applicant may request to see the 'confidential' reference he or she may write a more positive reference.

Despite the low level of validity for references (Reilly and Chao, 1982), organisations and selection consultants still frequently use references and referees when selecting managers. Robertson and Makin (1986) found references were used by a large majority of firms in the U.K. during the selection process. Only 3.7 percent of organisations surveyed reported never using references, while 67.3 percent said they always used references as part of the selection process.

Lai (1981), in New Zealand, found reference checks were often used in management selection. Eighty percent of government sector organisations used reference checks while only slightly more, 85 percent, of the private sector used reference checks when selecting managers. Mills (1991) found all 30 consulting firms included in his survey reported using references. There was no consensus as to the validity of references, although the majority of consultants felt references had either a high or medium level of validity. Once again it

could be seen that, overall, selection consultants have an inaccurate perception of the validity of one of the most commonly used selection methods.

Harris (1991) also found personnel managers in New Zealand had an incorrect perception of the validity of references. While references were ranked 18th (out of 28) for reported validity, they were the most frequently used selection method and were ranked fourth for perceived validity. Taylor et al. (1991) also found references were the most frequently used selection method by organisations for managerial selection and the second most frequently used selection method after interviews for non-managerial positions.

Harris and Dworkin (1990) surveyed the perceived accuracy and use of references for selecting managerial trainees in the U.S.A. The use of references was found to be equal highest with unstructured interviews with a mean ranking of 4.4 out of a possible five. The perceived accuracy of this selection method was 3.9, the third highest rating overall. Dakin and Armstrong (1989) reported similar results in the U.K in that references were ranked third for both frequency of use and estimated validity.

Another selection method related to previous work performance is an applicant's actual work history or experience.

2.11 Work Experience

While work experience is often used as a factor in managerial selection (Dakin and Armstrong, 1989; Ahlburg, 1992; Harris, 1991) the validity of work experience depends on the similarities between the content of past work and the job being applied for. If there

is a high point-to-point relationship between an individual's work experience and the content of the vacant position then work experience will have a fairly high level of validity with respect to predicting future job performance. Overall however, Hunter and Hunter (1984) found a mean validity of only 0.18 for work experience.

Both Dakin and Armstrong (1989) and Ahlburg (1992) included work experience in their survey of personnel consultants. Based on the validity coefficients reported by Hunter and Hunter (1984), work experience ranked fifth out of the 11 management selection methods included in their survey. Despite its low reported validity, both Dakin and Armstrong (1989) and Ahlburg (1992) found work experience was perceived as the most valid management selection method overall. Work experience was the second most commonly used management selection method of the 11 methods included in the survey for New Zealand personnel consultants (Dakin and Armstrong, 1989) and third in the USA (Ahlburg, 1992).

The results relating to New Zealand personnel managers and New Zealand personnel consultants appear to be similar. Harris (1991) found the mean perceived validity of work experience was the most highly ranked selection method of the 28 included in the survey. It was also used quite regularly with an overall ranking of fourth. When completing the survey, personnel managers did not appear to take into account the fact the work experience has to be relevant to the position for which the candidate is applying if it is to be a valid selection method.

Another selection method which often requires information regarding an applicant's

previous work experience, among other things, is the application form.

2.12 Application Forms

Regardless of the selection method used, at some stage during the selection process selectors generally require some form of biographical information about the applicant. The most common selection method used to collect biographical data appears to be the application form. Other methods include biodata, curriculum vitae, and unassembled testing. According to Guest (1984), application forms are wasteful because they are not kept up-to-date and are often ill-conceived. Plumbley (1985) also suggested application forms are misused. Application forms are often used as a record of previous work experience, however, Plumbley (1985) suggested this was the "least important function" (p.108) of application forms. Instead, the most important function of the application form should be related to whether the applicant possesses the skills and knowledge relevant to the vacant position as outlined in the person specification.

The validity of biographical information is dependent on the style of data collection used. In general, application forms are not systematically designed and therefore their validity would be lower than that of the weighted application blank (or biodata). George (1989) listed application forms as having validity coefficient of $r = 0.35$. However this figure was actually the validity coefficient for weighted application forms which are different from ordinary application forms.

Plumbley (1985) suggested application forms are more valuable when they are designed with the pre-set criteria and the requirements of the job, as outlined in the person

specification, in mind. This means a standard application form should not be used for all positions. Application forms should be developed so they gather information which is related to the actual requirements of the vacant position being filled. Application forms developed with this criteria and the person specification in mind should have a higher point-to-point relationship with the actual position than a standard application form, and should therefore have a higher level of validity.

While there is limited data relating to the validity of application forms, they appear to be very common methods of selection. Harris (1991) found that out of 28 selection methods application forms were the eighth most commonly used selection methods by New Zealand organisations surveyed. Lai (1981) also found the majority of organisations used application forms as part of the selection procedure. He noted public sector organisations used them more often (90 percent) than private sector organisations (70 percent). Mills (1991) found 86.7 percent of personnel consultants reported gathering biographical information from applicants' curriculum vitae and/or application forms. The remainder said they did not use such information or sources. Once again there was no consensus among consultants as to the validity of historical personal information (Mills 1991).

While application forms were commonly used in the managerial selection process (Harris 1991, and Mills, 1991), Harris (1991) found personnel managers ranked them 24th out of 28 selection methods for mean perceived validity which is particularly low. Again, personnel managers appear to frequently use a selection method with a low level of perceived validity.

Application forms were also frequently used by British and French organisations (Shackleton and Newell, 1991). Seventy percent of British firms and 88.6 percent of French firms always used application forms, while only 6.8 percent of British firms and 1.9 percent of the French firms never used application forms. Vaughan and McLean (1989) found that 85 percent of the Australian organisations surveyed collected biographical data. However, only eight out of the 39 responding organisations (20.5 percent) knew what to do with the data they had gathered.

Another selection method related to application forms is biodata. The main difference between biodata and application forms is how the data are analysed and used.

2.13 Biodata

Biodata is verifiable, historical information about an individual. Using a biographical questionnaire certain questions are allocated higher weightings than others, depending on their importance and relevance to the vacant position. Not only has biodata received favourable reports with respect to validity (Smith and Robertson, 1989) it also has several advantages. First, biodata is consistent because everyone is asked the same questions and they are scored in the same way. Second, the responses can be monitored. Third, they are cost effective (Smith et al. 1989).

A possible disadvantage occurs if the questionnaire and its weightings are not reviewed regularly, the questionnaire may become less related to the content of the job as it changes over time, and hence less valid. Compton and Nankervis (1991) noted "it is necessary to have a large number of employees in particular occupations to obtain valid sample data,

and the design of the questionnaires may sometimes be time-consuming and complex" (p.195). While there are some possible disadvantages in using biodata techniques for managerial selection, there is a high point-to-point relationship with the content of the job because the questionnaire and the individual ratings for each question are related directly to the vacant position.

Due to the high point-to-point relationship the reported validity of biodata is also higher than many other selection methods regularly used. Ritchie and Boehm (1977) correlated 220 biodata items with the overall assessment centre grading for managerial potential. In this study, the sample was made up of 382 female managers and the final correlations ranged from 0.35 to 0.40. While this study focused on female managers, the validity for biodata may also be the same for male managers. Reilly and Chao (1982) found a mean validity rating of 0.35 for biodata in an analysis including both female and male subjects.

The reported use of biodata in Britain was quite low (Robertson and Makin, 1986). Only 2.9 percent of the organisations surveyed used biodata in more than half of their selection decisions. Later, Shackleton and Newell (1991) found the percentage of organisations in the U.K. using biodata had increased to 8.2 percent which was a promising trend considering its reasonably high level of validity.

The use of weighted application blanks in the U.S.A. was also low, with only 9.2 percent of the respondents indicating they used this selection method (Harris and Dworkin, 1990). Dakin and Armstrong (1989) included the biographical inventory method of selecting managers in their New Zealand study. While this selection method ranked third with

respect to its reported validity, personnel consultants ranked it seventh out of 11 overall for mean perceived validity. The reported frequency of use was higher with a mean ranking of fourth. However, there is a possible limitation in Dakin and Armstrong's (1989) survey because the example given for biographical inventory in the questionnaire was application forms. Application forms and biodata are essentially different types of selection methods. When the personnel consultants were completing the questionnaire they may have reported their use and perceived validity of ordinary application forms rather than biodata or biographical inventories. This anomaly may have slightly affected the correlation figures Dakin and Armstrong (1989) reported.

Harris (1991) found biodata was not a very commonly used selection method in New Zealand organisations, in fact 51 of 216 respondents had never heard of biodata as a management selection method. Overall, biodata ranked 20th out of 28 selection methods for mean frequency of use, and 21st for mean perceived validity. Given that biodata has a reported validity of 0.35 (Reilly & Chao 1982), and that it was the sixth most highly valid selection methods of the 28 included in the survey, personnel managers in New Zealand appeared to have an incorrect perception of the validity of this method.

In addition to using application forms, a limited amount of historical biographical data about each applicant can be elicited from his or her curriculum vitae and/or academic record.

2.14 Curricula Vitae and Academic Achievement

There has been only a limited amount of research carried out on the validity of curricula

vitae as a selection method. Harris (1991) found curricula vitae were the second most frequently used management selection method by New Zealand personnel managers. They were also ranked 15th for mean perceived validity which was one ranking higher than academic achievement. While academic achievement had a fairly low (and accurate) ranking for perceived validity it was ranked fifth for frequency of use. Therefore, while managers knew or perceived that academic achievement did not predict future job performance very well they still used academic achievement quite regularly when selecting managers.

Reilly and Chao (1982) found a mean validity coefficient of 0.17 for supervisors and academic achievement. They also found academic achievement predicted future compensation better than performance. Future compensation had a validity coefficient of 0.27 compared to 0.17 for performance. Merritt-Haston and Wexley (1983) also found academic performance had a greater relationship with promotion criteria (0.23) and tenure (0.27) than with future job performance (0.15).

Dakin and Armstrong (1989) reported academic achievement was ranked seventh for use and sixth for perceived validity out of 11 selection methods. These results were similar to the overall ranking for the reported validity of academic achievement which was eighth.

Another selection method which collects biographical data is unassembled testing.

2.15 Unassembled Testing - The Accomplishment Record

Unassembled testing involves analysing the vacant position and identifying the most

important and common job characteristics. Job applicants are then asked to list any personal accomplishments relevant to the various characteristics of the job. These accomplishments are often not collected and/or measured by other biodata methods such as application forms. After the applicants have listed their accomplishments, the selectors have the responsibility of grading the individual accomplishments on predetermined rating scales according to their importance and level of competency or relatedness compared to other applicants' responses. This method is relatively easy as it can be given to all the applicants at once or it can be completed by mail (Landy 1985). Unassembled testing is also often called the accomplishment record.

Hough (1984), in a study of the accomplishment record and professionals, found the overall correlation between this form of evaluation and performance was 0.25. Hough (1984) also found this method was fair for females, males, and members of minority groups. The accomplishment record also provides individuals with an inventory of their personal accomplishments which will increase as they progress through their career. As individual managers become more accomplished, their scores on the accomplishment record will increase.

Unassembled testing, or the accomplishment record, is very uncommon in New Zealand organisations. Harris (1991) found this method was the least known selection method. 109 of 216 respondents reported they had never heard of this method of managerial selection. Overall, unassembled testing ranked 25th for frequency of use and 22nd for perceived accuracy. Again the predictive ability of a relatively valid selection method was underestimated. Of the 28 selection methods surveyed, unassembled testing ranked 10th equal with perceptual tests for reported validity (Harris, 1991).

Unassembled testing was also included in Harris and Dworkin's (1990) survey of the use and perceived accuracy of pre-employment screening techniques in the U.S.A. Accomplishment tests were perceived as the second highest with regard to most accurately selecting superior management trainees. The highest method was references. Accomplishment records were also ranked fourth for frequency of use out of 14 selection methods. However, these figures may be inflated. Harris and Dworkin (1990) noted respondents may have included the standard application form as an accomplishment record. This could have led to a high reported frequency of use (59.4 percent) and relatively high level of perceived accuracy.

A factor which can be related to an individual's accomplishment record is age. As an individual becomes older his or her accomplishment record is likely to increase. It also appears that age can be a factor in its own right in the selection process.

2.16 Age

Hunter and Hunter (1984) reported a mean validity coefficient for age and future job performance of -0.01. This result suggests age can not accurately predict future job performance, however, according to recent studies it is still a factor upon which selection decisions are made (Harris 1991).

While the reported validity of age as a selection method was extremely low, personnel managers in New Zealand seem to use age relatively often. Harris (1991) found age was the ninth most frequently used selection method in New Zealand organisations. She also found while age was frequently a factor in selection it was ranked 23rd (out of 28) for both

perceived and reported validity. So while personnel managers have a fairly accurate perception of the low validity of age it was used quite often in managerial selection decisions by personnel managers.

While age may have frequently been used as a selection variable by personnel managers this practice will have to cease due to the inclusion of age in the amended Human Rights Commission Act 1977 (Section 15.1.c.2). Section Three of the Human Rights Commission Amendment Act 1992 No. 16 makes it "unlawful for any person concerned with procuring employment for other persons or procuring employees for any employer to treat any person seeking employment differently from other persons in the same or substantially similar circumstances by reason of the sex marital status, religious belief, or age of that person".

Age was also included in Dakin and Armstrong's (1989) study of personnel consultants in New Zealand. They found for age, the personnel consultants' perception of validity matched that of the reported validity for age, i.e. it had the lowest level of validity. Personnel consultants also ranked age ninth out of 11 for frequency of use as a selection method which is quite a low ranking. Similar findings were reported by Ahlburg (1992) in that age was ranked 11th out of 11 for both effectiveness and use by the selection experts and the students surveyed.

Just as age could have historically been a factor in whether an applicant was successful or not, medicals are sometimes used as part of the selection process.

2.17 Medicals

Some organisations require job applicants or the successful applicant to undertake a medical examination. Vaughan and McLean (1989), in their study of Australian organisations, found medicals were generally not used as a basis for selection decisions. Rather, they were used as a 'final hurdle', to assess the applicant's eligibility for superannuation and health insurance. They noted applicants would not be selected because of their good health but they may be screened out of the selection process if there was evidence of poor health. Harris and Dworkin (1990) also found 58.8 percent of human resource practitioners in the U.S.A. reported using medical examinations at some stage during the selection process.

Medicals were ranked fairly low for frequency of use among personnel managers in New Zealand, according to Harris (1991). They were also perceived as not particularly accurate predictors of future performance with a mean ranking of 25 out of 28 for perceived validity. These results were similar to that of a study conducted by the Institute of Personnel Management (U.K.) (1980). They found medicals were used by only 28 percent of responding organisations when selecting for general management positions. Perhaps surprisingly, 41 percent said medicals were useful when selecting managers while 36 percent said they were not very useful. Unfortunately the survey did not look at why medicals were perceived as useful.

A medical can not tell a selector what an applicant can do and how he or she will perform in the future, but it may, in some cases, help in determining what an applicant can not do on medical grounds for example, heavy lifting. A more specific extension of the medical

is genetic testing.

2.18 Genetic Testing

Genetic testing is used to determine whether the individual applicant would be susceptible to chemicals or toxins present in the organisation's work environment which could cause the individual to contract a disease later on. According to Olian (1984), if an applicant is at risk, then he or she could be excluded from those jobs which require working with chemicals. Instead he or she would be only be appointed to those positions where dangerous toxins were not present. The premise for using genetic testing as a selection method is that it can help predict future job performance such as the likelihood of absenteeism, sick leave costs, and perhaps turnover as a result of employee reactions to certain chemicals/toxins (Olian 1984).

