Spotlight: A Skills Recognition Tool

Background Research Report

ACKNOWLEDGEMENT

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EXECUTIVE SUMMARY

This is the background research report accompanying the suite of practitioner tools called Spotlight: A Skills Recognition Tool. The products are designed as an aid to naming and classifying skills that are required to carry out work activities effectively, but that are hard to describe and easy to overlook. Spotlight practitioner tools consist of an overview and business case for using the Spotlight lens, a skills classification framework and a series of User Guides to help with applications in key human resources (HR) functions.

The skills in question were identified by research as being hitherto poorly described social and organisational skills. They involve shaping and sharing awareness, interacting and relating, integrating action and reflection, and coordinating activities at a point in time and over time. Different levels of these skills are required in different jobs, but the levels do not always neatly match formal qualifications. The skills are based on learning by practice, problem-solving and solution-sharing. They help explain the qualitative aspects of work performance. The Spotlight practitioner materials offer a methodology for identifying these skills that is designed for easy integration with existing skills recognition approaches.

To provide a background to the Spotlight practitioner materials, this research report explains the need for the Spotlight lens, how the basic skills analysis framework is applied and the theoretical and empirical sources used in constructing it.

The name 'Spotlight' derives from the tool's purpose – to 'shine a light' on skills that are elusive, although they are sources of high-quality work performance. These skills are neither knowledge inputs nor behavioural outcomes, but the capabilities that turn knowledge into outcomes as they are used in work activities. These capabilities are developed through practical workplace learning based on the shared, reflective activities through which people construct ongoing work processes.

The original focus of the project was on under-specified service skills. The aim was to name and classify key types of under-recognised service skills, on the basis of an extensive review of the latest international research combined with field research in the New Zealand public sector. The resulting framework has, however, turned out to have wider relevance to jobs across the economy.

Structure of the research report

The Introduction outlines the origins and purpose of the Skills Identification Project.

Section 1 provides some basic definitions and a summary overview and explanation of the Spotlight skills framework, which is attached to the end of this Executive Summary (Table 1).

Section 1.1 defines the concept of skill that is used in the Spotlight tool and explains why the tool is not a checklist, but rather a means for illuminating the hidden processes of thought, feeling and activity that link together job tasks and turn jobs into living, effective practice.

Section 1.2 sets out differences in the concept of skill level when it is applied in occupational analysis, in job evaluation and in the Spotlight tool. The key difference is that level is a global concept when classifying occupations, a quantitative concept aligned to factor points in evaluating whole jobs and a finer grained qualitative indicator based on learning when applied to activities within jobs through the use of the Spotlight framework.

Section 1.3 summarises the Spotlight tool's three broad skill sets, within which are nine key skill elements. Each skill set and skill element is defined at the same five skill levels.

The three skill sets are:
* Shaping awareness
* Interacting and relating
* Coordinating.

Each of these is subdivided into three skill elements, as set out in Table 1 at the end of this Executive Summary.

The five skill levels are:
1. Familiarisation – capacity to build experience through practice, reflection and learning from others.
2. Automatic fluency – capacity to apply experience independently and automatically.
3. Proficient problem-solving – capacity to use automatic proficiency while solving new problems.
4. Creative solution-sharing – capacity to create new approaches through shared solutions.
5. Expert system-shaping – capacity to help embed expertise in an ongoing work system.

Section 2 explains why this framework is needed and can add value.

Section 2.1 explains that key skills may be overlooked and under-developed or under-rewarded for a range of reasons:
* Issues of tact and taboos, or the tactile (or other sensory) or tacit (unconscious or unspoken) nature of activities may inhibit recognition of the skills required.
* The status of job or the social status of jobholders may influence perceptions of what constitutes skill, for example, skills such as emotional intelligence or risk management may be noticed in some jobs but seen as natural in others, and intercultural skills may be differently valued, depending on the cultural background of the skill user.
* It is quite hard to see or understand the important second-order meta- or supra-skills that enable jobholders to bring together a range of other skills, integrate their use and link their activities into the overall workflow.

Section 2.2 explains that, whilst some competency standards may include some of the Spotlight skills, the Spotlight tool is a useful complement to them:
* Its consistent framework, applicable to all jobs, helps ensure full coverage of each of these skills.
* It includes experienced levels of work performance that build on the threshold levels of competence certified by qualifications.
* It provides a way of acknowledging that some routine performance that has become second nature as a result of repeated practice is still skilled and may be an important basis for problem-solving and solution-sharing.
* It identifies the specific skills required to integrate separate elements and units of competence into a smooth work process and overall workflow.
* It goes beyond defining the productive functions able to be carried out by one person to include the tacit learning that allows individuals to work together.

Thus, the Spotlight framework can be used as a stand-alone tool or in addition to existing competency standards, core competencies and generic skills, or its skills can be integrated into competency standards frameworks.

Section 2.3 describes how the need for the Spotlight tool is underpinned by its utility and economy of use. The Spotlight tool is easy to use alongside existing job analysis and competency assessment techniques, and it has a dual function, being capable of application both to the skill demands of jobs and to the capabilities of people.

Section 2.4 explains that the Spotlight tool is a user-friendly guide to building and fully utilising employees' hidden skills in day-to-day HR activities such as recruitment and performance management. This practical contribution includes:

- helping unpack key skills that tend to be referred to in vague terms such as flexibility, teamwork, time-management, communication and empathy, allowing greater focus in the selection and induction phases
- providing an integrated approach to selection and induction in the recruitment process, reducing early attrition and accelerating the process by which recruits reach full proficiency
- helping identify the skill elements that account for service quality, customer focus, teamwork and leadership, and contributing to a performance management approach designed to foster the development of these skills
- ensuring enhanced focus on work process skills in the design and delivery of training and development programmes
- reducing mid-career attrition rates by contributing to the flexible design of internal career paths, providing a competitive advantage in the coming skills shortage.

Section 2.5 explains how induction and career development initiatives drawing on the Spotlight framework have the potential to improve retention of both recent and more experienced staff, thereby reducing turnover costs.

Section 2.6 describes how, for these reasons, the Spotlight framework may contribute to strategic HR management responses to demographic and economic challenges. The Spotlight framework may:

- enhance the precision with which future skill requirements are identified and matched to existing workforce capabilities
- help address skill shortages and narrow the skills gap by providing greater precision in identifying and building the sources of performance quality.

Section 3 brings the Spotlight skill sets and skill levels together in a matrix through which the profile of any job can be reviewed and its under-specified elements can be analysed. These profiles can be used for all the HR purposes identified in Sections 2.4 to 2.6. Worked examples are used to provide a fuller explanation of the basis and applications of the taxonomy, and detailed checklists, drawn from the research data, are provided of activities using each skill element at each of the five levels.

Section 4 explains the research basis of the Spotlight tool, showing how it supplements other approaches to classifying skills and skill levels.

Section 4.1 covers the research phases:

- Phase 1 – literature review, background report and sampling frame selection.
- Phase 2 – questionnaire design and refinement, three waves of interviewing, initial data analysis.
- Phase 3 – detailed computer-based qualitative data analysis, cross-referenced to the literature, in order to develop skill sets, elements and levels, and initial development of practitioner tools.

- Refinement phase – formalisation of framework, redesign of practitioner tools, use of academic and practitioner forums, and early trials.

Section 4.2 covers the roles of the research team of academics and consultants, in:
- reviewing existing skill frameworks and practitioner and theoretical literature
- designing a job analysis questionnaire and choosing the interview sample
- interviewing and observing in workplaces and reviewing position descriptions
- analysing data
- deriving the framework of skills and levels
- translating findings into user-friendly materials
- refining and testing the results.

Section 4.3 explains the contribution of the Reference Group of industry practitioners and the input provided by consultations with HR professionals in providing:
- quality assurance at each stage of the project
- a diverse range of perspectives from the fields of training, union representation and consumer advocacy.

Section 4.4 is a summary of the key bodies of theoretical and practitioner literature that were used in data collection and analysis, including:
- practitioner literature on occupational and job analysis systems, based on work with people, data and things
- practitioner literature on job evaluation, the range of skills identified in factor analysis and the importance of having complete job data
- practitioner literature on competency standards, including industry and generic standards, and the relationship between these and the Spotlight skills
- content theories of invisible skills, particularly the literature on emotion work and on the management of awareness contexts
- process theories of invisible skills, particularly the literature on articulation (integrative, coordinating) work, activity theory, work process knowledge and workplace learning (including tacit skills, situated learning and communities of practice).

Section 5 concludes by re-emphasising that the Spotlight tool is a supplementary one, which can add to any existing skill identification process without displacing it.

Appendix A summarises the range of jobs surveyed and their gender compositions, Appendix B describes the questions used in the research interviews, Appendix C summarises the theories on which they were based and Appendix D provides further checklists of words that can be used in writing position descriptions.

Table 1: The Spotlight skills recognition framework

	SKILL LEVELS				
	Breadth or depth of skill required for increasing levels of participation				
	1. Familiarisation	2. Automatic fluency	3. Proficient problem-solving	4. Creative solution-sharing	5. Expert system-shaping
SKILL SETS AND THEIR ELEMENTS	**Capacity to:** Build experience through practice, reflection and learning from others	Apply experience independently and automatically	Use automatic proficiency while solving new problems	Help create new approaches through shared solutions	Embed expertise in an ongoing work system
A. Shaping awareness – capacity to develop, focus and shape your own and other participants' awareness by: A1. Sensing contexts or situations A2. Monitoring and guiding reactions A3. Judging impacts	Learn job contexts, demands and impacts	Automatically monitor the work situation and assess its impacts	Monitor contexts and impacts whilst solving problems	Share situational awareness and new solutions	Understand systems and opportunities to influence them
B. Interacting and relating – capacity to negotiate interpersonal, organisational and intercultural relationships by: B1. Negotiating boundaries B2. Communicating verbally and non-verbally B3. Connecting across cultures			Learn work roles and boundaries	Communicate flexibly and negotiate boundaries deftly	Help build organisational practices that contribute to diverse communities
C. Coordinating – capacity to organise your own work, link it into to the overall workflow and deal with disruptions by: C1. Sequencing and combining activities C2. Interweaving your activities with others' C3. Maintaining and/or restoring workflow	Learn to sort and sequence activities	Smoothly link up tasks and interweave activities	Solve problems whilst maintaining workflow	Share creative approaches to keeping work on track	Help build and maintain sustainable work systems

INTRODUCTION

The Spotlight skills recognition tool is based on research commissioned in 2005 by the Department of Labour. The project was awarded by competitive tender to a trans-Tasman research team whose brief was the development of a methodology for better recognition of the skills in service work. The project, originally called the Service Sector Skills Identification Project, was funded within the Pay and Employment Equity Plan of Action (2004–2008).[1]

The resulting Spotlight tool offers a precise and economical means of naming, building and equitably recognising hard to define skills. Internationally and in New Zealand, organisations are increasingly paying attention to intangible human sources of value, variously and imprecisely termed 'talent', 'intellectual capital', 'soft skills' or 'emotional intelligence'. A consistent framework for identifying these skills at all job levels will potentially help organisations bridge the emerging skills quality gap.

