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**The Perceived Validity and Reported Use of
Management Selection Methods in New Zealand Organisations.**

A Research Report Presented in Partial Fulfilment
of the Requirements for the
Degree of Masters of Business Studies.

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ABSTRACT

A study of the use of management selection methods and their perceived ability to accurately predict future job performance was conducted. Managers' perceptions of the validity of management selection methods were also compared with the research evidence of the 'actual' validity of those selection methods.

The correlation between the 'actual' validity of the selection methods and the perceived validity was small (Pearson $r = 0.471$). The respondents' perceptions of the validity of the management selection methods included in the questionnaire also had only a slight relationship with the use of those selection methods in New Zealand organisations ($r = 0.4882$).

Managers appear to have a reasonably accurate perception of the validity of the more uncommon selection methods such as graphology and astrology. However, their perception of the validity of some of the more common selection methods is incorrect. For example, they believe that ordinary interviews, references and work experience have high levels of validity when in fact they do not.

In some instances it appeared that managers were using selection methods they knew to be less valid more often than the selection methods they perceive to be more valid. For example, while situational interviews were perceived to be more valid than ordinary interviews they were used less often than ordinary interviews.

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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; and Dakin and Armstrong, 1989). However, much of the New Zealand research relating to management selection has been conducted on a small scale and may not be particularly representative. This report presents and discusses the findings of a national New Zealand survey. The focus of this report is the reported use and perceived validity of management selection methods in New Zealand organisations in 1991. For the purposes of this report, management is defined as those positions above the supervisory level.

This research has three objectives:

1. To compare the use of management selection methods in New Zealand organisations with their 'actual' validities;
2. To compare respondents' perceptions of the validity of the selection methods with the 'actual' validity of those selection methods; and
3. To explore the relationship between the perceived validity of the management selection methods and the use of those selection methods.

In this report 'actual validity' refers to the findings of research that have studied the validity of the selection methods. The 'actual' validities used for this study can be found in Appendix I. 'Perceived validity' refers to how well respondents thought the selection methods predicted future job performance.

There is a limited amount of published research in the area of use and perceived validity of management selection methods in New Zealand. 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 New Zealand in his report on managerial selection methods. However, the value of this research may be limited because the sample size was only 30. Another limitation was that the sample was taken solely from a limited geographical area, Auckland and Hamilton. Therefore, the findings of Mills (1991) may not be representative of New Zealand.

One report that did use a national sample of organisations which employed personnel managers was Lim (1981). Lim (1981) focused on the perceived importance of psychological tests, structured interviews, unstructured interviews, and external assessments by consultants in management selection. He also looked at the use of assessment centres for management selection, and the qualities and/or attributes that were considered to be important with respect to managerial success. Lim (1981)

found that the most important management selection method was structured interviews followed closely by unstructured interviews.

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

With respect to the perceived validity of selection methods, Mills (1991) found that while personnel consultants reported that they kept up-to-date with the current literature regarding selection methods, they often did not give an accurate judgement of the methods' 'actual' validity. The 'actual' validity referred to in Mills (1991) was taken from a meta-analysis by Hunter and Hunter (1984).

This researcher found that some selection methods 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 age and work experience.

CHAPTER TWO:

LITERATURE REVIEW

2.1 Introduction

This chapter focuses on research that has been conducted that relates to the 28 management selection methods included in this report. The 'actual' validity for each selection method will be discussed. This chapter also outlines some studies that have examined the use and perceived validity of those management selection methods in New Zealand, Australia, the United Kingdom, and the United States of America.

2.2 Interviews

Over the years the interview has, as an employment selection method, received varying amounts of support. Much of the research has reported only low levels of validity for selection interviews. Reilly and Chao (1982), for example, found a validity coefficient of 0.19 for interviews, and Hunter and Hunter (1984) reported a mean validity of 0.14 for selection interviews. However, there appear to be some types of interviews that have 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 is also increasing support for situational interviews (Robertson, Gratton, and Rout, 1990).

2.2.1 One-to-One Interviews

There are many forms of one-to-one interviews. This section focuses on unstructured, structured and situational one-to-one interviews. In a structured interview, applicants are asked the same set of pre-determined questions. The applicants' responses for each question are then compared against pre-determined 'ideal' answers (Dessler, 1988). In unstructured or semi-structured interviews, applicants are often asked different questions with no set way of evaluating their responses.

Minor (1970) found that 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 that should be considered with respect to structured interviews is that while at face value they appear to be valid, their 'actual' validity is dependant on the job relatedness or the 'point-to point' relationship between the vacant position and the questions asked. If the point-to-point relationship between the job and the selection method is high then the validity of that selection method will also be high provided that the applicants' responses are evaluated fairly and consistently.

A more recent development is the situational interview which has also received positive reports thus far (Robertson, Gratton, and Rout, 1990; and Latham and Saari, 1984). Situational interviews are a variation of the structured interview. The difference between them is that situational interviews are made up of job specific and often critical incident type questions. Situational interviews therefore have a high point-to-point relationship with the vacant position. Thus, it is not surprising that 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; and Weekly and Gier, 1987). Robertson, Gratton, and Rout (1990) report that situational interviews correlate significantly with performance in administrative jobs with a mean corrected correlation of 0.38.

Although there are differing views on the validity of interviews they are still frequently used in both New Zealand and overseas organisations for selecting managers. Robertson and Makin (1986) carried out a study to find out which management selection devices were being used by organisations in the U.K. Only one percent of their respondents did not use interviews in their management selection procedure. They also found that 66 percent of the responding organisations always used two or more interviews, and less than two percent never used more than the one interview.

A similar survey was conducted by Harris and Dworkin (1990). Their study aimed to examine the frequency of use and the perceived validity of selection methods held by human resource practitioners in U.S.A. for selecting superior management trainees, accounting clerks and production workers for entry level positions. With respect to selecting superior managerial trainees Harris and Dworkin (1990) found that 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 human resource practitioners believe that unstructured interviews are not as valid as other selection methods they, along with references, are still the most frequently used method for selecting superior managerial trainees in the U.S.A.

Research focusing on the use of management selection methods in New Zealand is not abundant. However the currently available research has reported similar results to that of overseas. 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 was ranked second with respect to validity. In their research, however, Dakin and Armstrong (1989) did not differentiate between the type of interviews used by the 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. The findings

of Dakin and Armstrong's (1989) study may be limited because the sample comprised only 21 personnel consultants.

Three unpublished reports on the use and reported validity of management selection devices in New Zealand are Mills (1991), Lai (1981) and Lim (1981). Mills (1991) surveyed personnel consulting firms in the Hamilton and Central Auckland region. All 30 firms reported that they used interviews when selecting managers. However, only 23.3 percent of the consultants designed the interview around the job description and person specification. It would appear from these results that only a small proportion (23.3 percent) had the potential and/or ability to use situational interviews. Mills (1991) however, did not determine whether they actually did use situational interviews or not. No consulting firms reported using panel interviews in the selection process.

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

The findings of both Mills (1991) and Lai (1981) may be limited however, because their samples were taken from one particular region. Therefore, 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 four methods on a scale of one to five (one = "very important" and five = "unimportant"). Lim (1981) found that structured interviews were perceived to be the most important selection method, followed closely by unstructured interviews.

2.2.2 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 that can help decrease some interviewer bias such as the 'more like me' bias. This bias occurs when the interviewer, often unwittingly, prefers applicants that are like themselves. Another benefit of panel interviews is that they can often draw out more meaningful responses than one-to-one interviews because of the wide range of questions put forward by the panel (Dessler, 1988).

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 that 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 individual interviews particularly when the final selection decision was made based on statistically combining the interviewers' ratings rather than the interviewers discussing the applicants and then reaching a consensus. The results from Landy (1985) supported such a hypothesis. Wiesner and Cronshaw (1988) also hypothesised that structured interviews would be more valid than unstructured interviews.

In their study, Wiesner and Cronshaw (1988) explored four types of interviews: unstructured individual interviews; unstructured board interviews; structured individual interviews; and structured panel interviews. Unstructured board interviews received a validity of 0.37 compared to 0.20 for unstructured individual interviews. With respect to structured interviews, individual structured interviews were found to be only slightly more valid with a validity coefficient of 0.63 compared to 0.60 for structured panel interviews.

Overall they found that structured interviews were more valid than unstructured interviews with validity coefficients of 0.62 and 0.31 respectively. 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 foreman positions. They also noted that this form of interview has a high level of internal consistency. Although research focusing specifically on the validity of situational panel interviews is scarce, one could assume that situational panel interviews are as valid as situational one-to-one interviews due to the high internal consistency and inter-observer reliability.

Panel interviews appear to be less frequently used than one-to-one interviews. Robertson and Makin (1989) found that 65.6 percent of the British organisations surveyed did not use panel interviews. The frequency of use was similar for all organisations 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. Of the French organisations included in Shackleton and Newell (1991), 84.8 percent did not use panel interviews compared with 63.1 percent in Britain.

Panel interviews were also included in the Australian study conducted by Vaughan and McLean (1989). They found that ten percent of the respondents always used panel interviews while 57 percent did not. Smaller organisations tended to use panel interviews more often than organisations with over 1,000 employees.

2.3 Psychological Tests

Psychological tests, like interviews, have also received varying reports of validity depending on the particular method used. Psychological tests 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 identify the traits in the individual's personality.

2.3.1 Personality Tests

Many people seem to believe that knowledge of an individual's personality and behaviour in certain situations will help them determine the future job performance of that individual. Research has shown, however, that personality is not an accurate predictor of managerial performance (Stone 1985) or non-managerial performance

(Guion and Gottier, 1965). The overall mean validity of personality tests was found to be 0.21 (Schmitt, Gooding, Noe and Krich, 1984).

For the purposes of this research, personality tests were divided into two subcategories. The first was the pencil and paper tests and the second, projective tests. Landy (1985) defines pencil and paper 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 stimulus and an individual's answers are not confined to a set of restricted responses. The validity coefficient of 0.21 reported by Schmitt, Gooding, Noe and Krich (1984) was assumed to hold for both pencil and paper, and projective personality tests.

