THE APPLICATION OF JOB ANALYSIS, THE O*NET AND COMPETENCY MODELLING IN NEW ZEALAND ORGANISATIONS

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Abstract

The present study aimed to gain an understanding of the extent to which human resource professionals are using and applying job analysis, the Occupational Information Network (O*NET) and competency modelling in New Zealand organisations. This study also explored the research-practice gap in job analysis, as examined through the O*NET and the influence of Taylor and Cable's (2004) article on the O*NET database. An online questionnaire was completed by 107 participants, who were members of the Human Resource Institute of New Zealand research stream. Findings suggest there is high awareness of job analysis, however the application of job analysis in the organisation is commonly hindered by the limited understanding and knowledge amongst human resource professionals. Findings on competency modelling suggest, there has been a possible increase in the application of competency modelling in organisations since Markus, Cooper-Thomas and Allpress (2005) study. The article by Taylor and Cable (2004) has had little influence on the application of the O*NET, suggesting a potential research-practice gap is present in the job analysis area. Specifically, the O*NET database could benefit Human Resource Management (HRM), through supporting the development of job descriptions and person specifications. Human resource professionals could benefit further from extending their awareness of job analysis and competency modelling to the application of these processes in HRM. The need for future research and practical implications for HRM and organisational psychology are discussed.

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Chapter One

Introduction

Managing employment in a diverse, competitive and constantly changing workplace presents challenges to human resource professionals and their practices. The employment life cycle (Figure 1.1 D. Cable, personal communication, March 6, 2009) presents a framework for human resource functions, by displaying the process in which human resource practices are executed within the organisation. Job analysis is the starting point of the employment life cycle, laying the foundations for the development of human resource practices of recruitment and selection, through to job evaluation and staff retention.

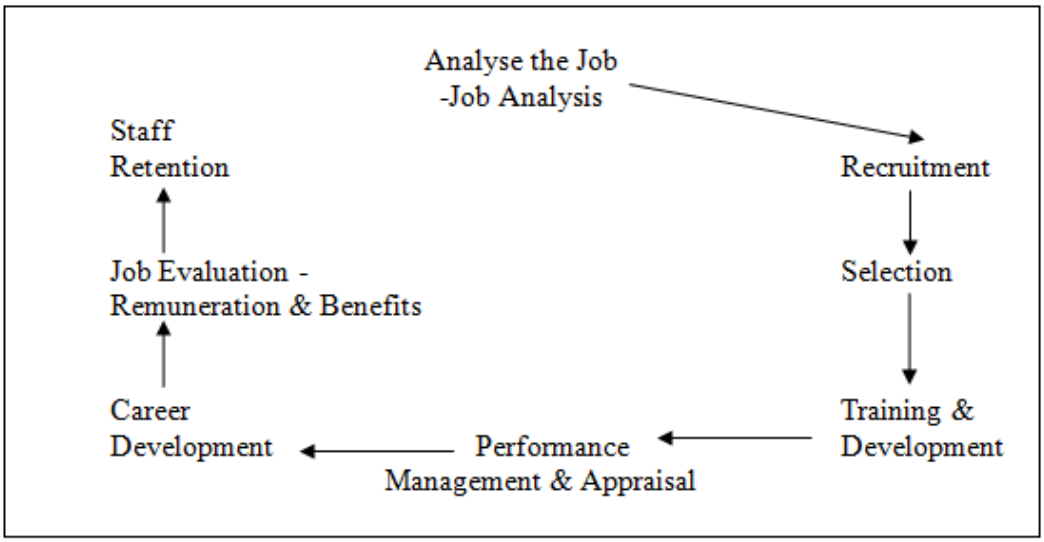

Figure 1.1 The Employment Life Cycle (D. Cable, personal communication, March 6, 2009).

Job analysis is an important topic in Organisational Psychology and Human Resource Management (HRM) functions (Gatewood & Feild, 2001; Mirabile, 1990; Spector, 2003) and is a compulsory topic in industrial and organisational psychology graduate programmes throughout New Zealand and Australia (Carless & Taylor, 2006). Despite the extensive literature and corresponding research on good practice in HRM, Taylor, Keelty and McDonnell (2002) and Taylor, Mills and Driscoll (1993) have shown that research findings are not widely utilised by large organisations, specifically in the New Zealand context. This is of concern, given that it is necessary for organisational psychologists and human resource professionals to be knowledgeable about reliable and valid research findings, while actively applying these research findings to ensure best practice is executed in the organisation.

Research suggests that the traditional job analysis approach is struggling to keep pace with the changing nature of work, while continuing to provide a stable foundation to human resource practices (Shippmann, Ash, Battista, Carr, Eyde, Hesketh, Kehoe, Pearlman, Prien & Sanchez, 2000). Specifically, the dynamic nature of work and the constant battle organisations face to remain competitive in today's environment have resulted in some organisations beginning to shift their focus away from job analysis and towards the new trend of competency modelling. This new focus appears to have been in an effort to establish the foundations for human resource practices. Frequently compared and contrasted to the practice of job analysis, competency modelling is similar in nature to job analysis, providing the foundations for human resource functions, but differs in its approach to 'how' work is accomplished (Shippmann et al., 2000). The key differences between job analysis and competency modelling are discussed later.

The purpose of the present study was to gain an understanding of human resource professionals' reported practices with regard to traditional job analysis and the new trend of competency modelling, in the context of New Zealand organisations. This was achieved through a review and examination of the areas of job analysis, the Occupational Information Network (O*NET), and competency modelling. Job analysis, the first phase in the employment life cycle, is reviewed in the context of how it is used by human resource professionals internationally and within the New Zealand context. A brief overview of the two major outputs of job analysis: job description and person specification, is also provided. Second, to identify the extent that practices in organisations lag behind research findings, known as the research-practice gap (Taylor et al., 2002), is evident in job analysis, and the influence it may have on human resource functions. To further investigate the research-practice gap, the O*NET, a comprehensive job information database, is examined as a source that can be used to supplement job analysis. Specific focus is given to Taylor and Cable's (2004) research, which looked at the applicability of the O*NET in New Zealand, and the influence this research has had on shaping the practices of human resource professionals in New Zealand. Finally, competency modelling, a new systematic procedure that is overtaking the methods of job analysis, is examined within the context of organisations internationally and within the New Zealand context.

Job Analysis

Job analysis is a process through which the job description and person specification are produced, acting as the forerunner for a number of organisational psychology and HRM areas, creating the foundation for human resource practices.

In order to review the importance and impact of job analysis, this section provides an understanding of how job analysis information is captured in the job description and the person specification. This is followed by an overview of previous studies on the use of job analysis in both international and national contexts. Additionally, the application of job analysis to human resource functions and current influences on the use of job analysis is discussed, including legislation, the research-practice gap, and the changing nature of work.

For the purpose of this research 'job analysis' is defined as the systematic process of collecting detailed information about the job as performed by an employee or employees (Chang & Kleiner, 2002; Clifford, 1994; Guion & Highhouse, 2006). In the context of this definition, job analysis aims to define the position description and identify characteristics required for effective performance of the job, captured in a person specification (Brough & Smith, 2003; Macky & Johnson, 2003; Morgeson & Campion, 2000).

There is no one specific way to conduct job analysis and a variety of job analysis techniques are used collectively in obtaining information about a job. Some of the more reliable and valid methods include the Critical Incident Technique developed by Flanagan (1954). This is a behaviour based method of job analysis that identifies through observation, incidents of incumbent's behaviours on the job, which leads to the development of job dimensions (Brough & Smith, 2003; Gatewood & Feild, 2001). The Functional Job Analysis is an attribute-based, behaviour-based and task-based method of job analysis, whereby through observation and interviews, the performances of job tasks are rated, to precisely define an employee's role (Brough & Smith, 2003; Gatewood & Feild, 2001). The Repertory Grid Technique, a behaviour-based method of job analysis,

uses subject matter experts who are individuals with a high level of knowledge about the job, to identify job constructs, which define the concepts of high and low job performance amongst employees (Brough & Smith, 2003; Macky & Johnson, 2003). The Task Analysis Inventory is a task-based method of job analysis, which consists of a questionnaire whereby job incumbents give judgements on job tasks (Brough & Smith, 2003; Gatewood & Feild, 2001). The Position Analysis Questionnaire is an attribute and behaviour based method of job analysis, which consists of a structured questionnaire on job content that is completed by job incumbents (Brough & Smith, 2003; Gatewood & Feild, 2001).

Job Description and Person Specification

The major outputs of job analysis, the job description and the person specification, encapsulate the information generated through job analysis. The job description, is defined as "an outcome of job analysis that portrays the tasks and duties of the job holder, and may include contextual information such as working conditions, reporting relationships, authorities and equipment used" (Macky & Johnson, 2003, p.166). The person specification is defined as the personnel attributes and qualities required of an employee to ensure successful performance of the job. It identifies the Knowledge, Skills, Abilities and Other characteristics (KSAO's) required to perform the job successfully (Morgeson & Campion, 2000; Wilkinson & van Zwanenberg, 1994). Knowledge refers to the information an individual is required to have to be able to perform a job; skill is the competency to be able to perform physical and mental activities; ability is the capacity to be able to perform or learn to be able to successfully perform over time; and other characteristics encompass the attributes and qualities not already included, for

example qualifications, personality or practical familiarity (Macky & Johnson, 2003; Mirabile, 1997; Phillips & Gully, 2009; Spector, 2003).

Job descriptions and person specifications play an important role in the practice of organisational psychology and HRM, specifically in personnel selection, which is the process of deciding which applicant has the necessary KSAO's required for the job (May, 2006; Smith & Brough, 2003).

Job Description

The job description identifies what is carried out as part of the job, providing a significantly powerful tool that can be used to provide a foundation to the functions of human resource management (Grant, 1988; Morgeson & Campion, 2000).

Job descriptions generated from job analysis can be tailored by human resource professionals as broadly or narrowly as they require. Arthur (1995) defined the development of the job description into two types: generic and specific. 'Generic' refers to the job descriptions that are expressed in a generalized, less detailed manner that can be applied to a number of comparable positions within the organisation. Alternatively, 'specific' refers to job descriptions that are precise in detailing only one position in the organisation. Information in both generic and specific job descriptions needs to be accurate and relevant to the tasks and duties performed on the job. Research suggests that having well prepared job descriptions can produce better communication and understanding of what the job involves, eliminate discrepancies about the job requirements and the time that should be dedicated to each task (Arthur, 1995; Busi, 1990; Grant, 1988).

Several researchers (Arthur, 1995; Buford, Burkhalter, & Jocobs, 1988; Busi, 1990; May 2006; Mona, 1991) recognise the job description as an important document that is most commonly used in personnel selection, but can be applied to many human resource practices. However, job descriptions are often not utilised by organisations (Grant, 1998). This is due to manager's reluctance to devote time and resources towards the development of job descriptions, or managers not knowing how to apply the job description to the human resource functions in the organisation (Grant, 1998; Working Time Analysts, 1989).

Limited effort to employ and utilise job descriptions can negatively impact on an organisation's overall effectiveness, as job descriptions establish job requirements and job content. Not utilising a well structured job description in human resource functions can jeopardise the reliability and validity of personnel selection methods and exposes the organisation to legal ramifications by not specifically detailing the requirements of the job for prospective and current employees (Singh, 2008).

Given the changing nature of work it is necessary to review job descriptions on a regular basis. For example, reviewing job descriptions on an annual basis ensures a job has had no extensive changes, and allows for updating and altering job descriptions in line with job specific, organisational and market changes that have taken place (Arthur, 1995).

Person Specification

A comprehensive job analysis can establish the groundwork for a well developed person specification (van Zwanenberg & Wilkinson, 1993; Wilkinson & van Zwanenberg, 1994). Smart (1987) suggested that describing the attributes of the ideal applicant in person specifications assists in developing excellent

personnel selection systems, through establishing a sound base from which the selection process follows on. The person specification supports the validity of personnel selection methods. This is achieved by establishing the foundations for ensuring that what is being measured / assessed in selection is relevant to the job.

Increasing pressure to select the right person for the job (Smart, 1987) highlights the importance of getting the basics right, in order to employ the best candidate for the job. This process begins with the utilisation of person specifications. Detailing the KSAO's required to perform the job leads to 'best practice' in the employment process.

Previous Studies on the Use of Job Analysis

International Research on Job Analysis

A number of studies have focused on and stressed the importance of job analysis as a function of HRM. Research in the United States of America (Gatewood & Feild, 2001; Mirabile, 1990; Spector, 2003) has consistently shown job analysis to be a fundamental aspect of HRM. More specifically, job analyses provide the starting point for subsequent steps towards improved organisational effectiveness. Recent studies (Cascio & Aguinis, 2008; Robertson & Smith, 2001) suggest the processes required to carry out comprehensive job analyses are viewed by managers and human resource professionals as time consuming and complicated. Furthermore, application of job analysis to the organisational setting is hindered by management's limited knowledge of the processes involved. Specifically, often not enough time is dedicated to carry out and update job analysis. This subsequently manifests in concerns surrounding the application of job analysis in the organisation (Cascio & Aguinis, 2008; Mirabile, 1990;

Robertson & Smith, 2001). It is consequently unsurprising that research on personnel selection methods has identified job analysis as one of the least developed areas in the selection process (Robertson & Smith, 2001).

Cascio and Aguinis (2008) found, between the years of 1963 to 2007, only 4.69% of published articles in Personnel Psychology and 2.77% of published articles in the Journal of Applied Psychology were related to job analysis. Those areas that received greater recognition in the journals included research methodology, making up 20% to 22% of articles, and performance predictors, making up 12% to 20% of articles between the two journals. This raises significant concerns given that job analysis, amongst many other human resource functions, is the basis of personnel selection practices.

To remain competitive in today's changing environment, human resource professionals need to be aware of change and be open to adapting to suit 'best practice' within the organisation. Singh (2008) recognised changes need to be made to keep practices current, through proposing an approach termed 'strategic' job analysis. This requires identifying the organisation's needs and requirements of the future, which align with the organisational strategy. Strategic job analysis differs from the traditional job analysis, where jobs are treated as static, towards an approach that aims to predict how the job will be carried out in the future. Outlining the future tasks, duties and KSAO's the employee will be required to demonstrate, allows for roles to adapt to change in today's organisational environment.

Job Analysis in the New Zealand Context

Job analysis findings based within the New Zealand context are limited. New Zealand research on job analysis practices has focused on the broader

spectrum of personnel selection, touching on job analysis as the foundation to develop valid selection methods including assessment centres and structured interviews (Taylor et al., 2002; Taylor et al., 1993).

Taylor et al. (1993) researched the use of personnel selection methods and the reasoning for their use. Findings showed that the use of formal job analysis was scarce for both lower and senior level positions, while involvement in developing job analysis came from position managers and personnel staff. Only minimal input from job incumbents was identified. Taylor et al. (1993) found the most predominant selection methods used by New Zealand organisations and consulting firms were interviews, the candidate's personnel history and the candidate's references. Personnel selection methods that utilise job analysis and that are reported to have high validity included cognitive ability tests, personality questionnaires and assessment centres (Gatewood & Feild, 2001; Robertson & Smith, 2001). According to Taylor et al. (1993) these methods were less commonly used by New Zealand organisations.

Taylor et al. (2002) followed up on the previous study by Taylor et al. (1993), investigating key factors influencing New Zealand organisations' personnel selection practices. These key factors included: selection research, the distribution of research findings, the availability of occupational tests, and the impact of changing legislation. Findings indicated that New Zealand organisations continued to employ informal and unsystematic approaches, as opposed to using more formal job analysis methods in establishing job requirements (Taylor et al., 2002). This raises concerns about the current employment selection process adopted by organisations, given that comprehensive job analysis provides the foundations for valid selection methods. Job analysis processes that are in line

with New Zealand legislation and that adopt the Human Rights Commission's (2009) Equal Employment Opportunities (EEO) are consistent with human resource practices and enable organisations to select the best person for the job.

A recent survey (D. Cable, personal communication, July 3, 2009) of individuals practising in the area of organisational psychology (conducted in April - May 2009) showed 84% (n=63) of survey participants engaged in recruitment, selection and placement. However, it is important to recognise that only 70% (n=44) of participants identified job analysis as a work activity in recruitment, selection and placement. This raised the question as to why the remaining survey participants (30%) did not identify job analysis as a work activity in recruitment, selection and placement.