There are, however, inherent problems with using genetic testing as a selection method. Olian (1984) noted the probability of establishing a significant relationship between occupation related disease and genetic abnormalities is fairly low. She also noted while there were several individual 'streams of literature' which suggested a link between genetic conditions and occupational diseases there was a lack of longitudinal studies to demonstrate a relationship between a 'genetic condition' and the occupational environment in which an individual was employed.

Due to the lack of longitudinal studies and the difficulty in establishing a direct link between some genes and occupational diseases, Arvey and Faley (1988), summarised "there is little *direct* evidence to support the relationship between differences in genetic

predisposition to chemical pollutants and the incidence of occupational diseases" (p.288).

In New Zealand genetic testing was not a particularly well known or used selection method. Harris (1991) found that 71 of the 216 personnel managers surveyed had never heard of genetic surveys or genetic testing. This selection method was ranked as the second least frequently used managerial selection method and was also ranked particularly low for perceived validity. Genetic testing, as a selection method, also received the lowest rating of the 14 pre-employment screening devices for both use and accurateness in selecting managerial trainees in Harris and Dworkin's (1990) American survey.

Another relatively uncommon selection method is handwriting analysis or graphology.

2.19 Graphology

The basic assumption made by graphologists is that individuals' personality traits are expressed in their handwriting (Dessler 1988). Curren-Briggs, Kennett, and Paterson (1971) suggested a person's intelligence and well-being or health could also project itself through his or her handwriting.

There are diverging views as to the validity of graphology as a selection method. That is, some authors purport that graphology is beyond reproach (Curren-Briggs et al. 1971), while others have found that graphology has little or no validity as a selection method (Smith and Robertson, 1989).

Curren-Briggs et al. (1971) suggested British organisations should use graphology if they

wished to remain competitive when they entered the Common Market because many of the other countries forming the Common Market (for example, Germany, Switzerland and France) were already using graphology successfully. They also noted the validity of graphology as a selection method had been demonstrated and "proved beyond any reasonable doubt" (p.77). However, they supplied no references to the studies which have 'proven' the high level of validity for handwriting analysis.

More recent research on graphology has not been so accommodating. Rafaeli and Drory (1988) noted most research had shown a satisfactory level of reliability with respect to the internal consistency of graphology. However, there were no reports of graphology being reliable in employment related decisions such as selection. Overall, research supporting the use of graphology is sparse and often methodologically flawed. More recent research suggests that graphology is not a valid method of selection. Smith and Robertson (1989) report zero validity for handwriting analysis.

Ben-Shakhar, Bar-Hillel, Bilu, Ben-Abba, and Flug (1986) found in two different tests of graphology professionals "graphologists did not perform significantly better than a chance model" (p.645). They also found most studies of the validity of graphology were methodologically flawed. One major flaw is contamination. Ben-Shakhar et al. (1986) suggested contamination occurs when information about the writer can be found just by reading the text. For example, if graphology is being used in a job application situation a short autobiography about the applicant may be required. This autobiography would usually contain information about the applicant's work experience and education. While graphologists maintained they only analysed the writing, the biographical information

contained in the text is bound to influence the graphologist's impression of the individual.

Ben-Shakhar et al. (1986) found that a small positive validity could be found when graphologists analysed a autobiographical text written by an applicant. However, they also found nongraphologists achieved similar results after reading the same text. In addition Ben-Shakhar et al. (1986) noted even if there was no biographical information in the text the "writer's verbal abilities, such as vocabulary, articulateness, and clarity of expression" (p.646) was visible and therefore would contaminate the text.

In New Zealand graphology was rated very low for both frequency of use and for perceived validity. Only six percent of personnel managers reported using hand writing analysis when selecting managers and an additional 85 respondents from 216 personnel managers reported they had never heard of this selection method (Harris, 1991). However, while the majority of respondents had either never heard of this method or appeared to have an accurate perception of its lack of validity, 3.2 percent incorrectly reported that graphology predicted future job performance either very well or adequately. These results appeared to reflect those of Robertson and Makin (1986) who included graphology in their survey of organisations in the U.K. They found 7.8 percent of respondents reported using handwriting analysis on some occasions whilst 2.9 percent used graphology all of the time.

An earlier study by the Institute of Personnel Management (U.K.) (1980) found only five of the 335 responding organisations (1.5 percent) used graphology when selecting managers. Six years later Anderson and Shackleton (1986) focused on the trends and developments in recruitment and selection in the 1980s. They reported an increase in the

use of graphology despite the evidence of its low reliability and validity.

In another review Shackleton and Newell (1991) found while 97.4 percent of British organisations never used graphology (an increase of 5.2 percent from Robertson and Makin (1986)), only 22.6 percent of French firms never used graphology when selecting managers. Another uncommon method of selection is astrology.

2.20 Astrology

Even though there is no scientific proof that a relationship between people's lives and the heavens exists, some people still believe astrology is an accurate predictor of life events and, more specifically, their job performance. Overall, astrology has a zero validity with respect to predicting the future (Bok, 1975, cited in Gauquelin, 1983). Lewis (1985) also noted there is no evidence to support astrology as a valid and worthwhile selection method. He went on to actually advise readers not to use astrology when selecting personnel.

As with graphology, astrology has not been included in many of the studies of management selection methods in New Zealand. Harris (1991), however, did include astrology as a management selection method and found 49 of 216 respondents had never heard of this selection method. Overall, astrology was ranked the least frequently used selection method of the 28 included in the survey. Only four organisations (2.6 percent) reported using astrology, and only to a limited extent in managerial selection. Astrology was also perceived as the least valid selection method overall. While the majority of New Zealand personnel managers appeared to have an accurate perception of the validity of astrology there were a few managers who believed astrology could accurately predict future job

performance.

Robertson and Makin (1986) included astrology in their survey of U.K. organisations. They found only one responding organisation which reported using astrology when selecting managers. A more recent survey conducted by Shackleton and Newell (1991) in the U.K. reported none of the organisations surveyed used astrology in their selection process. While this was a promising finding in relation to the use of astrology, there were still some personnel consultants and personnel managers who continued to use managerial selection methods with very low levels of validity.

2.21 Personnel Consultants as Selectors: A Review of New Zealand Studies

Mills (1991) found personnel consultants included in his study did not have a very accurate perception of the validity of managerial selection methods. However, there could be an inherent flaw in asking personnel consultants to rate the validity of selection methods as some consultants may not actually know what validity means. Overall, Mills (1991) found personnel consultants were predominantly using selection methods which were not particularly valid or job related e.g. casual interviews, references and personality tests.

Dakin and Armstrong (1989) also found New Zealand personnel consultants did not have an accurate picture of the validity of selection methods. The correlation between perceived validity and the frequency of use for those selection methods was quite high (Spearman's $\rho = 0.87$). However the relationship between the frequency of use and the reported validity and the correlation between actual and perceived validity was low (-0.06 and 0.06 respectively). This means that the personnel consultants surveyed did not have an accurate

perception of the validity of the selection methods they often used (Dakin & Armstrong, 1989).

Smith and George (1992) suggested so called 'experts' used selection methods with low levels of validity because "some practitioners are seduced by complex selection procedures which have little real relationship to the job, but do have an appeal to them" (p.56). They also noted some practitioners may be "deluded by pseudo science" (p.56) hence the predominant use of selection methods such as personality tests, which are often incorrectly seen as an important part of the selection process.

2.22 Overseas Correlation Studies

Several studies have been undertaken that analyse the relationships between three main selection-related variables. These variables are; frequency of use, perceived validity, and reported validity. Dakin and Armstrong's (1989) study (as discussed above) was replicated in the United States of America by Ahlburg (1992). In addition to surveying professional recruiters he also surveyed students who were completing a Masters of Industrial Relations. Ahlburg (1992) found students who had completed a specialised selection course and also worked in the area of selection had a much more accurate perception of the validity of selection methods ($\rho = 0.64$) than the professionals surveyed where ρ was less than 0.1. The relationship between use and reported validity was closer to that found by Dakin and Armstrong (1989). The relationship between use and reported validity for students who worked and had completed the selection course was $\rho = 0.22$ and for consultants (with a degree) $\rho = -0.16$ and without a degree $\rho = -0.05$.

Overall, they found that while the students had a fairly accurate perception of the validity of the selection methods they did not appear to be using the selection methods they knew were most valid. The findings of the experts ranking was similar to those found in New Zealand by Dakin and Armstrong (1989). Ahlburg (1992) suggested, among other things, that perhaps using selection methods with high levels of validity may not be perceived as important as using those methods which are less expensive. Another question Ahlburg (1992) asks is why did those people who knew which selection methods were most valid not use them? One possible reason he gave was perhaps they were not allowed to introduce the more valid selection methods due to "their relative inexperience and lack of power in the organisation" (p.472). However, as they do progress through the organisation, if they are anything like current practitioners, they still will not introduce and/or use more valid selection methods.

2.23 Summary

Those selection methods closely job-related, i.e. having a high point-to-point relationship with the content of the vacant position are more valid than those methods which are not job-related. Hence situational interviews and work sample tests are more valid selection methods than graphology and astrology. As more effort is put into modifying the existing methods so they have a point-to-point relationship with the job, the more valid they will become. Overall, current New Zealand research appears to reflect similar trends to those found overseas in that personnel managers and consultants appear to be using less valid selection methods most frequently.

CHAPTER THREE:

RESEARCH METHOD

3.1 Research Objectives

The objective of this research was to survey personnel consultants and to determine the level of their use and perceived validity of 27 selection methods. In addition, the study attempted to determine the impact of selection-related publications on selection practices of personnel consultants. The final objective was to ascertain whether or not personnel consultants perceived the findings of selection-related publications are relevant and practicable to their work as selection consultants.

3.2 Research Questions

This research asked five main questions.

1. What was the relationship between the frequency of use of managerial selection methods and the perceived validity of those selection methods?
2. What was the relationship between the frequency of use of managerial selection methods and the reported validity coefficients of those selection methods?
3. What was the relationship between the personnel consultants' perceived validity of the selection methods and the reported validity coefficients of those selection methods?

4. Did personnel consultants understand what the term validity meant and the importance of using valid selection methods?

5. Did personnel consultants read, understand, and use the recommendations of selection-related publications?

3.3 Procedure

Due to the size of the sample and the nature of the data required, a questionnaire with various rating scales was developed. A mail survey was used because it made data recovery more economical on such a large scale.

3.3.1 Pilot Survey

Four personnel consultants took part in pilot testing the questionnaire. The four respondents were asked to complete the questionnaire and to make a note on the questionnaire if they found any problems with it. Within three weeks all four questionnaires had been returned. Respondents comments were noted. Respondents were contacted personally to ensure all problems were fully understood. The questionnaire was then adjusted to ensure the problem was eliminated. The four consultants who took part in the pilot survey were not included in the sample of personnel consultants used in this research.

3.3.2 The Questionnaire

The various rating scales used in the questionnaire provided quantitative data which could be analysed statistically. The survey also included some qualitative data which was content analysed.

The questionnaire (See Appendix II) comprised 43 questions. The first question asked whether the respondent's personnel consulting office undertook managerial selection or not. If the respondent's office did not undertake any managerial selection they were asked to return the questionnaire without completing the rest of it.

Questions two to seven related to the consultancies' selection responsibilities such as the amount of managerial selection undertaken by respondent's consulting office. Question four was designed to determine how many of the consultants in the consulting office had completed the Certificate in Personnel Consulting administered by the Institute of Personnel Consultants (IPC). The researcher then calculated the percentage of consultants in each consulting office who had successfully completed the IPC certificate.

Questions nine and 10 related to the location of consultancy branches and offices either in New Zealand or overseas.

Questions 11 to 16 were designed to elicit data relating to how the consultancy gathered relevant information about vacant positions they attempted to fill, and the importance of this process.

Questions 17 to 19 determined how often personnel consultants used the 27 selection methods included in the survey and who usually made the final selection decision. Question 17 related to the use of the selection methods when short-listing applicants while Question 19 related to the use of the selection methods when making the final selection decision. Respondents who never made any final selection decisions were asked to omit Question

19. Both Questions 17 and 19 provided an identical list of selection methods.

Respondents were also given the opportunity to list any other selection methods which they used, but were not included in the list provided.

Respondents were asked to grade each selection method in Question 17 and 19 on a six point scale (outlined in Figure One), according to how often they used each method. This scale was based on a rating scale used by Harris (1991) and Waugh (1991).

Figure One: Rating Scale Used to Assess the Frequency of Use of Selection

Methods.

0. Never Heard Of
1. Never Use
2. Seldom Use
3. Sometimes Use
4. Often Use
5. Always Use

Options one to five on the rating scale provided the data necessary to determine the mean frequency of use for each selection method. Option zero ascertained the number of respondents who had never heard of the selection method listed. The responses of those consultants who had not heard of a selection method were not included when calculating the mean frequency of use for that method.

Question 20 asked participants whether or not they knew what the term 'validity' meant. If they did were then asked to define it. For the purposes of this research any definition provided by a respondent which included the basics of validity, that is, measuring the criteria they set out to measure, was considered accurate. Questions 21 to 30 related to the respondent's use of selection-related publications, such as journals and manuals.

Those respondents who did read selection-related publications were asked to list the specific journals they read. Question 24 then asked the same group of respondents to rate how relevant they thought each publication type was to them as a selection consultant. The five point scale used for this question is outlined below in Figure Two.

Figure Two: Scale Used to Assess the Level of Perceived Relevance of Selection-Related Publications to the Role of Selection Consultant.

- 1 Not at all Relevant
- 2 Somewhat Irrelevant
- 3 Neither Relevant Nor Irrelevant
- 4 Somewhat Relevant
- 5 Very Relevant

In relation to reading selection-related publications, respondents were asked whether or not they found the recommendations made by the author or researchers practical to their work. They were also asked to say why they found the recommendations either practical or impractical.

The next section of the questionnaire focused on whether the respondents understood, believed, and agreed with the findings of current selection-related research. They were also asked if they found publications easy to read. The responses for these questions were either Yes, No or Sometimes. The final question in this section, Question 30, asked the respondents whether or not they replaced the selection methods they used if they were found to be not as valid as other available methods. Question 31 provided those respondents who did not replace less valid selection methods with a list of 16 possible reasons for not replacing them with more valid selection methods. The list of possible reasons for not replacing less valid selection methods were based on the findings of Taylor, Mills, and O'Driscoll (1991). Respondents were asked to grade each reason according to whether or not it applied to them using a five point scale outlined in Figure Three.

Figure Three: The Rating Scales Used to Determine whether or not Respondents Agreed with a Given Statement.

- 1 Strongly Disagree
- 2 Disagree
- 3 Neither Agree nor Disagree
- 4 Agree
- 5 Strongly Agree

The above scale was also used for Question 32. This question was designed to determine why some selection consultants did not read selection-related publications. A list of possible reasons was provided and respondents were asked to grade each reason according to whether or not the reason related to them. They were also given the opportunity to list

any other reasons they might have for not reading selection-related publications.

Question 33 asked respondents to rate how well they thought each of the 27 selection methods predicted future job performance. Respondents were again given the opportunity to list any other selection methods which had not been included. The six point scale used in this question is outlined in Figure Four:

Figure Four: Rating Scale Used to Measure the Perceived Validity of Selection Methods.

0. I Do Not Know
1. Extremely Poorly
2. Poorly
3. Adequately
4. Very Well
5. Extremely Well

Options one to five formed the basis for determining the mean perceived ability to predict future job performance for each selection method.

Question 34 asked respondents whether or not they had validated any of the management selection methods that they used. The four options given for this question are outlined in Figure Five.

Participants responding 'Yes' (1) were then asked to list the specific selection methods which had been validated. These respondents were then asked to specify who validated each method and/or to supply that person's title.

Figure Five: Rating Scales Used to Determine Whether or not Respondents Thought They Understood What the Term Validated Meant.