Personality tests were included in the Robertson and Makin's (1986) report on management selection methods in Britain. They found that despite the lack of supportive evidence for personality tests (Schmitt, Gooding, Noe and Krich, 1984), 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. Approximately the same percentage of organisations recruiting between ten and 100 managers per year and those recruiting more than 100 now use

personality tests. The only difference between them is the frequency with which they are used.

Lai (1981) found that while no private sector organisations in the Palmerston North region reported using psychological tests, 25 percent of the government sector institutions surveyed were using psychological tests. Lai (1981) also found that personality test were being used by ten percent of government sector institutions.

Mills (1991) reported that 20 (90.9 percent) of the consulting firms included in his survey used personality tests when selecting managers. Fourteen of these consulting firms said that 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. All six responded that personality tests had either a medium or high validity (Mills, 1991). However, the 'actual' validity of personality tests is reported to be only 0.21 (Schmitt, Gooding, Noe, & Krich, 1984) which is low. This illustrates the lack of knowledge of both consultants and clients in the area of the validity of psychological personality tests.

2.3.2 Cognitive Tests

In more recent research, Guion and Gibson (1988) noted that prediction based on cognitive measures is more successful than measures of general personality traits. Cognitive tests aim to measure 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 that the validity for cognitive ability tests was 0.53. Hartigan and Wignor (1989), however, suggest that it may actually be lower. They report a validity coefficient of 0.30. Overall, the general consensus appears to be that this form of psychological testing is likely to be a good predictor of future job performance (Guion and Gibson, 1988).

Shackleton and Newell (1991) found a promising trend in the use of cognitive tests. In Robertson and Makin's (1986) survey, 9.3 percent reported that they used cognitive tests in more than half of their management selection decisions. Seven years later Shackleton and Newell (1991) reported that this selection tool was now being used by 41.1 percent of organisations in the U.K. in more than half of their selection decisions. On Dakin and Armstrong's (1989) 11 point ranking scale, cognitive tests received an extremely low ranking of tenth in both frequency of use and the 'experts' (personnel consultants) estimated validity (one was the highest and

11 the lowest possible ranking). According to Dakin and Armstrong (1987), cognitive ability tests actually had the highest 'actual' validity of the 11 methods included in their survey. Once again selection 'experts' are either not aware or choose to ignore current literature regarding the validity of this particular selection method.

2.3.3 Mechanical and Perceptual Tests

Another psychological test is the spatial/mechanical ability test. Ghiselli (1973) reported a training validity of 0.28 and a proficiency validity of 0.22 for spatial and mechanical ability tests. Often in pictorial form, these tests require the individual to recognise and apply mechanical principles. 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 that 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) focused on the validity of perceptual test with respect to their ability to predict trainability and proficiency, which he found to be 0.23 and 0.25 respectively.

Mills (1991) reported that two of the 30 consulting firms surveyed occasionally used mechanical ability tests. One consultant used an external psychologist in this area and did not know the name of the mechanical test used and the other used the ACER Mechanical Comprehension Test.

Vaughan and McLean (1989) found that the large majority of Australian organisations did not use psychological tests in their management selection process. The most commonly used test was the aptitude test with 39 percent of the organisations reporting using them. Only 23 percent of the organisations reported using personality and I.Q. tests at some stage and these were generally organisations that employed more than 1000 people.

2.4 Work Sample Tests

Another form of test is the work sample test. Work sample tests are tests that measure the skills required by the job in realistic or simulated working conditions (Landy, 1985). Job samples can be valid predictors of performance if there is a high point-to-point relationship between the job sample test and the content of the job. According to Smith, Gregg, and Andrews (1989) the advantages of work sample tests include the point-to-point correspondence between the job and the test. They can also give the applicant a realistic picture of the job content. If the applicant is given several different tests then he or she can gain a realistic impression of the

many different roles and responsibilities required for that particular job. If an individual has a clear picture of the 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, Gregg, and Andrews (1989) also note that an employee is less likely to leave soon after accepting a position in the organisation if he or she has a realistic view of what is expected of him or her.

Asher and Sciarrino (1974) outline two forms of work sample - motor and verbal. Motor ability work sample tests involve physical manipulation of limbs, for example, finger and arm dexterity. While verbal work sample tests include 'language-oriented' or 'people-oriented' problems. An in-basket test is an example of a verbal work sample test. Asher and Sciarrino (1974) found that 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.

Psychomotor job sample tests are 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 questions such as in-basket exercises.

Job-related information tests, are used to identify the amount of information applicants know about the organisation and the job they are applying for in particular. Job-related information tests are generally pencil and paper 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 into discussions. Robertson and Kandola (1982) suggest that this form of test is used for positions where an individual's contribution is very important, for example, group selling.

Work sample tests have to 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 have to be modified. Another important aspect of work sample tests is that they should be validated for each job individually in an organisation because no two jobs require the exact same skills.

Robertson and Kandola (1982) note that work sample tests could have an important role to play in decreasing the discrimination inherent in many employment decisions. Robertson and Kandola (1982) found that work sample tests are good for reducing possible 'adverse impact' of selection methods on minority groups in particular. Adverse impact relates to the disproportionate rate at which members of minority groups are screened out of the selection process when compared to the other applicants (Robertson and Kandola, 1982).

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 work samples. Considering that the 'actual' validity of work samples is quite high (Asher and Sciarrino, 1974) the 'selection experts' appear to be under-utilising the valid methods available to them.

2.5 Job Tryout

Job tryout is another selection method that gives applicants a chance to see what the job involves. While there appears to be little research specifically on job tryout, Hunter and Hunter (1984) found that it was valid predictor of future job performance (0.44). The main reason for its significant validity is its high point-to-point relationship with 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 'actual' validity of job tryout, Dakin and Armstrong (1989), ranked job tryout as the second most valid predictor of future job performance behind cognitive ability tests. However, job tryout received the lowest ranking for frequency of use and was perceived to be one of the least valid management selection methods by personnel consultants with an overall mean ranking of ninth.

2.6 Realistic Job Previews

Another selection method that gives applicants an insight into the job they are applying for is a realistic job preview (RJP). RJPs are generally used to give the 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 that RJPs tended to increase an individual's organisational commitment, the drop out rate (self selection), 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 appear to increase job performance while written job previews are reported as having a small and negative impact on job performance. However, while there is a relationship between RJPs and job performance there is a lack research that focuses specifically on the ability of RJPs to predict future job performance.

Instead of the RJP consisting of either written or audio-visual material about the organisation, work sample tests could be included to help increase the validity of RJPs. This would give applicants an idea of the job, and also give the selectors more of a basis to make an employment selection decision.

2.7 Peer and Self Assessment

Two relatively uncommon selection techniques are peer assessment and self assessment. Peer assessments are accurate predictors of future performance with a mean validity ranging from 0.41 to 0.49 (Smith, Gregg and Andrews, 1989). While peer assessments are reasonably cheap they are often 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 they are not practical for external selection.

Self assessments on the other hand appear to be not so valid. Mabe and West (1982) found a comparatively low mean validity coefficient of 0.29. While self assessment appears to have a low validity coefficient, Mabe and West (1982) noted that by adjusting the conditions under which the self assessment was made the self assessments could be more valid. Mabe and West (1982) suggest that self assessments would be more valid if the self evaluation is expected to be 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 looked at self assessment. Their sample of 85 applicants were asked to carry out a self assessment before and after they attended a selection assessment centre. They found that self assessments were generally unrelated to organisations' assessments. They also noted that 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 of 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 related with a mean correlation 0.36 for self-peer assessments and 0.35 for self-supervisor. Harris and Schoubrock (1988) also found that the correlation between

self and supervisor assessments for blue collar/service employees was higher (0.42) than the correlation for managers (0.27). This marked difference between managers and blue collar workers was found only in self-supervisor ratings and not in peer-supervisor assessments nor the self-peer ratings.

Reilly and Chao (1982) reported a validity coefficient of 0.15 for self assessments. They concluded that self assessments do not appear to be a promising alternative with regard to selection. This conclusion could still be drawn, unless the findings of Mabe and West (1982), relating to the conditions under which more valid self assessments can be made, are researched further and supported.

2.8 References

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

Despite the generally low validity coefficient (Reilly and Chao, 1982), organisations and selection consultants still use references and referees when selecting managers. Robertson and Makin (1986) found that references were used by a large majority of firms at some stage during the selection process. Only 3.7 percent of the organisations surveyed reported that they never used references, while 67.3 percent said that they always used references as part of the selection procedure. Lai (1981) also found that reference checks were used predominantly 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.

Mills (1991) reported that references were used by all 30 consulting firms included in his survey. He also noted that while most consultants checked references over the phone, two firms also occasionally contacted referees in person. There was no consensus as to the validity of references although the majority of consultants felt that references had either a high or medium level of validity. Once again selection consultants have an inaccurate perception of the validity of one of the most commonly used selection method.

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 were found to be equal highest with unstructured interviews with a mean ranking of 4.4 out of a possible five. The perceived accuracy of the device was 3.9, the third highest rating

overall. Dakin and Armstrong (1989) reported similar results in that references were ranked third for both frequency of use and their estimated validity.

2.9 Work Experience

Another selection method that is often used is work experience (Dakin and Armstrong, 1989). However, the validity of work experience depends on the similarities between 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 current job then work experience will possibly be a valid predictor of future job performance. Overall however, Hunter and Hunter (1984) found a mean validity of only 0.18.

Dakin and Armstrong (1989) included work experience in their survey of personnel consultants in New Zealand. Based on the 'actual' validity reported by Hunter and Hunter (1984), work experience was ranked fifth out of the 11 management selection methods included in their survey. Despite its low 'actual' validity, Dakin and Armstrong (1989) found that work experience was perceived to be the most valid management selection method overall. Work experience was also the second most commonly used management selection method, the most frequently used selection method was the interview. These findings show that personnel consultants in New Zealand either do not have an accurate perception of the validity of work experience as a management selection method or are ignoring the research evidence and using work experience as a basis for an employment decision anyway.