Emphasis has been placed on the importance of job analysis as a foundation from which to build effective personnel selection methods and other human resource functions (Gatewood & Feild, 2001). New Zealand findings indicated several influences including legal issues, the research-practice gap, the changing nature of work and the application of job analysis to other human resource functions, as impacting upon practitioner use of formal job analysis.

Influences on the Use of Job Analysis

New Zealand Legislation

A legal justification is presented for the use of job analysis both overseas and within the New Zealand context. Job analysis plays an important role in defining the actual requirements of the job, offering legal defensibility to the organisation should an issue arise in the personnel selection process (Spector, 2003).

New Zealand legislation in the form of the Human Rights Act (1993) can have an influential effect on human resource professionals and their practices in New Zealand. Specifically, the New Zealand Human Rights Act (1993) protects people from discrimination in a number of areas including employment. Section 21 of the Human Rights Act (1993) defines discrimination as the unfair treatment of a person as compared to another person in the same situation. The Employment Relations Act (2000) (ERA) also defines discrimination as not offering the same terms and conditions of employment, or the same benefits, opportunities or promotion to employees in similar situations. According to section 104 of the ERA, employers cannot discriminate on the grounds of sex, marital status, religion, ethical beliefs, colour, race, ethnicity, disability, age, political opinion, employment, family or sexual orientation. Laws forbidding discrimination in the employment relationship is prevalent in the majority of industrialised countries, based on the idea that people should be treated fairly (Spector, 2003). With respect to legislation that relates to discrimination in employment settings it is important to note the concept of genuine occupational qualifications (GOQ's). A GOQ provides a very limited exception to the Employment (Sex Discrimination) Act in Great Britain and in New Zealand, allowing an organisation to discriminate on the grounds of sex where the worker's sex is a GOQ (Pannick, 1984). GOQ's should be identified and justified in the initial job analysis process to identify the KSAO's, tasks and duties required to achieve the job's objectives. Consequently, another important aspect of job analysis is to ensure that no job applicant or employee will be discriminated against, unless a GOQ is specified.

The Human Rights Act (1993) also has further implications for organisations and their human resource practices. Information, including personal

characteristics (e.g. sex or race) which may lead to discrimination, should not be taken into consideration as part of the personnel selection process. Only information directly related to the job should be asked. The foundation a comprehensive job analysis provides to human resource practices becomes a key aspect when providing Equal Employment Opportunities (EEO) and eliminating grounds for discrimination. Human resource documents, including job descriptions and person specifications that support EEO, and that hire the best candidate for the job and the organisation, based on merit, help to eliminate unlawful discrimination from the personnel selection process. Therefore a comprehensive job analysis process will benefit the organisation's current and prospective employees.

Clifford (1994), Singh (2008) and May (2006) recognised the legal importance for job analysis in organisations, demonstrating that valid selection processes are necessary in employment decisions. This helps to display to current and potential employees that they have been fairly treated, as well as offering a defence to human resource functions from legal challenges. Evidence of a well structured job analysis and high content validity to support human resource processes is also likely to be viewed more positively by a court, should issues arise.

It is not compulsory for organisations to carry out formal job analyses, however, a comprehensive job analysis can demonstrate clear links to human resource functions. Describing the KSAO's, tasks and duties required to be able to perform the job provides organisations with accurate, job related information that creates the foundation for areas including selection, performance appraisal and

training, leading to ‘best practice’ in human resource management (Macky & Johnson, 2003).

The Research-Practice Gap in Job Analysis

A research-practice gap exists in job analysis, due to job analysis research results not being applied in the organisational setting (Taylor et al., 2002; Taylor et al., 1993). Recognising the application of research findings to the applied setting is important in determining if the distribution of information to human resource professionals is adequate. It also provides scope to investigate if the practice can be further improved through applying the information provided in research findings. Clifford (1994) suggests that organisations avoid carrying out job analysis due to human resource professionals’ limited research knowledge, lack of understanding of the job analysis process, or the result of not having the correct resources to do a comprehensive job analysis. Specific to the New Zealand context, Taylor et al. (1993) found a research-practice gap in the area of personnel selection. Specifically, the people responsible for administration of human resource functions had limited knowledge of research surrounding personnel selection.

Research can only be as influential as the extent to which it is applied. It is encouraging to find that Taylor et al.’s (2002) study recognised that improvements in bridging the research practice gap have been made through easier access to information, research publications and the distribution of research to practitioners. According to Taylor et al. (2002), the research practice gap has narrowed in personnel selection when compared to surveys from the 1990’s. However, bridging the research practice gap remains an area that needs further work. The

challenge will be to bridge the research-practice gap to ensure the benefits offered from job analysis can be accessed by the organisation.

The Changing Nature of Work on Job Analysis

The changing nature of work refers to the environmental, economic and global market conditions that impact on the way organisations function and the behaviour of individuals in those organisations. According to Schneider and Konz (1989) and Hough and Oswald (2000), the changing nature of work presents difficulties for the practice of job analysis. The static nature in which jobs are treated in job analysis means that information is captured at only one point in time. Despite findings that indicate job analysis focuses on static jobs, Goodstein and Prien (2006), Sanchez (1994), and Singh (2008) recognised that jobs are unlikely to remain static, due to technology, market and organisational transformations, creating a need to identify and adapt to change. Research suggests that, given the current technological advances, there is no reason why human resource professionals cannot carry out comprehensive, up to date job analyses (Clifford, 1994; Singh, 2008).

More recently, research has focused on various applications of job analysis so as to adapt to the changing nature of work. Brough and Smith (2003) and Phillips and Gully (2009) discussed the use of strategic and future oriented job analysis. The strategic job analysis approach, proposed by Singh (2008) is identified as being used for jobs that are changing and to predict how the job will be carried out in the future (Brough & Smith, 2003). The future oriented job analysis approach is used to describe new jobs or how the job will be executed in the future, as opposed to describing a job as it currently exists (Phillips & Gully, 2009). Clifford (1994) argued that job analysis should be a cost effective process

available and operable in both public and private organisations. Technological advancements now provide organisations with the opportunity to have comprehensive up to date job analysis information. To stay relevant with today's changing nature of work, human resource professionals need to be aware of organisational and market changes, and adapt their practices to be in line with the changing nature of work.

Application of Job Analysis to Human Resource Functions

Spector (2003) and Taylor et al. (1993) suggested that selection methods should be developed from well structured job analyses. Without job analysis as the foundation, this could lead to the development of unreliable selection methods (Robertson & Smith, 2001; Taylor et al., 2002)

The utilisation of job analysis is not limited to personnel selection. Rather, it establishes the foundations for a number of human resource practices including training and development, specifically training needs analysis, compensation, and performance appraisal (Gatewood & Feild, 2001; Gibson, Harvey & Harris, 2007). In respect of training and development, Clifford (1994) suggested that these components, as a function in human resource management, will be more proficient and valuable to the organisation when derived from the specific tasks, duties and KSAO's required to successfully perform the job. Performance appraisal should be based on well structured job analysis, through identifying the key job components to be used to evaluate an employee's performance (Spector, 2003). Consequently, if carried out correctly, traditional job analysis can provide a stable foundation upon which human resource functions can be developed.

In summary, job analysis, and its outputs of the job description and person specification have established the foundations for sound human resource practices. The contextual influences of legislation, the research-practice gap and the changing nature of work, present challenges to human resource professionals. To overcome these challenges, attention has switched to a new development, referred to as 'competency modelling', to establish human resource foundations and maintain 'best practice' in the organisation. Competency modelling will be discussed following the discussion of the O*NET.

The Occupational Information Network (O*NET)

The Occupational Information Network (O*NET), developed and released in 1999 by the United States Department of Labour, replaced the Dictionary of Occupational Titles (DOT), a book form of occupational information, that details job requirements, is reviewed to further investigate the presence of a research-practice in job analysis. The O*NET can support job analysis through providing a quick, easy to access resource that that can provide specific employee and job requirement information that can be used to support and develop job descriptions and person specifications.

Applying a wide variety of sources to obtain job analysis information will allow for a more comprehensive and precise understanding of the tasks, duties and KSAO's required to successfully perform the job. One source that can be used in the development and validation of job analysis and competency modelling is the Occupational Information Network (O*NET) database. This is found online at http://online.onetcenter.org. Based on occupations in the United States, the O*NET offers a flexible, free, computerised online database containing a

comprehensive source of job information relating to work behaviour and worker attributes, that can be applied throughout organisational psychology and HRM (Borman, 1996; Dye & Silver, 1999; Hough, & Oswald, 2000; Jeanneret & Strong, 2003; Peterson, Mumford, Borman, Jeanneret, Fleishman, Levin et al., 2001).

Compared to the DOT, the O*NET database addresses fewer occupations in a more broadly defined manner. Data presented in the O*NET database has been measured through surveys of workers as opposed to previous expert job evaluations. The O*NET database is based on a 'content model' (Figure 1.2) that includes multiple descriptors used to provide general inferences from which specific job related information could be structured (Crouter, Lanza, Pirretti, Goodman & Neebe, 2006; Hadden, Kravets & Muntaner, 2004).

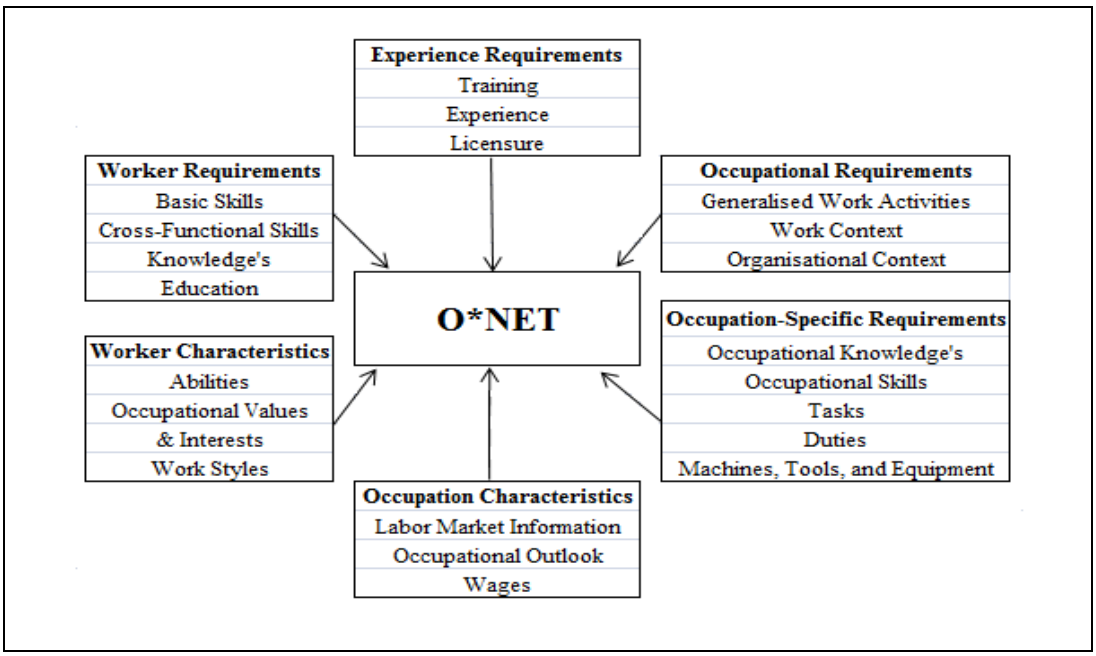

Figure 1.2 The O*NET Content Model (Mumford & Peterson, 1999, p.25).

Given today's changing nature of work and the complications that arise in maintaining up to date job analysis information, the O*NET database provides

current job information. As a computer based database, the O*NET is updated regularly with current job information, allowing human resource practitioners access to current and specific job content.

The Content Model

The O*NET database is focused around the Content model (Figure 1.2), that connects work behaviours to particular employee qualities, by describing the characteristics and requirements of the job and the employee. Made up of six domains, the content model includes: (a) worker characteristics, the individual traits required to perform jobs including, abilities, work style, and occupational values and interests; (b) worker requirements, the general traits of how duties should be approached including, knowledge, education, basic skills, and cross-functional skills; (c) experience requirements, people's planned experiences that are necessary for a specific job, including training, experience, and licensure; (d) occupational requirements, the actual tasks required to perform the job including, generalised work activities, work context, and organisational context; (e) occupation-specific requirements, the information particular to the job including, tasks, duties, occupational knowledge, occupational skills, and machines, tools and equipment; (f) occupation characteristics, prominent labour market variables including, salary / wages, occupational outlook, and labour market information (Borman, 1996; Mariani, 1999; Mumford & Peterson, 1999; Peterson et al. 2001; Reiter-Palmon, Brown, Sandall, Buboltz, & Nimps, 2006). The job and employee related information presented in the content model is the basis of the O*NET database. Used correctly it offers a wealth of knowledge about jobs that can be applied to human resource functions in the organisation.

In summary the O*NET database has enabled substantial developments in describing work and workers, offering an inexpensive readily available method to provide job related information. The ability to adapt and update easily is advantageous in today's ever changing nature of work, giving human resources professionals a method to supplement their current HRM practices.

Previous Studies on the O*NET

The O*NET database offers improved quality of content on job related information compared to the DOT. Allowing a common language on occupational information to be produced that can assist human resource practitioners in the decisions they make (Borman, 1996; Hadden et al., 2004; Mariani, 1999). In a review of personnel selection research Hough and Oswald (2000) found the O*NET database had made positive developments towards identifying and adapting to the changing nature of work. Robertson and Smith (2001) found that the O*NET database provides a wealth of knowledge on behaviours and attributes required to perform jobs, which can specifically be used in the areas of job analysis and personnel selection.

Jeanneret and Strong (2003) linked the O*NET database variables to possible HRM assessment tools, as a means for yielding information that can be applied to numerous human resources functions, including job requirements in the selection and placement of job incumbents. Jeanneret and Strong (2003) showed that Generalised Work Activities (GWA), a component of the O*NET database, had a strong correlation with dimensions in the Position Analysis Questionnaire (PAQ), a structured job analysis instrument, with 28 out of the 33 correlations classed as significant. The O*NET's GWAs are also a successful predictor of

anticipated General Aptitude Test Battery (GATB) test scores. This is a test used to assess the likelihood of success in a specific career. This is identified through the O*NET database's job analysis information in GWAs, which can assist with the process of job component validation, which is the identification of possible selection tests (Jeanneret & Strong, 2003).

The methods used to develop the O*NET database have presented some discrepancies. Gibson et al. (2007) considered the O*NET to use methods that look at the totality when obtaining job information to maintain the database. This was done by relying on ratings from job incumbents that have volunteered or come from a small sample, to evaluate jobs, thus risking the quality and ability to compare ratings. Specifically Gibson et al. (2007) identified quality and accuracy as the two most important aspects to consider when developing a database of occupational information, which can be used internationally to support the job analysis process in HRM. Peterson, Borman, Hanson and Kubisiak (1999) recognised the data collection of information for the O*NET database was an area that still needed work and acknowledged that the use of multiple methods in collecting data was required.

The O*NET database in the New Zealand Context

Research on the application of the O*NET database in the New Zealand context is scarce, with only two key studies specifically addressing the O*NET database; namely, Taylor and Cable (2004), and Taylor, Li, Shi and Borman, (2008). Taylor and Cable's (2004) article on "Using the Occupational Information Network (O*NET) in New Zealand" was a focal point in the present research, to review one specific example of a possible research-practice gap in job analysis.

The article was selected based on its application to job analysis for organisations within the New Zealand context. Taylor and Cable's (2004) study of 156 incumbents working in New Zealand was conducted to review the use and transportability of the O*NET database within the New Zealand context. The job analysis items that were reviewed included the importance of work activity, skills required and work styles to the job for three different jobs including office clerk, computer programmer and a customer service first line supervisor (See Appendix A, for an example of the summary report produced by the O*NET database for an Office Clerk).

The findings indicated that job analysis ratings in the USA and New Zealand have a high degree of similarity. This was confirmed by high correlations of 0.83 and higher between the mean ratings of job analysis items. This suggest the job information present in the O*NET database is relevant to the New Zealand context and can be put to practical use in New Zealand human resource management. Taylor and Cable's (2004) article demonstrated the O*NET database can be applied to the job and employees in New Zealand organisations, suggesting it as a reputable source for obtaining job information. The present research followed up on Taylor and Cable's (2004) article to examine the uptake of the research and to assess the influence the article has had on human resource professionals' application of the O*NET database, in their practice of job analysis.