1. Yes
2. No
3. I do not know
4. I do not know what the term 'validated' means

Questions 35 to 43 related to demographic information about the respondents such as work experience and their status in the consulting organisation within which they were employed.

3.3.3 The Sample

The questionnaires were sent to organisations who were listed in the Yellow Pages of the Telecom Telephone Directory books under Employment Agencies or Personnel Consultants. Appendix III lists the Telecom Telephone Directories used to select the consulting organisations included in the sample.

The following organisations were excluded from the sample: the Department of Labour; the New Zealand Employment Service; Local Employment Resource Centres; and Workbridge Inc. because these organisations generally focused more on supplying possible applicants to an organisation rather than actually conducting the managerial selection

process for clients as professional selection consultants. Those consultancies who advertised as being solely 'temping' or typing agencies were also omitted from the sample.

The questionnaires were addressed to the Senior Consultant of each consultancy. Each questionnaire included a covering letter (Appendix IV) explaining the research being conducted and inviting them to participate in the research. The covering letter also emphasised that their responses would be treated confidentially. A Summary Request Form (Appendix V) was also enclosed with the questionnaire. If respondents wished to receive a summary of the results they were able to complete and return this form. When the research was completed a summary of the results was posted to all those consultants who completed and returned the Summary Request Form. A second free-post envelope was provided so the completed questionnaire could be returned separately from the questionnaire to retain confidentiality.

Questionnaires were sent to 261 consultancies. If there was more than one branch of the same consultancy listed in the various Telecom Telephone Directories a questionnaire was sent to the senior consultant in each branch, even if two branches were in the same city.

A follow-up letter (Appendix VI) along with a questionnaire was sent to all those consultants who had not returned the questionnaire by 18 August 1992. A second reminder letter (Appendix VII) and questionnaire was posted on the 14 September 1992 in order to encourage those consultants who had not already completed and returned the questionnaire to do so.

The final date for questionnaires to be returned was 9 October 1992. Any questionnaires received after this date were not included in the analysis or the response rate.

3.3.4 Response Rate

Of the 261 questionnaires sent out, 29 consultancies were no longer in business. Thus the adjusted sample size was 232. Overall, 107 completed, usable questionnaires were returned (46.12 percent). An additional 37 respondents either returned their questionnaire blank, or wrote or phoned to say that they did not wish to take part in the survey for various reasons.

3.3.5 Analysis of the data

The data was analysed and frequencies and their means calculated for all questions in the questionnaire using the Statistical Package for the Social Sciences (SPSSx Inc., 1983). SPSSx was also used to calculate the Pearson's product moment correlations for respondents perceived validity and use for each individual selection method when shortlisting applicants. Pearson product moment correlations were used because the data relating to respondents' use and perceived validity for each selection method was measured using the interval scales outlined in Figures One and Four.

Quattro Pro Spreadsheet (Borland International, Inc., 1991) was used to calculate the Spearman's rho correlations when comparing ranked data such as reported validity with the mean perceived validity, and the mean frequency of use of each selection method. Spearman's rho was used for these comparisons rather than the Pearson product moment because the latter can not be used for ordinal data.

3.3.6 Assumptions

Some selection methods included in this survey had not been validated specifically for management selection. Where this was the case, the most recently reported validity coefficient for that selection method was used. For example, the results of the meta-analysis carried out by Hunter and Hunter (1984), who analysed the validity of selection methods for entry level jobs, was used for both age and work experience.

Another selection method which did not appear to have been validated was the situational panel interview. According to Latham, Saari, Purcell, and Campion (1980), situational interviews have a high inter-observer reliability coefficient of 0.79 for foreperson positions and also a high level of internal consistency. Thus the validity coefficient of $r = 0.38$ (Robertson, Gratton, & Rout, 1990) for one-to-one situational interviews was assumed to hold for situational panel interviews also.

The validity coefficient of 0.21 for personality tests reported by Schmitt, Gooding, Noe, and Krich (1984) was also assumed to hold for both paper and pencil, and projective personality tests.

CHAPTER FOUR:

RESULTS

4.1 Introduction

The results section of this report outlines responses which relate mainly to those consultants who selected managers as part of the services offered by their consulting office. The first section presents characteristics of the consultancies and the consultants surveyed such as the amount of selection undertaken by both the consultant who responded and his/her consulting office. This chapter also outlines the frequency of use and perceived validity of the 27 selection methods included in the questionnaire and the impact of selection-related publications on the selection process.

The results of the frequency of use generally relate to shortlisting rather than to final decision making, unless otherwise stated, because approximately 50 percent of those consultants who did conduct managerial selection were not involved in making the final selection decision.

4.2 Response Rate

The overall response rate was 59.48 percent. Of the 232 consultancies surveyed, 138 questionnaires were returned. Table One outlines the number and percentage of usable and non-useable questionnaires returned. The 31 non-useable questionnaires were returned blank. An additional six consultants either wrote or telephoned to say they did not wish to take part in the survey. Of the 107 respondents only 57 (53.27 percent) actually selected managers and this chapter only presents data relating to those personnel consultants.

Table One: Breakdown of Response Rate.

Responses	Frequency	Percentage
Completed Questionnaires	107	77.54
Non-Usable Questionnaires	31	22.46
<u>Total</u>	138	100.00

4.3 Characteristics of Consultancies

The number of consultants employed in the respondent's consulting office ranged from one to 32. The mean number of consultants employed was four. Ten consultancies (17.5 percent) employed only one consultant, while one consultancy (1.8 percent) employed 32 consultants in their office. Overall, 74.2 percent of respondents employed four or less consultants in their office.

Table Two presents data relating to the number of consultants employed by each consulting office who had successfully completed the Certificate in Personnel Consulting administered by the Institute of Personnel Consultants (IPC).

The majority of consultancies surveyed (54.4 percent) did not employ any consultants who had successfully completed the Certificate in Personnel Consulting administered by the IPC. Two consulting firms (3.5 percent) each employed six consultants who had completed the IPC Certificate.

Table Two: Number of Consultants with IPC Certificate.

<u>Number of Consultants</u>	<u>Frequency</u>	<u>Percentage</u>
0	31	54.4
1	16	28.1
2	6	10.5
3	2	3.5
6	2	3.5
<u>Total</u>	57	100.0

Table Three illustrates the percentage of consultants in the consultants' office who had attained the IPC certificate in personnel consulting. The mean percentage of employees per consulting office with the IPC Certificate in Personnel Consulting was 25 percent. In six consultancies (10.5 percent) all the consultants employed there had completed this course.

4.3.1 Location of Other Branches

Just over a third of those consultancies surveyed had other consulting offices/branches. Table Four outlines whether those other branches were in New Zealand, overseas or both. Just over ten percent had other consultancies overseas, 15.8 percent had other consulting offices in New Zealand, while the majority (73.7 percent) had other branches in New Zealand and overseas.

Table Three: Percentage of Consultants with IPC Certificate.

<u>Percentage</u>	<u>Frequency</u>	<u>Percentage</u>
0	31	54.4
20	1	1.8
25	1	1.8
26	1	1.8
33.33	5	8.8
38	2	3.5
50	8	14.0
66.66	2	3.6
100	6	10.5
<u>Total</u>	57	100.0

Table Four: Location of Other Consultancy Branches.

<u>Location</u>	<u>Frequency</u>	<u>Percentage</u>
Overseas	2	10.5
In New Zealand	3	15.8
Overseas & N.Z.	14	73.7
<u>Total</u>	19	100.0

4.4 Respondents' Statistics

Overall, 80 percent of respondents worked full-time. The majority of respondents (52.7 percent) were either the owner or a partner in the consultancy. 23.6 percent were the manager and 10.9 percent were employees. The remaining 12.7 percent were both the manager and owner/partner.

Table Five outlines the number of years personnel consultants had been employed as a selection consultant. Two consultants (3.6 percent) had been selection consultants for less than a year, while six (10.9 percent) had been employed as a selection consultant for more than 16 years. The overall mean number of years employed as a selection consultant was 5.182 years.

Table Five: Years Employed as a Selection Consultant.

Years	Frequency	Percentage
Less than 1 year	2	3.6
1-2 years	4	7.3
3-4 years	7	12.7
5-6 years	14	25.5
7-8 years	7	12.7
9-10 years	7	12.7
11-12 years	5	9.1
13-14 years	1	1.8
15-16 years	2	3.6
More than 16 years	6	10.9
<u>Total</u>	55	100.0

Only one consultant (1.8 percent) had been employed by their current consulting firm for 15 to 16 years. Six (10.9 percent) had been employed in their current consulting office for less than one year. The majority, (30.9 percent) had been employed with the same current consulting firm for five to six years.

Almost one-third of personnel consultants surveyed were member of the IPC. Of these IPC members one (7.1 percent) had been a member for 11 years and another 7.1 percent had been a member for less than one year. The mean number of years as a member of the IPC was 5.7 years.

The qualifications held by personnel consultants included no formal qualifications what so ever, Diplomas, certificates, high school qualifications, Bachelor and Post Graduate Degrees.

4.5 Selection Responsibilities

Table Six illustrates the approximate amount of time personnel consultants spent actually involved in the selection process. The overall mean time spent by respondents conducting managerial selection themselves was 50 percent. Only 12.3 percent of consultants who selected managers spent all of their time conducting managerial selection.

Table Six: Time Spent By Consultants Selecting Managers Personally.

Approximate Percentage of Time	Frequency	Percentage
25 percent	25	43.9
50 percent	14	24.6
75 percent	11	19.3
100 percent	7	12.3
<u>Total</u>	57	100.0

4.5.1 Amount of Selection Conducted Per Year

The number of clients for whom the consultants' office selected managers each year ranged from four to 400. The mean number of clients for whom the respondents' consultancy selected managers per year was 43. There was also a large range of responses for the number of management positions the consultancy filled each year (i.e. three to 400). Three consultancies selected approximately three positions per year, while one consultancy selected approximately 400 managers per annum. Overall, the mean number of managers selected per year was 51.

The amount of time spent by the entire consulting office selecting managers for clients is illustrated in Table Seven. Only three consultancies (5.3 percent) spent all of their time selecting managers. The majority of consulting offices (56.1 percent) spent approximately 25 percent of their time selecting managers.

Table Seven: Percentage of Offices' Time Spent Selecting Managers.

<u>Time</u>	<u>Frequency</u>	<u>Percentage</u>
25 percent	32	56.1
50 percent	1	28.1
75 percent	6	10.5
100 percent	3	5.3
<u>Total</u>	44	100.0

Table Eight outlines which person involved in the selection process decided which selection methods to use when selecting managers for a client. Overall, managerial selection methods used by the consultancies were usually chosen solely by the consultant in charge of a client's account (29.8 percent), or by the consultant in conjunction with the client (28.1 percent).

4.6 Sources of Job Information

Table Nine presents the findings which relate to Question 12 in the questionnaire. This table outlines various sources of information used by personnel consultants to gather information relating to the position they were trying to fill. Job descriptions and person specifications were often supplied by the client however personnel consultants also appear to quite often write these documents themselves. Job advertisements were almost always written by the consultants rather than being supplied by the client. In less than 10 percent of the cases the job advertisement was supplied by the client either often or always.

Table Eight: The People Who Helped Decide Which Selection Methods Are Used to Select a Candidate for a Managerial Position.

Position	Frequency	Percentage
Senior Consultant	8	14.0
Consultant	17	29.8
Client, Consultant & Director	1	1.8
Consultant, Client, & Senior Consultant	5	8.8
Consultant and Client	16	28.1
Client and Senior Consultant	5	8.8
Consultant, Psychologist & Client	2	3.5
A non-specified combination	3	5.3
<u>Total</u>	57	100.0

Interviewing the personnel director and the manager of the vacant position were common sources of job information. Interviews with the job incumbent, on the other hand, were particularly rare. Only 1.8 percent of personnel consultants always interviewed the previous job incumbent to gather information about the job.

Respondents were asked to list any other source they used to gather information about the vacant position. The following alternative sources of job information were listed by one personnel consultant each; information from the market place; networks and information about companies trading and operating success; historical knowledge of the company and senior staff's personal style; interview with the Board of Directors; personal profile

analysis; interview with Board for CEO positions; and interview with secretary and/or personal assistant of vacant position.

Table Nine: Sources of Job Information.

Information Source	Never Heard Of	Never Use	Seldom Use	Sometimes Use	Often Use	Always Use
Person Specifications:						
Supplied by the Client	0.0	0.0	5.4	17.9	28.6	48.2
Developed by Consultant	1.8	5.3	8.8	24.6	24.6	35.1
Job Descriptions:						
Supplied by the Client	0.0	0.0	3.6	16.1	25.0	55.4
Developed by Consultant	1.8	8.8	17.5	22.8	26.3	22.8
Job Advertisements:						
Supplied by Client	0.0	19.6	53.6	17.9	3.6	5.4
Written by Consultant	1.8	0.0	3.6	8.9	37.5	48.2
Interviews Between:						
Consultant & Previous Job Incumbent	5.3	24.6	28.1	38.6	1.8	1.8
Consultant & Manager of Vacant Job	0.0	1.8	0.0	10.5	24.6	63.2
Consultant & Co-workers of Vacant Job	3.5	29.8	29.8	33.3	1.8	1.8
Consultant & Personnel Director	0.0	3.6	12.5	48.2	26.8	8.9

4.6.1 The Importance of Job Descriptions and Person Specifications

Only 3.5 percent of respondents felt it was not important to use job descriptions when selecting managers. Similar results were found for the importance of using person specifications, 5.4 percent of respondents thought it was not important to use such documents when selecting managers.

Overall, most personnel consultants thought job descriptions and person specifications were important to help them match the requirements of the job with a suitable candidate for the position. Others noted job descriptions and person specifications also helped them develop interview formats and inform applicants about the requirements of the job.

One consultant who thought job descriptions and person specifications were not important noted that client-generated job descriptions and person specifications were usually generic and of limited value, so they had to develop these forms themselves. Another consultant thought job descriptions were not important because they were a static document. This consultant felt it was better to interview the recruiting manager to gain information about the vacant position. Three personnel consultants said they used person specifications to help avoid personality conflicts in the job, while others used them to find a candidate who would fit in with the culture, philosophy of the organisation, and dimensions of the vacant position.

4.6.2 Job Analysis

Overall, 59.6 percent of respondents did undertake job analysis when conducting the selection process for a client. Table Ten illustrates how often those personnel consultants who conducted job analyses used the various job analysis techniques listed in Question 16 of the questionnaire such as interviews and checklists.

One-to-one interviews were the most commonly used job analysis method with almost 65 percent of respondents always using them. Checklists and questionnaires were the next most commonly used job analysis methods with 52.8 percent and 41.6 percent respectively

using these methods more often than sometimes. The rounded mean usage for technical conferences, diaries, critical incident, and work participation methods was 'never'. Less than ten percent of respondents used any of these four job analysis methods more often than sometimes.

Table Ten: Use of Job Analysis Techniques as a Percentage.

Job Analysis Technique	Never Heard Of	Never Use	Seldom Use	Sometimes Use	Often Use	Always Use
Questionnaires	2.8	13.9	13.9	27.8*	19.4	22.2
Checklists	5.6	5.6	16.7	19.4*	27.8	25.0
One-to-one Interviews	2.7	0.0	0.0	8.1	24.3*	64.9
Observational Interviews	13.5	10.8	10.8	32.4*	16.2	16.2
Group Interviews	11.1	22.2	27.8*	30.6	8.3	0.0
Technical Conferences	21.6	40.5*	21.6	10.8	5.4	0.0
Diary	29.7	35.1*	21.6	5.4	5.4	2.7
Critical Incident	35.1	24.3*	18.9	13.5	2.7	5.4
Work Participation	27.8	33.3*	13.9	19.4	2.8	2.8

(N.B. * = Rounded mean response for each job analysis technique includes options zero 'Never Heard Of' to five 'Always Use')

4.6.3 The Frequency of Use of Selection Methods when Shortlisting Applicants

Table Eleven outlines the mean frequency of use and the rank of each selection method for short-listing applicants. This data relates the findings of Question 17. Additional shortlisting methods noted by some personnel consultants included phone screening; additional training e.g. project management; outside work experience; technical strengths; salary expectations; location worked in (i.e. country); active outside interests; industry specific experience; and two personnel consultants who sometimes used their gut feeling.