2.10 Assessment Centres

A selection method that is increasingly gaining research support is the assessment centre. An assessment centre is a procedure that 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 and psychometric testing. Assessment centres can be used in both selection and promotion decisions. The validity of assessment centres appears to be quite high (Smith and Robertson, 1989). However, the validity of the assessment centre overall depends upon the validity and job relatedness of the individual assessment techniques used in the assessment centre. That is, whether there is a high point-to-point relationship between the various assessment techniques and 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, Rosenthal, Thornton, and Benston (1987) suggested that 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 do not appear to use them regularly. Robertson and Makin (1986) found that 21.4 percent of the organisations surveyed used assessment centre exercises, however only 6.8 percent used them more than half the time. Shackleton and Newell (1991) have reported an increase to 24.7 percent of the organisations using this selection method more than half the time in the U.K. In contrast, Vaughan and McLean (1989) found that only ten percent of the organisations in Australia used assessment centres and then they were used only occasionally. This also appears to be the case with New Zealand organisations (Mills, 1991 and Lai, 1981).

2.11 Application Forms

No matter what selection methods are being used, at some stage during the selection process, selectors generally require some form of biographical information about the applicant. The most common method used to collect biographical data is the application form. Other methods include biodata, curriculum vitae, and unassembled testing. According to Guest (1984), however, application forms are wasteful because they are not kept up-to-date and are often ill-conceived. The validity of biographical information is dependant on the style of data collection used. In general, application forms are not systematically designed and therefore their validity is lower than that of the weighted application blank (or biodata).

Lai (1981) found that the majority of organisations used application forms as part of the selection procedure; the government sector used them more often (90 percent) than private sector organisations (70 percent). Mills (1991) found that 86.7 percent of the consultants reported that they gathered biographical information from applicants' curriculum vitae and/or application forms. The remainder said that they did not use such information or sources. Once again there was no consensus among consultants as to the validity of historical personal information.

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 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.

2.12 Biodata

Smith, Gregg, and Andrews (1989) favour the use of biodata over application forms as a selection method. Biodata is verifiable, historical information about an individual. In a weighted application blank, 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. One, biodata is consistent because everyone is asked the same questions and it is scored in the same way. Two, the responses can be monitored, and three, they are cost effective (Smith, Gregg, and Andrews, 1989).

Ritchie and Boehm (1977) correlated 220 biodata items with the overall assessment centre grading of 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 that included both females and males.

The reported use of biodata in Britain was quite low (Robertson and Makin, 1986). Only 2.9 percent of the organisations surveyed were using biodata in more than half of their selection decisions. Later Shackleton and Newell (1991) found that the percentage of organisations in the U.K. using biodata had increased to 8.2 percent which is a promising trend considering its reasonably high level of validity (0.35, Reilly and Chao, 1982).

The use of weighted application blanks in the U.S.A. was also low with only 9.2 percent of the respondents indicating that they used this selection method (Harris and

Dworkin, 1990). Dakin and Armstrong (1989) also included the biographical inventory method of selecting managers in their New Zealand study. While this selection method ranked third with respect to its 'actual' validity, the personnel consultants ranked it seventh overall for perceived validity. The reported frequency of use was higher with a mean ranking of fourth. There is a possible limitation in Dakin and Armstrong's (1989) survey in that the example given for biographical inventory in the questionnaire was application forms. Application forms and biodata are completely different types of selection methods. When the personnel consultants were completing the questionnaire they may have reported their use and perceived validity of application forms rather than for biodata or biographical inventories. This anomaly may have affected the correlation figures that Dakin and Armstrong (1989) reported for use and perceived validity, use and 'actual' validity and perceived validity and 'actual' validity.

2.13 Curriculum Vitae and Academic Achievement

Organisations often gather biographical data from the applicants' curriculum vitae. However, there has not been much research carried out on the validity of curricula vitae as a selection method. An individual's academic record is often included in their curriculum vitae. Reilly and Chao (1982) found a mean validity coefficient of 0.17 for supervisors for academic achievement. They also found that 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 that 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) found that academic achievement was ranked seventh for use and sixth for perceived validity out of a possible 11 selection methods. These results were similar to the overall ranking for the 'actual' validity of academic achievement which was eighth.

2.14 Unassembled Testing - The Accomplishment Record

Another selection method that collects biographical data is unassembled testing. 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 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 according to their importance and level compared to other applicants' responses on predetermined rating scales. 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 that the overall correlation between this form of evaluation and performance was 0.25. Hough (1984) also found that this method is fair for females, males and members of minority groups. The accomplishment record also provides individuals with an inventory of their personal accomplishments that will increase as they progress through their career. As individual managers become more accomplished, their scores on the accomplishment record will also increase.

Unassembled testing was included in Harris and Dworkin's (1990) survey of the use and perceived accuracy of preemployment screening techniques in the U.S.A. Accomplishment tests were found to be the second highest with regard to most accurately selecting superior management trainees. The highest method was references. Accomplishment records were also ranked fourth with regard to use out of 14 methods. However, these figures may be inflated. Harris and Dworkin (1990) noted that the respondents may have included the standard application form as an accomplishment record. This could have led to a high frequency of use and relatively high level of perceived accuracy. In total 59.4 percent of the organisations used unassembled testing to some degree. The accomplishment record is relatively new and uncommon and therefore has not been included in much of the current research relating to the use and perceived validity of management selection methods.

2.15 Age

Hunter and Hunter (1984) report a mean validity for age and future job performance of -0.01. This result suggests that age can not accurately predict future job performance, however, it is still a factor upon which selection decisions are made. Age was included in Dakin and Armstrong's (1989) study of personnel consultants in New Zealand. They found that for age, the personnel consultants perception of validity matched that of the 'actual' validity for age, that is, it received the lowest ranking (11). Age also received a fairly low ranking for frequency of use with an mean ranking of ninth.

2.16 Medicals

Many organisations now require job applicants or the successful applicant to undertake a medical examination. Vaughan and McLean (1989), in their study of Australian organisations, found that 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 that 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) found that 58.8 percent of human resource practitioners reported using medical

examinations at some stage during the selection process. A more specific extension of the medical is genetic testing.

2.17 Genetic Testing

Genetic testing is used to determine whether the individual applicant would be susceptible to chemicals or toxins that are present in the organisation's work environment that 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 that require working with chemicals. Instead he or she would be only be appointed to those positions where dangerous toxins were not present. However, Arvey and Faley (1988) found 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 is not a particularly well known or used selection method, however, it is being used overseas. Genetic testing, as a selection method, received the lowest rating of the 14 pre-employment screening devices in Harris and Dworkin's (1990) survey for both use and accurateness in selecting managerial trainees.

2.18 Graphology

Another relatively uncommon selection method is handwriting analysis or graphology. The basic assumption made by graphologists is that an individual's personality traits are expressed in their handwriting (Dessler 1988). Rafaeli and Drory (1988) conducted some research that focused on graphology as an assessment device for personnel selection. They noted that 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. Smith and Robertson (1989), report zero validity for handwriting analysis.

Robertson and Makin (1986) included graphology in their survey of organisations in the U.K. They found that 7.8 percent of the respondents reported using handwriting analysis on some occasions whilst 2.9 percent used graphology all of the time. Klimoski and Rafaeli (1983) had suggested that continental European companies make much greater use of handwriting analysis and this was supported by the findings from Robertson and Makin's (1986) survey. They later noted that all of the companies that always used handwriting analysis were subsidiaries of continental organisations. After analysing the data according to the overall size of the organisation, Robertson and Makin (1986) found that mainly smaller organisations (ie less than 200 employees) used graphology at some time.

An earlier study by the Institute of Personnel Management (U.K.) in 1980 found that only five of the 335 organisations that responded used graphology when selecting managers. Six years later Anderson and Shackleton (1986) looked at the trends and developments in recruitment and selection in the 1980s. They report an increase in the use of graphology despite the evidence of its low reliability and validity. They also noted that many of the studies that reported finding some level of 'actual' validity suffered from 'significant methodological flaws' and generally had only small samples sizes from which they drew their conclusions (Anderson and Shackleton, 1986). In another review Shackleton and Newell (1991) found that 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. New Zealand studies have not included graphology as a management selection method (Lai, 1981; Dakin and Armstrong, 1989; and Mills, 1991) therefore, there are no results to compare with the findings of this survey.

2.19 Astrology

Even though there is no scientific proof that a relationship between people's lives and the heavens exists, some people still believe that astrology is an accurate predictor of life events and more specifically their job performance. Astrology, therefore, can be said to have a zero validity with respect to predicting the future (Bok, 1975, cited in Gauquelin, 1983).

Robertson and Makin (1986) included astrology in their survey of U.K. organisations. They found that one of the organisations did use astrology when selecting managers. A more recent survey conducted by Shackleton and Newell (1991) in the U.K. reported that none of the organisations used astrology in their selection process. As with graphology, astrology was not included in the studies of management selection methods in New Zealand (Lai, 1981; Dakin and Armstrong, 1989; and Mills, 1991).

2.20 Summary

Those selection methods that are closely job-related (for example, situational interviews, unassembled testing and work sample tests) are more valid than those methods that are not job-related (for example, references, graphology and astrology). As more effort is put into modifying the existing methods so that they have a point-to-point relationship with the job the more valid they will become. New Zealand research appears to reflect similar trends to overseas. Both organisations and personnel consultants are using less valid selection practices more often than the more valid management selection methods.

CHAPTER THREE:

RESEARCH METHOD

3.1 Research Objective

The first objective of this study was to determine whether New Zealand organisations were using valid selection methods to select their managers. The second aim was to examine the perceived validity of these selection methods.

3.2 Hypotheses

There are three hypotheses to be tested in this research.

1. That the use and the perceived validity of a selection method would have a high positive correlation. That is, if the perceived validity of a certain selection method is high then the use of that selection method will also be high.
2. That there will be an inverse relationship between the 'actual' validity and the reported frequency of use of the selection methods in New Zealand organisations. That is, the selection methods that have a high validity coefficient will be used less often.

3. That in accordance with Mills (1991), the perceived validity of the selection methods will not be accurate when compared to their 'actual' validity.