In a wider study, also using data from Taylor and Cable's (2004) study, Taylor et al. (2008) reviewed job information using the O*NET databases to other countries, including New Zealand, China and Hong Kong. The United States of America and New Zealand were identified as having similar features of being

highly individualistic, democratic, sharing the same language and cultural characteristics. Correlations for the O*NET databases work activities were highest between the United States of America and New Zealand compared to countries that do not share the same language or have cultural dissimilarity to the United States of America (Taylor, et al., 2008). Findings by Taylor et al. (2008) suggest work activity, skill, work style and the O*NET database instruments were comparable to jobs in New Zealand, along with other countries outside of the United States.

The O*NET database's information on the job and employees can be utilised within the New Zealand context. Findings illustrate the generalised work activities, basic and cross functional skills and work styles as presented in the O*NET database are comparable to the job and employees in New Zealand. Implications include that New Zealand organisations could utilise the O*NET database with confidence, knowing that the job information is reliable and relevant.

Competency Modelling

Often compared and contrasted to job analysis, competency modelling is emerging as the new focus in human resource management and organisational psychology literature (Shippmann et al., 2000; Sanchez & Levine, 2009). Competencies are defined as the level of KSAO's associated with high job performance, often distinguishing high performers from average performers on the job (Kurz & Bartram, 2002; Lievens, Sanchez & De Corte, 2004; Mirabile, 1997). Competency modelling is defined as aligning competencies to the organisation's strategy, through identifying the core competencies required for

successful performance on the job and that distinguish between high, standard and low performers on the job (Grigoryev, 2006; Lievens et al., 2004; Mirabile, 1997). Figure 1.3 illustrates an example of a competency model for a systems engineer (Mirabile, 1997, p.77).

Competency modelling will be reviewed through a comparison and contrast to the traditional job analysis both nationally and internationally, and a review of previous studies on the use of competency modelling in the New Zealand context. Finally, influences on competency modelling and the future developments of competency modelling are covered.

TECHNICAL CLUSTER	PROFICIENCY RATINGS
Systems Architecture Ability to design complex software applications, establish protocols, and create prototypes.	0-Is not able to perform basic tasks. 1-Understands basic principles; can perform tasks with assistance or direction. 2-Performs routine tasks with reliable results; works with minimal supervision. 3-Performs complex and multiple tasks; can coach or teach others. 4-Considered an expert in this task; can describe, teach, and lead others.
Data Migration Ability to establish the necessary platform requirements to efficiently and completely coordinate data transfer.	0-Is not able to perform basic tasks. 1-Understands basic principles; can perform tasks with assistance or direction. 2-Performs routine tasks with reliable results; works with minimal supervision. 3-Performs complex and multiple tasks; can coach or Teach others. 4-Considered an expert in this task; can describe, teach, and lead others.
Documentation Ability to prepare comprehensive and complete documentation including specifications, flow diagrams, process control, and budgets.	0-Is not able to perform basic tasks. 1-Understands basic principles; can perform tasks with assistance or direction. 2-Performs routine tasks with reliable results; works with minimal supervision. 3-Performs complex and multiple tasks; can coach or teach others. 4-Considered an expert in this task; can describe, teach, and lead others.

Figure 1.3 An Example of a Competency Model for a Systems Engineer (Mirabile, 1997, p.77).

Competency Modelling Compared and Contrasted to Job Analysis

Competency modelling is often linked to, and acts as a supplement to job analysis. Like job analysis, competency modelling is a systematic procedure that provides the foundation for human resource functions in the organisation. Although very similar, significant differences can be identified between job analysis and competency modelling. Competency modelling focuses its attention on '*how'* the work is accomplished, as opposed to '*what'* work is accomplished in the traditional job analysis. Secondly, competency modelling aims to establish the link between the required employee competencies and the organisational goals and strategy, as contrasted to job analysis, which aims for a more specific, employee-job fit (Shippmann et al., 2000). Employing similar methods to job analysis, competency modelling more broadly specifies the KSAO's required to successfully perform the job. The KSAO's are linked to the bigger picture of achieving the organisational strategy and organisational success. Given today's changing nature of work it is important to address competency modelling alongside the traditional job analysis approach, as a new development in human resource management, helping to establish the foundations for human resource practices.

International Approaches and the Use of Competency Modelling

A number of different definitions have been developed in the implementation of competency models (Grigoryev, 2006; Markus, Cooper-Thomas & Allpress, 2005; Maurer, Wrenn, Pierce, Tross, & Collins, 2003; Rothwell & Lindholm, 1999). Rothwell and Lindholm (1999) recognised three different tactics that could be applied in the implementation of competency

modelling. The first approach involves using a competency model previously developed by another organisation, creating a straight forward and cost effective approach. The second approach sees the specific development and application of a competency model that meets organisational standards. In the third approach, an organisation can combine the first approach of another organisation's competency model in conjunction with adapting it to the current organisational setting. Each approach is recognised to contain costs and benefits to the organisation in terms of time, cost or effectiveness.

It is also important for organisations to recognise and distinguish between the concepts of 'generic' and 'specific' competencies, when developing competency models. Generic competencies refer to those which are organisation wide and apply to all employees throughout the organisation (Arthur, 1995; Shippmann et al., 2000). Specific competencies refer to those which are specific to a particular job. In determining which competencies and approach to use it comes down to the organisation to implement an approach that is practical and that will best satisfy organisational needs (Arthur, 1995; Shippmann et al., 2000).

International studies by Grigoryev (2006), Rowe (1995) Shippmann et al., (2000) identified that competency models can be applied to numerous human resource functions in the organisation including personnel selection, training and development, performance appraisal / evaluation, compensation, and career development / management. In the application of competency modelling in the organisation, most work surrounding the use of competency modelling is targeted towards management positions (Shippmann et al., 2000). However, research suggests competency modelling can be applied to all job levels in the organisation (Lievens et al., 2004). Identifying the necessary employee competencies that

result in high job performance can be developed to encompass the variety of KSAO's recognised throughout job levels present in the organisation (Phillips & Gully, 2009).

Previous Studies on the use of Competency Modelling in the New Zealand Context

A survey by Markus et al. (2005) looked at the practices of 54 New Zealand organisations and their use of the competency concept. Thirty percent of organisations were found to use formal competency models. Findings showed that private, as opposed to public, sector organisations, were less inclined to use competency modelling. This was attributed to human resource professional limited knowledge and ability to deal with competency models (Markus et al., 2005). Markus et al. (2005) found that public sector organisations commonly applied competency modelling to performance appraisal. Of the organisations that used competency modelling only one quarter consistently used the information derived from competency models in recruitment and selection. This suggests that organisations may be failing to adopt 'best practice' in their human resource functions.

In a review of competencies in HRM, Jackson (2007) found the organisation's human resource functions can be based upon competency models, creating a growing interest in competencies and competency modelling. The limited evidence surrounding the measurement of competencies remains a current area of concern for human resource professionals. Using competencies that are not successfully measured can compromise the accuracy of their impact on the job and employees when applied to human resource functions (Jackson, 2007).

Competency modelling can be helpful in establishing the foundations for human resource practices, providing the groundwork to avoid any legal issues that can arise from utilising unreliable processes (Jackson, 2007).

Influences on Competency Modelling

The Research -Practice Gap in Competency Modelling

The practice of competency modelling has made significant progress in recent times and has adapted well to the human resource functions in organisations, by offering a method that ties in with the organisational strategy to achieve success. Despite the increasingly widespread implementation of competency models as an aid to achieving overall organisational effectiveness, a research-practice gap is recognised whereby human resource practitioners have limited research upon which to base and develop competency models (Kurz & Bartram, 2002; Maurer et al., 2003).

The limited amount of research on the use and measurement of competency modelling has raised concerns from several researchers (Lievens et al., 2004; Markus et al., 2005; Rogelberg, 2000) who suggest a need for further empirical research on the validity of competency models, to ensure 'best practice' is being implemented in the organisation. Competency modelling offers a new approach to establishing the foundations for human resource practice, which accounts for the changing nature of work. Consequently, more empirical research is required to increase the validity of competency modelling and to also provide knowledge and understanding to human resource practitioners, as a means for implementing a pathway to overall organisational effectiveness.

The Changing Nature of Work and Competency Modelling

Competency modelling must adapt to the changing nature of work. This can be achieved by being future-focused and adapting to the external environment. As the market changes it is necessary for the organisation to remain competitive and up to date, with current research trends in competency modelling, to be able to support and drive change as it occurs (Rothwell & Lindholm, 1999; Shippmann et al., 2000). Lievens et al. (2004) recognised that in order to achieve reliable competency modelling in an organisation, a range of knowledgeable subjects, including human resource professionals, job incumbents and subject matter experts, should be used in conjunction with the organisation's strategy to encompass all areas of the job. The changing nature of work is ever present through aligning employees with the organisational strategy and offering analysis of broader competencies often not recognized in job analysis, as focus is directed towards obtaining high work performance to achieve optimal success.

Future Developments in Competency Modelling

Competency modelling offers organisational psychologists and human resource professionals an alternative to job analysis for establishing the foundations of human resource practices in the organisation. Rothwell and Lindholm (1999) recognised competency modelling approaches can focus on what is required of workers to successfully adapt to environmental changes, thus creating an output that creates consistency between worker advancement and the organisation's strategy.

However, the future of competency modelling is not without difficulties that need to be overcome. Namely, further work is required regarding the

ambiguity often associated with competencies, and the amount of time and effort required by human resource professionals in the development of competency modelling (Rothwell & Lindholm 1999; Rowe, 1995). The future provides an opportunity to improve the practice of competency modelling and increase practitioners' understanding of the concept. The application of competency modelling working in conjunction with job analysis may increase. Further research is also needed on how job analysis and competency modelling can work together in achieving the objectives of human resource functions (Sanchez & Levine, 2009).

Competency modelling offers noteworthy information to the foundations of human resource functions, advantageous in organisational psychology and HRM. Competency models can be supported by further empirical research to validate practices already present in organisations.

Purpose of the Present Study

The present study evaluated the application of job analysis, the O*NET and competency modelling in New Zealand organisations. The primary objective of the present study was to gain an understanding of the extent to which human resource professionals are utilising traditional job analysis approaches and the new development of competency modelling, two areas similar in nature and both aimed at establishing the foundations for human resource practices. The second objective was to identify whether there is a research-practice gap in job analysis and competency modelling, and influence it has on HRM. Specifically, the research-practice gap is investigated through the application of the O*NET, a source that can support the job analysis process. Focus is given to Taylor and

Cable's (2004) article, by examining the influence the article has had on human resource professionals and their job analysis practices within the New Zealand context.

Research Questions

Firstly, this study is expected to provide insights into how job analysis and competency modelling are being utilised by human resource professionals in New Zealand organisations. Secondly, it will explore the extent to which the research-practice gap remains present in job analysis, through the influence Taylor and Cable's (2004) article on the O*NET database has had on the practices of human resource professionals. This will be achieved through addressing research questions on the areas of job analysis, position descriptions, competency modelling, and the O*NET, as addressed below.

Job Analysis and Position Descriptions

To investigate the awareness and use of job analysis by human resource professionals in New Zealand organisations. This is followed by an exploration of how position descriptions are determined, developed and applied in the organisation, supported by a review of the perceived importance of position descriptions to human resource functions. To conclude, a review of the perceived importance of job analysis as a human resource function, along with the influence the research-practice gap and the changing nature of work is having on job analysis.

*The Occupational Information Network (O*NET)*

To investigate the awareness and use of the O*NET database, followed by a review of the influence Taylor and Cable's (2004) article has had on human resource professionals use of the O*NET database.

Competency Modelling

To investigate the awareness, development and application of competency models in organisations. Followed by a review of the perceived importance of competency modelling to human resource functions, and the influence the research-practice gap is having on competency modelling.

Chapter Two

Method

The Human Resources Institute of New Zealand (HRINZ) represents over 3600 members that are involved in, or have an interest in, human resources. Representing workers in both the public and private sector of New Zealand organisations, the HRINZ allows human resource practitioners the opportunity to develop and grow in their roles, providing members with access to information, representation, current research and opportunities to build and maintain relationships. Surveying members of the HRINZ, the objective was to explore human resource practices in job analysis and competency modelling. The research-practice gap in job analysis is investigated through human resource professionals' knowledge of the O*NET database.

Participants

Approximately 568 members of the HRINZ research stream were invited to participate. The HRINZ research stream is made up of members that have previously agreed to participate in research requests. An online survey was conducted, through an email that was issued to members of the research stream of the HRINZ.

One hundred and seven members of the research stream completed the on-line questionnaire (Appendix E) giving an 18.84% response rate. Of the 107 individual survey responses, 95 organisations were represented. To differentiate between individual responses and organisational responses, questions specific to opinion generated individual responses and questions specific to behaviours and

processes in the organisation generated organisational responses. The on-line questionnaire asked all respondents to give background information. Questions were structured in a way enabled multiple responses from the same organisation to be identified. In the case that more than one individual response was received from the same organisation, the respondent with the most senior position was used for organisational analysis, based on them having a higher more influential role. There was minimal difference between the responses given by two or more people from the same organisation. The sample was analysed by organisational size (number of employees) (Table 2.1), type of industry (Table 2.2), and respondents position (Table 2.3).

Table 2.1.

Organisational Size of Responding Organisations

Organisational Size (Number of Employees)	Percentage and Number of Organisational Responses (n= 95)
1-20	19% (18)
21-50	7% (7)
51-100	3% (3)
101-500	27% (26)
500+	41% (39)
No Response	2% (2)

Table 2.2.

Percentage and Number of Responding Organisations in Each Industry

Occupational Title	Percentage and Number of Organisational Responses (n=95)
Consulting	15% (14)
Education	11% (10)
Government	9% (9)
Manufacturing	6% (6)
Finance / Insurance	5% (5)
Human Resources / Business	5% (5)
Health	4% (4)
Transport	4% (4)
Information Technology	3% (3)
Research / Development	3% (3)
Retail	3% (3)
Utilities / Energy	3% (3)
Community / Not For Profit	3% (3)
Engineering	3% (3)
Aviation	2% (2)
Entertainment	2% (2)
Production	2% (2)
Other	12% (11)
No Response	3% (3)

Table 2.3.

Number and Percentage of Respondents for Each Occupational Title

Occupational Title	Percentage and Number of Individual Responses (n= 107)
Human Resource Manager	37% (40)
Human Resource Advisor	11% (12)
Human Resource Administrator	2% (2)
Manager	9% (10)
Director	6% (6)
Consultant	19% (20)
Psychologist	2% (2)
Principal	2% (2)
Other	9% (10)
No Response	3% (3)

The majority, 62% (n=59) of participants worked in private sector organisations, and 32% (n=30) worked in public sector organisations (Note. Six organisations did not indicate their sector). No other demographic information was collected about respondents, as it was not deemed necessary for this study.

Procedure

The HRINZ was approached with a letter outlining the purpose and research goals (Appendix C) and a research proposal, requesting support to distribute a survey to the HRINZ members, which was accepted. Ethical approval for the research was obtained from the Research and Ethics Committee at the Psychology Department, the University of Waikato.

The information sheet outlining the purpose of the research and containing the online survey link (Appendix D) was forwarded to the Human Resource Careers and Education Manager at the HRINZ to distribute. Five hundred and sixty-eight members of the of the HRINZ research stream were invited to participate in an anonymous online survey. Participants were informed on the information sheet that their participation was voluntary, with the right to withdraw from the survey at any stage from which the data was collected. To ensure a larger number of responses an online survey was used as opposed to carrying out interviews with human resource professionals. Participants were advised that the intention was to provide publication of the results in the HRINZ Human Resource Magazine.

The online link to participate was sent on two separate occasions. Due to the low response rate from the first invitation, a second invitation to participate was sent out two months after the initial invitation, as a means for increasing the response rate. Participants were given a two week period to respond the first time the online link was distributed, and a four week period the second time the online link was distributed.