Table Eleven: Mean¹ Use of Selection Methods For Shortlisting in Rank Order.

Selection Method	Mean Use	Rank
References	4.684	1
Work Experience	4.632	2
Curricula Vitae	4.579	3
One-to-one Casual Interviews	4.075	4
Academic Achievement	3.947	5
Application Forms	3.464	6
One-to-one Situational Interviews	3.404	7
Age	3.036	8
Self Assessments	2.679	9
Pencil & Paper Personality Tests	2.679	9
Cognitive Tests	2.519	11
Biodata	2.420	12
Realistic Job Previews	2.350	13
Peer Assessments	2.241	14
Work Sample Tests	2.019	15
Perceptual Tests	2.019	15
Projective Personality Tests	1.979	17
Mechanical Tests	1.827	18
Medicals	1.800	19
Situational Panel Interviews	1.787	20
Casual Panel Interviews	1.765	21
Job Tryouts	1.765	21
Assessment Centres	1.625	23
Graphology	1.143	24
Unassembled Testing	1.129	25
Astrology	1.100	26
Genetic Testing	1.020	27

¹ The mean was calculated using options one 'Never Use' to five 'Always Use' and does not include option zero 'Never Heard Of'.

Table Twelve focuses on the actual frequency of use for each selection method when shortlisting applicants for managerial positions. This data was also based on the findings of Question 17.

Table Twelve: Frequency of Use of Selection Methods when Shortlisting Applicants.

Selection Method	Never Heard Of	Never Use	Seldom Use	Sometimes Use	Often Use	Always Use
Application Forms	0.0	19.6	12.5	10.7	16.1	41.1
Biodata	10.7	37.5	12.5	17.9	7.1	14.3
Self Assessments	7.0	21.1	24.6	22.8	12.3	12.3
Work Sample Tests	5.4	41.1	19.6	26.8	5.4	1.8
One-to-one Casual Interviews	1.9	14.8	1.9	5.6	14.8	61.1
One-to-one Situational Interviews	8.8	17.5	8.8	15.8	17.5	31.6
Casual Panel Interviews	7.3	52.7	21.8	10.9	1.8	5.5
Situational Panel Interviews	14.5	50.9	12.7	14.5	3.6	3.6
Peer Assessments	3.6	35.7	25.0	17.9	12.5	5.4
References	0.0	0.0	1.8	3.5	19.3	75.4
Assessment Centres	14.3	48.2	25.0	10.7	0.0	1.8
Cognitive Tests	7.1	28.6	23.2	17.9	10.7	12.5
Mechanical Tests	5.5	43.6	30.9	14.5	3.6	1.8
Perceptual Tests	3.6	38.2	23.6	25.5	7.3	1.8
Pencil & Paper Personality Tests	1.9	24.1	24.1	18.5	22.2	9.3
Projective Personality Tests	7.7	48.1	19.2	7.7	13.5	3.8
Medicals	1.8	44.6	35.7	12.5	3.6	1.8
Curricula vitae	0.0	0.0	1.8	7.0	22.8	68.4
Realistic Job Previews	25.9	31.5	9.3	16.7	9.3	7.4
Unassembled Testing	43.6	49.1	7.3	0.0	0.0	0.0
Graphology	25.0	67.9	3.6	3.6	0.0	0.0
Astrology	10.7	82.1	5.4	1.8	0.0	0.0
Genetic Testing	12.5	85.7	1.8	0.0	0.0	0.0
Job Tryouts	8.9	42.9	26.8	21.4	0.0	0.0
Academic Achievement	0.0	0.0	3.5	29.8	35.1	31.6
Age	0.0	16.4	20.0	20.0	30.9	12.7
Work Experience	0.0	1.8	1.8	1.8	21.1	73.7

The selection methods with the highest percentage of respondents who always used them were work experience, references, curricula vitae, one-to-one casual interviews and applications forms. The selection methods which had the highest percentage of respondents who never used them were astrology, genetic testing, graphology, medicals, both types of panel interviews, and unassembled testing. Unassembled testing was also the least well known selection method. 43.6 percent of respondents had never heard of this selection method. The next least well known selection methods were realistic job previews followed closely by graphology with 25.9 percent and 25 percent of personnel consultants respectively having never heard of these selection methods.

4.7 The Final Selection Process

4.7.1 The People Involved in the Final Selection Decision

Overall, the client made the final selection decision him or herself in 54.4 percent of the cases. In the remainder of cases, the consultant and the client made the final selection decision together. No consultants reported making any final selection decisions by him- or herself for managerial positions.

4.7.2 The Use of Selection Methods when making the Final Selection Decision

Table Thirteen outlines the mean use of each selection method and the rank of each method from one, the most frequently used to 27, the least frequently used, according to the responses for Question 19. When calculating the mean those who responded 'never use' was not included. The selection method with the highest mean frequency of use was work experience followed by references.

**Table Thirteen: The Mean Use of Selection Methods when Making
the Final Selection Decision in Rank Order.**

Selection Method	Mean Use	Rank
Work Experience	4.560	1
References	4.520	2
Curricula Vitae	4.042	3
Academic Achievement	3.920	4
One-to-one Casual Interviews	3.720	5
One-to-one Situational Interviews	3.591	6
Age	3.040	7
Self Assessments	2.792	8
Realistic Job Previews	2.778	9
Application Forms	2.720	10
Situational Panel Interviews	2.636	11
Pencil & Paper Personality Tests	2.625	12
Biodata	2.458	13
Cognitive Tests	2.458	13
Casual Panel Interviews	2.417	15
Peer Assessments	2.360	16
Job Tryouts	2.273	17
Work Sample Tests	2.130	18
Perceptual Tests	2.083	19
Mechanical Tests	1.958	20
Projective Personality Tests	1.850	21
Medicals	1.680	22
Assessment Centres	1.476	23
Graphology	1.238	24
Astrology	1.091	25
Unassembled Testing	1.059	26
Genetic Testing	1.000	27

Table Fourteen also presents data which relates to Question 19. It illustrates the actual levels of use as a percentage including those respondents who had not heard of each selection method. Work experience was seldom used by four percent of respondents, the remaining 96 percent used work experience either often or always. Other selection methods personnel consultants listed as also being used when making the final selection decision were ability to work well, outside involvement, technical strengths, industry specific experience, and suitability to the company.

4.8 Validity and Selection Methods

When asked if they knew what the term validity meant, 18 (32.7 percent) respondents said they did not know. The remaining 67.3 percent of respondents who thought they knew what validity meant were asked to provide a definition. Only 51.2 percent of these personnel consultants provided a definition that correctly related to the basics of validity (i.e. the degree to which a test/method measures the criterion it is supposed to measure). Overall, 52.63 percent of those respondents who did conduct managerial selection did not know what the term validity meant.

Those respondents who thought they knew what the term validity meant were asked whether they replaced selection methods which were found to be not very valid. Overall, 17.4 percent did not change the selection methods they used even when they were found to be not as valid as other available methods. The majority (43.5 percent) sometimes changed their methods and the remainder (39.1 percent) did replace less valid methods.

Table Fourteen: Use of Selection Methods When Making the Final Selection Decision.

Selection Method	Never Heard Of	Never Use	Seldom Use	Sometimes Use	Often Use	Always Use
Application Forms	0.0	28.0	28.0	12.0	8.0	24.0
Biodata	4.0	36.0	24.0	12.0	4.0	20.0
Self Assessments	4.0	20.0	28.0	16.0	16.0	16.0
Work Sample Tests	8.0	40.0	20.0	16.0	12.0	4.0
One-to-one Casual Interviews	0.0	28.0	0.0	4.0	8.0	60.0
One-to-one Situational Interviews	8.3	16.7	4.2	16.7	16.7	37.5
Casual Panel Interviews	4.0	40.0	12.0	24.0	4.0	16.0
Situational Panel Interviews	8.3	37.5	4.2	25.0	4.2	20.8
Peer Assessments	0.0	40.0	20.0	20.0	4.0	16.0
References	0.0	0.0	4.0	4.0	28.0	64.0
Assessment Centres	16.0	52.0	24.0	8.0	0.0	0.0
Cognitive Tests	4.0	40.0	12.0	16.0	16.0	12.0
Mechanical Tests	4.0	44.0	24.0	20.0	4.0	4.0
Perceptual Tests	4.0	44.0	16.0	24.0	8.0	4.0
Pencil & Paper Personality Tests	4.0	28.0	16.0	20.0	28.0	4.0
Projective Personality Tests	9.1	54.5	13.6	4.5	18.2	0.0
Medicals	0.0	60.0	16.0	20.0	4.0	0.0
Curricula vitae	0.0	0.0	16.7	20.8	4.2	58.3
Realistic Job Previews	25.0	20.8	8.3	25.0	8.3	12.5
Unassembled Testing	32.0	64.0	4.0	0.0	0.0	0.0
Graphology	16.0	72.0	4.0	8.0	0.0	0.0
Astrology	12.0	84.0	4.0	0.0	0.0	0.0
Genetic Testing	12.0	88.0	0.0	0.0	0.0	0.0
Job Tryouts	12.0	28.0	16.0	40.0	0.0	4.0
Academic Achievement	0.0	0.0	4.0	36.0	24.0	36.0
Age	0.0	24.0	16.0	16.0	20.0	24.0
Work Experience	0.0	0.0	4.0	0.0	32.0	64.0

Table Fifteen presents the responses for Question 31 regarding whether or not the listed reasons for not replacing selection methods with low levels of validity applied to those 60.9

percent who did not always replace less valid selection methods. Only 10.5 percent felt they were not allowed to introduce new selection methods, and 63.2 percent did not replace less valid selection methods because clients had not requested any change in the selection methods they used.

Table Fifteen: Reasons For Not Replacing Less Valid Selection Methods.

Reason	Strongly Disagree	Disagree	Neutral²	Agree	Strongly Agree
I'm not allowed to introduce new methods.	57.9	26.3*	5.3	0.0	10.5
Too expensive to introduce new methods	31.6	21.1*	21.1	21.1	5.3
We are happy using our current methods	5.0	5.0	20.0	40.0*	30.0
We don't have the time to develop and introduce new methods	31.6	10.5	15.8*	31.6	10.5
No new methods are relevant to position we select for	31.6	42.1*	15.8	5.3	5.3
Developing new methods is not a priority in our firm	15.8	31.6	21.1*	26.3	5.3
Don't select enough managers to warrant introducing new methods	31.6	26.3	0.0*	31.6	10.5
New methods are not readily available	15.8	15.8	42.1*	26.3	0.0
New methods are not supported by the consultants in our office	31.6	47.4*	15.8	5.3	0.0
Clients have not requested any other methods	10.5	10.5	15.8*	47.4	15.8
I disagree with the empirical results of the research	38.9	5.6*	55.6	0.0	0.0
Other methods generally give the same information	15.8	26.3	47.4*	10.5	0.0
I am not familiar with any new methods	15.8	52.6*	5.3	26.3	0.0
New methods have not been established in New Zealand yet	15.8	26.3	47.4*	10.5	0.0
I don't know how to develop new selection methods	15.8	36.8	21.1*	21.1	5.3
I only use those methods discussed in IPC Manual	57.9	31.6*	5.3	0.0	5.3

(N.B. * = Rounded Mean Response)

No personnel consultants listed any other reasons for not replacing less valid selection methods.

² Neutral = Neither Agree Nor Disagree.

4.8.1 Validation of Selection Methods

Only 21.4 percent of respondents had validated some or all of the selection methods they employed and 8.9 percent did not know whether or not they had. Those selection methods listed by personnel consultants as having been validated included; cognitive tests, five fold grading, aptitude tests, SIMA (System for Identifying Motivated Abilities/Behaviour Patterns), The Saville & Holdsworth Series, personality tests, all psychological tests, projective personality questionnaires, and reference checking. These selection methods were reportedly validated by one or more of the following sources; Doctors, Industrial Psychologists, National surveys, the client, candidate and the consultant, Saville and Holdsworth, the USA, and/or through successful appointments.

4.8.2 The Perceived Validity of Managerial Selection Methods

Table Sixteen outlines the mean perceived validity of each selection method in rank order according to the responses for Question 33. Work experience, references and situational one-to-one interviews had the three highest mean perceived validity figures overall. The selection methods with the lowest mean perceived validity were genetic testing, astrology, graphology and medicals. The only other method listed and graded for predictive ability was SIMA, an analysis package from the U.S.A. The consultant who listed SIMA thought it predicted future job performance extremely well.

Table Seventeen presents data relating to the actual levels of perceived validity for each of the 27 selection methods listed in Question 33. Work experience and references had the highest percentage of respondents who thought these methods predicted future job performance extremely well. Astrology was perceived as an extremely poor predictor.

Table Sixteen: Mean³ Perceived Validity of Selection Methods in Rank Order.

Selection Method	Mean Perceived Validity	Rank
Work Experience	4.037	1
References	3.855	2
Situational One-to-One Interviews	3.600	3
Realistic Job Previews	3.278	4
Job Tryouts	3.268	5
Cognitive Tests	3.200	6
Academic Achievement	3.109	7
Casual One-to-one Interviews	3.094	8
Work Sample Tests	3.023	9
Perceptual Tests	3.000	10
Curricula Vitae	2.981	11
Peer Assessments	2.959	12
Pencil & Paper Personality Tests	2.953	13
Situational Panel Interviews	2.951	14
Projective Personality Tests	2.933	15
Assessment Centres	2.897	16
Mechanical Tests	2.892	17
Self Assessments	2.750	18
Biodata	2.595	19
Casual Panel Interviews	2.543	20
Age	2.373	21
Application Forms	2.302	22
Unassembled Testing	2.000	23
Medicals	1.976	24
Graphology	1.545	25
Astrology	1.242	26
Genetic Testing	1.194	27

³ Only options one 'Extremely Poorly' to five 'Extremely Well' were used to calculate the mean.

Table Seventeen: Perceived Level Of Validity of Managerial Selection Methods.

Selection Method	I Do Not Know	Extremely Poorly	Poorly	Adequately	Very Well	Extremely Well
Application Forms	3.6	20.0	47.3	16.4	5.5	7.3
Biodata	23.6	9.1	30.9	23.6	7.3	5.5
Self Assessments	12.7	9.1	30.9	25.5	16.4	5.5
Work Sample Tests	20.4	1.9	14.8	46.3	13.0	3.7
Casual One-to-one Interviews	3.6	16.4	14.5	23.6	27.3	14.5
Situational One-to-one Interviews	18.2	1.8	5.5	32.7	25.5	16.4
Casual Panel Interviews	14.8	16.7	22.2	31.5	13.0	1.9
Situational Panel Interviews	22.6	5.7	17.0	34.0	17.0	3.8
Peer Assessments	10.9	7.3	23.6	29.1	23.6	5.5
References	0.0	0.0	7.3	27.3	38.2	27.3
Assessment Centres	43.1	3.9	17.6	19.6	11.8	3.9
Cognitive Tests	24.5	7.5	5.7	34.0	20.8	7.5
Mechanical Tests	30.2	9.4	11.3	28.3	18.9	1.9
Perceptual Tests	30.2	9.4	5.7	32.1	20.8	1.9
Pencil & Paper Personality Tests	17.3	5.8	15.4	42.3	15.4	3.8
Projective Personality Tests	36.2	8.5	10.6	25.5	14.9	4.3
Medicals	20.8	28.3	26.4	22.6	1.9	0.0
Curricula Vitae	1.8	7.3	30.9	27.3	21.8	10.9
Realistic Job Previews	29.4	2.0	7.8	35.3	19.6	5.9
Unassembled Testing	75.5	7.5	9.4	7.5	0.0	0.0
Graphology	58.5	26.4	9.4	3.8	1.9	0.0
Astrology	38.9	48.1	11.1	1.9	0.0	0.0
Genetic Testing	42.6	46.3	11.1	0.0	0.0	0.0
Job Tryouts	22.6	3.8	11.3	26.4	32.1	3.8
Academic Achievement	0.0	3.6	21.8	40.0	29.1	5.5
Age	7.3	21.8	32.7	21.8	14.5	1.8
Work Experience	1.8	0.0	7.3	14.5	43.6	32.7

Unassembled testing was not very well known, just over 75 percent of personnel consultants did not know how well this method predicted future job performance and no consultants thought it predicted future job performance either very well or extremely well.