3.3 Methodology

This research was a preliminary study that focused on the use and perceived validity of management selection methods in New Zealand organisations. This survey was conducted in conjunction with another study focusing on general selection. The methodology adopted in this study needed to be able to appraise both the use of management selection methods and the perceived validity of the 28 selection methods in a national survey. Due to the size of the sample and the nature of the data required, a questionnaire with two main rating scales was developed. A mail survey was used which made data recovery more economical on such a wide scale.

The rating scales used in the questionnaire provided quantitative data that could easily be analysed statistically. The first scale dealt with use of the management selection methods while the second rating scale rated how well each selection method predicted future job performance.

3.4 The Questionnaire

The questionnaire (Appendix IV) was made up of 22 questions. The first eight questions were designed to establish the type and size of the organisation and the respondents role within the organisation. The following three questions focused on the role of Equal Employment Opportunity (EEO) in the selection process. Respondents from organisations with EEO managers/officers were then asked to rate how much input their EEO manager/officer had in designing selection procedures. Questions 12 to 16 were related to job analysis, job descriptions, recruitment sources and the use of management selection consultants.

Questions 17 and 18 were designed to determine the use of selection methods in New Zealand organisations. Question 17 related to general selection while Question 18 was related to management selection. Both questions provided the same list of 28 selection methods. A list of these selection methods can be found in Appendix V. There was also a 29th option for respondents to list and rate any other selection methods that had not been included. The list of selection methods used in this survey was more extensive than that used in any of the other New Zealand or overseas research cited previously. Some methods were divided into various styles such as the interview and tests. Interviews, for example, were separated into two groups. The first was ordinary interviews and the second was situational or behavioural interviews. Psychological tests were broken down into cognitive, personality, perceptual and mechanical tests.

Respondents were required to grade each selection method on a six point scale (below) according to how often they used the each method.

1. Not known (Never heard of).
2. Never use.
3. Seldom use.
4. Sometimes use.
5. Often use.
6. Always use.

Options two to six on the rating scale provided the data necessary to determine the frequency of use for each selection method. In addition to ascertaining the level of use for these 28 selection methods, the research also aimed to determine the number of respondents who had never heard of some of these selection methods. Option one, "Not known", was therefore included. It was explained that if a respondent had never heard of a selection method then he or she was to place a '1' in the box provided next to that selection method.

Question 19 asked whether any of the management selection methods used by the respondents' organisations or its consultants had been validated. If some methods had been validated respondents were then asked to list them. Question 20 asked respondents to list any psychological tests used by their organisations.

Question 21 and 22 were made up of the same list of 28 selection methods as Questions 17 and 18. Question 21 was related to general selection while Question 22 was related to management selection. These two questions asked the respondent to rate how well they thought each selection method predicted future job performance. Once again a six point rating scale was adopted, as outlined below;

1. I do not know.
2. Extremely poorly.
3. Poorly.
4. Adequately.
5. Very well.
6. Extremely well.

Options two to six again formed the basis for determining how well each selection method was perceived to predict future job performance. Option one, "I do not know", was included so that if a respondent had never heard of a particular selection method he or she could choose option one rather than either trying to guess how well that particular selection method predicted future job performance or not responding at all.

3.5 The Sample

The questionnaires were sent to all organisations that had a member of their staff affiliated with the Institute of Personnel Management New Zealand (IPMNZ Inc). The questionnaires were addressed to the most senior members of organisations who were also members of the IPMNZ. Because the names and addresses of the IPM members were confidential, the questionnaires were sent from IPMNZ's office in Auckland.

Each questionnaire included a covering letter (Appendix IV) explaining the research being conducted and how to complete the questionnaire. The covering letter also emphasised that their responses would be treated confidentially and anonymously. A self addressed, free-post envelope was also included so that questionnaires could be returned at no cost to the respondent.

A follow-up letter was sent on 23 July 1991 (Appendix II). A copy of the questionnaire was also included with the follow-up letter for those managers who wanted to participate in the research but had not yet responded. The August issue of IPM NEWS, included an additional reminder notice to those members who had not already completed and returned their questionnaires to do so (Appendix III).

The final date for questionnaires to be returned was the 20th October 1991. Any questionnaires received after this date were not included in the analysis or the response rate.

The sample comprised 378 members of the New Zealand Institute of Personnel Management (Inc). The sample contained one manager from each organisation affiliated with the Institute. In the case of more than one staff member belonging to the IPMNZ the questionnaire was addressed to the more senior member in that organisation.

3.6 Analysis of the Data

The questionnaire focused on both management and general selection methods. However, this report looks solely at management selection practices and therefore the analysis excludes the following questions: 2, 11, 13, 14, 15, 16, 17, 20 and 21 which relate to general selection and job analysis. For the remaining questions the mean and frequency were calculated using the Statistical Package for the Social Sciences (SPSSx Inc., 1983). Correlations and comparisons were also made using QUATTRO PRO spreadsheet.

CHAPTER FOUR:

RESULTS

4.1 Response Rate

The response rate was 60.05 percent. Table One outlines the number and percentage of usable and non-usable questionnaires that were returned.

Table One: Breakdown of Response Rate.

<u>Returned Questionnaires</u>	<u>Frequency</u>	<u>Percentage</u>
Completed questionnaires:	216	95.15
Non-usable questionnaire:	11	4.85
<u>Total</u>	227	100.00

The 11 non-usable questionnaires were returned completely unanswered. They were returned by respondents who felt that their situation did not match the type of respondents the survey was looking for. Some of the respondents who returned the questionnaires unanswered were, for example, personnel lecturers or firms that employed only several senior partners who always selected their managers internally.

4.2 Characteristics of the Respondents and their Organisations

4.2.1 Position of Employment

Table Two presents the positions of employment held by the respondents. Of the 210 respondents who answered Question One, nearly 63 percent were senior human resource managers. This was expected because the sample was taken from the New Zealand Institute of Personnel Management.

Table Two: Respondents' Position of Employment.

<u>Position</u>	<u>Frequency</u>	<u>Percentage</u>
Chief Executive Officer	33	15.7
Senior Human Resource Manager	132	62.9
Senior Line Manager	15	7.1
Other Senior Manager	30	14.3
<u>Total</u>	210	100.0

4.2.2 Selection Responsibilities

An analysis of the amount of management selection that respondents conducted themselves revealed that 33 percent did not carry out any management selection at all. Only eight percent carried out half of the organisations' management selection while 20.8 percent conducted all of the management selection. This may be a limitation in that if one-third of the respondents do not conduct any management selection at all they may be 'out-of-touch' with all the selection methods that the organisation used and how valid these selection methods were.

The management selection methods used by an organisation were generally found to be chosen by either the senior human resource manager or the Chief Executive Officer (CEO). Table Three outlines who decided what selection methods were used in their organisation. Eighty respondents (37.9 percent) reported that the senior human resource manager decided what selection methods to use while 79 reported that their CEOs made such decisions. Some managers responded that the decision about which management selection methods to use was a joint decision between either the CEO and the senior human resource officer, or the CEO and the general manager, or finally, between the CEO and another senior manager.

Table Three: Who Decided on the Management Selection Practices.

<u>Position</u>	<u>Frequency</u>	<u>Percentage</u>
Chief Executive Officer (CEO)	79	37.4
Senior Human Resource Manager (SHRM)	80	37.9
General Manager (GM)	30	14.2
Other Senior Manager (OSM)	15	7.1
CEO and SHRM	4	1.9
CEO and OSM	1	0.5
SHRM and GM	2	0.9
<u>Total</u>	211	100.0

4.2.3 Organisation Type

Table Four illustrates that the respondents came from a wide range of organisations and industries. While respondents were not asked to actually name their organisation, they were asked which category their organisation fitted into best. Respondents had a choice of 14 categories. The 14 categories had originally been used in a national survey of personnel management in New Zealand (Institute of Personnel Management (N.Z.), 1979). The most common response was the last category, Other Industry with 41.2 percent.

Table Four: Organisation Categories.

<u>Category</u>	<u>Frequency</u>	<u>Percentage</u>
Agriculture, Hunting, Fishing etc	3	1.4
Manufacturing - Food, Beverages etc	19	9.0
Manufacturing - Wool, Wood Products etc	2	0.9
Manufacturing - Metals, Metal Products etc	5	2.4
Manufacturing - Chemicals, Plastics etc	4	1.9
Construction etc	1	0.5
Transport, Storage, Communication etc	15	7.1
Wholesale - Retail Trade etc	7	3.3
Financing, Insurance, Real Estate etc	33	15.6
Community, Social & Personal Services etc	8	3.8
Local Bodies/Authorities	20	9.5
Municipal Corporation	2	0.9
Multi-Industry	5	2.4
Other Industry (please specify)	87	41.2
<u>Total</u>	211	100.0

4.2.4 Number of People Employed

There was also a wide range in the number of people employed by the organisations included in the survey. Table Five presents the number and percentage of employees employed by the respondents’ organisations. The majority of organisations included in this report employed either 250 - 499 or 500 - 999 staff.

Table Five: Number of Employees.

<u>Number of people employed</u>	<u>Frequency</u>	<u>Percentage</u>
1 - 49	30	14.1
50 - 99	14	6.6
100 - 149	22	10.3
150 - 249	27	12.7
250 - 499	40	18.8
500 - 999	39	18.3
1,000 - 4,999	25	11.7
5,000 - 10,000	14	6.6
More than 10,000	2	0.9
<u>Total</u>	213	100.0

The number of managers employed in the respondents’ organisations also varied widely. Table Six presents the results regarding the number of managers employed by the organisation. The most frequent response was option three ‘20 - 49’ managers.

Table Six: Number of Managers.

<u>Number of Managers</u>	<u>Frequency</u>	<u>Percentage</u>
1 - 9	51	24.2
10 - 19	29	13.7
20 - 49	63	29.9
50 - 99	34	16.1
100 - 149	16	7.6
150 - 200	3	1.4
More than 200	15	7.1
<u>Total</u>	211	100.0

The respondents were then asked to approximate how many mangers were recruited each year. The most common response was between one and four managers (43.7 percent). Only 5.6 percent reported that their organisation recruited more than 20 managers per year. Table Seven outlines the results for the number of manager recruited each year.