Survey Schedule

The online survey consisted of 45 questions (Appendix E), which took approximately 10 minutes to complete. Where possible, questions were structured in a closed-ended format to measure responses. The survey was broken into three sections, focusing on the respondent's knowledge, use and application of job analysis, position descriptions, the O*NET and competency modelling. Section A focused on job analysis and position descriptions, section B on the O*NET, and

section C on competency modelling, followed by respondent's background information (Appendix E). In the background section of the questionnaire, respondents were asked to provide occupational title, organisation name, industry, organisational sector (public or private) and number of employees in the organisation.

Job Analysis

Section A of the questionnaire (Appendix E) asked respondents about their knowledge and use of job analysis in their organisation, along with the development and application of position descriptions. Specifically, respondents were asked if they were aware of job analysis, if their organisation conducts job analysis, methods used and the application of job analysis to human resource functions. The importance of job analysis, as a function of HRM and the organisational constraints encountered when carrying out job analysis were also addressed. Respondents were asked the extent to which they disagreed or agreed that there is a research-practice gap in job analysis and that the changing nature of work presents difficulties for conducting job analysis. Responses were rated on a 5 point Likert type rating scale ranging from strongly disagree (1), to strongly agree (5). Specific job analysis research questions focused on: What is the awareness and use of job analysis in New Zealand organisations?; What is the perceived importance of job analysis to human resource functions?; How job analysis is applied to human resource functions in the organisation?; What influence has the research-practice gap had on job analysis?; and What influence has the changing nature of work had on job analysis?

Position Descriptions

In the development of position descriptions in the organisation, questions were focused towards determining if position descriptions were developed from job analysis, if not, how were job requirements determined in the organisation. Respondents were asked to detail how job requirements were determined, the areas that were covered in developing position descriptions, and finally, who was responsible for the development of position descriptions in the organisation. The application and importance of position descriptions to human resource functions were covered and rated on 5 point rating scale ranging from not important (1), to very important (5). Specific position description research questions focused on: How position descriptions are determined and developed in the organisation?; How position descriptions are applied to human resource functions?; and What is the perceived importance of position descriptions to human resource functions?

The Occupational Information Network O*NET

Section B of the questionnaire (Appendix E) asked respondents about their knowledge of the article by Taylor and Cable "Using the Occupational Information Network (O*NET) in New Zealand", published in the Human Resource Magazine June 2004. Focus was directed towards the influence the article has had on their practices, along with the application of the O*NET database in HRM. Questions from Section B are summarised below.

Individual respondents were asked to identify if they were currently working in HRM and if they were working in HRM in 2004 when the article by Taylor and Cable (2004) was published by the HRINZ. Table AB.2.4 (Appendix B) identifies the number and percentage of respondents currently working in

HRM, and respondents who were working in HRM in June 2004, as they would have been more likely to have come across the article by Taylor and Cable (2004) on the O*NET database.

Respondents were asked about their awareness and use of the O*NET database. Respondents were also asked to identify if they had read the article by Taylor and Cable (2004), followed by identifying the extent to which the article had influenced their use of the O*NET database. Respondents were asked to identify the relationship of the O*NET database to position descriptions, through asking if the O*NET database was used to support the development of position descriptions. The validity of the O*NET database in developing position descriptions was questioned, as rated on a 5 point rating scale ranging from no validity (1), to high validity (5). Respondents who use the O*NET database were asked to specify the human resource functions it was applied to, the levels of analysis used and how important the O*NET database was considered to be as a tool in supporting HRM. Specific research questions on the O*NET focused on: What awareness is there of the O*NET database?; and What influence Taylor and Cable's (2004) article has had on their use of the O*NET database?

Competency Modelling

Section C of the questionnaire (Appendix E) asked respondents questions about their use, application and the influence competency modelling has on human resource practices, the job and the organisation. Specifically, respondents were asked to identify their awareness and use of competency modelling as a human resource function. The importance of competency modelling was rated on 5 point rating scale ranging from not important (1), to very important (5).

Questions asked respondents about the job levels for which competencies were developed in the organisation, and the sources that were used to supply job information for competencies that are required on the job. Finally respondents were asked about the extent to which they disagreed or agreed that there is a research practice gap in competency modelling, rated on a 5 point Likert type rating scale ranging from strongly disagree (1), to strongly agree (5). Specific competency modelling research questions focused on: What awareness is there of competency modelling?; How is competency modelling developed in the organisation?; How is competency modelling is applied to human resource functions in the organisation?; What is the perceived importance of competency modelling to human resource functions?; and What influence is the research-practice gap having on competency modelling?

Analysis

Descriptive analyses (frequencies) of the data were undertaken, to provide information on the human resource practices of job analysis and competency modelling in the organisation. For questions where participants responded as 'other' followed by an open ended response, the responses for the question were categorised by summing the responses and grouping similar responses. For example, question 4 was 'Why does your organisation not conduct job analysis?' Respondents could choose between the responses of 'not applicable', 'time', 'cost', 'resources', 'understanding / knowledge', or other. If the option 'other' was chosen, respondents were asked to specify what 'other' included. Questions that asked for an open-ended response and that reported a high number of different categories for a question were categorised as follows: Categories with

three or more responses created a new category, and categories with two or less responses were grouped under the category of ‘other’. Categories were determined and coded by the researcher.

Inferential statistical tests were considered inappropriate to use in comparing differences across industries, public versus private sector organisations and organisational size as no a priori hypotheses were stated.

Chapter Three

Results

This chapter presents the survey results of individuals and organisations. Results are divided into four sections covering: (a) job analysis (b) position descriptions (c) the O*NET, and (d) competency modelling. Individual responses report on one's personal level of knowledge or opinion, organisational responses report on an individual's perception of the organisation's behaviours and process.

Job Analysis

Awareness and Use of Job Analysis

Ninety-eight percent (n=105) of individual respondents reported to be aware of job analysis and what it provides. Respondents were subsequently asked if their organisation conducted job analysis. Sixty-seven percent (n=64) of organisational respondents advised their organisation did conduct job analysis, with 32% (n=30) of organisations not conducting job analysis.

Of the thirty organisations that reportedly do not conduct job analysis, 43% (n=13), advised that the organisation was considering using job analysis in the future, while 50% (n=15) of organisations were not considering the use of job analysis in the future. Seventy-three percent of all organisational responses believed their organisation should conduct job analysis, 7% did not believe their organisation should conduct job analysis, the remaining 19% considered the question to be not applicable to their organisation, with no explanation as to why given.

Table AB.3.1 (Appendix B) presents the reasons identified by human resource professionals for not conducting job analysis in the organisation. Multiple reasons were given by a number of organisations, with the majority of organisations not conducting job analysis due to time 20% (n=19), resources 16% (n=15) and understanding / knowledge 14% (n=13). Other reasons provided for not conducting job analysis included, job analysis is offered as a service to clients but not done by the organisation (n=2), job analysis is only done for some jobs, and the organisation has only recently employed a human resource manager.

The conclusion that may be drawn from these results is that while individual respondents reported being aware of job analysis, this awareness is not being fully transferred to the application of job analysis in the organisation. Organisations continue to identify time and understanding / knowledge as the reasons for not conducting job analysis, suggesting little has changed since previous studies (Cascio & Aguinis, 2008; Mirabile, 1990; Robertson & Smith, 2001).

Job Analysis Methods

The methods used in organisations for conducting job analysis are presented in Figure 3.1. A number of methods and sources in job analysis were reported, with a high number of organisations using multiple methods. The most commonly reported method used was existing job descriptions, used by 69% (n= 66) of organisations. Other commonly applied methods used in carrying out job analysis included interviews 54% (n= 51), subject matter experts 39% (n= 37) and subject observation 38% (n= 36). Some job analysis methods, including those developed by Lominger 3% (n= 3) and Hay Group 4% (n= 4), were reportedly

used by only a small number of the 95 responding organisations. Other methods provided for carrying out job analysis included role design and role comparisons, process mapping, accountability analysis, panels and experts.

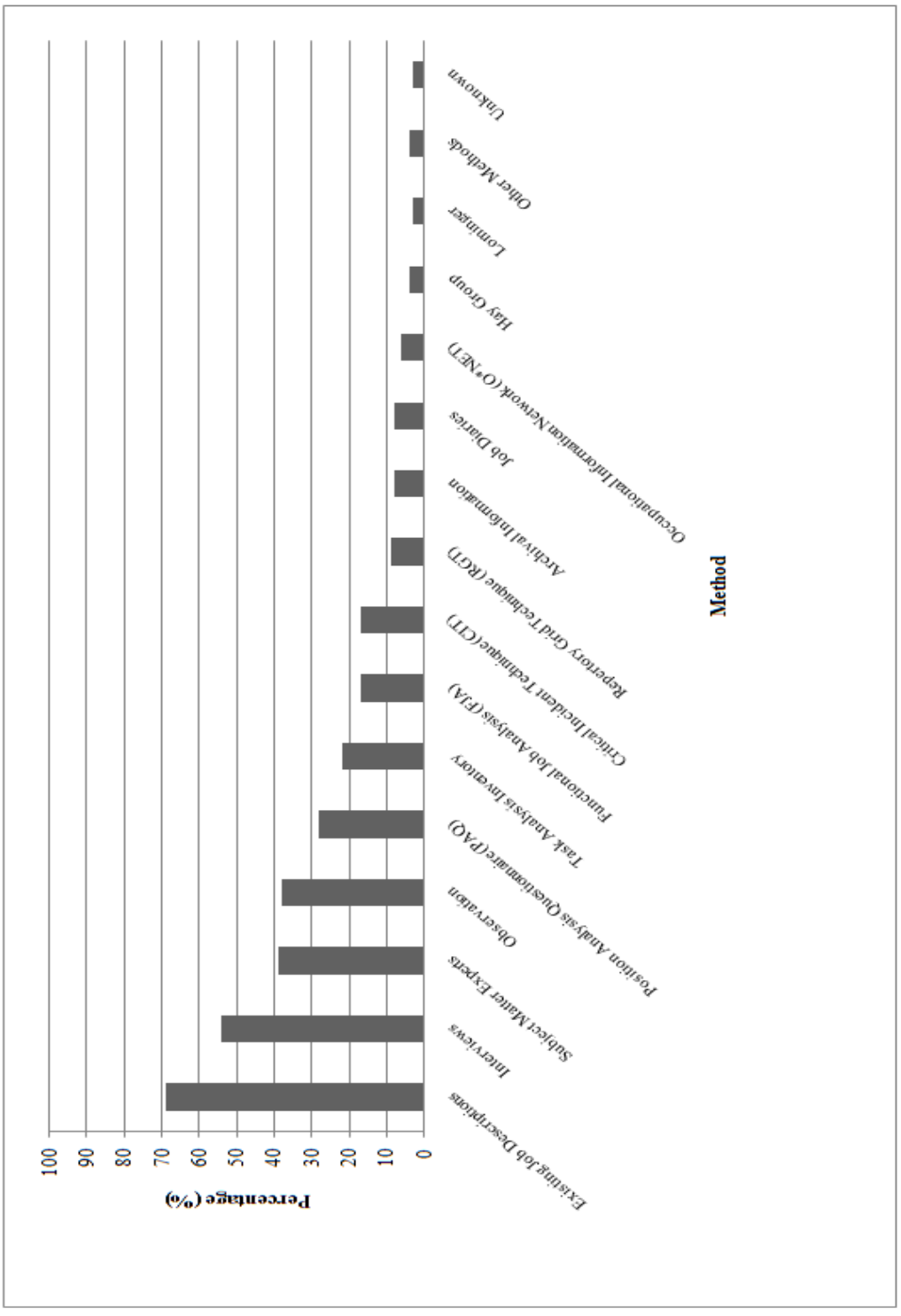

Figure 3.1 Methods Used by Organisations in Carrying Out Job Analysis

Importance of Job Analysis

Most individuals reported there to be some level of perceived importance in job analysis as a human resource function in organisations. The average 'perceived importance of job analysis as a human resource function' fell between 'moderately (3)' and 'reasonably (4)' important (Mean=3.79; SD= 1.18). However, results revealed that 33% of individual respondents perceived job analysis to be moderately important or less. This may be the result of 32% of organisations not conducting job analysis. These results show that a number of respondents are possibly unaware of the importance job analysis has in HRM, which may be affecting the application of the job analysis process in the organisation.

Application of Job Analysis

As seen in Table AB.3.2 (Appendix B) job analysis and its outputs (job descriptions and person specifications) are used in a number of human resource functions. Results revealed that the application of job analysis was more prominent in personnel selection 54% (n= 51), closely followed by training and development 52% (n= 49), career development and management 43% (n= 41) and compensation / rewards / benefits 39% (n= 37). Other human resource functions that job analysis is applied to included health and safety, restructuring / redundancy, accountability reviews, job design, forecasting future needs, payroll, job evaluations, department reorganisation/ rationalisation and task reallocation.

Constraints on Job Analysis

More than half of responding organisations 60% (n= 57), considered time as a constraint, followed by knowledge and understanding (44%), and resources (41%) as constraints that the organisation faced in undertaking job analysis. Other constraints were reported but were not as commonly identified (Table 3.3).

Table 3.3

Constraints Encountered by Organisations in Undertaking Job Analysis

Constraints	Percentage of Organisational Responses
Time	60% (57)
Understanding and Knowledge	44% (42)
Resources	43% (41)
Cost	28% (27)
Other Constraints	5% (5)

Note. A number of individuals identified multiple constraints (total >100%)

Other constraints that are encountered by organisations in undertaking job analysis included limited information provided by people about their roles, dependent on client's business, over emphasis on tasks, inputs and functional activities, and inconsistencies between those establishing the ratings. The conclusion that may be drawn from these results is that there are areas of concern that could be addressed in organisations, to ensure a well structured and reliable job analysis process is in place.

Recognition of Influences on Job Analysis

Research-Practice Gap in Job Analysis

The average response in relation to the 'extent that individual respondents believe there is a research-practice gap in job analysis' fell between 'neither agree nor disagree (3)' and 'agree (4)' (Mean=3.61; SD= 0.75). Over half (56%) of responding individuals agreed, with little disagreement (7%) to there being a research-practice gap in job analysis. A research-practice gap could result in organisations missing out on the opportunity to establish sound job analysis processes in the organisation that are based on current research findings.

Changing Nature of Work

The average response to the item asking about whether the changing nature of work presents difficulties for conducting job analysis' fell between 'neither agree nor disagree (3)' and 'agree (4)' (Mean=3.34; SD= 1.07). Over half (53%) of responding individuals agreed or strongly agreed, with just over one quarter (28%) disagreeing or strongly disagreeing to the changing nature of work presenting difficulties in conducting job analysis.

Position Descriptions

The development of position descriptions by the organisation was confirmed by 99% (n= 94) of organisational respondents. Respondents were asked if position descriptions were developed from job analysis. Fifty nine percent (n= 56) of respondents representing the organisation reported that position descriptions were developed from job analysis.

Thirty-six percent (n= 34) of organisations that were not developing position descriptions using job analysis reported that job requirements were still

determined in the organisation. This followed with an open-ended question asking those who still determine job requirements in the organisation to provide details on how job requirements are determined. Many organisations reported job requirements to be determined by methods often used in the job analysis process including: manager's input, 13% (n=12); Subject Matter Experts (SME), 3% (n=3); interviews, 3% (n=3); task analysis, 3% (n=3); incumbent and coordinator input, 3% (n=3); historical job requirements / position descriptions, 2% (n=2); job analysis protocols, 2% (n=2); business objectives; organisational needs; questionnaires, past experience, key performance indicators, review skills. These results may indicate that organisations that do not carry out job analysis, but still determine job requirements in the organisation, could be using a less structured approach compared to a formal job analysis process.

Development of Position Descriptions

The areas of employee and job specific requirements that are covered by organisations in developing position descriptions are presented in Figure 3.2. Organisational respondents identified a number of areas are covered in the development of position descriptions, with a number of organisations covering multiple areas. The KSAO's were the most common areas covered by organisations in the development of position descriptions, the area of skills, as reported by 97% (n= 92) of organisations, closely followed by knowledge, as reported by 92% (n= 87) of organisations and finally abilities, reported by 80% (n= 76) of organisations. The area of interests 1% (n= 1) were less commonly reported by organisations.