The Spotlight tool is not a skills checklist, but a framework for naming and classifying certain types of skills. These are the invisible or tacit skills through which people convert knowledge and experience into increasingly expert performance in continuous activity, reflection, practice and the sharing of workplace knowledge. The Spotlight tool shines a light into the hidden activities of applying learning in order to put work processes together in a way that meets outcomes standards. It thus provides a way of identifying the elusive skills that are the unexplained sources of high-quality performance.

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[1] New Zealand Taskforce on Pay and Employment Equity in the Public Service and the Public Health and Public Education Sectors (2004).

1. DEFINITIONS OF 'SKILL' AND 'SKILL LEVEL' AND THE SPOTLIGHT FRAMEWORK

1.1 Defining 'skill'

> An individual or collective capability effectively applied in goal-directed work activity and learned through a combination of formal and informal knowledge-sharing and practical experience, inside or outside the workplace.[2]

According to this definition, skill is neither an innate personal quality nor a work activity, but a developing capacity to carry out work processes by effectively coordinating them and directing them to a defined purpose. Skill cannot be learned from instruction alone: 'knowledge' in this definition includes both knowing what and knowing how.

The terms 'ability', 'competence' and 'expertise' are not interchangeable. For ability to count as skill, it has to be more than potential: it must be integrated into an ongoing, purpose-directed work process. There is considerable debate over whether competence and expertise mean the same thing. Some writers see competence as the threshold ability of a novice, while others see it as the stage at the end of the orientation period – the point at which routines can be performed fluently and automatically. Some define it as a further stage of proficiency, at which assured practice is accompanied by reflective problem-solving. A number of writers reserve expertise for an even further stage of proficiency involving comprehensive insight into the work system of which the performer is part.[3]

Debate has arisen over whether the concept of skill extends to techniques of role management and interpersonal interaction. These are often called soft skills, presumably by analogy with the hardware/software distinction – an analogy that may skew the definition of technical expertise towards the use of physical tools. But we can question why concepts of skill, rigour and difficulty might be reserved for activities dealing with inanimate objects and not applied to activities where "…the object being worked on is alive, sentient, and reacting".[4]

One reason for calling skills soft is a fuzziness in how they are thought about. For example, some writers define the skills required in interactive frontline customer service work as high-level emotion management,[5] others as a form of knowledgeability that is not really skill[6] and others again as a set of personality attributes.

The problem may lie, not in the skills, but in the lack of a rigorous framework for classifying them. In terms of naming, blanket terms such as 'communication skills', 'interpersonal skills', 'time management' and 'flexibility' are often defined in terms of proxies such as individual attributes (maturity, bright personality, reliability, sense of humour). But precision is required:

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[2] This definition draws on Brown, Green and Lauder (2001) p. 23. Their slightly individualistic definition has been supplemented by insights from Lave and Wenger (1990) and Brown and Duguid (1991). These concepts have, in turn, been critiqued for overstating the possibility of all employees to enhance their participation through learning. See Roberts (2006) and Handley, Sturdy, Fincham and Clark (2006). Nevertheless, it is important to recognise that learning has a social basis in workplace culture and can change practices as well as the individuals undergoing the learning – see Boreham and Morgan (2004).

[3] Sandberg (2000) and Eraut (2000).

[4] Strauss, Fagerhaugh, Suczek and Weiner (1985) p. 129.

[5] Bolton (2005).

[6] Thompson, Warhurst and Callaghan (2001).

are the interpersonal skills used in a one-off retail interaction the same skills or same level of skill we would expect in interactions with a frail elderly relative?

The Spotlight framework is based on research that has classified a range of under-specified skills, showing that concepts such as soft skills include not only emotion work skills, but cognitive skills and skills of integrating extended work processes.

The under-specification of people skills and skills relating to the coordination of work activities can be traced to the historical origins of approaches to analysing jobs and identifying competencies. One of these was functional analysis, a technique based on a three-dimensional conceptual framework – work with people, data and things. The most observable dimension – work with things – has been the most fully elaborated. Because this approach uses the task as its unit of analysis, it may overlook the skills required to combine and share tasks, as well as the qualitative and collective aspects of working. Increasingly, attempts to separate out elements of tasks and to assess their skills along scales in the people/data/things dimensions are like attempts to describe the behaviour of water in terms of the behaviour of hydrogen and oxygen.[7]

For example, existing skills frameworks may not identify some qualitative aspects of care work that have been described thus:

> Care involves a constant tension between … seeking to preserve an older person's dignity and exerting unaccustomed authority, overcoming resistance to care and fulfilling extravagant demands, reviving a relationship and transforming it.[8]

At present, the work process skills of jobs involving such work are often read off from the status of the occupation, the design of the job or the level of formal knowledge or specialised tools required.[9] The Spotlight framework, by contrast, is designed to allow a precise identification of the proficiency levels through which skills develop, based on familiarisation, practice, problem-solving, sharing experience and the embedding of shared tacit knowledge in work systems.

1.2 Defining 'skill level'

In skill frameworks used in New Zealand, the concept of skill level is applied variously to:
- whole occupational groupings and sub-groupings
- whole jobs
- activities within jobs.

By identifying hidden skills, the Spotlight tool is designed to aid the finest grained type of classification – an identification of the proficiency level of discrete activities within jobs.

A skill level can be assigned to a whole occupational grouping, for example, by using the five levels of the Australian and New Zealand Standard Classification of Occupations (ANZSCO).[10]

ANZSCO occupational groupings are defined by skill level and skill specialisation. Specialisation is defined on the basis of field of knowledge, tools and equipment used; materials worked on;

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[7] Vygotsky (1987) cited in Moll (1990) p. 6.

[8] Abel (1990) cited in Wellin (2007) p. 1.

[9] Australian Bureau of Statistics (2005).

[10] Australian Bureau of Statistics (2005).

and goods or services produced or provided.[11] Such criteria are not well suited to work based mainly on intangible processes such as awareness, feelings and coordination, which may be seen (often wrongly) as unspecialised. It is but a step to assuming (again, often wrongly) that such work can be done by people in general, that it can therefore be learned quickly by anyone off the street and hence that it is low skill.

ANZSCO skill levels are assigned to specialisations through a desk-based exercise, using proxy criteria – normally qualification levels, length of experience and time spent in on-the-job training.

Thus the ANZSCO system relies heavily on educational and vocational qualifications, which are threshold skill levels required for occupational entry or progression. The Spotlight tool provides supplementary, finer grained evidence of the actual intangible, integrated proficiencies of effective job performance.

The New Zealand Qualifications Framework (NZQF) defines the skill levels, either of occupations or of jobs, and also of finer grained units of competence associated with aspects of a job.[12] The first seven of the ten NZQF levels are based on three skill criteria:
- Work process levels – defined in terms of skill range, discretion, repetition-based familiarity, variability, complexity and specialisation.
- Levels of learning demand – defined as complexity – and based on familiarity of problem to be solved, scope and abstractness of information to be applied, breadth and depth of knowledge specialisation, discretion and judgement, and novelty/originality of approach.
- Responsibility levels, based on degree of supervision needed (i.e. capacity to work autonomously), accountability for outcomes and responsibility for others.

There is some overlap in the three sets of criteria, and a uniform alignment among all three skill types is assumed at each qualification level. The criteria are largely elaborations of the concepts of complexity and autonomy, which are defined partly in terms of repetition, familiarity and routine. Ambiguities in these concepts are discussed further in Section 4.4.

In the NZQF, responsibility is used as a skill level criterion to identify the capabilities essential for entry into an occupation. Middle and upper level NZQF qualifications, being based partly on responsibility levels, thus serve as credentials for supervisory or managerial roles.

The NZQF uses units of credit as a common currency for determining levels. At levels 8–10, units of credit are assigned directly to qualifications at degree level and above. At levels 1–7, credits are assigned to units of competency on the basis of an estimate of the average length of time needed to become competent (NZQA 2005; 2007). Holistic workplace assessments are used to judge how itemised units are put together in practice, but such judgements are necessarily limited to performance at a point in time.

Again, the Spotlight framework provides a complementary approach, in that its proficiency levels go beyond threshold unit requirements for entry or progression, implicit in the notion of qualification. Within any job, the Spotlight descriptors mark a progression from the level of

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[11] Australian Bureau of Statistics (2005).

[12] New Zealand National Qualifications Project Team (2005) and New Zealand Qualifications Authority (2007).

novice, through that of problem-solving practitioner, to a level where a shared development of new practical approaches becomes embedded in workplace know-how.[13]

Finally, job evaluation assigns skill levels to jobs in a process for determining the relative value of jobs within an organisation on the basis of size. The size of a job is measured by the levels at which various factors, including skill, are required.

Rigorous job evaluation is a ground-up approach, rather than desk-based. Jobholders provide job data by completing a questionnaire, and an evaluation committee uses this information, along with position descriptions, to classify benchmark positions within an organisation, slotting in other positions around these benchmark jobs.

In the New Zealand Equitable Job Evaluation (EJE) system, job size is measured on the basis of 12 factors, grouped into three weighted families (skills 45 per cent, responsibility 45 per cent and job demands 10 per cent). For each factor, jobs are classified into levels and assigned points within the range allocated to the chosen level.[14]

The skill factors in the EJE tool and the metrics used to assign points to them, are:
- knowledge skills: nature, depth and breadth of knowledge required; level of thinking; alternative experience – 11 levels
- problem-solving skills: creative/analytical skills; freedom to find solutions; support available – 8 levels
- interpersonal skills: nature and intent, out of the ordinary communication, functioning in multicultural situation – 6 levels
- physical skills: nature, training/experience, speed/precision, adaptation/variation – 5 levels.

The EJE System does not tie knowledge to specific qualification levels or years of experience. It accepts that leadership may involve influence rather than control and recognises the emotional demands of some work.

The Spotlight framework can assist in the collection of the job data that job evaluation committees use to decide job size. Some Spotlight skill sets and elements may help to shed light on the skill and responsibility factors in job evaluation systems such as EJE and also on the emotional demands of jobs.

The Spotlight framework is at the same time general (being applicable all jobs) and fine grained (applying at the level of work activity elements). Its levels refer to the quality of work processes, not to qualifications for job entry. These features will become clear when we examine the Spotlight framework.

1.3 The Spotlight framework and its components

The Spotlight tool refers to three intangible sets of skills and their nine elements that are required in carrying out particular job activities.

The three skill sets and their component elements are set out in Table 2.

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[13] For the distinction between knowing what and knowing how, or the distinction between declarative (knowing what) and procedural (knowing how) learning, see Anderson (1983). For the notion of workplace learning as a journey by novices towards expertise, see Benner (1984) and Dreyfus and Dreyfus (1986).

[14] New Zealand Department of Labour (Te Tari Mahi) Pay and Employment Equity Unit (2007a, 2007b, 2007c).

Table 2: Spotlight skill sets and their elements

A. Shaping awareness – capacity to develop, focus and shape your own and other participants' awareness by:
A1. Sensing contexts or situations
A2. Monitoring and guiding reactions
A3. Judging impacts
B. Interacting and relating – capacity to negotiate interpersonal, organisational and intercultural relationships by:
B1. Negotiating boundaries
B2. Communicating verbally and non-verbally
B3. Connecting across cultures
C. Coordinating – capacity to organise your own work, link it into to the overall workflow and deal with disruptions by:
C1. Sequencing and combining activities
C2. Interweaving your activities with others'
C3. Maintaining and/or restoring workflow

These three skill sets and nine skill elements were drawn from the research data on the basis of being both the keys to effective work performance and easy to overlook. In practice, people use these skills in conjunction and together with other more visible skills, in varying combinations, depending on the job. This is why they are sometimes called articulation work skills – they link up aspects of work processes into smooth performance.