Table Seven: Approximate Number of New Managers Recruited Each Year.

<u>Number of Managers</u>	<u>Frequency</u>	<u>Percentage</u>
Less than one	59	27.7
1 - 4	93	43.7
5 - 9	26	12.2
10 - 14	16	7.5
15 - 20	7	3.3
More than 20	12	5.6
<u>Total</u>	213	100.0

With respect to Equal Employment Opportunities (EEO) only 29.6 percent of the respondents said that their organisation had both a formal EEO policy and EEO manager/officer. Nearly 27 percent had an a formal EEO policy but no EEO manger/officer and 5.6 percent had an EEO manger/officer but no formal policy. The most common response, 38 percent, reported that they had neither a formal EEO policy nor did they have an EEO manager/officer. This result was not surprising as EEO is not a legal requirement for private sector organisations. Currently only state sector organisations are required to have formal EEO policies, programmes and coordinators.

Table Eight presents the EEO Coordinators input in management selection. Of those respondents whose organisations had EEO officers/managers 35.4 percent said that he or she had some input into the management selection procedure.

Table Eight: EEO Coordinators Input in Management Selection.

<u>Amount</u>	<u>Frequency</u>	<u>Percentage</u>
None	11	13.93
A little	9	11.39
Some	28	35.44
Quite a lot	25	31.65
Total (All)	6	7.59
<u>Total</u>	79	100.00

4.3 Use of Management Selection Methods

The main aim of this survey was to find the frequency of use of management selection techniques and to establish how well each selection method was perceived to predict future job performance. When calculating the mean frequency of use for each selection method the responses of those managers who responded that they had never heard of a particular method (i.e. option one) were excluded. The reason for

this is that the mean was meant to represent the mean use of the selection methods, if the answers from respondents who had never heard of the selection method were included they may have skewed the mean frequency of use for that selection method. The range of the six point scale used to calculate the mean therefore was two to six.

Table Nine lists the mean reported use for each selection method included in the survey. The number in brackets is the overall ranking for that selection method. The selection method with the highest mean use has a ranking of one and the method with the lowest mean use has a ranking of 28.

Respondents were also asked to list and grade any other management selection methods they used. Four respondents listed additional management selection method that they always used. These four methods were; probation period; meritorious criteria made up of predetermined competencies; critical factors/attitudes required for positions measured against the applicants; and reference checking and security vetting. The latter two were also listed in Question 22 which related to how well the selection methods predicted future job performance. Both reference checking (which had been included in the list of 28 selection methods) and security vetting were perceived to predict future job performance very well.

Table Nine: Mean Frequency of Use of Management Selection Methods.

<u>Method</u>	<u>Mean Use</u>	<u>Rank</u>
Application Form	4.493	(6)
Biodata	2.712	(20)
Self Assessment	2.943	(17)
Work Sample - Motor Skills	2.692	(21)
- Verbal Skills	3.317	(12)
Interview - Ordinary	5.572	(3)
- Situational	3.308	(13)
Selection Panel - Ordinary	4.342	(7)
- Situational	2.768	(19)
Peer Assessment	3.082	(16)
References	5.657	(1)
Assessment Centres	2.663	(23)
Tests - Cognitive	3.295	(14)
- Mechanical	2.676	(22)
- Perceptual	3.101	(15)
- Personality - Pencil & Paper	3.464	(10)
- Personality - Projective	2.776	(18)
Medicals	3.381	(11)
Curriculum Vitae	5.637	(2)
Realistic Job Preview	4.063	(8)
Unassembled Testing	2.172	(25)
Graphology	2.068	(26)
Astrology	2.026	(28)
Genetic Survey	2.031	(27)
Job Tryout	2.517	(24)
Academic Achievement	4.829	(5)
Age	3.670	(9)
Work Experience	5.384	(4)

4.4 Perceived Validity of Management Selection Methods

Respondents rated how well they thought each selection method predicted future job performance. When calculating the mean perceived validity for each method some respondents were again excluded. Those respondents who reported that they did not know what the validity of the particular selection method was (i.e. option one) were not included. The reason for this was that one of the main aims of the research was to determine the perceived validity of each selection method. If the respondents who reported that they had never heard of that selection method had been included in this calculation then the mean would have been skewed. The range of the responses included in the mean was two to six.

Table Ten lists the 28 selection methods and the mean response for each method. As in Table Nine, the number in brackets is the overall rank for that selection method. One is the highest overall ranking and 28 is the lowest ranking.

Respondents were again asked to list additional management selection methods and to rate them according to how well they predicted future job performance using the six point scale. Six respondents listed additional management selection methods and graded them. A combination of references, personal interviews, practical evaluation of skills and performance assessments was rated as an adequate predictor of future job performance by one respondent. Performance appraisals, reference checks,

security vetting, and critical factors were deemed to predict future job performance very well. Communication skills, and the applicant's track record from similar positions in the past were seen to predict future job performance extremely well.

For each selection method there were a number of respondents who had never heard of that particular selection method. Appendix VI lists the 28 methods included in the questionnaire and the number of respondents who had never heard them. The least well know management selection method included in the questionnaire was unassembled testing with 109 respondents reporting that they had never heard of this method. The next least known method was graphology with 85 respondents having never heard of this management selection method. Genetic surveys were also not widely heard of, 71 respondents said that they had never heard of this method. Surprisingly, three respondents reported that they had never heard of references, ordinary interviews and curricula vitae being used as management selection methods.

Table Ten: Mean Perceived Validity of Management Selection Methods.

<u>Method</u>	<u>Mean Validity</u>	<u>Rank</u>
Application Form	3.134	(24)
Biodata	3.298	(21)
Self Assessment	3.493	(20)
Work Sample - Motor Skills	3.593	(19)
- Verbal Skills	4.000	(13)
Interview - Ordinary	4.126	(10)
- Situational	4.339	(3)
Selection Panel - Ordinary	3.994	(14)
- Situational	4.127	(9)
Peer Assessment	4.007	(12)
References	4.299	(4)
Assessment Centres	4.598	(2)
Tests - Cognitive	4.252	(5)
- Mechanical	3.918	(17)
- Perceptual	4.152	(7)
- Personality - Pencil & Paper	4.016	(11)
- Personality - Projective	3.838	(18)
Medicals	3.095	(25)
Curriculum Vitae	3.954	(15)
Realistic Job Preview	4.140	(8)
Unassembled Testing	3.194	(22)
Graphology	2.171	(27)
Astrology	2.159	(28)
Genetic Survey	2.244	(26)
Job Tryout	4.198	(6)
Academic Achievement	3.938	(16)
Age	3.188	(23)
Work Experience	4.691	(1)

4.5 Correlation Coefficients for Perceived Validity, ‘Actual’ Validity, and Reported Frequency of Use.

Table Eleven presents the correlation coefficient for perceived validity and ‘actual’ validity, perceived validity and reported use, and reported use and ‘actual’ validity.

Table Eleven: Correlation Coefficients for Perceived Validity, ‘Actual’ Validity, and Use.

	<u>Perceived validity</u>	<u>‘Actual’ validity</u>	<u>Reported use</u>
<u>Perceived validity</u>	1.0000	0.4710	0.4882
<u>‘Actual’ validity</u>		1.0000	-0.2350
<u>Reported use</u>			1.0000

The results for medicals, curricula vitae, application forms, realistic job previews, and genetic surveys were not included when calculating the correlation coefficients in Table Eleven because the ‘actual’ validity of these methods was not found.

CHAPTER FIVE:

DISCUSSION

5.1 Use and Perceived Validity of Some Management Selection Methods

The three most frequently used management selection methods were references, curricula vitae and ordinary interviews. The selection methods that were used the least were astrology, graphology and genetic surveys. These three selection methods were also perceived to be the least valid management selection methods from the 28 included in the survey. The management selection methods perceived to be most valid were work experience, assessment centres and situational interviews.

5.1.1 References

Despite the fact that references have been found to be not particularly valid predictors of future job performance (Smith and Robertson, 1989; and Reilly and Chao, 1982) they were still the most frequently used management selection method. This result is consistent with the findings of Robertson and Makin (1986); Dakin and Armstrong (1989); Harris and Dworkin (1990); and Mills (1991). While references have an 'actual' validity of only 0.14 (Reilly and Chao, 1982) they were perceived to be valid predictors of future job performance. Mills (1991); Dakin and Armstrong (1989); and Harris and Dworkin (1990), also found that personnel consultants and

human resource practitioners perceived (incorrectly) that references were one of the more valid methods of management selection.

5.1.2 Curricula Vitae

Curricula vitae were the second most frequently used selection method. This method was perceived to be reasonably valid. There appears to be little difference in the use and the perceived validity between managers and the so called 'experts' or personnel consultants. Mills (1991) also reports that curricula vitae were frequently used by personnel consultants.

5.1.3 Ordinary Interviews

While ordinary interviews were perceived to be slightly less valid than situational interviews they were the third most frequently used selection method. Ordinary interviews were also rated as very high in use in Mills (1991); Lim (1981); Lai (1981); Dakin and Armstrong (1989); Robertson and Makin (1986); and Harris and Dworkin (1991). Harris and Dworkin, (1991), also reported that interviews were ranked highest with respect to perceived accuracy, by human resource practitioners in the U.S.A. Dakin and Armstrong (1989) report that personnel consultants also ranked interviews highly for validity.

5.1.4 Astrology

Astrology is not a valid selection method and it is unfortunate that four organisations (2.6 percent) in New Zealand have reported using astrology. One perhaps redeeming factor is that all four organisations reported only seldom using astrology. Overall astrology was the perceived to be the least valid management selection method. Astrology was also the least commonly used management selection method in New Zealand organisations.

New Zealand organisations seem to be lagging behind with respect to realising that astrology is not a valid selection method. In Britain, the use of astrology has decreased from one percent (Robertson and Makin, 1986) to no organisations reporting using astrology (Shackleton and Newell, 1991). While the majority of New Zealand managers appear to have an accurate perception of the validity of astrology there are a few that believe that astrology can accurately predict future job performance.