As Table AB.3.4 (Appendix B) reveals, multiple positions were sometimes indicated as being responsible for developing position descriptions in the organisation. Position descriptions were primarily developed by human resource professionals, as stated by 78% (n= 74) of organisations, and by managers, as stated by 76% (n= 72) of organisations. Job analysts, were less commonly responsible for the development of position descriptions in the organisation (2%, n=2). Other positions of people responsible for developing position descriptions in the organisation included consultants (n= 2), job incumbents (n= 2), partners (n= 2), and director. The conclusion that may be drawn from these results is that an organisation's position descriptions could be more precise if the people responsible for developing position descriptions came from a range of positions within the organisation and not solely based on human resource professional and the manager's point of view.

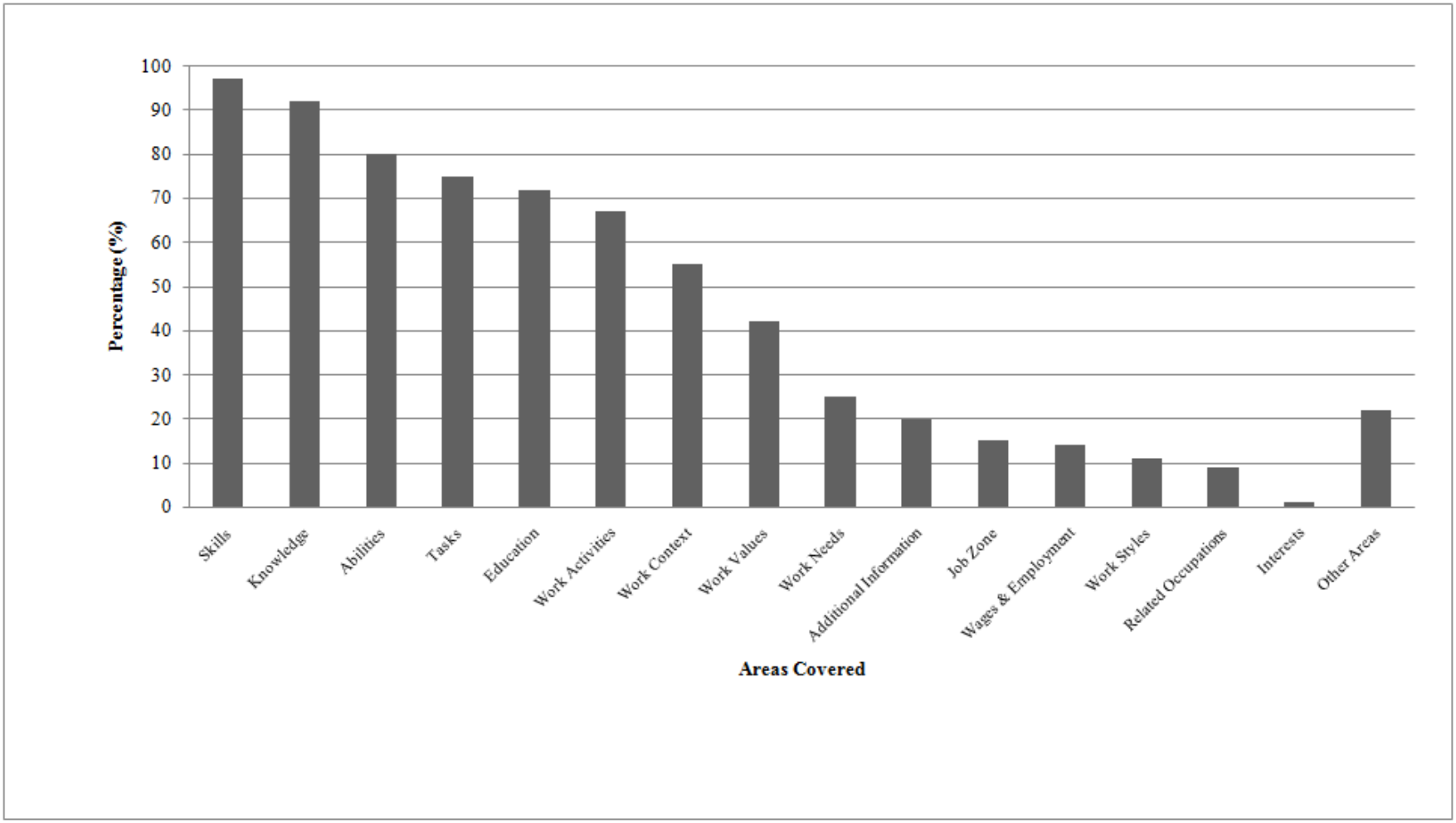

Figure 3.2 Areas Covered by Organisations in the Development of Position Descriptions

Application of Position Descriptions

The human resource functions that position descriptions are applied to in the organisation are presented in Table 3.5.

Table 3.5

Human Resource Functions that Position Descriptions are Applied to

Human Resource Function	Percentage of Organisational Responses
Personnel Selection	86% (82)
Performance Appraisal	77% (73)
Training and Development	58% (55)
Compensation / Rewards / Benefits	51% (48)
Career Development & Management	49% (47)
Other Human Resource Functions	7% (7)

Note. A number of organisations identified multiple human resource functions (total >100%)

Organisations apply position descriptions to multiple human resource functions. Personnel selection 86% (n= 82) is the most prominent human resource function for applying position descriptions, closely followed by performance appraisal 77% (n= 73). The human resource functions of training and development, compensation / rewards / benefits, and career development and management all applied position descriptions by close to half of responding organisations. Other human resource functions that position descriptions are applied to included organisational design (n= 2), recruitment (n= 2), restructuring

and redundancy, change management, succession planning, performance management and dependent on clients business.

Importance of Position Descriptions

Most individuals reported there to be some level of importance in the development and application of position descriptions. The average response in relation to the 'perceived importance of position descriptions as a human resource function' fell between 'reasonably important (4)' and 'very important (5)' (Mean=4.32; SD= 0.94). More than three quarters (81%) of responding individuals perceived position descriptions to be reasonably or very important as a human resource function. The remaining 19% of respondents perceived position descriptions to be moderately important or less as a human resource function. The implication of these results may mean organisations that do not identify the development and application of position descriptions as important may be missing out on using a valuable resource in HRM.

The Occupational Information Network (O*NET)

Awareness and Use of the O*NET Database

Twenty-three percent (n= 25) of individual respondents said they were aware of the O*NET, while 77% reported to not be aware of the O*NET database. Individual respondents were subsequently asked if they had used the O*NET database. Ten percent (n= 11) of respondents reported they had used the O*NET database. The remaining 90% (n= 96) of respondents indicated they had not used the database, the question was not applicable to them, or no response was provided.

Participants were subsequently asked why the O*NET database was not used. Results show that respondents identified multiple reasons for not using the O*NET database, as outlined in Table 3.6. Fifty-one percent (n= 55) of individual respondents classified this question as not applicable, 15% (n=16) offered no response.

Table 3.6

*Reasons for not using the O*NET Database*

Reason	Percentage of Individual Responses
Time	7% (8)
Understanding / Knowledge	21% (22)
Access to Resources	2% (2)
Other Reasons	14% (15)
No Response	15% (16)
Not Applicable	51% (55)

Note. A number of individuals identified multiple reasons (total >100%)

Other reasons for not using the O*NET database included access, cost, dependent on client, not required, use other tools.

The use of the O*NET database to support the development of position descriptions in the organisation was confirmed by 12% (n=11) of organisational respondents, 40% (n= 38) reported no use of O*NET in supporting the development of position descriptions, 44% (n= 42) of organisations classified this question as not applicable to their organisation. The conclusion that can be drawn from these results is that organisations could be missing out on the opportunity to

use a resource that supports the job analysis process in developing job descriptions and person specifications.

Awareness of the article by Taylor and Cable (2004)

Taylor and Cable's (2004) article on the O*NET database in New Zealand was used as one specific example to investigate any potential research-practice gap in the New Zealand context, through the uptake of this article by human resource professionals. Only 8% (n= 9) of individual respondents reported to have read the article by Taylor and Cable (2004). Subsequently, individual respondents were asked to identify what they specifically learned from the article (Table AB.3.7., Appendix B). Six individual respondents learned of the existence of the O*NET database, three also indicated they learned of the application of the O*NET database to the New Zealand context. Two percent (n=2) of individuals were unable to recall what they had learned due to the time that had passed since the article was printed in 2004.

The average response in relation to the level of extent that the article by Taylor and Cable (2004) has influenced individual respondents use of the O*NET database fell between 'no extent (1)' and 'little extent (2)' (Mean=1.58; SD= 0.9). Of the people who had read the article, results indicate that for 11% of respondents, the article had no extent or little extent in influencing respondents use of the O*NET. Only one respondent indicated that the article had reasonable extent in influencing their use of the O*NET.

Based on the small number of respondents that had read and been influenced by Taylor and Cables' (2004) article, it may be concluded that a

research-practice gap exists in the job analysis area. Implication being that the organisation could be limiting their ability to apply best practice in HRM.

Application of the O*NET Database to Position Descriptions

The application of the O*NET in developing position descriptions has a perceived moderate validity amongst the 23% of human resource professionals that previously advised they were aware of the O*NET. Forty percent of individuals offered no response in reporting their perceived validity. The average response to the 'perceived validity of the O*NET in developing position descriptions' fell between 'moderate validity (3)' and 'reasonable validity (4)' (Mean= 3.4; SD=0.91). The results show that the individuals that are aware of the O*NET database, perceive the O*NET to have moderate validity in developing position descriptions.

Application of the O*NET Database to HRM

Table AB.3.8 (Appendix B) displays the human resource functions that the O*NET database is applied to. This question was classified as not applicable for 79% (n= 75) of organisational respondents. Results indicate that the application of the O*NET database was most prominent in the human resource functions of personnel selection 8% (n= 8). A number of organisations indicated multiple human resource functions for applying the O*NET database in the organisation.

The levels of analysis in the O*NET database as used by organisations for determining human resource functions are presented in Table AB.3.9 (Appendix B). Seven percent reported the use of job level analysis, followed by 6% using individual level analysis and 4% using organisation level of analysis for

determining human resource functions. A few organisations reported the use of multiple levels of analysis in the O*NET database. No organisations reported using the economic level of analysis in the O*NET database. This question was considered not applicable by 82% of responding organisations, 8% of organisations offered no response.

Importance of the O*NET Database

The 'perceived importance of the O*NET database as a tool in supporting human resource management' fell between 'somewhat (2)' and 'moderately (3)' important (Mean= 2.88; SD= 1.20), amongst the 23% of human resource professionals that previously advised they were aware of the O*NET. The O*NET database as a tool in supporting HRM was perceived to be reasonably important (4), by 20% (n=5) of individual respondents. However, 36% (n=9) of individual respondents offered 'no response' in reporting their perceived importance.

Competency Modelling

Awareness of Competency Modelling

The awareness and knowledge of what is involved in competency modelling was reported by 87% (n= 93) of individual respondents, while 12% (n= 13) of individual respondents reported to not be aware of competency modelling. Organisational use of competency modelling in human resource management was reported by 55% (n= 52) of organisations.

Respondents were subsequently asked why the organisation does not use competency modelling. Table 3.10 reports reasons identified by organisations for not using competency modelling, a number of organisations identified multiple

reasons. Forty-eight percent (n= 46) of respondents considered this question ‘not applicable’, 12% (n=11) offered no response to the question. This may be a result of the research-practice gap and some human resource professionals not being up to date on current practices.

Table 3.10

Reasons for not using Competency Modelling in the Organisation

Reasons	Percentage of Organisational Responses
Understanding / Knowledge	24% (23)
Time	15% (14)
Other Reasons	12% (11)
Not Applicable	48% (46)
No Response	12% (11)

Note. A number of organisations identified multiple reasons (total >100%)

Other reasons for not using competency modelling in the organisation included not being aware of competency modelling (n= 2), no HRM / only recently employed a human resource manager (n= 2), resistance from staff, dependent on client needs, size of the organisation, utilise other tools, resource-intensive, not an area the organisation focuses on , and business outcomes not improved.

Development of Competency Modelling

Forty percent (n= 42) of organisations identified competencies to be developed for all job levels in the organisation (Table AB.3.11, Appendix B). Several organisations identified competencies to be developed for multiple job levels. Of the 'other' job levels for which competencies were developed, organisations identified development for lower level roles and that development of competencies depends on the client for some practitioners.

Table 3.12

Sources Used to Supply Information on Competencies required in a Job.

Sources	Percentage of Organisational Responses
Human Resource Practitioners	59% (56)
Job Incumbents	47% (45)
Mission Statement	31% (29)
Vision Statement	29% (28)
Organisational Values	6% (6)
Management	5% (5)
The Lominger Competency Framework	4% (4)
Other Sources	6% (6)
Not Applicable	31% (29)
No Response	2% (2)

Note. A number of organisations identified multiple sources (total >100%)

The sources that organisations use to obtain information on competencies required in a job are outlined in Table 3.12. A range of different sources were

used, with a number of organisations using multiple sources. The most common source in providing information on competencies was human resource practitioners, as used by over half (59%) of responding organisations. Almost half (47%), of the organisational responses also indicated the use of job incumbents in supplying information on competencies required in a job.

Other sources used to supply information on competencies required in a job included business drivers / strategic plan (n= 2), culture, consultants, publications, and staff.

Application of Competency Modelling

Table 3.13 outlines the human resource functions that competency modelling is applied to. No single human resource function(s) across the organisations was clearly identified as having competency modelling applied, and a number of organisations identified the application of competency modelling to multiple human resource functions. The three most commonly reported human resource function that used competency modelling in organisations reported by over half of responding organisations was training and development 58% (n= 55), closely followed by application to performance appraisal 55% (n= 52) and personnel selection 54% (n= 51). Two organisations reported the application of competency modelling to 'other' human resource functions including succession planning to forecast future needs and alignment of human resources.

Table 3.13

Human Resource Functions that Competency Modelling is Applied to

Human Resource Function	Percentage of Organisational Responses
Training and Development	58% (55)
Performance Appraisal	55% (52)
Personnel Selection	54% (51)
Career Development & Management	47% (45)
Compensation / Rewards / Benefits	33% (31)
Other Human Resource Functions	2% (2)
Not Applicable	33% (31)
No Response	4% (4)

Note. A number of organisations identified multiple human resource functions (total >100%)

Importance of Competency Modelling

The average perceived importance of competency modelling as a human resource function fell between 'moderately (3)' and 'reasonably (4)' important (Mean=3.81; SD= 1.05). Most individuals perceived competency modelling to be at a high level of importance, as a human resource function in organisations, with more than half (65%) of responding individuals reporting to perceive competency modelling as reasonably or very important as a human resource function. Twenty seven percent of respondents reported competency modelling to be moderately important or less in human resource management.

Research-Practice Gap in Competency Modelling

The average extent that there is a perceived research-practice gap in competency modelling fell between ‘neither agree nor disagree (3)’ and ‘agree (4)’ (Mean=3.45; SD= 0.98). Almost half (47%) of responding individuals agreed or strongly agreed, to there being a research-practice gap in competency modelling. A number of individual respondents (32%) neither agreed nor disagreed to there being a research-practice gap in competency modelling.

Chapter Four

Discussion

The purpose of the present study was to understand the use and perceived importance of traditional job analysis and its two major outputs of job description and person specification in regard to New Zealand organisations. Specifically, the traditional job analysis approach and the emerging trend of competency modelling were explored by looking at how they are utilised in the context of New Zealand organisations. Taylor and Cable's (2004) research on the O*NET database in the New Zealand context was used to identify the extent of the research-practice gap present within job analysis and the influence this gap has on HRM. Finally, the emerging trend of competency modelling and its relationship to job analysis was examined.

In today's changing nature of work, where managing people can be a challenging task, it is important for organisations to maintain 'best practice' in HRM. The present research provides increased understanding of how job analysis, the O*NET, and competency modelling are being utilised by human resource professionals.

Overall, the results support previous research findings (Taylor et al., 2002; Taylor et al., 1993), which indicated that the full potential of job analysis and competency modelling are not being utilised within organisations, with a research-practice gap still existing in job analysis. These results will have implications for academics, human resource professionals and organisational psychologists, in terms of where further research is required and how practices in HRM could be improved.