Shaping awareness refers to the capacity of the jobholder to pay attention, be attentive, pick up and use cues and signals, steer or guide the attention of others and assess, evaluate and use judgement in relation to contexts of awareness – situations in the workplace where the participants need an understanding of what is happening, an attitude to it, a sense of the antecedents, implications or consequences of the situation and an understanding of rules and roles that are being observed or transgressed. The contexts and situations may involve:
- participants – the jobholder, co-workers, clients, family or whānau, contractors or the public
- varying levels of awareness, disclosure and non-disclosure on the part of participants
- responses to factors in the physical or social environment, emerging trends or patterns, subtle situational developments, safety issues and so on.

Interacting and relating refers both to the conduct of short-term interpersonal exchanges and the building of longer-term work relationships – whether contractual, supervisory, collaborative, supportive, caring, educative or therapeutic. Under-recognised foundations of such interactions and relationships are:
- being able to draw and respect boundaries, relating both to oneself and others, including the ability to say (and accept the saying of) "no" or "not now"
- being able to negotiate, persuade, advocate and exercise influence across role boundaries, in dealings with people in authority, under one's authority or care or outside formal lines of authority
- communicating effectively both verbally and non-verbally, deploying empathy, emotion work, aesthetic communication styles, the use of touch, a range of language levels and registers and variations of pace, as well as listening, interpreting, reflecting and using silence

- working with people from diverse backgrounds based on ethnicity, class, disability, age gender or sexuality; developing a deep understanding of other cultures and of one's own cultural impact; understanding the dynamics of bicultural and intercultural interactions and relationships and engaging constructively in implementing Treaty of Waitangi obligations in specific contexts.

Coordinating involves the continuous use of micro-level judgements and less deliberative responses in:
- making constant small adjustments to one's own sequences of activities, prioritising, switching between lines of work, dealing with interruptions, picking up threads and refocusing
- working with others to weave together activities into the overall arc or trajectory of the flow of work, rescheduling to accommodate others and working with colleagues and clients who have a different approach to time
- balancing conflicting demands, anticipating and working around obstacles, keeping track, keeping things on track, rectifying mistakes, picking up pieces and putting work back on track, and handling contingencies.

These hard to identify work process skills are context-specific and have to be learned: it is not possible to bring people into a job from off the street and expect them to start exercising these skills straight away.

Each of the skill sets or skill elements can be practised at any of the five levels set out in Table 3.

Table 3: Spotlight skill levels and corresponding capacities

Level descriptor	Capacity to:
1. Familiarisation	Build experience through practice, reflection and learning from others
2. Automatic fluency	Apply experience independently and automatically
3. Proficient problem-solving	Use automatic proficiency while solving new problems
4. Creative solution-sharing	Help create new approaches through shared solutions
5. Expert system-shaping	Embed expertise in an ongoing work system

The levels are crucial in making the Spotlight tool operational. These levels were derived from our theoretical and empirical research, as outlined in Section 4.4. The thinking behind the levels can be summarised as follows:

1. **Familiarisation:** Entry into any job requires an orientation period in which the jobholder consciously learns to identify and adopt relevant resources such as rules and roles. This is done by a combination of observation, imitation, practice and deliberation. Already there are collaborative aspects of learning, but at this stage, the jobholder is mainly gaining experience rather than sharing it.
2. **Automatic fluency:** Through practice, the jobholder becomes increasingly able to perform activities and make decisions proficiently, without having to give conscious thought to the procedures being followed or work under the close guidance of colleagues.
3. **Proficient problem-solving:** On the basis of automatic fluency, the jobholder can engage simultaneously in multiple activities and thus focus on problems that arise while undertaking a task, in order to develop a new pattern of activity or to resolve an unforeseen event. The jobholder relies increasingly on automatic pattern recognition, making rapid decisions in response to emerging situations. Solutions are based on context-specific approaches to applying rules.

4. **Creative solution-sharing:** The jobholder's increasing autonomy derives from being embedded in networks of personal and organisational relationships. In the work team, the jobholder helps create new approaches by sharing solutions and working collaboratively with others to address novel problems. Catchphrases and mental models aid recognition-primed decision-making[15] and help build shared understanding. Dialogue, a willingness to listen and openness to alternatives are the basis for shared learning.

5. **Expert system-shaping:** The jobholder helps embed informally acquired practical expertise in the ongoing work system of the unit or organisation. The jobholder has now acquired a comprehensive conception of the work process being undertaken and a vision of what is possible. Drawing on embedded knowledge, the jobholder enters unfamiliar territory to solve emergent problems. This involves working consultatively and cooperatively with other experts to make tacit knowledge explicit, seeing the link from activities to outcomes and applying understanding to create change.[16]

The essence of the Spotlight tool is that it can help identify:

- the integrated use of the skill sets and their elements in any activity
- the deepening levels of this integration through practice.

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[15] Eraut (2000).

[16] The criteria for all five levels are a synthesis and reconciliation of level criteria identified in debates over workplace learning and tacit skill. The research basis is discussed in Section 4. Representative writers include Dreyfus and Dreyfus (1986), Lave and Wenger (1990), Brown and Duguid (1991), Spender (1994), Gagné and Medsker (1996), Eraut (2000), Sandberg (2000), Engstrom (2001), Guile (2002) and Boreham and Morgan (2004).

2. WHY IS THE SPOTLIGHT TOOL NEEDED AND WHAT VALUE DOES IT ADD?

This section of the research report begins by explaining why the Spotlight skills have remained unrecognised and why, as work process skills, they are complementary to the input and outcome skills set out in competency standards.

It then goes on to outline how the Spotlight tool can provide:
- strategic advantage to planners, policy-makers and analysts
- cost-effective and time-saving benefits to HR practitioners, line managers, educators and trainers.

2.1. Why vital skills may be overlooked

Like other resources, the Spotlight skills may only be noticed and valued as they become scarce.

Figure 1: Why vital skills may be overlooked
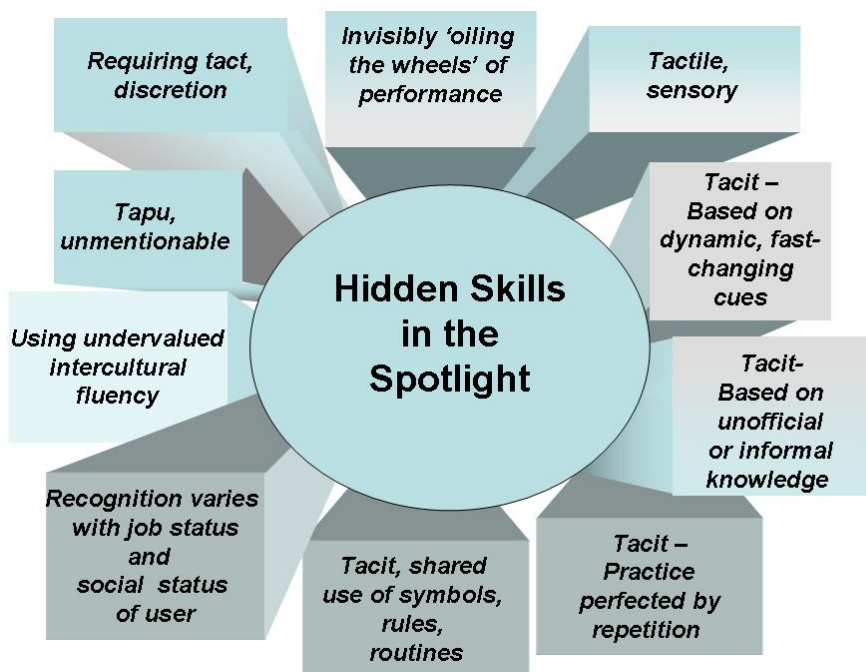
Three reasons why the Spotlight skills might be taken for granted have to do with:
- tact and tapu
- tactility (or unspoken sensory knowledge, more broadly)
- tacitness.

A second group of reasons can be found in a possible discrepancy between the demanding nature of some skills and the status of the jobholder or the source of their knowledge.

A final reason for the invisibility of some skills lies in the vital but elusive role of the second-order integrative skills that enable jobholders to bring together and apply a range of other skills. linking this combined use into the overall workflow.

We consider these reasons in turn.

2.1.1 Tact and tapu

It may be awkward to mention the skills involved in the exercise of tact, discretion or subtlety, or in behind the scenes negotiation.

Our research suggested the following:
- A carer's skill in providing support to a person with a disability may lie in being able to foster a sense of independence by ensuring that help is not noticed.
- A measure of the success of workers in schools and cultural support units is the extent to which learners are able to leave the nest and soar freely. Again, drawing attention to the skills needed to foster independence may undercut the purpose of using these skills.
- Therapists and counsellors talk of the skill required to refrain from acting by sitting on one's hands and letting clients make their own mistakes.
- Experienced but low-status staff may need the skill of providing discreet and indirect coaching to more highly qualified but less experienced staff in positions of authority, or in quietly rectifying problems created by the latter without undermining them.
- Executive officers in support roles and policy advisors may be able to change systems only by planting the seeds of ideas and letting others take credit.
- A measure of the skills involved in organising an event or in supporting an operation may be the extent to which it appears to flow effortlessly – many invisible seams are stitched in apparently seamless activities.
- In order to avoid frightening or embarrassing the service recipient, family or whānau, distressing episodes may be described using 'minifisms',[17] such as a small accident, a little mishap, a minor technical problem, or something that we deal with every day.

In a range of jobs, some work processes are carried on behind the screens of social and cultural taboos. This applies particularly, but not only, to aspects of work with bodies – living and dead.[18] The skills of ensuring the personal hygiene of a reticent elderly person, of addressing the sexuality of a person with cognitive impairment or of harvesting organs for transplant, are examples. It also applies to work where there is an element of veneer or impression management.

More fundamentally, in work involving bicultural relations, the stronger concept of tapu involves respect for the sacredness of sites of power and danger, whether in action or in words. To maintain the sanctity of the tapu, certain behaviours or acts are prohibited. It may be important to listen, rather than act or to act circumspectly.

2.1.2 Tactility and the use of sensory and spatial cues

It is very hard to describe many non-verbal learnings that are embedded in muscles. Aesthetic skill may be hard to define. Examples include:
- the skill of managing space and physical resources (visual, aural) to build a stimulating or soothing environment, or to enhance participants' well-being, creativity or calm
- development of a feel for the variable properties of materials or of an informal working knowledge of tools and ways of adapting them to new uses
- dexterity in manipulating sensitive instruments and using them on people or in the fitting and care of prosthetics
- well-judged use (or non-use) of therapeutic touch or expert handling of newborns, people with injuries or frail elderly people.

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[17] Lawler (1991) p. 167.

[18] Glaser and Strauss (1965), Lawler (1991) and R. Ogle (personal communication).