5.1.5 Genetic Testing

Genetic testing, graphology and unassembled testing also received low levels of use. Genetic surveys were used by only 2.3 percent of organisations in New Zealand. This is consistent with the findings of Harris and Dworkin (1990). They found that

2.7 percent of U.S.A organisations reported using genetic testing. Genetic tests also rated very low for their ability to predict future job performance which is again consistent with the findings of Harris and Dworkin (1990).

5.1.6 Graphology

Graphology was also rated very low on both use and validity. Six percent reported using graphology in management selection. Similar results were found by Robertson and Makin (1986) who reported that 7.8 percent of British organisations used handwriting analysis to some degree in their management selection process. Later, Shackleton and Newell (1991) found that graphology was more commonly used in France than in Britain. In France, 77 percent of the organisations used handwriting analysis at some stage when selecting managers while in Britain only 2.6 percent reported using it. This researcher found that the majority of the respondents appear to have the correct perception of the validity of graphology as a management selection method. A small minority however, 3.2 percent, incorrectly reported that graphology predicted future job performance either very well or adequately.

5.1.7 Unassembled Testing - The Accomplishment Record

Unassembled testing was the most unknown selection method. 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, organisations ranked unassembled testing 22nd out of 28 selection methods for frequency of use. Harris and Dworkin (1990) found that accomplishment tests were ranked second out of 14 selection methods for accurately predicting the performance of management trainees while in New Zealand unassembled testing ranked 25th. While it may appear that New Zealand organisations are not up to date with the latest in selection methods and the validity of these methods compared to overseas organisations, this may not necessarily be so. The results for the accomplishment test in Harris and Dworkin (1990) may have been inflated by respondents including or confusing the use and accuracy of standard application forms with the use and accuracy of accomplishment tests.

5.1.8 Situational Interviews

Another reasonably valid and yet not frequently used selection method is the situational interview. Despite the fact that situational interviews were perceived to be more valid than ordinary interviews, they are less frequently used.

Situational panel interviews were also perceived to be more valid than ordinary panel interviews yet they too were used less often than ordinary panel interviews. While managers appear to understand that situational interviews are more valid than

ordinary interviews they still continue to use the latter. Another selection method that was ranked fairly highly with respect to the perceived validity and then ranked very low for frequency of use was assessment centres.

5.1.9 Assessment Centres

Considering that assessment centres are reasonably valid selection methods (Gaugler, Rosenthal, Thornton, and Benston, 1987) they are not often used in New Zealand organisations (Lai 1981; and Mills 1991). While managers seem to have a fairly accurate perception of the validity of assessment centres they are still not widely used. This result is consistent with the findings of Mills (1991).

5.1.10 Work Experience

Work experience was perceived to be the most valid selection method out of the 28 selection methods included in the survey. Work experience was also frequently used. Similar findings were reported by Dakin and Armstrong (1989) who found that work experience was ranked as the most valid predictor of future job performance and second for frequency of use by the 21 personnel consultants included in their survey. According to the research, however, work experience is actually a poor predictor of future job performance with an 'actual' validity coefficient of only 0.18 (Hunter and Hunter 1984).

5.1.11 Summary

It would appear that New Zealand managers are not using the most valid selection methods available to them. The use of the selection methods does not reflect the overall perception of the validity of the particular selection method. For example situational interviews are perceived to be more valid than ordinary interviews, however ordinary interviews are more frequently used than situational interviews.

5.2 The Relationship Between Reported Use and Perceived Validity

The correlation coefficient for perceived validity and reported use found in this study was only 0.4882. This correlation was surprisingly low, as one would assume that the selection methods that are perceived to be valid would be used more often. Dakin and Armstrong (1989) reported quite a high relationship between the perceived validity and the reported use of management selection methods by personnel consultants (Spearman's $\rho = 0.87$).

The sizeable difference between the relationship found in Dakin and Armstrong (1989) and the correlation coefficient found in this survey 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 and the sample set. Dakin and Armstrong's (1989) survey contained 11 management selection methods while this survey

included 28. The samples were also different in that Dakin and Armstrong (1989) surveyed a sample of only 21 personnel consultants while the sample for this survey was quite large (378) and consisted mainly of human resource managers rather than solely personnel consultants.

Another possible reason for the low correlation between these two factors is that, while the respondents had a fairly accurate perception of how well some selection methods predicted future job performance, they may not have been able to choose the selection methods used by the organisation. That is, while human resource managers represented 62.9 percent of the respondents, human resource managers only determined what selection methods would be used in 37.9 percent of the cases. Chief executive officers also played an equally important role in deciding what selection methods would be employed by the organisation (37.4 percent) while they represented only 15.7 percent of the respondents. It may be that human resource managers are not included in the decisions relating to which selection methods are used in New Zealand organisations and hence the small relationship between the use and the perceived validity of these selection methods. Alternatively, managers may not be keeping up-to-date with the research reports on the validity of the various selection methods and thereby ensuring that their organisations are using only valid selection methods in their management selection process.

5.3 The Relationship Between Reported Use and ‘Actual’ Validity

Dakin and Armstrong (1989) reported that there was no relationship between the reported use of management selection methods and research evidence (that is, the ‘actual’ validity of those selection methods). They found a Spearman’s $\rho = -0.06$. The correlation between these two factors in this survey is also small and negative ($r = -0.235$). While the relationship is only slight it is negative which supports the hypothesis regarding the inverse relationship between the reported use of management selection methods and their ‘actual’ validity.

5.4 The Relationship Between Perceived Validity and ‘Actual’ Validity

A small relationship was found between perceived validity and ‘actual’ validity of management selection methods ($r = 0.471$). Dakin and Armstrong (1989) also reported a slight relationship ($\rho = 0.06$) for perceived and ‘actual’ validity. This indicates that the managers included in this survey did not have an accurate perception of the ‘actual’ validity of management selection methods. While Mills (1991) did not calculate a correlation between the ‘actual’ and perceived validity of management selection methods for selection consultants he did note that when a consultant was prepared to estimate the validity of a selection method he or she were generally incorrect.

5.5 Limitations

One possible limitation in the survey is that the sample included managers who did not take part in the management selection process. In total 33 percent of the respondents conducted none of their organisation's management selection. There was a possibility, therefore, that a third of the respondents were out-of-touch with the selection methods and process employed by the organisation. If they did not know how often the organisation used specific selection methods it is assumed that they had found out how often they were used from another member of the organisation or had chosen option one 'Not known'. For most of the 28 selection methods at least 85 percent of respondents knew how often each selection method was used in the management selection process. It is therefore a fairly safe assumption that the respondents were not out-of-touch with the selection methods used by the organisation. With respect to the perceived validity of each management selection method, if the respondents did not know how valid a selection method was then he or she could have chosen option one 'I do not know'. This option was used to limit the possibility of respondents either not responding to this section or guessing the validity of each selection method instead.

Another possible limitation is that one of the selection methods included in this report has two different names. Unassembled testing is also called the accomplishment record method. However, in the questionnaire it was not listed as

accomplishment record. If the managers included in the survey did not know that unassembled testing and the accomplishment record were one and the same then they may have responded incorrectly for the two questions relating to the use and perceived validity of unassembled testing.

If this questionnaire is used in the future, the list of 14 categories in Question Five may need to be modified because there was a large proportion of organisations in the 'Other industry' category (41.2 percent). More categories could be added to the list to broaden its scope while other current categories could be combined due to the small number of respondents from those organisation types. For example, Local Bodies/Authorities and Municipal Corporations could be combined into one category as could the manufacturing of wool, wool products, metals, metal products, chemicals and plastics.

CHAPTER SIX:

CONCLUSIONS

1. The most frequently used management selection methods in New Zealand were references, curricula vitae and ordinary interviews. The selection methods perceived to be most valid were work experience, assessment centres and situational interviews.
2. Managers had a surprisingly accurate idea of the validity of some of the more obscure selection methods (for example, astrology and graphology). However, their perception regarding the validity of more common selection methods (for example, ordinary interviews, references and personality tests) was less accurate.
3. The reported use and perceived validity of management selection methods were related, however, the correlation was small. For some reason, managers in New Zealand organisations were seldom using some of the selection methods that they perceived to be most valid (for example, situational interviews and assessment centres).
4. It is important that managers involved in management selection have a sound and accurate knowledge of the advantages and disadvantages of using the

wide range of management selection methods available to them. It is also important that those managers keep up to date with the current research regarding the validity of these methods. Unfortunately, the use of management selection methods in New Zealand organisations did not reflect the 'actual' validity of those methods. Continuing education, therefore, in the area of the validity of selection methods is imperative if managers are to make informed decisions regarding which selection methods are best for their organisation. When managers fully understand the importance of using valid selection methods and have an accurate perception of the validity of those methods they may begin to use valid selection methods more frequently than they do currently.

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APPENDICES

Appendix I: 'Actual' Validity

<u>Selection Method</u>	<u>Validity</u>	<u>Source</u>
Biodata	0.35	Reilly & Chao (1982)
Self Assessment	0.15	Reilly & Chao (1982)
Work Sample Tests (Motor Skills)	0.62	Asher & Sciarrino (1974)
Work Sample Tests (Verbal Skills)	0.45	Asher & Sciarrino (1974)
Interview (Ordinary)	0.14	Hunter & Hunter (1984)
Interview (Situational/Behavioural)	0.38	Robertson et al. (1990)
Selection Panel (Ordinary)	0.20	Wiesner & Cronshaw (1988)
Selection Panel (Situational/Behavioural)	0.38 ¹	
Peer Assessment	0.41	Smith et al. (1989)
References	0.14	Reilly & Chao (1982)
Assessment Centres	0.37	Gaugler et al. (1987)
Tests (Cognitive)	0.30	Hartigan et al. (1989)
Tests (Mechanical)	0.22	Ghiselli (1973)
Tests (Perceptual)	0.25	Ghiselli (1973)
Tests (Personality - pencil and paper)	0.21	Schmitt et al. (1984)
Tests (Personality - projective)	0.21	Schmitt et al. (1984)
Unassembled Testing	0.25	Hough (1984)
Graphology	0.00	Robertson & Smith (1989)
Astrology	0.00	Bok (1975)
Job Tryout	0.44	Hunter & Hunter (1984)
Academic Achievement	0.14	Reilly & Chao (1982)
Age	-0.01	Hunter & Hunter (1984)
Work Experience	0.18	Hunter & Hunter (1984)

¹ The validity coefficient of 0.38 has been taken from Robertson, Gratton and Rout (1990) for situational interviews. The validity coefficient for situational panel interviews is assumed to be the same as individual situational interviews based on the findings of Latham, Saari, Purcell and Campion (1980). They report that situational interviews have a high inter-observer reliability coefficient and a high level of internal consistency. One could therefore assume that the validity will be similar for panel and individual situational interviews.