This chapter is divided into four sections. Section one discusses the major findings of four key areas. These areas include the use and application of the traditional job analysis approach (awareness and use, methods, application, the research-practice gap, and the changing nature of work). The second area refers to the development and application of position descriptions from the initial job analysis process. The third area covered is the influence Taylor and Cable's (2004) article on human resource professionals, in the context of any potential research-practice gap in the application of job analysis. The fourth area refers to how competency modelling is being utilised in organisations in the New Zealand context. Section two discusses the practical implications of this study and directions for future research, while section three reviews the strengths and limitations of this research. Finally, section four presents the final conclusions that are gained from the research findings.

Major Findings

Job Analysis

Awareness and Use of Job Analysis

Results of the present study showed human resource professionals reported to be aware of job analysis and its function. However, despite the high rate of awareness, and previous research that recognises job analysis as a fundamental process in establishing HRM functions (Gatewood & Feild, 2001; Mirabile, 1990), 32% of organisations reported that they do not carry out job analysis. The perceived importance of job analysis as a human resource function was reported to be between not important and only moderately important by 33% of individual respondents. The number of organisations that do not carry out job

analysis (32%) and the number of individuals that do not recognise the importance of job analysis is concerning because of the importance of the job analysis process in the development of job descriptions and person specifications. The outputs of the job analysis process can be widely applied throughout HRM in the organisation. Not using job analysis could inhibit the ability of organisations to produce clearly defined job tasks, duties and KSAO's, that provide the foundations for effective HRM practices (Brough & Smith, 2003; May, 2006).

Consistent with previous research (Cascio & Aguinis, 2008; Mirabile, 1990; Robertson & Smith, 2001), organisations identified that the application of job analysis in the organisation continues to be hindered by time constraints, as identified by 20% of organisations, and managements' limited knowledge of the job analysis process, as identified by 14% of organisations. The recognition of a lack of 'resources', by 16% of organisations, was a common reason that job analysis was not conducted. Lack of 'resources' have not previously been identified as a limitation amongst research findings. This could be attributed to 'resources' being defined or categorised in another manner, in previous research findings. However, this result is surprising given today's technology and the access this provides to resources.

It is important to recognise and address the constraints organisations face in conducting job analysis. Forty-four percent of organisations identified understanding and knowledge as one of the most common constraints encountered, which also indicated the presence of a knowledge gap or research-practice gap. This suggests there may be limited dissemination of research findings, or human resource professionals are unaware of current research and the benefits of being up to date with research, or may not be staying up to date with

current research findings. This also highlights concerns surrounding human resource professionals' knowledge and implementation of a structured job analysis in the organisation and if 'best practice' is being executed in the organisation.

Job Analysis Methods

Organisations conducting job analysis identified the use of multiple methods to obtain job information. The three most prominent methods identified by organisations included previewing job descriptions, interviews and subject matter experts. Consistent with Taylor et al. (1993), interviews remain one of the most commonly utilised methods of job analysis in New Zealand organisations.

More structured methods, including Functional Job Analysis, Critical Incident Technique and Repertory Grid Technique (Brough & Smith, 2003; Flanagan, 1954; Gatewood & Feild, 2001; Macky & Johnson, 2003), were utilised by only a small number (9% - 17%) of organisations. This is concerning, as the ability of job analysis to successfully develop sound job descriptions and position descriptions that act as reliable sources to base human resource functions would be limited. Based on this study's findings, the limited use of more systematic methods may be attributed to the time, knowledge and understanding, or cost required to implement these methods. Organisations would benefit from utilising more structured methods that assist to produce clear and concise job analysis information. This would lead to the development of quality job descriptions and person specifications.

Application of Job Analysis

Research supports the application of job analysis to human resource functions (Clifford, 1994; Gatewood & Feild, 2001). Consistent with research by

Gatewood and Feild (2001) and Gibson et al. (2007), the major outputs of job analysis, including the job description and the person specification, are most commonly utilised in personnel selection. This is to ensure potential candidates are fairly assessed against the necessary tasks, duties, and KSAO's required in the job. Successful application of job analysis is also recognised in training and development, compensation and job evaluations.

It is positive to see that many New Zealand organisations are not limiting the outputs of job analysis to personnel selection, but utilising them in the areas of training and development, career development and management, and compensation, rewards and benefits. The application of job analysis within HRM provides a stable foundation, which if applied correctly will successfully enhance the management of employee performance. It is anticipated that this will be obtained through having measurable job dimensions, or training and developing employees based on the job requirements to achieve successful performance (Gatewood & Field, 2001; Spector, 2003).

The Research-Practice Gap in Job Analysis

Taylor et al. (1993) recognised the presence of a research-practice gap in New Zealand organisations. The present results confirmed that the research-practice gap is still an important area of concern in HRM, as reported by fifty-six percent of individual respondents. Being aware of job analysis research specifically and the benefits it has to offer when applied to the practical setting of the organisation, is one of the initial steps that could be taken by human resource professionals before job analysis can be successfully utilised. Human resource professionals' limited understanding and knowledge of job analysis means there is potentially an inadequate uptake of job analysis research, jeopardising the ability

for human resource professionals to be knowledgeable and implement current and reliable job analysis methods.

Job Analysis and the Changing Nature of Work

The idea of the 'static job' has become a thing of the past in today's changing nature of work (Singh, 2008). Fifty-three percent of individual respondents believed the changing nature of work presents difficulties in conducting job analysis. The results are in line with Schneider and Konz (1989) and Hough and Oswald (2000), who recognised the difficulty change can create in organisations. In today's technological environment, the O*NET can assist the job analysis process and is readily available to human resource professionals. Further work towards predicting future job requirements, as recognised in the strategic job analysis (Phillips & Gully, 2009), would benefit the organisation, through predicting future changes and aligning employees and the job to meet these changes.

In summary, the results of this study on the utilisation of job analysis in New Zealand organisations support previous findings, that the application of job analysis is often hindered by human resource professionals' limited understanding and knowledge, and that the research-practice gap continues to be a current area of concern for organisations in the New Zealand context.

Job analysis is a valid and reliable method of developing job descriptions and person specifications. Of the organisations that do not use job analysis, questions are raised over how an organisation establishes the validity and reliability of position descriptions, when job analysis is the process that develops the outputs of job descriptions and person specifications.

Position Descriptions

Job descriptions and person specifications that make up position descriptions include the areas of employee and job specific requirements, necessary for successful performance on the job (Macky & Johnson, 2003; Wilkinson & van Zwanenberg, 1994). Almost all organisational respondents (99%) confirmed the development of position descriptions by the organisation. However, the job analysis process was not adopted by 41% of organisations in the development of position descriptions. Of the organisations that were not developing position descriptions from the job analysis process, 36% reported that job requirements were still determined in the organisation. Organisations not utilising job analysis were reported to consult primarily with managers to determine job requirements. In determining job requirements, the more people and resources applied, the more valid the job information.

Human resource professionals would benefit from applying the job analysis process in the development of position descriptions. This would lead to the involvement of more people, including subject matter experts and job incumbents, and utilising tools including questionnaires and interviews, to improve the validity of position descriptions in the organisation.

Organisations identified that multiple areas of the job were covered in the development of position descriptions. The results identified skills, followed by knowledge and abilities, the three key areas of person specification, as the most widely utilised areas by organisations in the development of position descriptions.

The wider the range of people consulted about the job, the more likely it is that the information gathered about the job will be relevant and accurate (Gatewood & Feild, 2001). Organisations utilising job analysis processes reported

human resource professionals and managers to be the two most prominent positions involved in the development of position descriptions in the organisation. Arthur (1995), Busi (1990) and Grant (1988) recommended encompassing the input of subject matter experts and job incumbents, to increase understanding of the job and eliminate the possibility of discrepancies arising on what the job requirements entail. However, the present results showed only 28% of organisations consult with job incumbents (employees) in the development of position descriptions. Human resource professionals in New Zealand organisations would benefit from reviewing the resources they use to determine job requirements in the organisation. Consulting with subject matter experts and more specifically with job incumbents (employees) would improve the reliability / validity of job requirements for position descriptions in the organisation.

Application of Position Descriptions to Human Resource Functions

The main human resource functions that position descriptions support were reported by organisations to be personnel selection and performance appraisal. Position descriptions were not as widely applied to other human resources areas including training and development, compensation and career development. These results were consistent with the findings of Arthur (1995) and May (2006), who recognised position descriptions as an important resource in HRM, most commonly applied to the area of personnel selection.

Organisations could be further utilising the information available in position descriptions to understand what the job involves and establish requirements that could positively influence the outcomes of human resource functions. For example, position descriptions can be applied to the areas of job evaluation, which addresses the value of a job to the organisation (Brough &

Smith, 2003), and training needs analysis, which identifies the need for training in the organisation (Kehoe & Bright, 2003). In job evaluation, the value of a job is attributed to the KSAO's of an employee, the KSAO's are identified and defined in the position description. In terms of training needs analysis, position descriptions can be used to analyse if there is a gap between an employee's current KSAO's and the necessary KSAO's required of an employee to achieve successful performance on the job (Kehoe & Bright, 2003). A gap between the current and required level of KSAO's for successful performance that are identified in position descriptions, could be addressed through further training.

Importance of Position Descriptions

On a more positive note, the majority (81%) of individual respondents considered position descriptions to be reasonably or very important in HRM. However, 19% of organisations in the current study did not identify the importance of position descriptions. This finding may be the result of managers not applying the time and resources to the development of position descriptions. Appreciating the importance of position descriptions could benefit human resource professionals in recognising the potential influence they can have in developing human resource functions.

In summary, the above results on the application of position descriptions suggest that human resource professionals would benefit from applying job analysis, to establish a reliable and accurate representation of what is required to successfully perform the job. Not developing job descriptions could open the door to discrimination and lead to legal ramifications including discrimination under the Human Rights Act (1993) and the ERA (2000).The information presented in position descriptions should continue to be applied in personnel selection, but

could also be used in other human resource functions including training and development and job evaluation to maintain 'best practice' in the organisation.

The Occupational Information Network (O*NET)

Despite the O*NET offering a comprehensive source of job information (Jeanneret & Strong, 2003), only one quarter of respondents reported to being aware of the O*NET database, with only 10% of respondents having used the O*NET database. The reasons for not using the O*NET database were attributed primarily to understanding and knowledge, and time. This reinforces how a knowledge gap is present, which could be contributing to the research-practice gap present in HRM. This may be the result of human resource professionals not being aware of current research findings that could be applied to the organisation. This suggests that only a very limited number of organisations are utilising a tool that may provide them with a wealth of job information. The O*NET could assist human resource professionals in the job analysis process, the development of position descriptions and help organisations stay current in today's changing work environment.

Only a very small number of respondents (8%) claimed to have read the article by Taylor and Cable (2004) on the application of the O*NET in the New Zealand context. In addition only 6% of respondents identified the article as having had some influence on their learning of the O*NET. Furthermore, the application of the O*NET to human resource functions is limited, while the perceived importance of the O*NET as a tool in supporting HRM was reported to be either 'not important' or 'somewhat important' by 28% of individual

respondents. This provides one example of where research is published but not being utilised by human resource professionals in the New Zealand context.

In summary, the general awareness of the O*NET database amongst respondents is low. Supplementary to the low awareness of the O*NET, the article by Taylor and Cable (2004) has had little influence on the application of the O*NET by human resource professionals in New Zealand organisations. This is an indication of the potential research-practice gap present in the job analysis area. Human resource professionals in New Zealand organisations would benefit from becoming more aware of relevant research findings. Tools such as the O*NET database could help human resource professionals improve the job analysis process in the organisation.

Competency Modelling

Awareness of Competency Modelling

Results showed that the majority (87%) of human resource professionals reported to be aware of competency modelling and what it involves. However, only 55% of organisational respondents reported that they use competency modelling in HRM. This result may suggest an increase in the number of organisations using competency modelling since 2005, where the study by Markus et al. (2005) found only 30% of organisations were using competency modelling. Furthermore, the organisations represented in the current study reported knowledge and understanding as the main reason for not applying competency modelling in HRM. Limited knowledge by human resource professionals may be inhibiting 'best practice' from being established amongst HRM practices in the organisation.

Development of Competency Modelling

Lievens et al. (2004) recognised that competency modelling can be utilised at all job levels in the organisation, and is not limited to having to be targeted to senior management positions. This is recognised in the present research findings, which identified that competencies are developed for a range of job levels in the organisation. Furthermore, organisations are not solely relying on human resource professionals as the source of information on the competencies required in a job. Findings showed organisations were utilising sources including job incumbents and the organisation's mission statement in competency development. This is positive to recognise, as multiple sources are needed to achieve the development of reliable competency models (Lievens et al., 2004).

Application of Competency Modelling

Competency modelling offers a foundation to human resource functions in the organisation (Grigoryev, 2006; Rowe, 1995). The findings on the application of competency modelling to human resource functions identified that competency modelling was being utilised across a range of functions and was not specifically targeted to any one key area. For example, competency modelling can be incorporated into evaluating the job performance of an employee. This is achieved through using job specific competencies to distinguish the level of competence an employee is achieving for different areas of the job (Kurz & Bartram, 2002; Mirabile, 1997). Applying competency modelling across the organisation will help strengthen HRM and establish 'best practice' in the organisation.

Importance of Competency Modelling

Competency modelling as a human resource function was considered moderately important or less by over one quarter (27%) of respondents. This is

concerning, given the establishing foundation competency modelling can provide to HRM and considering that competency modelling appears to be overtaking the application of job analysis in organisations (Shippmann et al., 2000). Not recognising the importance of competency modelling may restrict human resource professionals from applying it to the organisation, as they do not recognise its value. Other reasons for not applying competency modelling to the organisation included knowledge / understanding and time. The implication of not overcoming constraints or recognising the importance of competency, could possible restrict or hold the organisation back from establishing good HRM practices.

The Research-Practice Gap in Competency Modelling

Previous research findings identified the presence of a research-practice gap in competency modelling (Kruz & Bratram, 2002; Maurer et al., 2003). Almost half (47%) of respondents in the present study agreed that there is a research-practice gap still present in competency modelling. This would suggest some narrowing of the gap, however a number of organisations may be unaware of the support competency modelling can provide for reviewing worker performance and establishing sound foundations for worker practices. Human resource professionals could benefit from being more aware of current research and academics need to be aware of organisational practices, to assist in bridging the research-practice gap and ensure competency modelling establishes sound foundations for human resource practices.

Practical Implications

Results of this research have several implications for human resource professionals, organisational psychologists, researchers and organisations. The

practical implications of this research are discussed in terms of the application of job analysis and competency modelling, followed by the research-practice gap and the changing nature of work on job analysis and competency modelling.

Job Analysis and Competency Modelling

Human resource professionals would benefit from extending their awareness of job analysis and competency modelling to the utilisation of human resource functions in the organisation. Becoming more knowledgeable and recognising the importance and benefits of the traditional job analysis approach, as compared to the emerging trend of competency modelling, will allow human resource professionals to be confident they are implementing 'best practice'. This could be achieved by establishing the grounds to develop sound HRM practices, specifically personnel selection and the development of position descriptions.

Results of this study suggested human resource professionals were not utilising job analysis or competency modelling as widely or as efficiently as they could in the organisation. It is also confirmed that the research-practice gap and the changing nature of work remain significant influences on job analysis and competency modelling processes, in the development of 'best practice' in the organisation.

Human resource professionals may benefit from further training and development in applying a thorough job analysis or competency model to HRM in the organisation. An increased understanding amongst human resource professionals on why job analysis and competency modelling are important to HRM functions may lead to increased application in the organisation.

The Research-Practice Gap and the Changing Nature of work on Job Analysis and Competency Modelling

The research–practice gap can only be bridged by first recognising it as an issue that affects HRM, and secondly through human resource professionals taking steps towards applying research to practices within the organisation. This study found that human resource professionals generally agreed that there is a research–practice gap in job analysis and competency modelling. However, human resource professionals continue to identify limited knowledge and understanding as one of the main reasons inhibiting the application of job analysis and competency modelling. To enhance knowledge and understanding amongst human resource professionals, organisations could make access and distribution of research findings more readily available by subsidising memberships. Organisations could also invite researchers and organisational psychologists to help up skill human resource professionals on current research developments, and grow the knowledge and understanding of best-practice in the organisation. Therefore, organisations would benefit from putting in place procedures and policies that comply with the Human Rights Act (1993) and the ERA (2000) in the New Zealand context, to help eliminate discrimination from occurring and also allow for 'best practice' to be exercised in all areas of HRM.