4.9 Correlation Coefficients

Table Eighteen presents the Spearman Rho coefficients found for mean perceived validity (Table Sixteen), reported validity (Appendix One), and mean use of selection methods when shortlisting applicants for managerial positions (Table Eleven). Data relating to the use of selection methods for shortlisting were used rather than data relating to use in the final selection decision. This was because less than 50 percent of personnel consultants who worked as selection consultants actually participated in making final selection decisions.

Table Eighteen: Spearman’s Rank Difference Correlation for Mean Perceived Validity, Reported Validity and Mean Use when Shortlisting Managers.

	Reported Validity	Mean Perceived Validity	Mean Use
Reported Validity	1.000	0.319	-0.220
Mean Perceived Validity		1.000	0.622*
Mean Use			1.000

* $p < .01$

The results for medicals, curricula vitae, application forms, realistic job previews, and genetic surveys were not included when calculating Spearman’s rho in Table Eighteen because the reported validity coefficients of these methods were not found. Work sample tests were also not included because different levels of validity have been found according to the type of the work sample test being used. In this study work sample tests were not divided into separate categories.

A small negative relationship was found between use and reported validity ($\rho = -0.220$). This demonstrates a slight negative relationship between the validity of the selection method and the frequency of use for that selection method. However, when calculating this relationship for the 14 most commonly used selection methods a much stronger relationship was found. Of the 14 selection methods with the highest mean use three could not be included because a reported validity coefficient did not appear to be available for them. These three selection methods were application forms, curricula vitae, and realistic job previews. The 11 remaining selection methods used calculate to correlation for use and reported validity of the most frequently used selection methods are outlined in Appendix VIII.

The Spearman's ρ for reported validity and frequency of use for these 11 selection methods was $\rho = -0.62$ ($p < .05$), quite a strong relationship.

A smaller positive relationship ($\rho = 0.319$) was found for perceived validity and reported validity. Shortlisting use and perceived validity also had a relatively high positive relationship of $\rho = 0.622$.

Table Nineteen presents the Pearson correlation coefficients calculated using SPSSx for the mean perceived validity and frequency of use of each selection method when shortlisting. Overall, approximately half the correlations coefficients were significant.

Table Nineteen: Pearson's Product Moment Correlation Coefficients for Shortlisting Use and Perceived Validity for Each Selection Method in Rank Order.

Selection Method	Correlation Coefficient	Rank
Astrology	0.6912**	1
One-to-one Casual Interviews	0.6654**	2
Self Assessments	0.5903**	3
Projective Personality Tests	0.5618**	4
Age	0.5349**	5
Cognitive Tests	0.5263**	6
Situational Panel Interviews	0.5198**	7
Peer Assessments	0.4216**	8
Pencil & Paper Personality Tests	0.3957**	9
Work Sample Tests	0.3921*	10
References	0.3797**	11
Academic Achievement	0.3699**	12
Job Tryouts	0.3572*	13
Perceptual Tests	0.3179	14
Mechanical Tests	0.2727	15
Casual Panel Interviews	0.2712	16
Medicals	0.2414	17
Curricula vitae	0.2221	18
Work Experience	0.2094	19
Graphology	0.1735	20
One-to-one Situational Interviews	0.1663	21
Unassembled Testing	0.0449	22
Application Forms	0.0280	23
Assessment Centres	-0.0209	24
Biodata	-0.0540	25
Realistic Job Previews	-0.2606	26
Genetic Testing	-	

* = $p < .05$

** = $p < .01$

4.10 Selection-Related Publications

68.4 percent of respondents said they did read selection-related publications, while the minority (31.6 percent) did not read any selection-related publications. The majority (87.3 percent) said they thought it was important to read selection-related publications while the remainder did not.

The personnel consultants who thought it was important to read publications did so because it was important to keep up-to-date with current trends and selection methods and because clients expected consultants to be up-to-date, and to be able to offer new ideas to clients. The reasons given for the perceived unimportance of selection-related publications include the perception that current literature did not relate to the technical nature of the positions the consultant selected for. One consultant noted the value of publications was dependant on the motivation for writing them. If financial goal was the motive then s/he thought the contents of the publication could be questionable. Another consultant noted publications were constantly changing and certain selection methods tended to go in and out of fashion. S/he suggested it was better to use a system they knew worked and which clients trusted. One personnel consultant thought it depended on the type of manager sought while another thought such publications did not relate to them or their work because they were a small consultancy. Others suggested that researchers lacked practical 'hands on' experience and that their own experience as a selection consultants was adequate.

4.10.1 The Perception of Research Findings and Validity

Those respondents who thought they understood the term validity were asked whether they believed, understood and/or agreed with published findings relating to validity. Only 29.2

percent believed the findings relating to the validity of managerial selection methods all the time and 4.2 percent did not believe the findings of publications at all, the majority only sometimes believed them. Less than five percent said they did not understand the findings of current research relating the validity and 39.1 percent said they could only sometimes understand the findings. The remainder (56.5 percent) said they could understand the findings of publications relating to validity. With respect to agreeing with the findings relating to validity 17.4 percent did, 13.0 percent did not agree and the majority (69.6 percent) only sometimes agreed with them.

The recommendations made by authors of selection-related publications were perceived as practical by 77.8 percent of respondents. One consultant who thought such recommendations were not practical said it was because they tend to be highly theoretical and not practical in the business environment. Several others thought research recommendations were practical because they, as selection consultants, could then develop on the new ideas; research also often explained the shortcomings of particular tests especially in the normative data and test construction; and they also often explained any weaknesses in reliability and validity data.

Only 13 percent said selection-related publications were easy to read, the majority (86.9 percent) said they had some difficulty reading selection-related publications.

4.10.2 How Often Selection-Related Publications are Read

Table Twenty relates to how often personnel consultants read specific types of selection-related publications (Question 23). The overall mean level of reading for all publications

was fairly low. For example, 12.3 percent of respondents had not heard of psychological journals and, 50.9 percent did not read them at all. Human resource management (HRM) journals, management journals, and HRM textbooks were better known with only 3.5 percent saying they had never heard of them. Other publications respondents listed included trade journals, business and financial reviews, in-house reports, and test publishers' reviews and subscription newsletters.

Table Twenty: Level of Reading of Selection-Related Publications.

Selection Method	Never Heard Of	Never Read	Seldom Read	Sometimes Read	Often Read	Always Read
IPC Manual	14.3	30.4	23.2*	23.2	3.5	5.3
HRM Journals	3.5	21.1	22.8	26.3*	19.3	7.0
Management Journals	3.5	14.0	7.0	22.8*	28.1	24.6
Psychological Journals	12.3	50.9	17.5*	12.3	3.5	3.5
HRM Textbooks	3.5	26.3	19.3*	33.3	14.0	3.5

(N.B. * = Rounded mean response of options zero 'Never Heard Of' to five 'Always Read')

4.10.3 The Perceived Relevance of Selection-Related Publications

Table Twenty-One presents the data relating to whether or not personnel consultants perceived various selection-related publications as relevant to them and their work. Of the various selection-related publications listed in Question 24 management journals, HRM journals and texts were perceived as the most relevant selection-related publications overall. Psychological journals were the least well read.

Table Twenty-One: Relevance of Selection-Related Publications to Personnel Consultants.

Publication	Don't Read	Not Relevant	Somewhat Irrelevant	Neutral⁴	Somewhat Relevant	Very Relevant
IPC Manual	21.4	14.3	9.5*	11.9	26.2	16.7
HRM Journals	7.1	4.8	0.0	16.7	40.5*	31.0
Management Journals	0.0	2.4	2.4	16.7	50.0*	28.6
Psychological Journals	26.2	11.9	9.5*	28.6	19.0	4.8
HRM Textbooks	9.5	2.4	7.1	9.5	47.6*	23.8

(N.B. * = Rounded mean response of options zero 'Don't Read' to five 'Very relevant').

Table Twenty-Two presents the data from Question 32 relating to whether or not particular reasons for not reading selection-related publications applied to the 31.6 percent of respondents who said they did not read such publications. The majority of consultants chose to remain neutral for most of the reasons supplied. The most common reasons for not reading selection-related publications were it took too much time to find relevant articles and publications were perceived as difficult to access.

⁴ Neutral = Neither Relevant nor Irrelevant.

Table Twenty-Two: Reasons for Not Reading Publications.

Reason	Strongly Disagree	Disagree	Neutral⁵	Agree	Strongly Agree
Articles not relevant	0.0	9.1	63.6*	27.3	0.0
Articles are written for academics not practitioners	0.0	13.6	72.7*	13.6	0.0
Too expensive to purchase journals	5.0	5.0	65.0*	25.0	0.0
Takes too much time finding relevant articles	0.0	4.8	52.4*	38.1	4.8
Publications are difficult to access	0.0	9.1	45.5*	40.9	4.5
I don't believe the researchers' findings	0.0	15.0	85.0*	0.0	0.0
I don't understand the researchers' findings	0.0	10.5	89.5*	0.0	0.0

N.B * = Rounded Mean Response for each Reason.

⁵ Neutral = Neither Agree Nor Disagree.

CHAPTER FIVE:

DISCUSSION

5.1 Introduction

This chapter discusses the results outlined in Chapter Four. The main focus is the level of use and perceived validity of the selection methods included in the survey compared with the reported validity of those selection methods. This section also discusses job analysis, and the impact of selection-related publications on the selection process.

5.2 Selection Responsibilities

Finding that only 53.27 percent of consultants who responded actually conducted managerial selection was not all together surprising. This was because the questionnaires were sent to those consultancies listed in the Yellow Pages of the Telephone Book as either employment agencies, personnel or selection consultancies. Some of those organisations listed as employment agencies, for example, may not search for, and appraise, suitable managerial applicants for clients as personnel/selection consultants might. Employment agencies may be more likely function as a recruiter than a selector. In addition some of the personnel consulting firms may have undertaken other personnel functions such as training, temporary recruitment, non-managerial selection, change management, wage and salary advice/surveys, and/or industrial relations advice/advocacy instead of managerial selection services.

Selection appears to be only a small part of the services offered by personnel consultants. Only 12.3 percent of personnel consultants spent all their working time involved in the

selection process and 5.3 percent of the consulting firms worked solely on selecting managers. The mean time spent selecting managers was 25 percent for the whole office and 50 percent for individual consultants' time. This means that selecting managers is only a small part of the services offered by personnel consultants and it leaves a large percent of personnel consultants time available to offer other services such as those listed above. As a consequence many personnel consultants attempt to be expert in several different fields. Therefore they may not be able to spend a lot of time researching the area of selection and the validity of available selection methods.

5.3 Job Analysis, Job Descriptions, and Person Specifications

Mills (1991) found 40 percent of the consultants surveyed conducted an objective job analysis, whereas approximately 60 percent of the current survey said they conducted some form of job analysis. Mills also noted 36.6 percent used subjective data such as the consultants' perception of the organisation and the client's environment.

While 60 percent of the current survey reportedly conducted a job analysis, approximately 90 percent developed person specifications, job descriptions and/or job advertisements themselves at some stage during the selection process. This means either some consultants do not realise what job analysis is even though they do it, or some are writing job descriptions, person specifications and/or job adverts without conducting a job analysis first. This finding is a matter of some concern considering the importance of the selector(s) understanding the content and requirements of the position to ensure a high point-to-point relationship between the job content and the selection methods used so the most suitable candidate is recommended.

While understanding of job analysis appears to be lacking, the importance of using job descriptions and person specifications was recognised. 96.5 and 93 percent felt that job descriptions and person specifications respectively were important to use when selecting managers. While the importance of person specifications was acknowledged some personnel consultants appeared to have an inaccurate perception of the reason for using/writing person specifications. Three consultants said they used person specification to avoid personality conflicts on the job which is not the objective. Person specifications are developed so the selector(s) understands the level of experience, qualifications and qualities the successful applicant should have. It would be near impossible to analyse all the staff in an organisation or department to determine what personality traits the new manager should have so that he/she gets on with all staff.

5.3.1 Job Analysis Techniques

A number of job analysis methods were not well known or used, these included technical conferences, the diary method, critical incidents and work participation. Less than 10 percent of respondents used these methods either often or always. One reason for the low level of use could be attributed to the amount of the time it takes to use some of the job analysis methods (e.g. work participation). Another reason could be some personnel consultants do not know much about job analysis, or they may be satisfied with the methods they currently use.

One-to-one interviews, which had the highest mean use, were possibly seen as the easiest way to gather information and they may take up the least amount of the consultants time. Interviews with the manager of the vacant position were the most common source of

information retrieval about the job. This result is similar to that found by Mills (1991). Interviews with co-workers and the previous job incumbent were particularly uncommon. Mills (1991) found that while all 30 consultants surveyed did interview the previous job incumbent, it was, on average, for only two out of 10 selection assignments.

5.4 Perceived Validity and Frequency of Use of Some Selection Methods

The results for the most commonly used and least commonly used selection methods were very similar to that of Harris (1991) who surveyed personnel managers. For frequency of use when shortlisting and when making the final selection decision the five selection methods with the lowest mean use were astrology, genetic testing, graphology, unassembled testing, and assessment centres. References, work experience, curricula vitae, academic achievement, and casual one-to-one interviews had the highest mean use for final decision making and shortlisting.

The selection methods with the highest mean perceived validity were work experience, references, situational one-to-one interviews, realistic job previews, and job tryouts. The five selection methods with the lowest mean perceived validity were genetic testing, graphology, medicals, unassembled testing, and astrology.

5.4.1 Astrology

Only four respondents (7.2 percent) used astrology to some degree when shortlisting managerial applicants, this result is similar to that found by Harris (1991) where four personnel managers (2.6 percent) used astrology in the managerial selection process. Nearly 50 percent of consultants correctly responded that astrology was an extremely poor

predictor of future job performance. However there was one consultant who inaccurately said astrology was an adequate predictor of future job performance. Overall, there was quite a strong relationship between the perceived validity of astrology and its use with a correlation coefficient $r = 0.6912$ ($p < 0.01$). This correlation reflects the low level of perceived validity and the low frequency of use of astrology when selecting managers.

While not many personnel consultants reported using astrology when selecting managers, the use of astrology is still higher in New Zealand than in England. Shackleton and Newell (1991) found that none of the organisations they surveyed in England reported using astrology in the managerial selection process.

Overall, the low level of use and perceived validity for astrology was a favourable result with respect to the extremely low level of reported validity for this selection method. Similar results were found for graphology.