Appendix II: Follow-up Letter

Natalie J. Harris and Amanda Waugh
Department of Human Resource Management
Massey University,
PALMERSTON NORTH.
Fax (06) 350-5608
Telephone (06) 3569-099 extn 7900

23 July 1991

Dear Sir/Madam,

About one month ago a questionnaire was mailed to you which requested your co-operation in some selection methods research. The questionnaire was initiated by us as part of our graduate study and endorsed by both the IPM and Massey University.

If you have already completed and returned the questionnaire to us at Massey University we would like to thank you very much for your co-operation. 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 our questionnaire, please read on.

So that the information gathered in this project is representative it is very important that we survey as large a group as possible. Many personnel practitioners have already responded and this survey would be greatly strengthened if we heard from the remainder of those contacted. We would be grateful if you would complete the enclosed questionnaire and return it to 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 those involved in the statistical analysis. As a further aid to confidentiality, the questionnaire does not ask for information on the identity of the respondent or the respondent's organisation.

Summarised information will be made available through the IPM later this year once the results have been analysed and research written up.

Yours sincerely,

NATALIE J. HARRIS AND AMANDA WAUGH

Appendix III: IPMNZ Reminder Notice

"Two Massey University students, **Natalie Harris** of the department of human resource management and **Amanda Waugh** of the psychology department, are researching selection processes and practices in New Zealand organisations. Nearly 400 questionnaires have been sent to organisations drawn from the IPM's mailing list: if you received one and have not yet completed and returned it, then please ... If you can't find it, Natalie Harris (tel 06 3569 099 or fax 06 3505 608) will send you another copy. The research deals with both management and general staff recruitment."

(Source: IPMNZ News, August 1991, p. 4.)

Appendix IV: Questionnaire

AN INVESTIGATION OF NEW ZEALAND SELECTION TECHNIQUES

Current economic conditions are forcing organisations to become more cost effective and efficient. Thus increasing emphasis is being placed on the personnel function and in particular the selection procedures it employs.

This questionnaire is part of a study evaluating what types of selection procedures are used in New Zealand organisations. The objective of this research is to determine which selection procedures are used most often, how important these methods are considered to be, and what part these methods play in the overall selection procedures within your company.

The data from this survey will be a valuable addition to our understanding of personnel selection as it is practised here in New Zealand. However, the results will be meaningful only if we can obtain comprehensive coverage of as many different businesses as possible. Therefore, the success of the study is entirely dependent on your cooperation in filling out the questionnaire.

The attached questionnaire is straightforward and easy to complete, and will take only 20 minutes of your time. There are no right or wrong answers. We are interested in your opinions. When completing a question place the number that corresponds with your answer in the box provided on the right. Please note, for the purposes of this study, managers are defined as those individuals in positions above supervisory level.

eg. **How many managers are employed by your company?**

- | | |
|------------|-----------------|
| 1) 1 - 20 | 3) 41 - 60 |
| 2) 21 - 40 | 4) More than 60 |

2

If there are 30 managers employed by your organisation you would place a '2' in the box as has been done here. However if you had 64 managers you would place a '4' in the box on the right.

This questionnaire is anonymous. There is a number in the right hand corner of the first page of the questionnaire. By using a code number we can ensure your confidentiality. Only the researchers and those directly involved in the analysis of the results will see any questionnaires.

Please complete the questionnaire and return it in the free post envelope provided. Once all the questionnaires have been collected a preliminary analysis will be undertaken. A report will be compiled and made available to you through the Institute of Personnel Management.

Once again we must emphasize that the success of this study is dependent on the return of as many questionnaires as possible. If you should have any comments or queries about the study please do not hesitate to contact either of us at the following address.

We look forward to the return of your questionnaire and thank you for participating.

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When completing the following questions please place the number that

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 corresponds with your answer in the box provided on the right.

1. Which of the following occupations BEST describes your position in your organisation?

- 1. Chief Executive Officer
 - 2. Senior Human Resource Manager
 - 3. Senior Line Manager
 - 4. Other Senior Manager
- ☐

2. Approximately how much of your organisation’s recruitment work do you conduct yourself?

- 1. None of the recruitment
 - 2. About one-third
 - 3. Half of the recruitment
 - 4. About two-thirds
 - 5. All of the recruitment
- ☐

3. Approximately how much of your organisation’s external MANAGEMENT selection do you conduct?

- 1. None of the management selection
 - 2. About one-third
 - 3. About half the management selection
 - 4. About two-thirds
 - 5. All of the management selection
- ☐

4. Who decides what MANAGEMENT selection practices are used?

- 1. Chief Executive Officer
 - 2. Senior Human Resource Manager
 - 3. General Manager
 - 4. Other Senior Manager
- ☐

When completing the following questions please place the number of your answer in the box on the right.

5. Which one of the following categories BEST describes your organisation?

- 1. Agriculture, Hunting, Fishing etc
- 2. Manufacturing - Food, Beverages etc
- 3. Manufacturing - Wool, Wood Products etc
- 4. Manufacturing - Metals, Metal Products etc
- 5. Manufacturing - Chemicals, Plastics etc
- 6. Construction etc
- 7. Transport, Storage, Communication etc
- 8. Wholesale - Retail Trade etc
- 9. Financing, Insurance, Real Estate etc
- 10. Community, Social & Personal Services etc
- 11. Local Bodies/Authorities
- 12. Municipal Corporation
- 13. Multi-Industry
- 14. Other Industry (please specify)_____

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6. How many people are employed by your organisation?

- 1. 1 - 49
- 2. 50 - 99
- 3. 100 - 149
- 4. 150 - 249
- 5. 250 - 499
- 6. 500 - 999
- 7. 1 000 - 4 999
- 8. 5 000 - 10 000
- 9. More than 10 000

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When completing the following questions please place the number of your answer in the box on the right.

7. How many MANAGERS are employed by your organisation?

- 1. 1 - 9
- 2. 10 - 19
- 3. 20 - 49
- 4. 50 - 99
- 5. 100 - 149
- 6. 150 - 200
- 7. More than 200

☐

8. Approximately how many new MANAGERS would your organisation recruit each year?

- 1. Less than one
- 2. 1 - 4
- 3. 5 - 9
- 4. 10 - 14
- 5. 15 - 20
- 6. More than 20

☐

9. Does your organisation have:

- 1. A formal Equal Employment Opportunities (EEO) policy but no EEO officer/manager
- 2. An EEO officer/manager but no formal EEO policy
- 3. Both a formal EEO policy and an EEO officer/manager
- 4. Neither a formal EEO policy nor an EEO officer/manager

☐

If you do not have an Equal Employment Opportunities officer/manager then go to question 12.

10. How much input does your EEO officer/manager have in designing MANAGEMENT selection procedures?

- | None | A little | Some | Quite a lot | Total |
|------|----------|------|-------------|-------|
| 1 | 2 | 3 | 4 | 5 |

☐

When completing the following questions please place the number of your answer in the box on the right.

11. How much input does your EEO officer/manager have in designing the GENERAL selection procedure?

None	A little	Some	Quite a lot	Total	
1	2	3	4	5	<input type="checkbox"/>

12. Does your organisation use outside human resource consultants when selecting MANAGERS?

Not sure	Never	Occasionally	Often	Always	
1	2	3	4	5	<input type="checkbox"/>

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

Not sure	Never	Occasionally	Often	Always	
1	2	3	4	5	<input type="checkbox"/>

14. If your answer to question 13 was ‘Occasionally’, ‘Often’, or ‘Always’ please give an indication of how your job analysis is conducted using the scale below. If your answer was ‘Not sure’ or ‘Never’ then go on to question 15.

Never Use	Seldom Use	Sometimes Use	Often Use	Always Use
1	2	3	4	5

1. Questionnaire.....	<input type="checkbox"/>
2. Checklist.....	<input type="checkbox"/>
3. Individual Interview.....	<input type="checkbox"/>
4. Observational Interview.....	<input type="checkbox"/>
5. Group Interview.....	<input type="checkbox"/>
6. Technical Conference.....	<input type="checkbox"/>
7. Diary Method.....	<input type="checkbox"/>
8. Critical Incident Method.....	<input type="checkbox"/>
9. Work Participation.....	<input type="checkbox"/>

When completing the following questions please place the number of your answer in the box on the right.

15. Are job descriptions or person specifications used as part of your recruitment process?

Not sure	Never	Occasionally	Often	Always	
1	2	3	4	5	<input type="checkbox"/>

16. Please indicate what your sources of recruitment are using the scale below.

Never Use	Seldom Use	Sometimes Use	Often Use	Always Use	
1	2	3	4	5	

- | | |
|---------------------------------------|--------------------------|
| 1. Internal Advertising..... | <input type="checkbox"/> |
| 2. Personal Contacts..... | <input type="checkbox"/> |
| 3. Educational Institutions..... | <input type="checkbox"/> |
| 4. Department of Labour..... | <input type="checkbox"/> |
| 5. General Advertisements..... | <input type="checkbox"/> |
| 6. Personnel Consultants..... | <input type="checkbox"/> |
| 7. Sit and Wait | <input type="checkbox"/> |
| 8. Other (Please specify) _____ | <input type="checkbox"/> |

17. This question focuses on GENERAL selection methods in your organisation. Please indicate your use of each of the following selection tools using the scale below. For example, if you have never heard of a particular method place a 1 in the box provided.