2.1.3 Tacit skills and situated learning

The extensive literature on tacit workplace skills covers typologies of individual and shared informal and situated learning, and non-deliberative activity.[19]

Although the terms 'tacit' and 'situated' are often used interchangeably, some writers draw a useful distinction between them. Tacit knowledge may be difficult to share, other than by modelling and imitation, in that it is embedded in memory and muscles through practice. Contextual knowledge involves the skills of responding to situations and is often shared through informal talk.[20]

Position descriptions calling for prioritising, self-management or planning skills often seem to define these skills in terms of explicit rational activities such as reviewing, decision-making or forward-planning. There are, however, types of tacit response that are not based on conscious thought processes. These may be responses to past, present or future stimuli. They may involve implicit memory-based learning, reactive recognition-based responses to emergent incidents or participation in shared behaviours.

Examples include the following:
- The capacity to pick up subtle clues in a situation that is dynamic and changing, for example, the ability to get the picture whilst taking part in a rapid interplay of events and reactions. People learn to notice, understand, anticipate and signal what is happening, using non-verbal cues that happen too quickly to be put into words.[21]
- Routinised individual or group action based on practice, for example, the unspoken collaboration between ferry driver and deckhands in carrying out a coordinated sequence of actions each time they come alongside and cast off from a wharf.
- Use of the organisational and/or social context of shared knowledge,[22] based on symbols, rules, cues, routines, procedures or rituals that are part of the organisation's or community's non-verbal culture, for example:
  - a work team's capacity to move efficiently through a meeting agenda, based on learned understanding of meeting procedure and turn-taking rules
  - the use of contextors (non-verbal cues such as slightly emphasised demeanour, voice level, language, gestures and action sequences to coach service recipients or novice colleagues by modelling appropriate behaviour)[23]
  - the cultural competence gained through participation in bicultural and intercultural interaction, or through immersion in communities other than one's own.

2.1.4 Status of the skill user

As well as the 'four Ts' (tact, taboo, tactility and tacitness), a second group of reasons for the under-recognition of skills lies in the status of the worker exercising these skills.

Skill recognition or non-recognition may be linked to:
- social status – including stereotyped assumptions about gender, age, cultural background or ethnicity and the lack of social value placed on the subtleties of skills from diverse cultures

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[19] For a useful typology of tacit learning, see Eraut (2000).

[20] Darr (2007) pp. 11–13.

[21] Spender (1994), Endsley (1995) and Boreham (2002).

[22] Spender (1994) and Rogalski, Plat and Antolin-Glen (2002).

[23] Lawler (1991) p. 151.

- educational or occupational status – this may go back to a misalignment between formal and informal skill demands in a job or to a misalignment between levels of informal responsibility and formal authority
- the non-authoritative status of people such as care-givers, whose skills, acquired outside the workplace, are seen as natural
- the non-authoritative status of the knowledge exchanged by peers but seen as unofficial.[24]

Two examples bring together a number of these status reasons:
- Emotional intelligence is often rewarded when exercised by men in managerial positions, because its component skills are seen as atypical of this group and are thus attributed to conscious learning effort. Very similar skills may be required in low-level jobs but defined as natural personality attributes or the results of life experience, for example, the maturity and sense of humour that we often see in selection criteria.
- Fire-fighting, a predominantly male occupation is seen as requiring higher levels of risk management than community psychiatric nursing. This is a result of the unconscious application of a combination of criteria such as gender, the relative value of property and marginalised community members, and factors such as strength.[25]

2.1.5 Second-order, meta-cognitive and supra-skills

Finally, second-order skills are easy to overlook or misunderstand. These critically important skills enable jobholders to bring together a range of other skills, integrate their use in their own work and link them into the overall workflow.[26] They thus oil the wheels of effective job performance.

Some second-order skills enable the coordination of practical work activities, whether carried out individually or in work groups. These supra or integrative skills are the coordinating elements of Spotlight skill set C. Often when people say they are doing several things at once, they are actually rapidly sequencing, switching and combining activities. Other second-order skills take place in the minds of jobholders and can be described as meta-cognitive – they involve the ability to reflect on and modify one's actions, even in the midst of carrying them out.

Level 3 of the Spotlight skills is the capacity to integrate the unconscious performance of familiar processes automatically, whilst concentrating on solving problems. Walking and chewing gum combines two unconscious activities, neither of which is skilled. Riding a bicycle in heavy city traffic involves a combination of skilled routine and some conscious or at least attentive problem-solving, which may also in time become semi-automatic and does not really involve level 3 skills, whereas the constant tactical decision-making of riding in a bicycle race involves the exercise of level 3 skills.

We provide two workplace examples of second-order skills:
- A call centre operator providing legal advice follows learned sequences of actions automatically, whilst making decisions based on automatic learned understanding of how to classify the problem being outlined and displays a further level of skill in recognising when callers are not ready to hear offered solutions until they have been eased down from their agitation.

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[24] Hampson and Junor (2005).

[25] Example provided by Janice Burns, Top Drawer Consulting.

[26] Strauss, Fagerhaugh, Suczek and Weiner (1985) pp. 151, 155–189.

- IT help line workers are able to recall to consciousness the steps that they themselves have come to perform unconsciously through practice. They put these actions into words to coach callers through the steps and may then share diagnostic routines and solutions with fellow help line workers.

2.1.6 Not so much hidden, as easy to look past or through

As the examples throughout Section 2.1 suggest, skills may be overlooked, not so much because they are hidden, but because they are hard to put into words with any precision. Whether it is a question of naming what is not often mentioned, of capturing the subtlety of a fleeting action, of looking beyond the status of participants to what they are actually doing or of identifying the meta-skill of using other skills together, the Spotlight tool provides a classification system to help determine the level of proficiency required. Next, we consider why it will be of benefit to use this system.

2.2 Aren't the Spotlight skills already contained in competencies?

Some of the Spotlight skills may be embedded in some competency standards, but because they address the elusive qualitative aspects of performance, there may be gaps. The Spotlight framework, with its simple structure, can be fitted quickly into standards if there are any such gaps. Other Spotlight skills are harder to incorporate in standards because they are contextual or because, at the higher levels, they describe highly proficient practice, not threshold levels of competence.

The Spotlight skills are aspects of the process skills required to turn knowledge into outcomes, whereas units in competency standards are designed to answer the question, 'What must be done to achieve this purpose?' The Spotlight skills address the qualitative question, 'How is it to be done?' The Spotlight skills oil the wheels of effective performance.

2.2.1 Industry and occupational standards

The qualitative aspects of the how or process question can be illustrated by returning to the care assistant example used in Section 1.1.

Typically, a competency unit will define a task such as 'assist patient with personal hygiene' in terms of a set of steps, each with criteria for effective execution, in this case, from preparation to elimination of waste and specimens, and will also list the required equipment, knowledge, safety and range factors.

It is more difficult within a competency framework, however, to identify the qualitative skills involved in the word 'assist'. This word implies skills of sensitivity to frailty and discomfort; understanding of physical and cultural sources of reticence; negotiation of boundaries involving relationships of power, dignity and intimacy; and management of feelings of shame and anxiety.

What appears routine work in fact involves many non-standard elements that thus tend not to be identified in standards defined in terms of steps to an outcome.

The principle underlying the writing of competency standards is that a unit of competency is a group of productive functions (elements of competency) identified through functional analysis as able to be carried out by one person. Areas of competency are sequenced to aid mastery.[27]

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[27] The derivation from functional job analysis is well explained in CINTERFOR (2006).

This modular, individualised approach, designed to aid learning, may nevertheless make it hard to identify more experienced levels of practice.

By contrast, the Spotlight skill levels indicate the integrated proficiency that comes from folding each learning level into those preceding it. For example, accomplished routine performance is a necessary element of higher level skills, not an indicator of low skill. From much ongoing practice comes the apparently effortless ability to carry out activity sequences unconsciously and to solve new problems whilst doing so. Solutions to problems become part of routine practice, so routine is not necessarily a sign of low-skilled work but is an essential ingredient of a range of higher skill levels.

Shared learning and problem-solving are based on the capacity to understand what colleagues are doing and to learn apparently automatically from them. At higher skill levels, jobholders are teaching and learning at the same time, as a result of having thought about and solved problems. Expert systems may emerge dynamically from this ongoing collective problem-solving. Through this integrative model of levels of learned proficiency, rather than a focus on threshold levels of skill acquisition, the Spotlight tool complements competency standards and provides a key to ~~indentifying~~identifying sources of quality.

2.2.2 Industry-specific core competencies

An approach to addressing the quality question can be found in core industry and occupational competency standards. Again, however, the Spotlight tool serves a different and complementary purpose.

Two examples show how the process focus of the Spotlight tool can contribute to achieving the outcomes standards set out in core competencies.

- In 2004, the State Services Commission issued a set of five common and unique public sector competencies.[28] These identify some qualities of effective public servants and are normative or evaluative statements of behavioural standards. Thus they are outcome statements, and the Spotlight framework is a complementary tool for identifying the hidden work process skills that result in achievement of these performance standards.
- In the health sector, many New Zealand professional bodies have developed statements of core occupational competencies. In 2007, the Public Health Association of New Zealand, in conjunction with a range of professional bodies, produced a set of generic competencies for public health in Aotearoa New Zealand.[29] These baseline competencies, like core competencies in professional areas such as social work, psychology and health practice, are expressed largely in terms of demonstrated knowledge and understanding or in terms of the behavioural outcomes of this awareness.

The Spotlight skills refer to the capacities that are used in applying knowledge and turning it into outcomes consistent with practice norms. Thus, they define the capabilities that may result in the required behavioural outcomes.

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[28] New Zealand State Services Commission (2004). The competencies cover collaboration to achieve whole-of-government outcomes, servicing the public, acting ethically, working within government and legislative frameworks and working to uphold the Treaty of Waitangi.

[29] Public Health Association of New Zealand (2007).

2.2.3 Generic or core competencies

Over the past decade, there has been an increased demand by employers, particularly in service industries, for skills that are variously called essential, core or generic competencies or employability skills.[30]

Five such key competencies are included in the NZQF and in the new 2007 school curriculum: managing self, relating to others, participating and contributing, thinking, and using language, symbols and texts. They are called competencies to signal that they include all requirements for the performance of a task, including needed knowledge, values and attitudes, whereas the term skills is defined as having a narrower, behavioural meaning. Whilst needed by everyone in coping with a variety of different life contexts, they are manifested in the actions of an individual in a particular context.[31]

These underpinning key competencies have been defined as a precondition for all employment, taking individuals over the threshold into successful jobholding. There has been debate over whether they should be specified at different levels. Where levels are defined, these tend to be mapped from qualification levels.

By contrast, the Spotlight framework picks up and builds on these threshold competencies by allowing identification and classification of the skills that define effective, integrated, learned practice – the ability to apply a growing awareness of contexts, self and impacts; the ability to negotiate social and cultural boundaries; and the ongoing coordination of diverse activities. The Spotlight framework specifies these capacities at levels extending through to those where jobholders are making an innovative contribution to learned organisational practice. These levels may not correspond neatly to the levels of whole qualifications.

2.2.4 Using Spotlight with competencies

Thus, the Spotlight tool can be used to supplement or complement competency standards. In writing and revising industry and occupational competency standards, the Spotlight skills can be considered for inclusion, in order to provide a consistent framework for defining the qualitative aspects of performance. Where competency standards are in use, it is a straightforward matter to use the Spotlight framework as a supplementary lens for providing a finer grained specification of awareness-shaping, interactive, relationship-managing and coordinating skills at various levels of proficiency.