5.4.2 Graphology

Graphology rated very low for both use and perceived validity. Only 7.2 percent reported using graphology compared to six percent for New Zealand personnel managers (Harris, 1991), 2.6 percent for British organisations, and 77 percent for organisations in France (Shackleton and Newell, 1991). This researcher also found the majority of personnel consultants appeared to have a fairly realistic picture of the validity of graphology. A small minority, however, 5.7 percent inaccurately thought graphology predicted future job performance either very well or adequately compared to 3.2 percent for personnel managers (Harris, 1991).

5.4.3 Genetic Testing

Genetic testing received low mean rankings for frequency of use and perceived validity which was consistent with the findings of Harris (1991). This form of testing was used by only 1.8 percent of respondents compared to 2.3 percent of personnel managers surveyed by Harris (1991) and 2.7 percent in the U.S.A (Harris and Dworkin, 1990). Genetic testing also rated extremely low (27th out of 27 selection methods) for perceived validity. As with Harris (1991) genetic testing was not well known as a selection method. 43.6 percent of personnel consultants had not heard of genetic testing as a selection method.

5.4.4 Assessment Centres

Assessment centres were also not commonly used and only had a small correlation for personnel consultants use and perceived validity. Considering the reasonably high level of validity for assessment centres (Gaugler et al. 1987) they do not appear to be used very often in New Zealand (Lai 1981; Mills 1991; Harris 1991). This researcher found only 1.8 percent always used assessment centres when selecting managers and almost 50 percent never used them. This may be due to the cost of running and developing assessment centres for clients and also some personnel consultants may not be qualified to undertake and analyse some of the psychological testing that often involved in assessment centres.

Surprisingly 14.3 percent had never heard of assessment centres as a selection method. Overall, assessment centres ranked 23rd out of 27 for mean frequency of use, and 16th for mean perceived validity while they actually had the sixth highest reported validity coefficient of the 27 selection methods included in the survey. It would appear that personnel consultants have an inaccurate picture of the validity and value of assessment

centres as a managerial selection method.

A very slight and negative correlation coefficient was found for the perceived validity and use of assessment centres ($r = -0.0209$). One would expect personnel consultants to more frequently use the selection methods they perceive as having a high level of validity. If this was the case then use and perceived validity would have a high positive correlation coefficient. However, for assessment centres the correlation is only slight.

Another reasonably valid yet not frequently used selection method was the situational interview.

5.4.5 Interviews

Similar results were found for this survey and Harris (1991) in that despite the fact situational interviews were correctly perceived as more valid than casual interview they were less frequently used. That is, situational one-to-one interviews were ranked seventh for mean use while one-to one casual interviews ranked fourth. However, for perceived validity situational one-to-one interviews ranked higher (third) than causal interviews which ranked eighth. Similarly Harris (1991) found situational panel interviews were perceived to be more valid with a ranking of 14th than causal panel interviews which ranked 20th, while they were ranked seventh and 19th respectively for mean use.

While personnel consultants appear to understand that situational interviews are more valid than casual interviews, they still continue to use the latter more often. A possible reason for this is they may not actually know the difference between casual interviews and

situational interviews. Some consultants may have used a fairly formal and structured interviews and therefore assumed it was a situational interview because it was not perceived as casual.

5.4.6 Unassembled Testing - Accomplishment Tests

Unassembled testing was the least well know selection method with 43.6 percent of respondents reporting they had never heard of it before and only 7.3 percent actually using it. While unassembled testing is a relatively uncommon management selection method in New Zealand it appears to be more common in the U.S.A.

Harris and Dworkin (1990), found that accomplishment tests were used by 59.4 percent of the organisations surveyed, the fourth most commonly used selection method. In New Zealand, however, the ranking for mean use by personnel managers was 25th out of 28 selection methods (Harris, 1991). For personnel consultants unassembled testing was similarly ranked 25th out of 27 selection methods for use.

Harris and Dworkin (1990) found accomplishment tests were ranked second out of 14 selection methods for estimated accuracy in predicting future job performance of management trainees while New Zealand personnel managers unassembled testing ranked 22nd for perceived validity (Harris, 1991). Similar results were found in this survey with unassembled testing ranking 23rd out of 27. Overall the mean use and perceived validity of unassembled testing is fairly low.

The relationship between perceived validity and frequency of use was very slight (0.0449).

The 13 personnel consultants who thought they knew how valid unassembled testing was had varying views as to the level of validity hence the weak relationship between use and perceived validity of unassembled testing.

5.4.7 Work Experience

Work experience was an extremely commonly used selection method. It was the highest ranked for both use and perceived validity. Again these results are fairly consistent with the findings of Harris (1991) and Dakin and Armstrong (1989). According to the research, however, work experience is actually a poor predictor of future job performance with an reported validity coefficient of only 0.18 (Hunter and Hunter, 1984). Despite the high mean use for shortlisting and mean perceived validity the Pearson product moment correlation coefficient for these two factors was only $r = 0.2094$. This could be due to the large variation in individual responses for perceived validity and use. Another possible reason for the small relationship is that some positions which consultants attempt to fill may be graduate positions. If this was the case then graduate applicants may not have what the consultants perceive as relevant work experience. Therefore, while a consultant may believe that work experience is highly valid they may not use it when considering applicants for some positions.

5.4.8 Age

Despite the fact this survey was conducted after the introduction of age in the Amended Human Rights Commission Act (1977) and that some consultants noted that it was now illegal to use age to discriminate against applicants, it ranked eighth for mean use when shortlisting. Only 16.4 percent never used age as a variable when shortlisting applicants

and almost 44 percent often or always used it. This is quite a large percentage of consultants who are using a variable which is illegal. Age also has an extremely low level of validity (Hunter and Hunter, 1984)

For mean perceived validity, age was ranked 21st out of 27 which is fairly accurate, however there were some consultants who inaccurately graded age extremely high for ability to predict future job performance. There was a significant relationship of $r = 0.5349$ ($p < .01$) for the perceived validity and use of age. This result means the higher the perceived validity the higher the level of use and vice versa.

Overall, personnel consultants appear to have a fairly correct perception of low level of validity for age, however, the frequent use of age does not appear to reflect this perception.

5.4.9 References

Despite the fact references have been found to be not particularly valid predictors of future job performance (Smith and Robertson, 1989; Reilly and Chao, 1982) they were still ranked highly for use. This is consistent with the findings of Robertson and Makin (1986); Dakin and Armstrong (1989); Taylor et al. (1991); Harris and Dworkin (1990); Harris (1991); Harris (1991); and Mills (1991).

While references have a reported validity of only 0.14 (Reilly and Chao, 1982) they were incorrectly perceived as a particularly good predictor of future job performance with a mean ranking of second out of 27 selection methods. Mills, (1991); Dakin and Armstrong (1989); Taylor et al. (1991); Harris (1991); and Harris and Dworkin (1990); also found

many personnel consultants and/or personnel managers held the inaccurate perception that references were one of the more valid selection methods.

The correlation coefficient for perceived validity and frequency of use for references was significant ($r = 0.3797$, $p < 0.01$). This meant that overall the higher the perceived level of validity the higher the use. Unfortunately the perceived validity of many selection methods, including references, is incorrect and therefore personnel consultants are using selection methods which are not particularly valid in the managerial selection process.

5.4.10 Curricula Vitae

Curricula vitae were the third most frequently used selection method in this survey. However, they ranked 11th for mean perceived validity and there was much disparity between the estimated level of validity for curricula vitae. Hence the Pearson correlation coefficient for use and perceived validity was not strong ($r = 0.2221$).

For some reason personnel consultants are using a selection method they know is not very valid. Mills, (1991) also found resumes were often used as a means of gathering information about an applicants personal history. The personnel consultants in his survey also had a wide range of estimations about the validity of curricula vitae.

There appears to be little difference between personnel consultants and personnel managers with respect to the use and perceived validity of curricula vitae. Harris (1991) found curricula vitae were very frequently used with a mean ranking of second for use. She also found the perceived validity of this selection method was fairly low with a rank for mean

perceived validity of 15 out of 28. This result is similar to the current findings and those of Taylor et al. (1991).

5.4.11 Academic Achievement

While the reported validity of academic achievement was low ($r = 0.14$, Reilly and Chao, (1984)) the mean frequency of use and perceived validity is fairly high (they ranked fifth and seventh respectively) for personnel consultants. The relationship between perceived validity and use was also significant with a correlation coefficient of 0.3699 ($p < 0.01$).

The majority of personnel managers appear to have an incorrect perception of the validity of academic achievement which, according to Reilly and Chao (1982), is a better predictor of future compensation than job performance. Harris (1991), with a sample of personnel managers, found similar results for frequency of use. However, academic achievement only ranked 16th out of 28 for mean perceived validity. It would appear that personnel managers have a more accurate picture of the validity of academic achievement than personnel consultants, however, they still both used academic achievement quite frequently when selecting managers.

5.4.12 Application Forms

The results for use of application forms were similar to those for academic achievement. While they ranked fairly high (sixth) for use their mean perceived validity was particularly low (22nd). Harris (1991) found similar results for personnel managers. Application forms were ranked sixth for use and 24th out of 28 for mean perceived validity. Once again personnel managers and personnel consultants appear to be frequently using a selection

method they do not perceive as very valid. The correlation for use and perceived validity of application forms was not significant ($r = 0.0280$). This result reflects the high level of variance in individual responses for the perceived validity and use of application forms.

5.4.13 Psychological Testing

Of the five psychological tests included in the survey (paper and pencil personality tests, projective personality tests, and cognitive, mechanical and perceptual tests) only two were in the top 10 for perceived validity. Cognitive tests which have a reasonably high level of reported validity, $r = 0.30$ (Hartigan et al. 1987), were ranked sixth, and perceptual tests with a reported validity of 0.25 (Ghiselli, 1973) were ranked 10th.

The use of all five psychological tests was fairly low which is consistent with Harris (1991). Paper and Pencil personality tests ranked ninth equal with self assessments and cognitive tests ranked 11th. The remaining tests ranked between 15th and 18th for use. Overall psychological tests did not rank highly for use or perceived validity.

Three fairly notable results for the correlation between use and perceived validity were cognitive tests ($r = 0.5263$), paper and pencil personality tests ($r = 0.3957$) and projective personality tests ($r = 0.5618$) all significant to 0.01. These results show a fairly strong relationship between the perceived validity of the test/method and the frequency of use for that method. Unfortunately the perceived validity of some selection psychological tests such as personality tests had been over estimated and therefore personnel consultants are tending to frequently use selection methods which are not particularly valid.

5.4.14 Summary

It would appear that like New Zealand personnel managers, personnel consultants are not using the most valid selection methods available when they select managers for clients. It also appears that the use of some selection methods does not reflect the perceived validity of those selection methods. That is, some personnel consultants may quite frequently use a selection method when they perceive has a low level of validity or vice versa. While the frequent use of less valid selection methods, such as references, was disappointing it was not altogether surprising. Similar results have been found in New Zealand (Harris, 1991; Mills, 1991; Taylor, 1991; Dakin and Armstrong, 1989) and overseas (Harris and Dworkin, 1990; Robertson and Makin, 1986; Shackleton and Newell, 1991; Vaughan and McLean, 1989; and Ahlburg, 1992).

5.5 Validity and the Selection Process

5.5.1 Defining Validity

While 67.3 percent of personnel consultants thought they knew what the term validity meant, over 50 percent actually did not know. This is not a very promising result as the majority of personnel consultants do not appear to understand the importance of validity and its relationship to selection.

5.5.2 Reasons for not Replacing Less Valid Selection Methods

The most common reasons given by personnel consultants for not replacing less validity selection methods were: they were happy using the selection methods they currently used; clients had not requested any other methods; and they did not have time to develop and introduce any new methods.

One possible reason personnel consultants are happy using the selection methods they currently use is that they may not perceive that they have had any problems with them such as the applicant(s) they put forward leaving the new job within a short time period, or being fired. Using the turnover rate as a level of successfulness may not provide a complete picture. Low turnover may not be due to the selection methods used, rather it could be due to the current tight employment market. Jobs are currently difficult to find and new employees may prefer to stay on in a position which is not altogether suitable or what they expected until they can find another job rather than leaving soon after being appointed without having another job to go to. The successful candidate may also decide to give the job a trial period, for example a year, to see if it gets any better rather than leaving straight away resulting in low turnover rates.

The second most common reason for not replacing less valid selection methods was clients had not requested any other methods. The assumption made here by personnel consultants is that clients do know what selection methods are available and they also know which ones have a high level of validity and which selection methods do not. Harris (1991) and Taylor et al. (1991) found personnel managers did not have a very accurate picture of the validity of selection methods, it is therefore difficult to expect other managers to have an in-depth knowledge of validity and selection methods. As the 'selection expert' it is the personnel consultants role is to advise clients on the best and most reliable selection methods available and also to provide and use the best and most valid selection methods available for their clients without being requested to.

The most popular reason for not replacing less valid selection methods was the time it took

to develop and introduce new selection methods. Overall, the time factor appears to be a big influence in all aspects of the selection process.

As expected a lack of knowledge, support, and/or ability were not perceived as reasons for not replacing less valid selection methods.

5.5.3 Validation of Selection Methods

Not many of the personnel consultants had validated any or all of their selection methods. Some methods and the sources of those selection methods which had been validated were fairly dubious, for example, one consultant said he/she had had all psychological tests validated through successful appointments. However as discussed in section 5.5.2 the perceived successfulness of appointments may not be due to the selection method used, but rather the lack of other alternative employment opportunities.

Other disputable ways of validating selection methods included the United States of America, and the client, candidate and the consultant. This again reflects some consultants lack of knowledge regarding what validity and validated actually means.

5.6 The Relationship Between Shortlisting Use and Perceived Validity

5.6.1 The Correlation for Mean Shortlisting Use and Perceived Validity

The fairly strong relationship (Spearman's $\rho = 0.622$) for use and perceived validity was expected as one would assume the selection methods which are perceived as more valid would be used more often and vice versa. However when one looks at the individual relationships between some of the more commonly used selection methods such as

application forms, and age they did not fit the mould. These two selection methods were fairly often used yet not perceived as particularly valid.

Dakin and Armstrong (1989) report a Spearman's $\rho = 0.87$ which is a little stronger than the correlation found here. The reasons for the difference could be attributed to a number of factors. The major difference between the two studies is the number of selection methods included in the survey. Dakin and Armstrong's (1989) survey contained 11 management selection methods while this survey included 27. The sample sizes were also different. Dakin and Armstrong (1989) surveyed 21 personnel consultants while the sample for this survey was quite large ($n = 232$).

An important point to note about the reasonably strong relationship between perceived validity and use is while it may be strong, the consultants' perceived validity of each selection method was often inaccurate. If the perceived validity of selection methods is inaccurate then personnel consultants could use selection methods with low levels of validity more often than selection methods with a high level of validity. This appears to be the case.

5.6.2 Individual Correlation Coefficients for Use and Perceived for Each Selection Method

One would expect personnel consultants to use the selection methods they perceive as having a high level of validity. Therefore there would be high positive correlations for each selection method. However, only thirteen of the 27 selection methods included in the survey had a significant correlation coefficient for perceived validity and use. Three

selection methods, assessment centres, biodata, and realistic job previews had negative correlations although they were only slight. It is difficult to understand why there is only a slight relationship between use and perceived validity for some of the selection methods included in this survey. However, factors such as time and/or money may affect decisions as to which selection methods are used and how often they are used.

5.7 The Relationship Between Mean Perceived Validity and Reported Validity

While the correlation between perceived validity and reported validity was small ($\rho = 0.319$) Dakin and Armstrong (1989) reported an even weaker relationship for these two variables ($\rho = 0.06$). This means personnel consultants beliefs about selection methods actually did not have much of a relationship with the reported validity of that selection method. While Mills (1991) did not calculate the correlation between estimated validity and reported validity, he did note when a consultant was prepared to estimate the validity of a selection methods he or she was often inaccurate.