Not Known	Never Use	Seldom Use	Sometimes Use	Often Use	Always Use
1	2	3	4	5	6

1. Application Forms.....	<input type="checkbox"/>
2. Biodata (statistical weighting of biographical information).....	<input type="checkbox"/>
3. Self Assessment.....	<input type="checkbox"/>
4. Work Sample Tests - Motor Skills.....	<input type="checkbox"/>
- Verbal Skills.....	<input type="checkbox"/>
5. Interview - Ordinary.....	<input type="checkbox"/>
- Situational/Behavioural.....	<input type="checkbox"/>
6. Selection Panel - Ordinary.....	<input type="checkbox"/>
- Situational/Behavioural.....	<input type="checkbox"/>
7. Peer Assessment.....	<input type="checkbox"/>
8. References.....	<input type="checkbox"/>
9. Assessment Centres.....	<input type="checkbox"/>
10. Tests - Cognitive.....	<input type="checkbox"/>
- Mechanical.....	<input type="checkbox"/>
- Perceptual.....	<input type="checkbox"/>
- Personality - pencil and paper.....	<input type="checkbox"/>
- projective.....	<input type="checkbox"/>
11. Medicals.....	<input type="checkbox"/>
12. Curriculum Vitae.....	<input type="checkbox"/>
13. Realistic Job Preview.....	<input type="checkbox"/>

QUESTION CONTINUES OVER PAGE

Not Known Never Use Seldom Use Sometimes Use Often Use Always Use

1 2 3 4 5 6

- 14. Unassembled Testing..... ☐
- 15. Graphology..... ☐
- 16. Astrology..... ☐
- 17. Genetic Survey..... ☐
- 18. Job Tryout..... ☐
- 19. Academic Achievement..... ☐
- 20. Age..... ☐
- 21. Work Experience..... ☐
- 22. Other (please specify) _____ ☐

END OF CARD ONE

CARD 2 ☐ ☐ ☐ ☐

18. The following question focuses on MANAGEMENT selection from external sources only.

On the scale below, grade each method according to the frequency with which you or your selection consultant use them. For example, if a particular selection method is always used you would place a 6 in the box provided.

Not Known Never Use Seldom Use Sometimes Use Often Use Always Use

1 2 3 4 5 6

- 1. Application Forms..... ☐
- 2. Biodata (statistical weighting of biographical information)..... ☐
- 3. Self Assessment..... ☐
- 4. Work Sample Tests
 - Motor Skills..... ☐
 - Verbal Skills..... ☐

QUESTION CONTINUES OVER PAGE

	Not Known	Never Use	Seldom Use	Sometimes Use	Often Use	Always Use
	1	2	3	4	5	6
5. Interview						<input type="checkbox"/>
- Ordinary.....						<input type="checkbox"/>
- Situational/Behavioural.....						<input type="checkbox"/>
6. Selection Panel						<input type="checkbox"/>
- Ordinary.....						<input type="checkbox"/>
- Situational/Behavioural.....						<input type="checkbox"/>
7. Peer Assessment.....						<input type="checkbox"/>
8. References.....						<input type="checkbox"/>
9. Assessment Centres.....						<input type="checkbox"/>
10. Tests						<input type="checkbox"/>
- Cognitive.....						<input type="checkbox"/>
- Mechanical.....						<input type="checkbox"/>
- Perceptual.....						<input type="checkbox"/>
- Personality - pencil and paper.....						<input type="checkbox"/>
- projective.....						<input type="checkbox"/>
11. Medicals.....						<input type="checkbox"/>
12. Curriculum Vitae.....						<input type="checkbox"/>
13. Realistic Job Preview.....						<input type="checkbox"/>
14. Unassembled Testing.....						<input type="checkbox"/>
15. Graphology.....						<input type="checkbox"/>
16. Astrology.....						<input type="checkbox"/>
17. Genetic Survey.....						<input type="checkbox"/>
18. Job Tryout.....						<input type="checkbox"/>
19. Academic Achievement.....						<input type="checkbox"/>
20. Age.....						<input type="checkbox"/>
21. Work Experience.....						<input type="checkbox"/>
22. Other (please specify) _____						<input type="checkbox"/>

19. Have you had any of the MANAGEMENT selection methods used by your organisation or its consultants validated? If your answer is 'Yes', place a 1 in the box on the right and list the methods in the space provided.

- 1. Yes _____ ☐
- 2. No ☐
- 3. Not sure

20. If you use tests please name the tests you use next to the test type.

- Name of Test
- Cognitive
 - Mechanical
 - Perceptual
 - Personality

21. This question relates to all jobs in your organisation. Please state how well you think each of the selection methods below predicts future job performance using the following scale. For example, if you have no idea how well a selection method predicts future job performance then you would place a 1 in the box provided.

	I do not know	Extremely poorly	Poorly	Adequately	Very well	Extremely well	
	1	2	3	4	5	6	
1. Application Forms.....							<input type="checkbox"/>
2. Biodata (statistical weighting of biographical information).....							<input type="checkbox"/>
3. Self Assessment.....							<input type="checkbox"/>
4. Work Sample Tests - Motor Skills.....							<input type="checkbox"/>
- Verbal Skills.....							<input type="checkbox"/>

QUESTION CONTINUES OVER PAGE

	I do not know	Extremely poorly	Poorly	Adequately	Very well	Extremely well	
	1	2	3	4	5	6	
5. Interview							
- Ordinary.....							<input type="checkbox"/>
- Situational/Behavioural.....							<input type="checkbox"/>
6. Selection Panel							
- Ordinary.....							<input type="checkbox"/>
- Situational/Behavioural.....							<input type="checkbox"/>
7. Peer Assessment.....							<input type="checkbox"/>
8. References.....							<input type="checkbox"/>
9. Assessment Centres.....							<input type="checkbox"/>
10. Tests							
- Cognitive.....							<input type="checkbox"/>
- Mechanical.....							<input type="checkbox"/>
- Perceptual.....							<input type="checkbox"/>
- Personality - pencil and paper.....							<input type="checkbox"/>
- projective.....							<input type="checkbox"/>
11. Medicals.....							<input type="checkbox"/>
12. Curriculum Vitae.....							<input type="checkbox"/>
13. Realistic Job Preview.....							<input type="checkbox"/>
14. Unassembled Testing.....							<input type="checkbox"/>
15. Graphology.....							<input type="checkbox"/>
16. Astrology.....							<input type="checkbox"/>
17. Genetic Survey.....							<input type="checkbox"/>
18. Job Tryout.....							<input type="checkbox"/>
19. Academic Achievement.....							<input type="checkbox"/>
20. Age.....							<input type="checkbox"/>
21. Work Experience.....							<input type="checkbox"/>
22. Other (please specify) _____							<input type="checkbox"/>

END OF CARD TWO

22. This question focuses on MANAGEMENT selection practices. Using the following scale please grade the list of selection devices (below) with respect to how well you think they predict future job performance. For example, if you think that a particular method is an extremely poor predictor of future management performance you would place a 2 in the box provided.

	I do not know	Extremely poorly	Poorly	Adequately	Very well	Extremely well	
	1	2	3	4	5	6	
1. Application Forms.....							<input type="checkbox"/>
2. Biodata (statistical weighting of biographical information).....							<input type="checkbox"/>
3. Self Assessment.....							<input type="checkbox"/>
4. Work Sample Tests							
- Motor Skills.....							<input type="checkbox"/>
- Verbal Skills.....							<input type="checkbox"/>
5. Interview							
- Ordinary.....							<input type="checkbox"/>
- Situational/Behavioural.....							<input type="checkbox"/>
6. Selection Panel							
- Ordinary.....							<input type="checkbox"/>
- Situational/Behavioural.....							<input type="checkbox"/>
7. Peer Assessment.....							<input type="checkbox"/>
8. References.....							<input type="checkbox"/>
9. Assessment Centres.....							<input type="checkbox"/>

QUESTION CONTINUES OVER PAGE

I do not know	Extremely poorly	Poorly	Adequately	Very well	Extremely well
1	2	3	4	5	6

10. Tests

- Cognitive.....

- Mechanical.....

- Perceptual.....

- Personality - pencil and paper.....

- projective.....

☐
☐
☐
☐
☐
11. Medicals.....

☐
12. Curriculum Vitae.....

☐
13. Realistic Job Preview.....

☐
14. Unassembled Testing.....

☐
15. Graphology.....

☐
16. Astrology.....

☐
17. Genetic Survey.....

☐
18. Job Tryout.....

☐
19. Academic Achievement.....

☐
20. Age.....

☐
21. Work Experience.....

☐
22. Other (please specify) _____

☐

THANK YOU FOR YOUR ASSISTANCE

PLEASE RETURN QUESTIONNAIRE IN FREE-POST ENVELOPE PROVIDED

Appendix V: The 28 Selection Methods Included in the Survey.

application forms,
biodata (statistical weighting of biographical information),
peer and self assessment,
work sample tests (motor skills and verbal skills),
interviews (ordinary and situational/behavioural),
selection panels (ordinary and situational/behavioural),
references,
tests (cognitive, mechanical, perceptual, and personality (pencil and paper and projective)),
medicals,
curriculum vitae,
realistic job previews,
unassembled testing,
graphology,
astrology,
genetic survey,
job tryout,
academic achievement,
age, and
work experience.

Appendix VI: Number of Respondents Who had Never Heard of Each Selection

Method.

Selection method	Frequency
Unassembled Testing	109
Graphology	85
Genetic Survey	71
Biodata	51
Astrology	49
Tests - Personality - Projective	45
Selection Panel - Situational	31
Interview - Situational	30
Self Assessment	29
Tests - Cognitive	27
Tests - Mechanical	27
Tests - Perceptual	24
Assessment Centres	24
Job Tryout	22
Peer Assessment	20
Tests - Personality - Pencil & Paper	20
Work Sample - Motor Skills	19
Work Sample - Verbal Skills	18
Medicals	13
Realistic Job Preview	11
Age	7
Selection Panel - Ordinary	6
Work Experience	6
Application Form	6
Academic Achievement	4
Curriculum Vitae	3
Interview - Ordinary	3
References	3