2.3 Ease and cost-effectiveness of using the Spotlight tool

The Spotlight tool offers several advantages to busy managers. Practitioner learning time is relatively short, as the Spotlight tool kit contains User Guides for using the basic job analysis questionnaire and for applying the results in different HR management functions. The Spotlight tool is also easy to integrate into HR practice, because it does not displace existing approaches, but rather complements them, adding useful data.

HR practitioners will find the Spotlight tool to be a small-scale and easy to use tool that:
- allows ready identification of the invisible and intangible aspects of work activities in jobs at all levels

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[30] Elsewhere, they are called key or common skills (United Kingdom, Germany), critical enabling skills (Singapore), transferable skills (France), trans-disciplinary skills (Switzerland) or process independent qualifications (Denmark) – National Centre for Vocational Education Research (2003).

[31] Hipkins (2006) and New Zealand Ministry of Education (2006).

- supplements existing qualifications frameworks (input criteria) or performance assessment measures (behavioural outcomes criteria), highlighting the sources of productivity and quality in the work processes that turn inputs into outcomes
- provides concrete lists of activities helping to unpack, at various levels, the skills often simply called communication, prioritising or problem-solving
- allows the creation of job families and sequences linked by the development of proficiency in key under-recognised areas, broadening the options for internal sourcing of skills – a 'grow your own' approach to talent management is likely to enhance staff retention.

The Spotlight tool is versatile. It has a dual application in identifying the skill demands of jobs and the competencies and capabilities of people, both individual and in work teams.

2.4 Adding value to HR practice

The Spotlight toolkit is practical. It includes specific guidelines for creating profiles of the skills required for effective teamwork, customer focus, service quality and leadership.

It contains practical guidelines and workbooks for collecting skill identification information and using it in adding value to position descriptions, adding value to recruitment and induction, and managing performance by developing and retaining hidden skills.

The rest of Section 2.4 suggests potential uses of the Spotlight framework in writing position descriptions, recruitment and retention, and performance management and development, before exploring the strategic uses in the emerging labour market context of a tool for identifying hidden skills.

2.4.1 Adding value to position descriptions

Position descriptions are a foundation for a range of HR practices, yet it can be quite hard to make them useful. Staff often complain that position descriptions fail to register the full range and demands of work actually done day by day.

On the other hand, line managers often complain that the pressure to include an ever-extending list of tasks, accountabilities and competencies is making position descriptions unwieldy.

In writing position descriptions, there are a number of challenges including capturing the concrete ways in which tasks are linked together in performance and gaining the right balance between precision on the one hand and economy and comparability on the other (what the literature calls granularity and parsimony).[32]

Spotlight helps address these challenges, by providing a standard skills framework and a set of activity descriptors relevant to a very wide range of jobs. This framework can be expressed very economically in a matrix profiling the level at which various Spotlight skills are required in a job. Figure 2 provides an example of the types of templates supplied in the kit, designed for inclusion in a position description.

The two templates in Figure 2 illustrate how the skills and their levels can be presented, either in general terms at the broad level of the three skill sets or at the finer grained level of the nine skill elements.

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[32] Fine and Cronshaw (1999) p. 3.

Figure 2: Diagrammatic ways of summarising Spotlight skills

Skill Elements	Levels				
	1 Familiar -isation	2 Automatic Fluency	3 Pro- ficient problem -solving	4 Creat- ive solution sharing	5 Expert system shaping
A. Shaping awareness					
B. Interacting/ relating					
C. Coordinating					

A1. Sensing contexts and situations
A2. Monitoring and guiding reactions
A3. Judging impacts
B1. Negotiating boundaries
B2. Communicating verbally and non-verbally
B3. Connecting across cultures
C1. Sequencing and combining activities
C2. Interweaving your activities with others'
C3. Maintaining and/or restoring workflow

Let us assume that some of the skills required in the position of care assistant are indicated by the shading or lines added to the templates in Figure 2. The grid on the left maps the level at which each skill set is required. It tells us that the care assistant needs to have automatic proficiency in awareness-shaping and coordinating skills, in order to concentrate on solving problems of interaction. Drilling down to the nine skill elements, the radial diagram on the right is being used to indicate that some problem-solving is required in analysing impacts and interweaving activities, as well as in setting role boundaries and in choosing forms of verbal and non-verbal communication.

To provide concrete examples of the way these skills need to be used in the job, the profiles can be accompanied by activity statements, such as:

Keep track of own work whilst being on call to help solve problems for other staff, residents and families.

This statement matches the skill level 3 indicated for interweaving activities. Further examples can be added.

The diagrams are an optional shortcut, designed to save words, but it will be worthwhile to provide written statements of the crucial skills where problem-solving is required. Such an approach provides much more specific information than simply including a statement such as 'good at problem-solving', but it does so without over-burdening the length of the position description.

The information on the required skills and their levels can be derived by one of two methods – ground-up or top-down.

- The ground-up approach involves working with existing jobholders using the Spotlight job skills recognition workbook to identify job activities and match them to the skills at the appropriate levels.
- The top-down approach involves drawing on a set of activity descriptors provided in the toolkit (and reproduced as Table 11 below). This consists of a wide range of succinct descriptors of work activities requiring the hard to define Spotlight skills, already classified into skill sets, elements and levels. This set of activity descriptors, based on the research interviews, is a handy way for position description writers to find the exact words they want in order to specify precisely the required skills of communication, flexibility, contingency management and so on.

The activity descriptors may not fit every position word for word, but they can be adapted and have the advantage of already being classified into skill levels.

A further aid to position description writing is a thesaurus or checklist also provided (see Appendix D). This helps position description writers to prepare their own activity statements, drawing together aspects of the job involving work with people, data and things. Whilst the single words lack the advantage of being pre-sorted into skill sets, elements and levels, activity statements put together from them can readily be matched against activity descriptors in Table 11 in order to identify skills and levels.

Once the Spotlight skills have been added to position descriptions, they have further uses in a range of HR functions. We begin with the internal and external recruitment process.

2.4.2 Securing and retaining staff – recruitment and induction

By helping improve the efficiency of recruitment, the Spotlight tool may lower the cost of taking on a new hire, helping organisations to find the right person the first time. Internal recruitment (growing talent) is likely to increase as the external labour market becomes tighter and older. As a result, recruitment and retention strategies will become more tightly intertwined. The Spotlight tool, with its focus on learning levels, can be used in this integrated approach to the recruitment, induction and internal sourcing of staff.

A job applicant may have all the knowledge and technical understanding required but still not be able to put the elements of work performance together effectively in a work context. Integrative know-how skills, the ability to tune in to contexts and impacts and the capacity to establish and maintain working relationships with colleagues and clients are skills that may be hard to detect, particularly in an external recruitment exercise. The Spotlight approach to skills identification focuses on these key predictors of job success.

In tight labour markets, it will increasingly be necessary to hire people who do not quite match the profile of the ideal candidate. The recruitment process may come to rely more on training up novices, rather than on predicting a perfect fit through ever more expensive measurement-based selection techniques.[33] External recruitment processes will need increasingly to be accompanied by risk management measures.

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[33] For critiques of the talent war thesis, which had its heyday in the late 1990s, see Finegold cited in National Research Council (2008) pp. 4–6. See also Cappelli (2003), but note that these critiques are based on a continuation of the tendency towards increased retention of older workers. For a critique of over-reliance on technologies of selection, see Brown and Hesketh with Williams (2004).

The Spotlight framework of learning levels can help in managing the risks of sub-optimal recruitment by helping to map hidden skills gaps, allowing focused induction to bring the recruit quickly up to speed.

The benefits of careful selection are only assured through strategies to retain new hires. ~~Well resourced~~Well-resourced induction and orientation programmes may offer the two-fold benefit of reducing new hire attrition and bringing recent recruits more quickly up to full productivity.

The Spotlight approach can help here, being based on a view that ability to carry out work processes effectively derives from tacit skills, learned through practice, and situated skills, learned in context through shared experience.

The Spotlight learning levels provide a framework for a systematic approach to accelerating the movement of new recruits through to skill level 2 (automatic fluency) and on to level 3 (proficient problem-solving). Table 4 sets out the potential role of the Spotlight tool at each step in the recruitment and induction process.

Table 4: Potential role of Spotlight at steps in the recruitment process

Step 1: Creation of a recruitment pool, using appropriate filters that do not exclude applicants with hidden potential	**People involved:** HR, line managers, in consultation with jobholders Person specifications incorporate relevant Spotlight skills.
Step 2: Development of valid, reliable and fair selection criteria and design of selection tools	**People involved:** HR, selection panel Selection criteria and often an interview schedule and selection decision worksheet are drawn up, based on person specifications incorporating relevant Spotlight skills.
Step 3: Selection made, balancing immediate staffing needs and longer-term development potential	**People involved:** Selection panel Applicants are ranked or rated, often on the basis of an interview, using an interview schedule and decision worksheet, incorporating evidence about relevant Spotlight skills. Spotlight activity descriptors are used as the basis of one or more critical incident questions.
Step 4: Placement, ongoing orientation and induction programme	**People involved:** HR, line manager, new recruit After the hiring process is complete, an ongoing induction and development programme will provide the new recruit with learning opportunities, based on information-sharing in the work group and structured opportunities for consolidating practice-based learning. A developmental assessment or performance review may confirm attainment of competence including in specified Spotlight skill levels.

Person specifications: Person specifications are often derived from position descriptions. A way of including Spotlight skills in position descriptions has already been described (Section 2.4.1). If this has been done, it is a straightforward matter to turn Spotlight skill profiles and relevant activity descriptors into person specifications. Otherwise, the desired criteria such as interpersonal skills, flexibility and time management can be translated into specific Spotlight activities selecting from the materials provided in the Spotlight toolkit – skill element and level descriptors and the table of activity descriptors reproduced as Table 11.

Selection criteria, evidence collecting techniques and decision guides: The learning level descriptors make it possible to match job requirements and individuals' skills in a flexible way:

- Selection decision sheets based on relevant Spotlight skill sets and elements can help replace impressionistic assessments of employee potential with a finer tuned and more evidence-based approach.
- The Spotlight recruitment guide contains sample critical incident questions based on the Spotlight skill elements. Scoring guides allow interview panels to identify capacity for using these skills at the required skill level.
- Criteria based on Spotlight levels can be used to identify applicants' approaches to learning, problem-solving and knowledge-sharing – criteria that may be important indicators of job performance.
- Using the Spotlight criteria helps manage selection risks. Because of the context-specific learning that is required for fully integrated performance in any job, no recruit – even the most experienced – will be fully proficient in the job from the outset. Where individual or team-based problem-solving (levels 3 and 4) or leadership in systems innovation (level 5) are required, decisions will need to be made about how to use the induction process to develop recruits to this level in the key skills. The Spotlight tools include guidelines for managing the placement of relatively inexperienced staff, by mapping the learning levels to be traversed in the early months in the job. The Spotlight tools thus provide a technique for integrating a cost-effective and well-targeted induction strategy with the selection process.