The research provided evidence that only a very limited number of respondents were aware of and utilised the O*NET database in HRM. The O*NET database is one tool that has been recognised in research findings (Robertson & Smith, 2001; Taylor & Cable, 2004; Taylor et al., 2008) as being able to support the job analysis process, through providing easy to access employee and job requirement information. Human resource professionals would

benefit from using the O*NET database in HRM, specifically through the support the O*NET can offer to the development of job descriptions and person specifications. This publicly accessible tool may prove to be a valuable resource to organisations, given today's changing nature of work and the pressures human resource professionals face. The O*NET would assist in delivering accurate job information in a cost effective and timely manner.

In terms of the influence the changing nature of work is having on human resource professionals and their practices, this research suggests that human resource professionals agree that the changing nature of work does present difficulties for job analysis. Specific changes could be attributed to the economy or technological advancements. Such changes could be confronted and overcome by human resource professionals embracing change and adapting their approaches to fit this change. Human resource professionals would benefit from being aware of the changing nature of work and how it can influence human resource practices, specifically the processes of job analysis and competency modelling in New Zealand organisations. Being aware of changes and adapting processes in line with change would help ensure human resource professionals are exerting 'best practice' in their organisation.

In working towards bridging any potential research-practice gap and adapting to the changing nature of work, human resource professionals would benefit from ongoing training and development to learn new skills and enhance their current abilities, this would help ensure they are performing effectively and demonstrating 'best practice' in HRM. Furthermore, human resource professionals would benefit from taking some responsibility for keeping informed of current research findings and developments. This would be done by reviewing

articles and reports, which are published in academic journals available on line and in hard copy. Organisations could also facilitate this by subscribing to academic journals or bringing in a researcher or organisational psychologist to assist with maintaining and increasing people's knowledge and understanding.

Finally, not being aware of, or applying current research findings as part of the job analysis or competency modelling process may affect the ability to establish sound and stable foundations. This is important as this is where from which human resource practices are developed within the organisation.

Future Research

The current research results contribute to and extend knowledge on the use and application of job analysis and competency modelling by human resource practitioners in New Zealand organisations. Organisations would benefit from enhanced human resource practices of job analysis and competency modelling, given the changing nature of work and the current economic climate. This could lead to selection practices that are more effective and cost efficient.

Further research is needed to examine the methods that will foster the transition of information between research and practice, to assist human resource professionals in implementing best practice in the organisation. The changing nature of work can influence an organisation's human resource practices. A number of respondents agreed that the changing nature of work presents difficulties for conducting job analysis. The effect being that as the nature of work changes, the outputs obtained from job analysis would also change. Some authors have suggested a different strategic or future oriented job analysis approach (Brough & Smith, 2003; Phillips & Gully, 2009), to predict how the job will be

executed in the future. The organisation benefits through staying current in a competitive marketplace. However, further research on adapting job analysis and competency modelling to the changing nature of work is clearly needed. Similarly, research focusing on how job analysis can be approached in light of the changing nature of work to enhance HRM functions and processes.

In regards to competency modelling, results of this study suggest that a wide variety of sources of information on the competencies required in a job were not being fully utilised. Competency modelling and job analysis establish the foundations of human resource functions. These methods need to be based on reliable and valid information if they are to assist the organisation in achieving its strategy and overall organisational success. To attain reliable information in competency modelling development, further investigation is needed to explain why organisations are not making full use of job information sources and how this can be overcome. Further insight into how job analysis and competency modelling can be used together throughout human resource functions in the organisation is also required.

Strengths of the Present Research

The current study contained a number of strengths, including being specific to the New Zealand context. The research built on and provided further understanding of the existing use and application of the traditional job analysis approach and the newer practice of competency modelling in New Zealand organisations. More importantly, this research explored the possible presence of a research-practice gap and how the changing nature of work is impacting on the practices of job analysis and competency modelling, for human resource

professionals. Taylor and Cable's (2004) article provided one specific example of where research is published but does not appear to be utilised by human resource professionals. This clearly demonstrates the potential for a research-practice gap, and continues to be an area that New Zealand organisations would benefit from addressing. An additional strength in the research was to identify how job analysis is used to support the development of position descriptions. The identification of KSAO's as the most commonly represented areas in position descriptions, addresses what is required in achieving effective performance on the job.

In reviewing the research-practice gap present in job analysis, this study provided insight into human resource professionals' limited knowledge of the O*NET database. Furthermore, the use and application of the O*NET database, not previously investigated within the New Zealand context, showed how research has the ability to be applied widely in organisations than is currently the case.

Limitations of the Research

A possible limitation of the present study is that the sample may not be representative of human resource professionals. There was a low response rate (107 individual responses from a total potential population of 568) which may affect the extent to which the findings are relevant to and be indicative of New Zealand organisations generally. The effect of the current market place and the economic recession may have contributed to the low response rate, through human resource professionals not having the time to dedicate towards participation due to organisational commitments. Another limitation is the categories and coding for open ended questions was completed only by the current

researcher. The reliability and accuracy of the categories and their coding could have been enhanced if checked by an independent person.

Conclusion

The results of the present study showed that human resource professionals were generally aware of the traditional job analysis approach and the emerging trend of competency modelling, but that they were not widely applying these processes in the organisation due to the limited knowledge and understanding. Findings also indicated that published research may not be utilised by human resource professionals in the organisation, which may be contributing to the research-practice gap and creating difficulties for adapting to the changing nature of work. The findings of this research have implications for HRM, organisational psychology, organisations and researchers.

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APPENDIX A: Example of a Summary Report Produced by the O*NET Database for: Office Clerk

Summary Report for:
43-9061.00 - Office Clerks, General (U.S Department of Labor, 2009).

Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring limited knowledge of office management systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, stenography, office machine operation, and filing.

Sample of reported job titles: Administrative Assistant, Office Manager, Receptionist, Clerk, Secretary, Office Assistant, Office Clerk, Customer Service Representative, Office Coordinator, Court Clerk

Report: Summary

Tasks

- Collect, count, and disburse money, do basic bookkeeping, and complete banking transactions.
- Communicate with customers, employees, and other individuals to answer questions, disseminate or explain information, take orders, and address complaints.
- Answer telephones, direct calls, and take messages.
- Compile, copy, sort, and file records of office activities, business transactions, and other activities.
- Complete and mail bills, contracts, policies, invoices, or checks.
- Operate office machines, such as photocopiers and scanners, facsimile machines, voice mail systems, and personal computers.
- Compute, record, and proofread data and other information, such as records or reports.
- Maintain and update filing, inventory, mailing, and database systems, either manually or using a computer.
- Open, sort, and route incoming mail, answer correspondence, and prepare outgoing mail.
- Review files, records, and other documents to obtain information to respond to requests.

Knowledge

Customer and Personal Service — Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.

Clerical — Knowledge of administrative and clerical procedures and systems

such as word processing, managing files and records, stenography and transcription, designing forms, and other office procedures and terminology.

English Language — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.

Mathematics — Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.

Economics and Accounting — Knowledge of economic and accounting principles and practices, the financial markets, banking and the analysis and reporting of financial data.

Skills

Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

Reading Comprehension — Understanding written sentences and paragraphs in work related documents.

Speaking — Talking to others to convey information effectively.

Writing — Communicating effectively in writing as appropriate for the needs of the audience.

Social Perceptiveness — Being aware of others' reactions and understanding why they react as they do.

Abilities

Oral Comprehension — The ability to listen to and understand information and ideas presented through spoken words and sentences.

Oral Expression — The ability to communicate information and ideas in speaking so others will understand.

Speech Clarity — The ability to speak clearly so others can understand you.

Speech Recognition — The ability to identify and understand the speech of another person.

Near Vision — The ability to see details at close range (within a few feet of the observer).

Written Comprehension — The ability to read and understand information and ideas presented in writing.

Information Ordering — The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).

Number Facility — The ability to add, subtract, multiply, or divide quickly and correctly.

Mathematical Reasoning — The ability to choose the right mathematical methods or formulas to solve a problem.

Selective Attention — The ability to concentrate on a task over a period of time without being distracted.

Work Activities

Interacting With Computers — Using computers and computer systems (including hardware and software) to program, write software, set up functions, enter data, or process information.

Getting Information — Observing, receiving, and otherwise obtaining information from all relevant sources.

Communicating with Supervisors, Peers, or Subordinates — Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

Performing Administrative Activities — Performing day-to-day administrative tasks such as maintaining information files and processing paperwork.

Establishing and Maintaining Interpersonal Relationships — Developing constructive and cooperative working relationships with others, and maintaining them over time.

Processing Information — Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data.

Documenting/Recording Information — Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.

Organizing, Planning, and Prioritizing Work — Developing specific goals and plans to prioritize, organize, and accomplish your work.

Performing for or Working Directly with the Public — Performing for people or dealing directly with the public. This includes serving customers in restaurants and stores, and receiving clients or guests.

Communicating with Persons Outside Organization — Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources. This information can be exchanged in person, in writing, or by telephone or e-mail.

Work Context

Telephone — How often do you have telephone conversations in this job?

Contact With Others — How much does this job require the worker to be in contact with others (face-to-face, by telephone, or otherwise) in order to perform it?

Face-to-Face Discussions — How often do you have to have face-to-face discussions with individuals or teams in this job?

Importance of Being Exact or Accurate — How important is being very exact or highly accurate in performing this job?

Spend Time Sitting — How much does this job require sitting?

Importance of Repeating Same Tasks — How important is repeating the same physical activities (e.g., key entry) or mental activities (e.g., checking entries in a ledger) over and over, without stopping, to performing this job?

Indoors, Environmentally Controlled — How often does this job require working indoors in environmentally controlled conditions?

Structured versus Unstructured Work — To what extent is this job structured for the worker, rather than allowing the worker to determine tasks, priorities, and goals?

Electronic Mail — How often do you use electronic mail in this job?

Work With Work Group or Team — How important is it to work with others in a group or team in this job?

Job Zone

Title	Job Zone Two: Some Preparation Needed
Overall Experience	Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty.
Job Training	Employees in these occupations need anywhere from a few months to one year of working with experienced employees.
Job Zone Examples	These occupations often involve using your knowledge and skills to help others. Examples include sheet metal workers, forest fire fighters, customer service representatives, pharmacy technicians, salespersons (retail), and tellers.
SVP Range	(4.0 to < 6.0)
Education	These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.

There is 1 recognized apprenticeable specialty associated with this occupation:
Health Unit Coordinator

To learn about specific apprenticeship opportunities, please consult the U.S. Department of Labor State Apprenticeship Information.

For general information about apprenticeships, training, and partnerships with business, visit the U.S. Department of Labor Office of Apprenticeship.

Interests

Interest code: **CER**

Conventional — Conventional occupations frequently involve following set procedures and routines. These occupations can include working with data and details more than with ideas. Usually there is a clear line of authority to follow.

Enterprising — Enterprising occupations frequently involve starting up and carrying out projects. These occupations can involve leading people and making many decisions. Sometimes they require risk taking and often deal with business.

Realistic — Realistic occupations frequently involve work activities that include practical, hands-on problems and solutions. They often deal with plants, animals, and real-world materials like wood, tools, and machinery. Many of the occupations require working outside, and do not involve a lot of paperwork or working closely with others.

Work Styles

Cooperation — Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude.

Dependability — Job requires being reliable, responsible, and dependable, and fulfilling obligations.

Integrity — Job requires being honest and ethical.

Attention to Detail — Job requires being careful about detail and thorough in completing work tasks.

Concern for Others — Job requires being sensitive to others' needs and feelings and being understanding and helpful on the job.

Independence — Job requires developing one's own ways of doing things, guiding oneself with little or no supervision, and depending on oneself to get things done.

Self Control — Job requires maintaining composure, keeping emotions in check, controlling anger, and avoiding aggressive behavior, even in very difficult situations.

Stress Tolerance — Job requires accepting criticism and dealing calmly and effectively with high stress situations.

Initiative — Job requires a willingness to take on responsibilities and challenges.

Social Orientation — Job requires preferring to work with others rather than alone, and being personally connected with others on the job.

Work Values

Relationships — Occupations that satisfy this work value allow employees to provide service to others and work with co-workers in a friendly non-competitive

environment. Corresponding needs are Co-workers, Moral Values and Social Service.

Support — Occupations that satisfy this work value offer supportive management that stands behind employees. Corresponding needs are Company Policies, Supervision: Human Relations and Supervision: Technical.

Independence — Occupations that satisfy this work value allow employs to work on their own and make decisions. Corresponding needs are Creativity, Responsibility and Autonomy.

Related Occupations

43-3021.01	Statement Clerks	InDemand
43-3021.02	Billing, Cost, and Rate Clerks	InDemand
43-3061.00	Procurement Clerks	
43-4131.00	Loan Interviewers and Clerks	
43-4171.00	Receptionists and Information Clerks	InDemand
43-6014.00	Secretaries, Except Legal, Medical, and Executive	InDemand
43-9022.00	Word Processors and Typists	
43-9041.01	Insurance Claims Clerks	

Wages & Employment Trends

National

Median wages (2008)	$12.17 hourly, $25,320 annual
Employment (2006)	3,200,000 employees
Projected growth (2006-2016)	Average (7% to 13%)
Projected need (2006-2016)	991,000 additional employees

APPENDIX B: Tables

Table AB.3.1

Reasons for Not Conducting Job Analysis in the Organisation

Reason	Percentage of Organisational Responses
Time	20% (19)
Resources	16% (15)
Understanding / Knowledge	14% (13)
Cost	13% (12)
Other Reasons	5% (5)
Not Applicable	44% (42)

Note. A number of organisations identified multiple reasons (total >100)

Table AB.3.2

Human Resource Functions that Job Analysis is Applied to

Human Resource Function	Percentage of Organisational Responses
Personnel Selection	54% (51)
Training and Development	52% (49)
Performance Appraisal	45% (43)
Career Development & Management	43% (41)
Compensation / Rewards / Benefits	39% (37)
Change Management	5% (5)
Organisational Design	4% (4)
Other Human Resource Functions	8% (8)

Note. A number of organisations apply job analysis to multiple human resource functions (total >100)

Table AB.3.4

Positions of People Responsible for Developing Position Descriptions in the Organisation

Position	Percentage of Organisational Responses
Human Resource Professionals	78% (74)
Managers	76% (72)
Supervisors	31% (29)
Job Incumbents	28% (27)
Job Analysts	2% (2)
Other Positions	7% (7)

Note. A number of organisations identified multiple positions (total >100)

Table AB.3.7

*Learning Outcomes from the Article by Taylor and Cable (2004) "Using the Occupational Information Network (O*NET) in New Zealand"*

Learning Outcomes	Percentage of Individual Responses
Existence of the O*NET database	6% (6)
Application of O*NET to the New Zealand Context	3% (3)
Other	2% (2)
Not Applicable	86% (92)
No Response	16% (17)

Note. A number of organisations identified multiple areas (total >100)

Table AB.3.8

*Human Resource Functions that the O*NET Database is Applied to*

Human Resource Function	Percentage of Organisational Responses
Personnel Selection	8% (8)
Training and Development	5% (5)
Performance Appraisal	3% (3)
Compensation / Rewards / Benefits	3% (3)
Career Development & Management	5% (5)
Other Human Resource Functions*	1% (1)
Not Applicable	80% (76)

Note. A number of organisations identified multiple human resource functions (total >100)

Table AB.3.9

*Levels of Analysis in the O*NET Database Used for Determining Human Resource Functions.*

Levels of Analysis	Percentage of Organisational Responses
Individual Level	6% (6)
Job Level	7% (7)
Organisation Level	4% (4)
Economic Level	0% (0)
Not Applicable	82% (78)
No Response	8% (8)

Note. A number of organisations identified multiple levels of analysis (total >100)

Table AB.3.11

The Job Levels that Competencies are Developed for in the Organisation

Job Levels	Percentage of Organisational Responses
Senior Management	26% (25)
Management	26% (25)
Supervisory	22% (21)
All Levels	40% (42)
Other Job Levels	1% (1)
Not Applicable	35% (33)
No Response	2% (2)

Note. A number of organisations identified multiple levels of analysis (total >100)

APPENDIX C: Letter to the Human Resource Institute of New Zealand (Request for support to distribute survey and publish summary of the results)

Jackie Berry
Psychology Department
The University of Waikato
HAMILTON

18th September 2008

Debbie Bridge
Human Resources Career and Education
Human Resource Institute of New Zealand (HRINZ)
PO Box 11 450
WELLINGTON

Dear Debbie

I am a graduate student at the University of Waikato, conducting research for the completion of my Masters of Applied Psychology Degree (Majoring in Organisational Psychology). My research focuses on the use and application of job analysis, competency modelling and O*NET in New Zealand organisations. The findings will confirm the extent to which human resource professionals are applying job analysis and/or competency modelling to human resource functions and will follow up on an article by Taylor and Cable, published by HRINZ in the Human Resources magazine in June 2004 on the use of O*NET in New Zealand.