The small correlation coefficient found for mean perceived validity and reported validity, however, does not show the often extreme responses. For example, those selection methods where the reported validity was quite low and the perceived validity was extremely high (e.g work experience, references, and academic achievement). Nor does it show those selection methods which had reasonably high levels of reported validity but were incorrectly perceived as having extremely low levels of validity e.g biodata, assessment centres and unassembled testing.

5.8 The Relationship Between Mean Shortlisting Use and Reported Validity

Again the correlations found in this survey were a little stronger than those reported in Dakin and Armstrong (1989). They found $\rho = -0.06$ for use and reported validity compared with $\rho = -0.220$ for this survey. One possible reason for the difference is that the correlation calculated in this research relates specifically to use when shortlisting while Dakin and Armstrong's (1989) related to overall use when selecting managers. Another difference between the two studies is the number of selection methods included in the survey. Dakin and Armstrong (1989) included 11 selection methods while this research included 27.

The negative relationship between use and reported validity is not a particularly favourable result. It means that the more valid a selection method the less it is used and the less valid the more frequently it is used. A more alarming result was found when Spearman's ρ was calculated using the 14 most commonly used selection methods. As noted in Chapter Four, three of these selection methods were not included in the calculation because they did not have a reported validity coefficient available. The Spearman's ρ for the most frequently used 11 selection methods (refer Appendix VIII) was quite strong ($\rho = -0.62$, $p < .05$). This result means that for the most commonly used selection methods (excluding curricula vitae, applications forms, and realistic job previews) the more valid the selection method the less likely it will be used. It also means that the less valid a selection method the more likely personnel consultants will use it. This result is quite disturbing considering personnel consultants are employed/contracted as experts in their field to select managers for clients who possibly do not have an in-depth understanding of validity and the importance of using valid selection methods when making selection decisions.

5.9 Selection-Related Publications

The majority of personnel consultants (87.3 percent) thought it was important to read selection-related publications. The main reason for doing so was expected, i.e. to keep up-to-date with current trends. However some consultants did not think it was important to read such publications. The reasons given for the latter are important so that the grounds for practitioners not reading some publications are highlighted. Some publications could then be adjusted or new publications introduced which present results and recommendations of current research in a format that is understandable and practical in the work setting.

One consultant thought it was not important to read selection-related publications because the literature did not relate to the technical nature of the positions they selected for. However, the point-to-point relationship theory which Smith and George (1992) discussed did apply to all positions/jobs and is therefore relevant to all people and positions involved in the selection process.

Another reason for not reading publications was their perceived questionable worth if financial gain was the motive for publishing. This perception is inaccurate, however, because direct financial gain is often not made when publishing articles or some books. Authors are often not paid for the articles they submit to journals and thereby do not directly make any financial gain directly from publishing. However, indirectly there are advantages such as increased recognition in the area and perhaps increased chances of promotion in academic fields for example.

Selection-related publications appear to lack credibility in that only 29.2 percent always

believed the published findings. This low figure may be favourable however if personnel consultants are able to determine which publications are reliable and which ones are not. It is therefore important to find out which publication types personnel consultants trust and which ones they distrust. If they distrust publications such as industrial psychology journals which include many articles which are particularly relevant to the selection process then this could lead to personnel consultants not having a correct and up-to-date perception of the validity of some selection methods. As a consequence personnel consultants may use selection methods that have not been vigorously tested and are not particularly valid.

Another problem could occur if personnel consultants trust selection-related publications which do not discuss reliability, validity or the point-to-point relationship. Some publications tend to skim over the selection process without discussing important variables such as reliability, validity, and errors which can occur during the selection process, and in some instances even promote selection methods with extremely low levels of validity. This could lead to personnel consultants using selection methods in good faith which have not been adequately tested and have low levels of validity.

Selection-related publications did not appear to be very well understood by personnel consultants. Only 56.5 percent always understood the findings relating to validity. This leaves over 40 percent of personnel consultants who either do not or sometimes do not understand the findings of recent research. One possible reason for the high percentage of personnel consultants who do not always understand research findings relating to validity is that some consultants answered this question because they thought they knew what the term validity meant, however, the definition of validity they provided proved otherwise.

Only 17.4 percent of personnel consultants did agree with the findings relating to validity. Bearing in mind the generally incorrect perception regarding the validity of selection methods this result was not altogether surprising, however, it is a matter of some concern. Another concern is that only 13 percent found selection-related publications easy to read. It is important that publications are written in such away that practitioners can easily read, understand and put the findings into practice.

The most commonly read selection-related publications were management journals. While this type of publication may be quite relevant to their consulting job overall they may not publish HRM or selection-related articles very often and therefore they may not provide much up-to-date selection-related information. Publications such as HRM journals and texts, were used less often although they appear to include more selection-related material than management-related journals. Just over 50 percent never read psychological journals although there are some psychological journals which do focus on selection and the validity of selection methods, for example industrial and organisational psychology journals, and personnel psychology journals.

5.9.1 Perceived Relevance of Selection-Related Publications

Despite the low level at which of HRM journals and textbooks are read they were perceived as quite relevant, as were management journals. Psychological journals were perceived as less relevant, only 23.8 percent saying they were relevant to some degree. The IPC manual was perceived as relevant by 42.9 percent of personnel consultants which is not surprising considering almost one third of respondents were members of the IPC which requires members to have completed the IPC course. However, the perception of the

relevance of some of the selection-related publications may not actually reflect how accurate and thorough the selection-related publication actually is.

5.9.2 Reasons for Not Reading Publications

The majority of consultants who did not read selection-related publications remained neutral for each reason listed, very few consultants either strongly disagreed or strongly agreed with any reason. The main reasons for not reading selection-related publications were it took much time to find relevant articles and publications were difficult to access. Again time was a major factor for the personnel consultants. The cost of publications was also an influence. Bearing in mind the small amount of time many consultants spent selecting managers they may not think the benefits from purchasing publications specifically related to selection will outweigh the financial costs.

5.10 Limitations

Some of the limitations of this study relate to some personnel consultants not being familiar with some of the terms which relate to the selection process. For example, some personnel consultants had inaccurate perceptions of the terms validity and validated. Only 51.2 percent of those who thought they knew what the term validity meant were able to correctly define it. This left a large percentage of respondents who incorrectly thought they knew what the term validity meant in relation to selection and who responded to the other questions relating specifically to validity. The results of Questions 26 - 31 which related specifically to validity may, therefore, have be affected by these respondents.

Another term which some personnel consultants may have not understood was job analysis.

While over 90 percent of consultants did conduct interviews to gather information about the vacant position nearly 40 percent said they did not conduct job analyses. Interviews are considered a method of job analyses however some personnel consultants did not realise that what they were doing was considered job analysis. To avoid any confusion job analysis could have been defined in the questionnaire.

Additional terms which perhaps should have been defined so as to limit any confusion were unassembled testing, situational interviews, and causal interviews. Unassembled testing is also called the accomplishment record. However, in the questionnaire it was only listed as unassembled testing. If the personnel consultants surveyed did not know that unassembled testing and the accomplishment record were one and the same then they may have responded incorrectly for the questions relating to the use and perceived validity of this method.

The difference between situational and causal interviews also could have been explained. Some consultants may have used formal, though not specifically job related, interview formats and therefore thought they used situational interviews rather than what the research considers casual. This may have lead to personnel consultants over estimating the use and perceived validity of situational interviews.

While this survey was on a national scale of New Zealand some personnel consultants may not have been sampled because they were not listed in the Telecom Telephone Directories when the sample was selected. This may affect the generalisability of the results across all personnel consultants in New Zealand.

5.11 Future Research

The use and perceived validity of selection methods by New Zealand personnel consultants and personnel managers is now fairly well researched. Future research in this area could now focus specifically on why the selection process is conducted as it is. For example, why personnel consultants use the methods they do especially when they perceive that the methods have a low level of ability to predict future job performance. Other areas include why the perceived validity of so many methods are inaccurate, and why personnel consultants are not more frequently using the selection methods with very high levels of reported validity.

More focused research could be undertaken relating how research can be presented in a more practical way for practitioners. In the future researchers may need to write up their findings in two different styles. The first could be a description of the research area, method, and findings, as is the current practice, and the second could be focus specifically on how the research findings can be used in the practical setting.

CHAPTER SIX:

CONCLUSIONS

The selection methods most commonly used when shortlisting were references, work experience, curricula vitae, one-to-one casual interviews, academic achievement, and application forms. Unfortunately, the reported validity coefficients for these selection methods are not particularly good. Consequently personnel consultants, the so called 'experts', tended to use selection methods which often do not have a high point-to-point relationship with the vacant position and are not very reliable as selection methods. Similar results were found for the frequency of use when making final selection decisions. While the selection methods most commonly used by personnel consultants are not particularly valid it may be important to find out how much emphasis is placed on the result of each selection method.

The least commonly used selection methods were genetic testing, astrology, unassembled testing, graphology and assessment centres. While this is a promising result for genetic testing, astrology and graphology which are not particularly valid, it is disappointing that assessment centres in particular are not more frequently used as they are quite valid. However, the reasons for not using assessment centres may relate to the time and cost involved in developing and running them. The diverse number of individual tests or techniques often used in an assessment centre may be expensive, and/or may require psychologists to analyse and interpret the results.

The world of personnel consultants is quite competitive. This is especially so in the current

environment/economy where organisations may be tending to lay off rather than hire employees and other organisations are trying to reduce costs and conduct the selection themselves rather than contract consultants. Approximately 90 percent of respondents offered a large range of personnel-related services (such as selection, training, and industrial relations advice) rather than specialising in one area. By offering many different services, personnel consultants have to try to be expert in many fields. However, because time is at a premium many personnel consultants may not spend enough time researching each field so they have an in-depth knowledge and understanding of them. One could therefore conclude many personnel consultants who offer selection services are not experts in this field.

There appears to be a lack of knowledge among many personnel managers also about which selection methods are better than others. If personnel managers do not know which selection methods are best then managers in other fields can not be expected to know either. If clients do not understand the intricacies of selection could be very easy for them to contract a consultant who is also not an expert in selection.

One variable which appears to be a major variable in the selection process is time. Overall, time appeared to be a factor in whether job analysis was undertaken and which selection methods consultants used. Time also affected which selection methods were used and whether or not personnel consultants replaced less valid selection methods with more valid ones. Time was also influenced how often selection-related publications were read and which selection-related publications were read.

Time could also be a factor in whether personnel consultants attend seminars or study in the area of personnel management and more specifically selection. Because selection only plays a small part in most consultants total work load it may not command a lot of time and money to personally research the area and to undertake training.

As with the findings of Ahlburg (1992), while some of the respondents did have an accurate perception of the validity of some selection methods it was often not reflected in the selection methods they used. While there was a fairly strong relationship overall for mean perceived validity and use, when looking at the individual correlation coefficients for each selection method many did not have a significant relationship. Further more the level of perceived validity for many of the selection methods in the survey were inaccurate.

It is important that personnel consultants have a sound and accurate knowledge of the advantages and disadvantages of using certain available selection methods. It is also important that personnel consultants keep up-to-date with the current research regarding the validity of these methods. Unfortunately, the use of management selection methods in New Zealand personnel consultancies does not reflect the reported validity of those methods. Continuing education, therefore, in the area of validity of selection methods is imperative if personnel consultants are to make informed decisions regarding which selection methods are the best to offer clients. When personnel consultants fully understand the importance of using valid selection methods and have a more accurate perception of the validity of those methods they may begin to use valid selection methods more frequently than they do currently.

One medium that could be used to promote the use of valid selection methods is publications. If relevant journals and texts are made more accessible and perceived as relevant and practical to their work, personnel consultants and managers may start to read them more often and to take more notice of the findings and recommendations. Another possible avenue is academic institutions offering personnel practitioners short but in-depth courses that focus on both the theoretical and practical sides of the selection equation.

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APPENDICES

Appendix I: Reported Validity

<u>Selection Method</u>	<u>Validity</u>	<u>Source</u>
Job Tryout	0.44	Hunter & Hunter (1984)
Peer Assessment	0.41	Smith et al. (1989)
One-to-one Situational Interview	0.38	Robertson et al. (1990)
Panel Situational Selection	0.38	Refer Assumptions Section 3.3.6
Assessment Centres	0.37	Gaugler et al. (1987)
Biodata	0.35	Reilly & Chao (1982)
Cognitive Test	0.30	Hartigan et al. (1989)
Unassembled Testing	0.25	Hough (1984)
Perceptual Tests	0.25	Ghiselli (1973)
Mechanical Tests	0.22	Ghiselli (1973)
Pencil and Paper Personality Test	0.21	Schmitt et al. (1984)
Projective Personality Test	0.21	Schmitt et al. (1984)
Casual Selection Panel	0.20	Wiesner & Cronshaw (1988)
Work Experience	0.18	Hunter & Hunter (1984)
Self Assessment	0.15	Reilly & Chao (1982)
Academic Achievement	0.14	Reilly & Chao (1982)
References	0.14	Reilly & Chao (1982)
Casual Interview	0.14	Hunter & Hunter (1984)
Graphology	0.00	Robertson & Smith (1989)
Astrology	0.00	Bok, (1975) in Gauquelin, (1985)
Age	-0.01	Hunter & Hunter (1984)

Appendix II: Questionnaire

AN INVESTIGATION OF THE USE OF MANAGERIAL SELECTION METHODS BY PERSONNEL CONSULTANTS IN NEW ZEALAND

To date there has been only a limited amount of research conducted in the area of the use and perceived validity of managerial selection methods by personnel selection consultants in New Zealand. In 1991 a researcher used interviews to examine which selection methods were being used by personnel selection consultants in Hamilton and Auckland. My study attempts to build on the findings of this research, to extend the knowledge we have in this area, and to conduct a national survey.

When completing a question please place the number that corresponds with your answer in the box provided on the right. For example:

How many consultants are employed full-time in your consulting office?

1. 0
2. 1 - 5
3. 6 - 10
4. More than 10

2

If your consultancy employs 3 consultants full-time you would place a '2' in the box as has been done here. However, if your firm employs 10 consultants full-time then you would place a '3' in the box on the right.

The questionnaire is simple and easy to complete. Take your time and remember that there are no right or wrong answers - I am interested in your opinions. Please ensure that you read the instructions carefully as there are some questions that should not be answered depending on your answer to an earlier question. Some questions require you to make a comment. There is space provided for your comments. If you run out of room please continue your answer on the back of the page.

Please note that the questionnaire relates to managerial selection. For the purposes of this study, managers are defined as those individuals in supervisory positions and above.

There is a number in a box on the right hand corner of the first page of the questionnaire. This number is for computer coding and is used to ensure total confidentiality. Only myself and those coding the data will see the completed questionnaires. The numbers to the right of the answer boxes are for computer coding purposes only and should also be ignored.

Please complete the questionnaire and return it to me in the free post envelope provided. Your responses will be completely confidential. Your time and effort in completing this survey is much appreciated.

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When completing the following questions please place the number that corresponds with your answer in the box provided on the right.

1. Does your consulting office select managers for clients?

1. Yes
2. No

If you answered 'No' to Question 1 (i.e. your consulting office is not involved in any managerial selection) please return this questionnaire in the free-post envelope provided without completing the rest of the questionnaire.

If you answered 'Yes' to Question 1 please go on to Question 2.

2. What percentage of your time is spent conducting managerial selection compared with non-managerial selection?

1. 0 percent (I conduct no managerial selection at all)
2. 25 percent (One quarter)
3. 50 percent (Half of my time is spent conducting managerial selection)
4. 75 percent (Three quarters)
5. 100 percent (My work relates solely to managerial selection)

If your answer to Question 2 was '0 percent' (i.e. you are not involved in any managerial selection) please either give this questionnaire to the consultant in charge of managerial selection in your consulting office to complete, or return the questionnaire in the free-post envelope provided without completing the rest of the questions.