Induction strategies: Spotlight tools can be used in:

- coaching or mentoring, with feedback designed to accelerate progression through learning levels
- the pacing of job demands to ensure novice jobholders acquire proficiency before being thrown in the deep end
- a deliberate use of team meetings, involving novices as listeners and contributors, as expert practitioners exchange ideas for dealing with problems.

The intangible aspects of the job are the hardest to learn, and the Spotlight tool offers a way of focusing explicitly on them, thereby potentially reducing the time taken by new jobholders in achieving full productivity. Because the levels in the Spotlight framework are based on the learning stages through which jobholders move in settling into any new job, intensive practice assignments coupled with developmental supervisory or team meetings can be used to facilitate progression through the identified learning levels. The intensity of coaching and the pace of induction training can be judged on the basis of the gap between starting skill level and the level of proficiency required for day-to-day functioning in the job. Where there is going to be a steep learning curve, an intensive period of structured shadowing or on-the-job training may be required.

2.4.3 Enhancing performance by building and retaining hidden skills

Organisational performance can be defined in terms of a strategic mix of quality, efficiency and innovation. The focus of performance management is to optimise this mix, focusing on both organisational systems and the contributions of individuals and work groups. High performance organisations are those that have developed systems for facilitating and enhancing innovation. The Spotlight approach is consistent with a developmental systems approach to enhancing performance.

The Spotlight practitioner guides include practical performance management tools that can be used to design work activities that foster continuous learning and process improvement, resulting in enhanced performance outcomes:

- The skill sets and elements may help identify the qualitative and integrative aspects of work performance, for example, the skill sets of awareness and interacting/relating are sources of service quality, and the skill set of coordinating is a source of efficiency.
- The skill levels offer a developmental approach to improving quality, both individual and collective.
- Skill levels 3–5 may help build the capacity for innovation and work process improvement through their focus on problem-solving, solution-sharing and the embedding of solutions into systems.
- By linking skill-deepening to career path design, the Spotlight approach has the potential to help avoid career plateauing and foster the retention of mid-career and senior staff, complementing Spotlight's uses, already outlined, in induction programmes to aid the retention of early career staff.

The Spotlight toolkit allows organisational performance to be enhanced through an integrated approach to the management of performance feedback, individual and group learning and career pathing. Adaptable to the varying needs of organisations, the approach is not prescriptive and can be built into existing practice. The basis of the approach is a systemisation and acceleration of the informal processes by which jobholders gain expertise through problem-solving and solution-sharing.

Organisational performance management

In the search for improved organisational performance, it may be quite hard to identify intangible sources of quality and innovation. There may be no clear line of sight between individual behaviour and outcomes, and overall organisational goals.[34]

Since the early 1990s, the search for ways to enhance organisational performance has gone through several waves, with a growing sense that measuring performance is not the same thing as managing it. The resource-based view of the firm attributed performance to valuable, rare, inimitable and organisationally-supported human capital resources internal to the firm.[35] The focus on key talent was consistent with core/periphery staffing models then in vogue.[36] A somewhat different approach saw the source of intangible value as lying not in talented individuals, but in the way an organisation manages its human resources. This approach resulted in the use of models ranging from the balanced score card to Watson Wyatt's human capital index.[37]

Yet another approach to organisational performance located the source of value in knowledge, defined neither as data nor as information but as organic knowledge – the learning and sharing of tacit know-how. The generative capacity of knowledge was seen as residing in "... a dynamic and tentative combination of data, meaning and the ability to generate proficient practice."[38]

The Spotlight framework is consistent with an approach to organisational performance management that is based on fostering the growth of intangible skills in individuals and work

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[34] Williams (2002) pp. 1–31.

[35] Barney (1991) and Shields (2007) pp. 97–99.

[36] See for example Stewart (1997).

[37] Kaplan and Norton (1996) and Watson Wyatt's Human Capital Index.

[38] Marr and Spender (2004) p. 21.

groups to the point where the generation of new work process knowledge is embedded in work systems. For this reason, the Spotlight practitioner materials include tools to assist a learning-based approach to managing individual and team performance.

Individual performance management – developmental feedback tied to skill development

Traditional performance appraisal systems rest on the notion that individual contributions are a product of individual effort and competency. Effort is variously defined in terms of theories of motivation that involve some combination of drivers and goals.[39] Appraisal systems linked to extrinsic rewards may focus more on effort than on developing competency. Individual appraisal tends to reward past outputs or to offer incentives for the pursuit of future goals,[40] yet process theories of motivation (expectancy, goal-setting and self-efficacy theories) emphasise the importance of individuals' confidence in their capacity to perform.[41] The more intangible are the work inputs, processes and outputs, the more they are likely to be overlooked in both incentive systems and in performance enhancement approaches.

The Spotlight tool allows a diagnostic approach to performance assessment and feedback, tied to development opportunities designed to foster a deepening of skill levels. The Spotlight emphasis on shared tacit knowledge links self-efficacy to social learning.[42] Through practice, unconscious imitation and modelling, jobholders gain and apply expertise, solve problems and share the building of knowledge by talking about problems they've solved. This learning-based approach to performance is actually able to create an identifiable link between individual and organisational performance because, at the higher Spotlight learning levels, process knowledge is being embedded in roles, tools, procedures and systems – whatever remains and is re-used after a problem has been solved.

The Spotlight tool provides a framework for developmental performance appraisal interviews that are based on immediate problem-solving, coupled with skill-mapping exercises, in which jobholders identify their own skills and skill levels, highlighting those that are easy to overlook or discount, allowing managers to locate unidentified sources of talent.

Attribute-based approaches are individually focused and reflect the iceberg model of below the waterline competencies, defined as somewhat fixed individual attributes.[43] If the sources of under-performance are seen as lying in individual traits, performance interviews are likely to be very fraught, involving personal judgements and limited levers for change. By treating its hidden skill sets as social learning processes, the Spotlight tool may help take the discomfort out of appraisal interviews, for example, awareness-shaping skills include assessment of impacts.

As the performance of work activity can be defined as goal-relevant behaviour, the management by objectives[44] approach to appraisal has obvious appeal. The model can, however, suffer from a focus on looking forward and back rather than on the steps needed in the present. There is thought to be a poor line of sight in linking results to specific individual

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[39] See for example Herzberg (1987) and Vroom (1995).

[40] See for example Brown and Armstrong (1999), Armstrong (2000) and Aguinins (2007).

[41] Vroom (1995), Porter and Lawler (1968), Bandura (1997) and Latham and Locke (2002).

[42] See for example Bandura (1977) – this theory, which was not specifically related to work situations, has been called a bridge between behavioural and cognitive approaches to learning.

[43] McClelland (1973) and Spencer and Spencer (1993).

[44] The term 'management by objectives' can be traced back to Drucker (1954).

behaviours. The approach may confuse measurement with management, relying on measurable indicators that undervalue the tacit and situated learning that is the wellspring of quality and innovation. In dynamic systems, goals may need to be reviewed frequently. The Spotlight toolkit, being based on a model of generative learning, can help focus individual goal-setting in dynamic organisations.

Behavioural approaches to appraisal, particularly when linked to critical incident studies,[45] offer the prospect of a systematic focus on learning from successes and failures. Unfortunately, most behaviourally anchored rating scales or behavioural observation scales tend to rely on subjective normative ratings rather than empirical diagnosis.[46] A typical item is 'communicates persuasively to get results', scored on a five-point scale from 'almost never' to 'always'. This is hardly an adequate basis for identifying areas for development and growth. On the other hand, the diagnostic use of critical incident analysis can be a basis for learning. The Spotlight skills can be seen as resulting in behaviours that contribute to effective performance.

Enhancing performance through individual, group and organisational learning

The learning organisation is a staple of recent management literature, but achieving this ideal has been difficult to realise. One theme in this literature has been the need to promote ground-up initiatives for the sharing of understanding and fostering of innovation. This approach is, of course, the basis of the higher Spotlight learning levels.[47] The Spotlight tool is designed to pinpoint the intangible, dynamic, team-interactive processes involved in goal-directed activities. Rather than focusing on tasks, it helps give precise names to the activities that link tasks into ongoing, collaborative workflows. This approach is validated by labour market analysts who point to the need not just to identify key service skills, but to develop and deepen them by providing learning opportunities and by mapping internal pathways through jobs requiring different levels of these skills.[48]

The learning levels on which the Spotlight framework is based allow for the integrated structuring of formal and informal workplace learning opportunities and for the formal assessment and recognition of levels of learning in skills that up till now have been tacit job requirements. The Spotlight tool includes aids to linking learning and performance management for both individuals and teams.

For individuals, if a pattern of need for the provision of learning opportunities has been identified in individual developmental interviews, supervisors and managers may look to team learning as a solution. This is because the work process knowledge embedded in the Spotlight skills is context-specific. Individuals can be encouraged to document their own proficiency levels in using the various Spotlight skills, adding illustrative examples. This documentation can be part of evidence portfolios and take the form of descriptions of critical incidents where jobholders solved a problem or had learned something particularly significant.

For work teams, the Spotlight framework provides a structure for formalising group problem-solving. In many service organisations, team briefings are a regular aspect of work culture, for example, in the daily planning that occurs in early childhood education and in the regular meetings of multidisciplinary teams in the health and disability sector. The Spotlight framework provides a terminology for collaborative reflection about work behaviour, and the

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[45] For the origins of critical incident analysis, see Flanagan (1954).

[46] See Schwab, Heneman and DeCotis (2006).

[47] Kjaergard and Kautz (2008).

[48] Lowry, Molloy and McGlennon (2006).

Spotlight vocabulary of invisible skills allows personal heat to be taken out of the discussion of sensitive issues when evaluating approaches to handling cases and situations within the team.

Activity is developmental when there is a conscious interplay between experienced performance and the capacity to reflect and apply it in new directions. Skill level 4 is based on the assumption that this reflection is often shared. It is only through opportunities to talk in groups that people have a chance to identify patterns in problems and gradually to put words to solutions that have worked for them.

Once teams are experienced in this sort of group reflection, even more structured learning activities may emerge, such as:

- collaborative learning projects and action research
- the use of developmental teams consisting of people at a range of proficiency levels, with a view to cross-training and providing understudy support, releasing some team members to extend their capacities even further.

Competency profiling and career pathing

The integration of performance management and learning could provide individuals with opportunities to do more challenging work, whether this is by moving into more challenging roles or finding ways to develop current roles.

Once a job's hidden skill demands are identified, it may come to be understood as part of a wider job family than hitherto assumed. Job families are clusters of jobs or occupations grouped on the basis of work performed, skills, education, training or credentials. The Spotlight framework offers managers a wider and more accurate set of criteria upon which to group jobs into families, potentially increasing internal job mobility. Conversely, clearer identification of the less visible skill demands of a job may minimise ~~ill advised~~ill-advised internal transfers by giving substance to a gut feeling that an internal applicant may not be quite right for a particular position.[49]

If the Spotlight skills are factored into performance criteria, it becomes possible to do a more thorough stocktake of existing competency profiles, pinpointing gaps and building potential succession maps. This kind of capability mapping can be extended beyond the work unit to an identification of career paths within agencies.

Even if there are limited prospects for conventional internal career pathing based on job mobility, it will be possible to explore new avenues for skill-deepening and job-enrichment by using the Spotlight framework in more fully recognising and expanding the demands and potential of existing jobs. Such an approach has the potential to reduce mid-career and later career turnover. We turn now to the strategic role of the Spotlight framework in talent management.