I seek the support of HRINZ in circulating to its members an email inviting them to complete my survey online. I enclose for your reference a draft of the questionnaire; this will be formatted for on-line completion. Should you decide to support my research, I commit to providing you with a summary of my findings for publication in the Human Resource magazine, so all your members will have access to the results. I believe the results of this survey will be of genuine interest to your members.

Participation in the survey by HRINZ and members of HRINZ is completely voluntary. The questionnaire focuses on the use, application and influence of job analysis, competency modelling and O*NET to human resources, the job, the organisation and any existence of a research practice gap. If HRINZ has anything they would like to contribute or would like me to include in the questionnaire, please advise and I will certainly consider its input into this research.

This research will be submitted to the University of Waikato Human Research Ethics Committee and will not proceed until approval is gained. My expectation is to have ethical approval and be in a position to commence within one month; however I am open to coordinating the release of the invitation to participate with HRINZ.

My supervisors for this academic research are Dr Donald Cable and Professor Michael O'Driscoll. If you would like further information about this research or have any concerns, please contact my primary supervisor or myself on:

Myself: Jackie Berry
E-mail: jamb1@waikato.ac.nz
Phone: 0276533473

Supervisor: Donald Cable
E-mail: dcable@waikato.ac.nz

Thank you for your consideration and I look forward to receiving your support.

Regards

Jackie Berry

APPENDIX D: Information Sheet for Human Resource Institute of New Zealand Members

The Use and Application of Job Analysis, Competency Modelling and O*NET in New Zealand Organisations

Dear Human Resource Institute of New Zealand Member (HRINZ)

I am a graduate student at the University of Waikato, conducting research for the completion of my Masters of Applied Psychology Degree (Majoring in Organisational Psychology). My research explores the use and application of job analysis and competency modelling in the New Zealand organisation and the use of the Occupational Information Network (O*NET) database.

My survey has three sections and I invite you to complete all of these. Section A covers job analysis with a focus on the development and application of position descriptions. Section B covers the use of O*NET. O*NET is an online database offering information about jobs, which can be found online at: http://online.onetcenter.org. In June 2004 HRINZ published in the Human Resources Magazine an article by Paul Taylor and Donald Cable that confirmed the applicability of O*NET to New Zealand organisations. Section C covers competency modelling. Current research suggests a move away from job analysis to competency modelling, particularly for management level positions in organisations. I would appreciate your views in these areas.

I would appreciate if you would take the time to complete this survey. Please answer all relevant sections as best you can so this survey can be used for my research. Participation in the survey is voluntary and is important for the success of this research. I ensure you strict confidentiality of the data you provide. This research has the approval of the Research and Ethics Committee at the Psychology Department, University of Waikato. HRINZ will be provided with a summary of my findings for publication in the Human Resource magazine.

Please complete this survey within 2 weeks of receiving this invitation to participate.

My supervisors for this academic research are Dr Donald Cable and Professor Michael O'Driscoll. If you would like further information about this research or have any concerns, please contact my primary supervisor or myself on:

Myself: Jackie Berry
E-mail: jamb1@waikato.ac.nz
Phone: 0276533473

Supervisor: Donald Cable
E-mail: dcable@waikato.ac.nz

Regards,

Jackie Berry

Please click on the link below to direct you through to the survey
http://psychology.waikato.ac.nz/surveys/jamb/survey.htm

APPENDIX E: Survey Schedule

The Use and Application of Job Analysis, Competency Modelling and O*NET in New Zealand Organisations

Section A: Job Analysis

1. Are you aware of what job analysis is and what it provides?

○ Yes ○ No

2. Does your organisation conduct job analysis?

○ Yes ○ No

3. Is your organisation considering conducting job analysis in the future?

○ Yes ○ No ○ N/A

4. Why does your organisation not conduct job analysis? *(Please tick all that apply)*

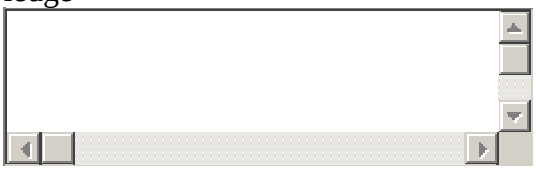
☐ Not Applicable

☐ Time

☐ Cost

☐ Resources

☐ Understanding / Knowledge

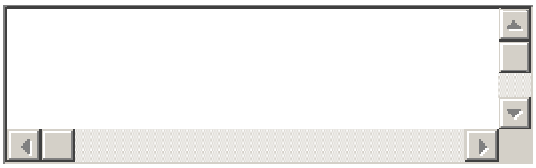
☐ Other (please specify) 

5. Do you believe your organisation should conduct job analysis?

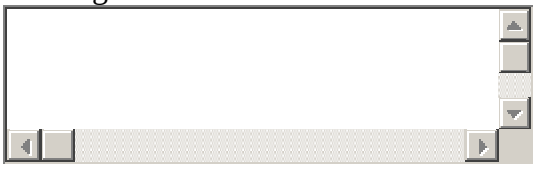
○ Yes ○ No ○ N/A

	Not Important	Somewhat Important	Moderately Important	Reasonably Important	Very Important
6. How important do you feel job analysis is to human resource functions in your organisation?	○	○	○	○	○

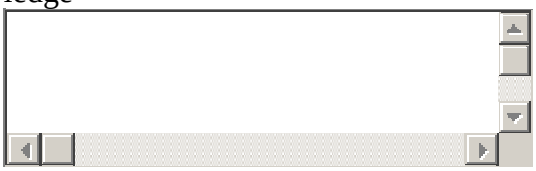
7. Which methods does your organisation use in carrying out job analysis?
(Please tick all that apply)

- ☐ Not Applicable
- ☐ Critical Incident Technique (CTI)
- ☐ Fleishman Job Analysis Survey (F JAS)
- ☐ Functional Job Analysis (FJA)
- ☐ Repertory Grid Technique (RGT)
- ☐ Task Analysis Inventory
- ☐ Position Analysis Questionnaire (PAQ)
- ☐ Existing Job Descriptions
- ☐ Archival Information
- ☐ Observation
- ☐ Subject Matter Experts
- ☐ Job Diaries
- ☐ O*NET
- ☐ Interviews
- ☐ Do Not Know
- ☐ Other (please specify) 

8. What human resource functions do you or have you applied job analysis to?
(Please tick all that apply)

- ☐ Not Applicable
- ☐ Personnel Selection
- ☐ Training and Development
- ☐ Performance Appraisal
- ☐ Compensation / Rewards / Benefits
- ☐ Career Development & Management
- ☐ Other (please specify) 

9. What constraints does your organisation encounter in undertaking job analysis? *(Please tick all that apply)*

- ☐ Not Applicable
- ☐ Time
- ☐ Cost
- ☐ Resources
- ☐ Understanding / Knowledge
- ☐ Other (please specify) 

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
10. To what extent do you agree or disagree that there is a research-practice gap in job analysis? *(The research-practice gap refers to the extent to which practices in organisations lag behind research findings)*	○	○	○	○	○

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
11. To what extent do you agree or disagree that the changing nature of work presents difficulties for conducting job analysis? *(The changing nature of work refers to the environment, economic and global market conditions that impact on the way organisations function and the behaviour of individuals in those organisations)*	○	○	○	○	○

12. Does your organisation develop position descriptions?

○ Yes ○ No

13. Are position descriptions developed from job analysis?

○ Yes ○ No ○ N/A

14. Why does your organisation not develop position descriptions? *(Please tick all that apply)*

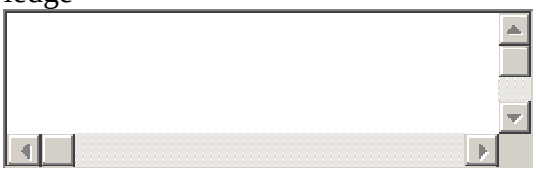
☐ Not Applicable

☐ Time

☐ Cost

☐ Resources

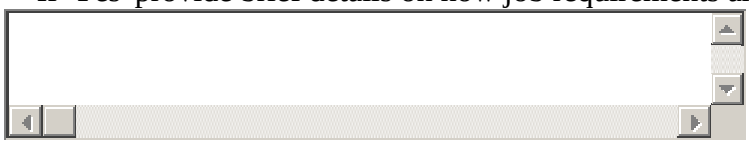
☐ Understanding / Knowledge

☐ Other (please specify) 

15. If you do not develop position descriptions using job analysis are job requirements still determined in your organisation?

○ Yes ○ No ○ N/A

If 'Yes' provide brief details on how job requirements are determined:



16. What areas are covered when developing position descriptions? *(Please tick all that apply)*

☐ Not Applicable

☐ Knowledge

☐ Skills

☐ Abilities

☐ Tasks

☐ Work Activities

☐ Work Context

☐ Job Zone

☐ Interests

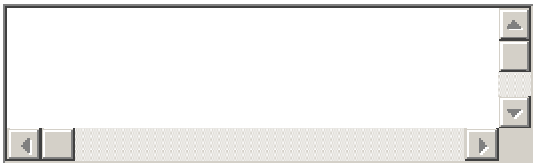
☐ Work Styles

☐ Work Values

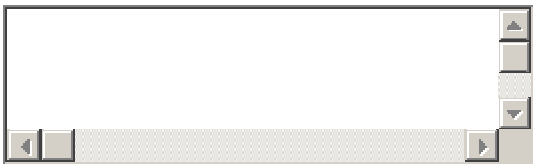
☐ Related Occupations

☐ Wages & Employment

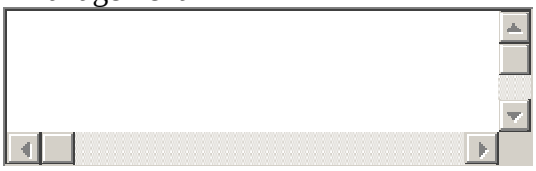
☐ Additional Information

- ☐ Work Needs
- ☐ Education
- ☐ Other (please specify) 

17. Who is responsible for developing position descriptions in your organisation? *(Please tick all that apply)*

- ☐ Not Applicable
- ☐ Human Resource Professionals
- ☐ Managers
- ☐ Supervisors
- ☐ Job Incumbents
- ☐ Job Analysts
- ☐ Other (please specify) 

18. What human resource functions does your organisation use position descriptions for? *(Please tick all that apply)*

- ☐ Not Applicable
- ☐ Personnel Selection
- ☐ Training and Development
- ☐ Performance Appraisal / Evaluation
- ☐ Compensation / Rewards / Benefits
- ☐ Career Development & Management
- ☐ Other (please specify) 

	Not Important	Somewhat Important	Moderately Important	Reasonably Important	Very Important
19. How important do you feel position descriptions are in human resource management?	○	○	○	○	○

Section B: O*NET

1. Are you aware of the Occupational Information Network (O*NET) database?

Yes No

2. Have you read the article by Taylor and Cable "Using the occupational information network (O*NET) in New Zealand," published in the Human Resource magazine June 2004?

Yes No

	Not Applicable	No Extent	Little Extent	Some Extent	Reasonable Extent	High Extent
3. To what extent has this article influenced your use of O*NET?						

4. What specifically did you learn from this article?

Not Applicable

Existence of the O*NET database

Application of O*NET to the New Zealand context.

Other (please specify)

5. Do you or have you used the O*NET database?

Yes No N/A

6. Why do you not use the O*NET database? *(Please tick all that apply)*

Not Applicable

Time

Understanding / Knowledge

Access to Resources (i.e. internet)

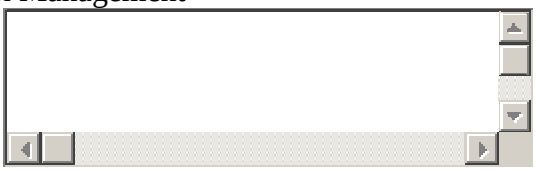
Other (please specify)

7. Do you use O*NET to support the development of position descriptions?

○ Yes ○ No ○ N/A

	No Validity	Low Validity	Moderate Validity	Reasonable Validity	High Validity
8. How valid do you believe O*NET is in developing position descriptions?	○	○	○	○	○

9. What human resource functions do you or have you applied the O*NET database to? *(Please tick all that apply)*

- ☐ Not Applicable
- ☐ Personnel Selection
- ☐ Training and Development
- ☐ Performance Appraisal / Evaluation
- ☐ Compensation / Rewards / Benefits
- ☐ Career Development & Management
- ☐ Other (please specify) 

10. What levels of analysis in the O*NET database do you use for determining human resource functions? *(Please tick all that apply)*

- ☐ Not Applicable
- ☐ Individual Level
- ☐ Job Level
- ☐ Organization Level
- ☐ Economic Level

	Not Important	Somewhat Important	Moderately Important	Reasonably Important	Very Important
11. How important do you believe O*NET is as a tool in supporting human resource management?	○	○	○	○	○

Section C: Competency Modelling

1.Are you aware of what competency modelling is and what it involves?

○ Yes ○ No

2.Does your organisation use competency modelling in human resource management?

○ Yes ○ No

3. Why does your organisation not use competency modelling? *(Please tick all that apply)*

☐ Not Applicable

☐ Time

☐ Cost

☐ Understanding / Knowledge

☐ Other (please specify)

	Not Important	Somewhat Important	Moderately Important	Reasonably Important	Very Important
4. How important do you feel competency modelling is in human resource management?	○	○	○	○	○

5. What human resource functions is competency modelling used for? *(Please tick all that apply)*

☐ Not Applicable

☐ Personnel Selection

☐ Training and Development

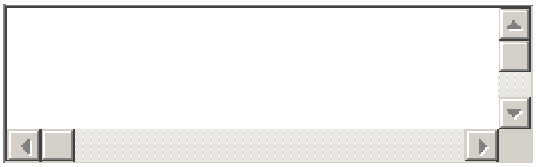
☐ Performance Appraisal / Evaluation

☐ Compensation / Rewards / Benefits

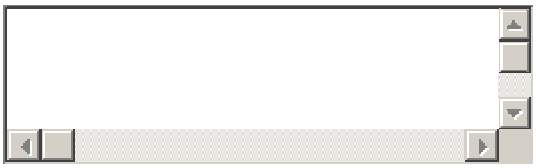
☐ Career Development & Management

☐ Other (please specify)

6. For which job levels are competencies developed in your organisation? *(Please tick all that apply)*

- ☐ Not Applicable
- ☐ Senior Management
- ☐ Management
- ☐ Supervisory
- ☐ All Levels
- ☐ Other (please specify) 

7. Which sources are used to supply information on competencies required in a job? *(Please tick all that apply)*

- ☐ Not Applicable
- ☐ Human Resource Practitioners
- ☐ Job Incumbents
- ☐ Mission Statement
- ☐ Vision Statement
- ☐ Other (please specify) 

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
8. To what extent do you agree or disagree that there is a research practice gap in competency modelling? *(The research-practice gap refers to the extent to which practices in organisations lag behind research findings)*	○	○	○	○	○

Background Information

Some of the following information is being collected to ensure organisational level information is only included once in the results. Where multiple responses are received from an organisation, data will be collated from the most senior job title. The name of your organisation will be kept confidential and will not be named in any report or publication.

Are you currently working in Human Resource Management?

○ Yes ○ No

Were you working in Human Resource Management in June 2004?

○ Yes ○ No

Your current job title:

Name of your organisation:

Industry:

In which sector is your organisation?

○ Public Sector ○ Private Sector

	1-20	21-50	51-100	101-500	501+
Number of employees in your organisation?	○	○	○	○	○

Thank you for your time. This is the end of the survey.

If you are happy with your responses, please click on SUBMIT below

Submit Form Reset Form