If you are involved in managerial selection then please go on to Question 3.

3. In the box on the right please indicate how many consultants are employed in your consulting office.

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4. In the box on the right please indicate how many consultants in your consulting office have successfully completed the certificate in Personnel Consulting administered by the Institute of Personnel Consultants.

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This box is for the researcher's use only. Please go on to Question 5.

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5. In the box on the right please estimate how many client organisations your consulting office selects managers for each year.

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6. In the box on the right please estimate how many managerial positions your consultancy fills each year for client organisations.

--	--	--	--

When completing the following questions please place the number that corresponds with your answer in the box provided on the right.

7. What percentage of your consulting office's time is spent conducting managerial selection?

1. 0 percent (Our office conducts no managerial selection at all)

2. 25 percent (One quarter)

3. 50 percent (Half of our consulting office's time is spent conducting managerial selection)

--

4. 75 percent (Three quarters)

5. 100 percent (The work our consulting office undertakes relates solely to managerial selection)

13. Do you believe that it is important to use job descriptions when selecting managers?

- 1. Yes
- 2. No

Please specify why you think it is either important or not important to use job descriptions when selecting managers.

14. Do you believe that it is important to use person specifications during the selection process when selecting managers?

- 1. Yes
- 2. No

Please specify why you think that it is either important or not important to use person specifications when selecting managers.

15. Do you use job analysis as a tool in your selection/recruitment programme?

- 1. Yes
- 2. No

If your answer to Question 15 was 'Yes' then please go on to Question 16.

If you do not use job analysis at all during the selection process then please go on to Question 17.

17. On the scale below, please grade each method according to the frequency with which you use it when short-listing applicants for a managerial position. For example, if a selection method is always used in the short-listing process you would place a '5' in the box provided. However, if you never use a particular method you would place a '1' in the box provided.

Never Heard	Never	Seldom	Sometimes	Often	Always
Of	Use	Use	Use	Use	Use
0	1	2	3	4	5

1. Application Forms.....	<input type="text"/>
2. Biodata (statistical weighting of biographical information).....	<input type="text"/>
3. Self Assessments.....	<input type="text"/>
4. Work Sample Tests.....	<input type="text"/>
5. Interviews - Casual.....	<input type="text"/>
- Situational/Behavioural.....	<input type="text"/>
6. Selection Panels - Casual.....	<input type="text"/>
- Situational/Behavioural.....	<input type="text"/>
7. Peer Assessments.....	<input type="text"/>
8. References.....	<input type="text"/>
9. Assessment Centres.....	<input type="text"/>
10. Tests - Cognitive.....	<input type="text"/>
- Mechanical.....	<input type="text"/>
- Perceptual.....	<input type="text"/>
- Personality - pencil and paper.....	<input type="text"/>
- projective.....	<input type="text"/>
11. Medicals.....	<input type="text"/>
12. Curricula Vitae.....	<input type="text"/>
13. Realistic Job Previews	<input type="text"/>
14. Unassembled Testing.....	<input type="text"/>

QUESTION CONTINUES OVER PAGE

Never Heard	Never	Seldom	Sometimes	Often	Always
Of	Use	Use	Use	Use	Use
0	1	2	3	4	5

15. Graphology.....	<input type="checkbox"/>
16. Astrology.....	<input type="checkbox"/>
17. Genetic Testing.....	<input type="checkbox"/>
18. Job Tryouts.....	<input type="checkbox"/>
19. Academic Achievements.....	<input type="checkbox"/>
20. Age.....	<input type="checkbox"/>
21. Work Experiences.....	<input type="checkbox"/>
22. Other(s) (please specify).....	<input type="checkbox"/>
_____.....	<input type="checkbox"/>
_____.....	<input type="checkbox"/>

18. Who usually makes the final selection decision?

1. The client only
2. The consultant only
3. The client and the consultant together
4. Other(s) (Please specify)_____

If you never make a final decision (i.e. you are only involved in the short-listing of applicants) please go to Question 20 on page 10.

If you do make final selection decisions for managerial positions please go on to Question 19 on the following page.

19. On the scale below, please grade each method according to the frequency with which you use it when making the *final* selection decision for managerial positions. For example, if a selection method is always used when making final selection decisions you would place a '5' in the box provided. However, if you never use a particular selection method when making a final decision you would place a '1' in the box provided.

Never Heard Of 0	Never Use 1	Seldom Use 2	Sometimes Use 3	Often Use 4	Always Use 5
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1. Application Forms.....	
2. Biodata (statistical weighting of biographical information).....	
3. Self Assessments.....	
4. Work Sample Tests.....	
5. Interviews - Casual.....	
- Situational/Behavioural.....	
6. Selection Panels - Casual.....	
- Situational/Behavioural.....	
7. Peer Assessments.....	
8. References.....	
9. Assessment Centres.....	
10. Tests - Cognitive.....	
- Mechanical.....	
- Perceptual.....	
- Personality - pencil and paper.....	
- projective.....	
11. Medicals.....	
12. Curricula Vitae.....	
13. Realistic Job Previews.....	

QUESTION CONTINUES OVER PAGE

21. Do you read publications that relate to managerial selection methods?

- 1. Yes
- 2. No

22. Do you think that it is important for selection consultants to read current publications that relate to managerial selection methods?

- 1. Yes
- 2. No

In the space below please specify why you think that it is either important or not important to read current publications that relate to managerial selection.

23. Please indicate how often you read the following publications. For example, if you often read psychology journals you would place a '4' in the box aligned with psychology journals. However, if you had never heard of psychology journals you would place a '0' in the box on the right.

Never Heard Of 0	Never Read 1	Seldom Read 2	Sometimes Read 3	Often Read 4	Always Read 5
------------------------	--------------------	---------------------	------------------------	--------------------	---------------------

- 1. The Institute of Personnel Consultants Manual.....
- 2. Current Human Resource Management and Personnel Management Journals.....
- 3. General Management Journals.....
- 4. Current Psychology Journals.....
- 5. Current Human Resource Management and Personnel Textbooks.....
- 6. Other(s) (Please specify)_____
- _____
- _____

If you do not read *any* publications that relate to managerial selection please go on to Question 32 on page 15.

If you do read some or all of the publications outlined in Question 23 please list the specific journals that you read in the space below.

24. Using the scale below please rate how relevant you think the following types of publications are to you as a managerial selection consultant? If you do not read a particular publication please put a '0' in the box align with that publication.

Not At All	Somewhat	Neither Relevant	Somewhat	Very
Relevant	Irrelevant	Nor Irrelevant	Relevant	Relevant
1	2	3	4	5

1. The Institute of Personnel Consultants Manual.....
2. Current Human Resource Management and Personnel Management Journals.....
3. General Management Journals.....
4. Current Psychological Journals.....
5. Current Human Resource Management and Personnel Textbooks.....
6. Other(s) (Please specify).....

If you do read some publications that relate to managerial selection methods please complete Questions 25 to 31.

If you do not read *any* publications that relate to managerial selection please go on to Question 32 on page 15.

25. Do you find the recommendations that the researchers/authors make practical?

1. Yes

2. No

Please specify why you find the recommendations made by the researchers/authors either practical or impractical.

If you *do not* know what the term validity means please go to Question 33 on page 16.

When completing Questions 26 to 30 please use the following scale:

No

Sometimes

Yes

1

2

3

26. Do you believe the findings of current research relating to the validity of managerial selection methods?

27. Do you understand the findings of current research relating to the validity of managerial selection methods?

28. Do you agree with the findings of current research relating to the validity of managerial selection methods?

29. Do you find the current research relating to the validity of managerial selection methods easy to read?

30. Do you change the selection methods you use if they are found to be not as valid as other available methods?

If your answer to Question 30 was 'No' or 'Sometimes' please go on to Question 31.

If you do introduce new selection methods when they are found to be more valid than the selection methods you originally used please go on to Question 33 on page 16.

Only answer Question 32 (the following Question) if you do not read any publications that relate to managerial selection methods.

32. Below is a list of possible reasons for not reading publications that relate to managerial selection. Please grade each reason according to whether the reason relates to you or not. For example, if you do not believe the researchers' findings (reason number 6) then you would put a '4' or '5' in the box beside reason number 6 depending on the degree to which you agree with it. However, if a reason is not relevant in your circumstances you would place a '2' or a '1' in the box provided depending on how much you disagree with the reason.

Strongly Disagree	Disagree	Neither agree Nor Disagree	Agree	Strongly Agree
1	2	3	4	5

1. The articles are not relevant to the type of positions I select for.....
2. The articles are written for academics, not practitioners and therefore are not relevant.....
3. The journals are too expensive to purchase.....
4. It takes too much time to find and read relevant articles.....
5. Publications are difficult to access.....
6. I do not believe the researchers' findings.....
7. I do not understand the researchers' findings.....
8. Other(s) (Please specify).....
.....
.....

This box is for the researcher's use only.

END OF CARD THREE

35. What is your position/status in the consultancy?

- 1. Owner/partner
- 2. Manager
- 3. Employee
- 4. Owner/partner and manager
- 5. Other(s) (Please specify) _____

36. Do you work part-time or full-time?

- 1. Part-time
- 2. Full-time

37. How long have you worked as a selection consultant?

- 1. Less than 1 year
- 2. 1 - 2 years
- 3. 3 - 4 years
- 4. 5 - 6 years
- 5. 7 - 8 years
- 6. 9 - 10 years
- 7. 11 - 12 years
- 8. 13 - 14 years
- 9. 15 - 16 years
- 10. More than 16 years

38. How long have you worked for the consulting firm where you are currently employed?

- 1. Less than 1 year
- 2. 1 - 2 years
- 3. 3 - 4 years
- 4. 5 - 6 years
- 5. 7 - 8 years
- 6. 9 - 10 years
- 7. 11 - 12 years
- 8. 13 - 14 years
- 9. 15 - 16 years
- 10. More than 16 years

39. What was your title/position before you became a selection consultant?

40. Are you a member of the Institute of Personnel Consultants?

- 1. Yes
- 2. No

If your answer to Question 40 was 'Yes' then please go on to Question 41.
If however, you do not belong to the I.P.C. please go on to Question 43.

41. How long have you been a member of the I.P.C?

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42. What is your status within the I.P.C?

- 1. Fellow (F.I.P.C.)
- 2. Member (M.I.P.C.)
- 3. Associate member (A.I.P.C)
- 4. Licentiate (A.I.P.C. (Lic))
- 5. Honorary Fellow
- 6. Honorary Life Member
- 7. Other (Please specify)_____

43. Please list your qualifications such as diplomas, certificates, degrees etc. and the year you attained them.

**THANK YOU FOR YOUR ASSISTANCE PLEASE RETURN THE
QUESTIONNAIRE IN THE FREE-POST ENVELOPE PROVIDED.**

Appendix III: Telecom Telephone Directories

<u>Regional Directory</u>	<u>Year</u>
Auckland	1992
Bay of Plenty	1991
Blenheim	1991
Christchurch	1991
Dunedin	1992
Gisborne	1992
Hawkes' Bay	1992
Invercargill	1991
Manawatu	1992
Nelson	1991
Northland	1991
Taranaki	1992
Timaru & Oamaru	1991
Waikato, King Country, & Thames Valley	1991
Wairarapa	1992
Wanganui	1992
Wellington	1991/2
West Coast & Buller	1991

Appendix IV: Covering Letter

22 July 1992

Sir/Madam,

As part of my graduate studies I am interested in researching the management selection procedures and practices used by personnel consultants in New Zealand. The aim of the attached questionnaire is to determine which managerial selection procedures are used most often, how important these methods are considered to be, and what part these methods play in the overall managerial selection procedures in your consultancy.

I have selected a sample of 250 personnel consultancies from the yellow pages of the regional 1991-92 Telephone Directories. Your cooperation in completing the questionnaire would be greatly appreciated. The questionnaire is straight forward and easy to complete. It should take only 35 minutes of your time. Your responses will be treated confidentially. Only myself and those directly involved in the analysis of the results will see any of the questionnaires. None of the participating organisations or consultants will be named or identified in the report.

The data from this survey will be a valuable addition to our understanding of personnel selection as it is practised here in New Zealand. So that the survey results can be as comprehensive as possible I am hoping for an excellent response rate. To this end I would value your cooperation and invite you to complete the questionnaire.

When you have completed the questionnaire please return it in the free-post envelope provided. If you have any queries please do not hesitate to contact me at Massey University on extension 7900. If you would like a summary of the results of this study sent to you please fill in the enclosed 'Summary Request Form' and return it in the attached free-post envelope separate from your questionnaire. I look forward to the return of your completed questionnaire and thank you for participating.

Yours sincerely,

NATALIE J. HARRIS

Appendix V: Summary Request Form

If you would like a summary of the results of this study please fill in the details below. So that your name is not associated with your responses a separate envelope has been provided for you to post this form to me. When the research is complete I will forward a summary of the results to you at the stated address.

Mr/Mrs/Ms/Miss Initials: _____ **Surname:** _____

Address: _____

Appendix VI: Follow-up Letter

18 August 1992

Dear Sir/Madam,

About one month ago a questionnaire was mailed to you which invited you to participate in some research relating to managerial selection. The questionnaire was initiated as part of my graduate study at Massey University.

If you have returned the questionnaire then please ignore the rest of this letter. However, if you have not yet had the opportunity to complete and return my questionnaire, please read on.

So that the information gathered in this project is representative it is very important that I survey as large a group as possible. Some personnel/selection consultants have already responded and this survey would be greatly strengthened if I heard from the remainder of those originally contacted. To this end I invite you to participate in the research by completing the enclosed questionnaire and returning it to me at Massey University in the free-post envelope provided.

The information you provide will be held in the strictest confidence at Massey University and will only be seen by myself and the data entry operator. As a further aid to confidentiality, the questionnaire does not ask for information on the identity of the respondent or the respondent's organisation. If you would like a copy of the summarised results of this survey sent to you please fill in the enclosed 'Summary Request Form' and return it in the attached free-post envelope separate from your questionnaire. I look forward to the return of your completed questionnaire and thank you for participating.

Yours faithfully,

Appendix VII: Second Follow-up Letter

15 September 1992

Dear Sir/Madam,

About two months ago a questionnaire was mailed to you. It invited you to participate in some research relating to managerial selection. The questionnaire was initiated as part of my graduate study at Massey University.

If you have returned your questionnaire I would like to take this opportunity to thank you for participating. However, if you have not yet had the opportunity to complete and return the questionnaire, please read on.

So that the information gathered by this research is representative it is very important that I survey as large a group as possible. Some personnel consultants have already responded. However, I would like very much to hear from the remainder of those originally contacted. Thus, I have decided to send my questionnaires out one last time to give those consultants who have not already done so, the opportunity to participate in the research. To this end I invite you to complete the enclosed questionnaire and return it to me at Massey University in the free-post envelope provided.

The information you provide will be held in the strictest confidence at Massey University and will only be seen by myself and the data entry operator. As a further aid to confidentiality, the questionnaire does not ask for information on the identity of the respondent or the respondent's organisation. If you would like a copy of the summarised results of this survey sent to you, please fill in the enclosed 'Summary Request Form' and return it in the attached free-post envelope separate from your questionnaire. I look forward to the return of your completed questionnaire and thank you for participating.

Yours faithfully,

Natalie J. Harris

**Appendix VIII: The 11 Most Frequently Used Selection Methods Used to Calculate
the Relationship Between Use and Reported Validity.**

References

Work Experience

One-to-one Casual Interviews

Academic Achievement

One-to-one Situational Interviews

Age

Self Assessments

Pencil and Paper Personality Tests

Cognitive Tests

Biodata

Peer Assessments