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[49] Anecdotal evidence was provided during project interviews of situations where it was hard to refuse applications for internal transfer by technically qualified staff who were manifestly inappropriate in terms of intangible skills: months of productivity might be wasted whilst transferees came to realise that the position was not for them. A clearer specification of intangible skills, and an identification of them as skills like any other, will serve to take the personal element out of such situations.

2.5 Strategic HR benefits – reducing turnover costs

A key challenge for New Zealand HR practitioners over the next 20 years will be the need to respond to tight labour markets through strategies for enhancing retention and sourcing skill requirements internally.[50]

The Spotlight skill identification tool can contribute to internal talent management in several ways:

- By helping managers to identify the hidden skill demands of jobs, thereby reducing overload and burnout where this is contributing to absenteeism and turnover.
- By fostering developmental progression through the Spotlight learning levels, thereby reducing turnover. In the case of recent hires, accelerated progression to full productivity and prevention of early attrition can be achieved by enhancing tacit learning opportunities in the orientation phase and by providing sufficient challenge once full productivity is reached. In the case of mid-career employees and seasoned staff, use of learning levels 4 and 5 can help to maintain interest whilst benefiting the organisation through the embedding of informal learning.
- By providing a framework for mapping intangible capabilities, use of the Spotlight framework may allow for enhanced job satisfaction and organisational membership behaviour. Job rotation and internal sourcing of intangible skills will build capability, provide intrinsic rewards and improve retention.

There is international research evidence of significantly higher than average turnover rates amongst new hires and of the role of ~~well designed~~well-designed induction processes in reducing such attrition.[51] Most turnover is voluntary, and it rises as unemployment rates decline.[52] The tight New Zealand labour market, with a 2007 low unemployment rate of 3.7 per cent, and high participation rate of 68.4 per cent, offers little to deter new hires from moving on if they face early problems in a placement.[53] The benefits of increased retention will outweigh the costs of a structured approach to induction.

The most obvious and immediate benefits of retaining a staff member include avoiding tangible turnover costs (up to 67 per cent of annual salary per employee):

- separation costs, including exit administration and separation pay – depends on employment duration – approximately one month's annual salary
- vacancy costs, including the net costs of lost productivity and/or savings/costs associated with temporary replacement – average 2.5 months' salary
- replacement costs, including the cost of attracting applicants, selection processes, travel/moving expenses, costs of pre-employment and placement administration – at least one month's salary
- induction costs, formal and informal – approximately one month's salary
- performance differential of new hire – productivity loss of 60 per cent tapering to zero over the first year – average 3 months' annual salary

and avoiding intangible turnover costs (another 50 per cent or more of annual salary, depending on level):

- uncompensated workload increases of colleagues
- stress, impact on morale
- decreased productivity due to loss of work group synergy

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[50] See for example Stovel and Bontis (2002) and Rasmussen and Hunt (2007).

[51] For costs of new hire attrition, see Cascio (2000) and Cascio (2003) pp. 310–317, 328–369.

[52] Clark (2004).

[53] Statistics New Zealand (2007a).

- loss of intangible intellectual capital – work process knowledge
- loss of customer capital – client contacts, external relationships, goodwill.[54]

Going beyond cost avoidance to concrete benefits, the Spotlight tool offers assistance in reaping further intangible gains, through the retention of intangible human capital, including:
- the structural capital that these skills are helping build (work process knowledge and the long-term capacity to develop shared institutional knowledge)
- the customer capital developed in collaboration with clients.[55]

2.6. Strategic contribution – addressing demographic and economic challenges

The Spotlight tool can help organisations meet longer-term challenges in managing workforce capability. Figure 3 is a conceptual model of the sources and impacts of these challenges. Globalisation, productivity pressures, technological change and demographic shifts have resulted in a restructuring of industries and occupations and in changes to work processes at organisational level. These, in turn, have led to the emergence of new skill requirements. Combined with the ageing of the population and workforce, the result is both skills shortage and a growing need to recognise and utilise existing skills.

Figure 3: Drivers of a new approach to skill recognition

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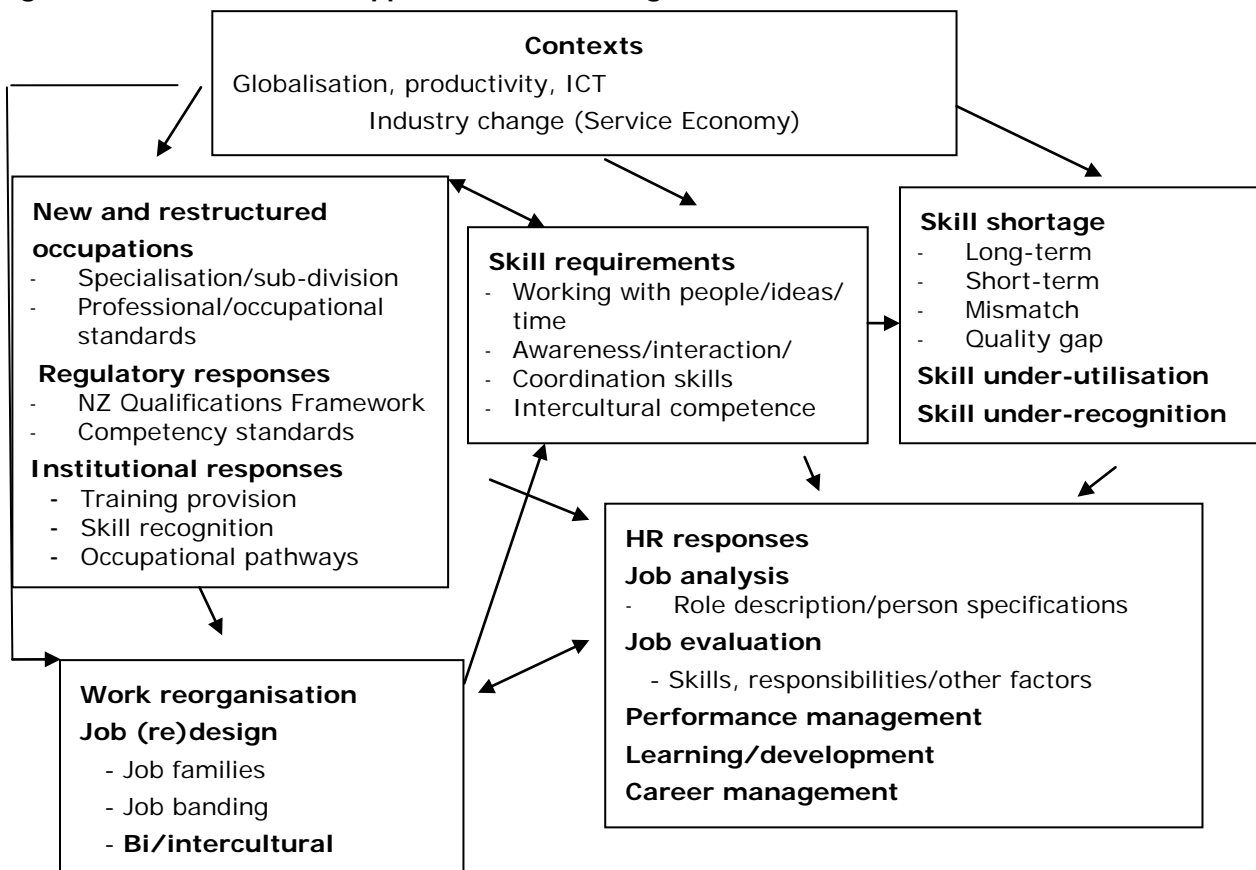
[54] See for example Fitz-enz (1997), Pinkovitz, Moskal and Green (1997), Cascio (2000) and Australia Equal Opportunity for Women Agency (n.d).

[55] Bassi, Lev, Low, McMurrer and Siesfeld (2000) and Marr and Spender (2004).

2.6.1 Meeting demands for new skills – industry and occupational shifts

As a result of labour market restructuring, skill demands are changing. Depending on industry classifications and estimates, service jobs now make up between 70 and 77 per cent of the New Zealand economy.[56] The community, social and personal services industry accounts for 37 per cent of service jobs (28 per cent of all jobs), about half of which are in the state and third sectors; trade and hospitality account for 35 per cent (27 per cent of all jobs); finance and business services 21 per cent (16 per cent); and transport and communication 8 per cent (6 per cent).[57]

In terms of occupations, professional and managerial workers account for 30 per cent of all employment, and at the opposite pole, 14 per cent are in occupations seen as low-skilled. In the middle are groupings whose place in a skill hierarchy is unclear and shifting. At the top of this middle set of occupations is a grouping called 'technical and associate professions' (12 per cent). After that, there are 12 per cent each in clerical and in sales/services and 10 per cent in the trades grouping.[58] The clerical and service groupings in particular contain a range of jobs whose skill status is in flux.

Where new types of jobs emerge or where jobs grow rapidly – for example, in customer service and in the growing welfare and community sectors – they may be staffed on the basis of relevant experience outside the labour market, general education levels or personal attributes (for example, maturity) that suggest a capacity to learn quickly on the job. Formal qualifications may be developed later. Meanwhile, either because some jobs actually require few specialised skills or because the skills have not yet been identified, the jobs tend to be afforded low status. The status then colours subsequent skill assessments, resulting in low skill ratings. Misclassifications may result in high turnover, both because unsuitable people are recruited and because suitable people feel undervalued. Aged care work is an example of this process.

In the education, community and disability services sectors, the terms 'assistant', 'aide' or 'support worker' are increasingly seen as problematic. Work involving facilitation, service coordination, client integration into schools and communities, and assistance with daily living may require a range of subtle skills. These include awareness of small changes in clients, adaptive language and non-verbal skills, role-boundary management in interactions and relationships with team members and people outside formal authority lines, intricate coordination, and mediation between clients or families/whānau with higher status professionals.

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[56] The implications of the new service economy for occupational analysis were recognised by the United States Committee on Techniques for the Enhancement of Human Performance: Occupational Analysis (1999). This report was part of the background to the development of the O*NET system commissioned and operated by the US Department of Labour. See United States Department of Labor (2005). For the theoretical basis of this tool, see Peterson, Mumford, Borman, Jeanneret and Fleishman (1999). The 2007 National Academy of Sciences Workshop on 21st century skills demands follows on from the project on the changing nature of work begun in 1994 – National Research Council (2008).

[57] Statistics New Zealand (2008). Note that these estimates are based on filled jobs. Table 4.04 in the same series yields a lower estimate of 70 per cent of jobs in the service sector, but in this latter table, fully 9.2 per cent of all jobs are unclassified. Estimates of 17 per cent state sector and third sector employment derive from Hall (2007) and Statistics New Zealand (2006).

[58] The New Zealand Standard Classification of Occupations (NZSCO), which is still preferred to the more recent Australian and New Zealand Classification of Occupations (ANZSCO) in some quarters, includes primary industry occupations (7 per cent of the workforce in 2007). Statistics New Zealand (2007a), Table 4.05.

Social and community intervention work is carried out, not only by qualified professionals, but by people in a range of case manager roles. The work may involve coordination amongst service providers and regulators. Some aspects of the work may require acute situational, interpersonal and impact awareness; competence in shaping the awareness of others; resolution of role conflict (for example, legally constrained support); skills in managing often challenging interactions and relationships; the reconciliation of competing timeframes and the integration of team roles.[59]

As call and contact centres continue to expand into new areas, employees are called on to deliver shifting combinations of services. Some of this work may require a range of intangible skills, including contextual awareness of local conditions and services, information coordination often across several databases, relationship-building with clients who may be resistant, rapid coordination of specialised information in on-the-spot problem-solving and often the awareness and boundary-management skills of regulating empathy in the interests of efficiency.[60]

A methodology for arriving at an authoritative identification of relative skill levels will help avert problems arising from the growing difficulty of staffing undervalued positions. Moreover, better specification of the skills required in emerging jobs will ensure the full utilisation of these skills.

2.6.2 Identifying the skill demands resulting from new work organisation

Uncertainty about the nature of the skills required in some emerging occupations has been compounded by the impacts of new forms of work organisation. One of the most polarised and still unresolved debates of the past decade is between those who see or predict an upskilled knowledge economy and those who see mainly a growth in low-skilled, badly paid and highly controlled jobs.[61] Part of the uncertainty arises from a conflict between the skill requirements of the work, and the way in which it is organised.

At the same time as organisations are specialising and, in some cases, hiving off aspects of their operations, they are seeking seamless service delivery.[62] The Spotlight skills of

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[59] Recent studies have identified a range of jobs requiring the management of conflicting job demands and competing loyalties. Frontline workers in government offices may have to play both welfare and policing roles – see Korczynski and Bishop (2008). In the same collection, another study suggested the burnout resulting from the requirement to support rape victims whilst subjecting their accounts to rigorous scrutiny in preparation for court-room attack – see Martin, Schrock, Leaf and Rohr (2008). For a study of the management of incommensurable time demands in child care work, see Davies (1994). The interviews turned up a number of similar examples.

[60] Machonachie (2005).

[61] For a discussion of interactive service work as knowledge work, see Frenkel, Korczynski, Shire and Tam (1999). For a vehement rebuttal of the knowledge economy view, see Ritzer (1996). A measured overview of the knowledge economy thesis can be found in United States Committee on Techniques for the Enhancement of Human Performance: Occupational Analysis (1999). For a recent and equally measured statement of the deskilling thesis, see Thompson (2007). It is possible that service jobs may be deskilled (subject to intensification) despite requirements for quite high levels of either formal knowledge or work process skills, particularly if the latter are not well recognised. For a view that job complexity is rising whilst autonomy may be declining, see Spenner (1995) and Felstead, Gallie and Green (2004). In fact, between McDonaldised and knowledge economy service jobs, there is likely to lie a whole spectrum of jobs requiring different levels of service skills: the Spotlight tool is designed to help fill in this middle ground. On this point, see also Gatta, Boushey and Appelbaum (2007).

[62] For public sector examples, see Bogdanor (2005).

contextual awareness, negotiation, relationship-building and coordination are the very skills required for one-stop shop delivery.

E-commerce and e-government require creative use of information technology, but at the same time, technology can be used to standardise decision-making and also to allocate and pace work processes. Jobs may be subject to contradictory pressures. Interviews suggested that there are jobs in which staff are working at high intensity, exercising high levels of discretion in dealing with clients. The Spotlight tool can be used to gain a more complete understanding of hidden job demands, particularly where burnout is an issue.

At the design level, those responsible for developing new products or services will have to work out how to do things not yet attempted, sharing knowledge within multidisciplinary teams. Working in and managing project teams to develop online services involves the maintenance of effective dialogue amongst end-users, coordinators, product designers and information systems engineers. The skills involved include maintaining awareness of contexts and impacts, building and managing relationships without relying on formal lines of authority, and time and contingency management. There is an obvious need for a tool that allows identification of the skills required to do these things well.

Organisations must reconcile competing demands for service quality and efficiency. Often, these competing pressures are expressed through waves of experimental reorganisation of business lines and job reconfigurations. It is clearly not possible to make assumptions about skills and skill levels, without drilling down into work processes and going beyond generalities such as routine, self-management and prioritisation.

2.6.3 Helping meet demographic challenges – population ageing

Population ageing will shift the priorities of organisations and the skills they require from their workforces.

From 2012, as baby boomers age, the share of the population aged 65+ will begin to increase from the present 12 per cent to an estimated 24 per cent by mid-century. The proportion of this group aged 85+ will increase to a quarter, placing greater pressure on quality community care services. As the non-labour force will thus be growing faster than the labour force, exceeding it by 2030, pressures for cost-effective service provision will also grow.[63]

At present, the skills that identify high-quality performance in interactive care work remain under-specified. The skills that matter to clients are thought to include cultural and emotional insight, patient listening, companionable relationship-building and the capacity to mesh care recipients' slower timeframes with busy work schedules.[64] Such skills are often assumed to be widely available in the community, but the supply of these skills may be drying up. Starting in the 1970s, a generation of women moved from unpaid family care work into paid employment in the community care sector, bringing with them skills often assumed to be natural qualities. In future, women's more diverse labour market participation across their life course is likely to reduce the supply of these skills, whether paid or unpaid. It is therefore increasingly important to codify the important process skills of care work and to ensure that they can be trained for and deployed effectively to meet future need. The Spotlight tool can play a useful role in the accurate specification of the non-technical skill set required for quality care delivery.

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[63] Statistics New Zealand (2004).

[64] Davies (1990), Charlesworth (1993) and Armstrong and Kits (2003).

Looking beyond care work to the macro-economic level, shifts in dependency ratios combined with shifting patterns of world trade will increase the pressure for innovation and productivity generally.[65] According to new growth theory,[66] the greater the critical mass of recognised skilled workers, the easier the adoption of innovation will be. This means effective utilisation and development of the existing labour force, based on accurate identification of all their skills, including those that have hitherto not been named systematically.

2.6.4 Helping meet demographic challenges – workforce ageing

Population ageing means an ageing of the workforce. If organisations are to ensure an intergenerational transfer of the tacit skill base of the present workforce, they will need to embark on skills mapping and retention strategies.

Within the New Zealand workforce overall, the balance between those aged 25–44 and those aged 45–64 is shifting, as a result of declining birth rates and slowing population growth. In 1991, the labour force aged 25–44 was double the size of the workforce aged 45–64. By 2016, the proportions between older and younger workers will be roughly even, and thereafter, the recruitment of younger workers will just keep pace with the rate of retirements. As significant numbers of baby boomers start to leave paid work from 2011 onwards, growth in New Zealand's overall workforce size will slow, becoming static around 2020.[67]

Thus managing the workforce at all levels will increasingly require:
* accurate audits of the service skills actually used by service workers, particularly the tacit workplace knowledge and skills that may be lost if opportunities are not created for its transmission by workers soon to retire
* new ways of combining the higher levels of formal qualifications amongst younger workers with the informal workplace knowledge of older workers
* an approach to lifelong learning.

As argued in Section 2.4, the Spotlight tool can contribute to this process. It offers a systematic framework for analysing the vital underpinning skills required in changing jobs and a framework for auditing the tacit skills of existing workforces as external recruitment becomes more costly. It provides a useful mechanism for tracking the development of employee expertise and for constructing individual career paths based on ongoing skill acquisition.

2.6.5 Helping meet demographic challenges – intercultural competencies

The requirements of the Treaty of Waitangi and the changing ethnic base of the Aotearoa New Zealand population will require a widened range of competencies in the workforce of the future. In the 2006 Census, approximately 15 per cent identified as Māori, 7 per cent as Pasifika and 10 per cent as Asian, Middle Eastern, Latin American or African, whilst 11 per cent identified as New Zealander and 68 per cent as European.[68] The younger age profile of Māori, Pasifika and Asian people means that, by 2021, these groups are projected to make up 16 per cent, 9 per cent and 16 per cent of the working-age population respectively, and 20 per cent, 11 per cent and 16 per cent of the population aged 15–39.[69] There is evidence that women's

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[65] See for example Herzenberg, Alic and Wial (1998) and United States Committee on Techniques for the Enhancement of Human Performance: Occupational Analysis (1999). For a pessimistic view of networked organisations, see Marchington, Grimshaw and Rubery (2004).

[66] Richardson (2007) p. 19.

[67] Statistics New Zealand (2004).

[68] Statistics New Zealand (2007b).

[69] Statistics New Zealand (2005).

share of the New Zealand labour market will continue to increase, partly as a result of migration patterns.[70] Meanwhile, the national Disability Strategy covers the 20 per cent of New Zealanders with a long-term impairment.[71]

Particularly in the health and welfare sectors, the cultural competencies required in diverse communities have been defined in terms of:

- cultural awareness – recognition of diversity
- cultural safety – an awareness of the impact of one's world view and behaviour and of workplace practice on diverse community members' effective social participation and equitable access to services
- cultural competence – deep understanding of different cultural practices and world views, and skills in communicating, interacting and building working relationships across cultures.[72]

New Zealand is committed to bicultural and multicultural education curricula, although first-language education is available to only a minority of Māori, Pasifika and immigrant students.[73]

It is important to recognise:

- the sophisticated skills of intercultural negotiation that are being practised in workplaces on a daily basis, by people whose first language is not English
- the skills of cultural advisors and bilingual resource staff engaged in facilitating cultural maintenance, facilitating participation in mainstream settings by people with disabilities or working in multidisciplinary teams providing support and advice to families/whānau
- the mediation skills of those working to a bridge between the institutional, linguistic and cultural norms of providers and their clients and their advocacy skills in negotiating to secure inclusive treatment.

These examples are merely illustrative of the spectrum of intercultural skills required in workplaces. The Spotlight framework includes a set of skills designated 'connecting across cultures', designed to help identification of the awareness, interactive and relationship skills called for in any work with an intercultural dimension.

2.6.7 Conclusion – addressing the skills quality gap

To summarise, Section 2.6 has argued that, in the face of an emerging international skills shortage, demographic shifts will exacerbate the difficulties of reinvesting in organisations' skill base. Success will depend on:

- the length of the lead time required to build up the required skills and extent to which it will be possible to rely on outside recruitment
- the degree of skill mismatch resulting not from overall skill shortages, but from difficulty in attracting or retaining staff with the particular skills required by an ageing population.

Thus New Zealand, like other countries, is thought to be facing not a general skills shortage nor even a shortage of qualified people, but a skills quality gap – a shortage of people able to perform in particular types of work at the required levels of quality.[74]

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[70] Callister, Bedford and Didham (2006).

[71] New Zealand Ministry of Social Development Office for Disability Issues (2001/2007).

[72] See for example Tae Ora Tinana (2004) and Main, McCallin and Smith (2006).

[73] By 2006, there were 66 Kura Kaupapa Māori in New Zealand, but they enrolled a very small minority of Māori children. This is despite growing recognition of the cognitive, social and educational advantages of additive bilingualism as an aid to cultural maintenance and cognitive development. See May, Hill and Tiakiwai (2004).

As argued in Sections 2.3 and 2.4 above, the Spotlight skills recognition tool can make a three-fold contribution to addressing the skills quality gap:

- It offers practical tools for use in recruitment and placement to assess the hidden qualitative dimensions of performance, and an approach to induction is proposed that should minimise early attrition.
- The framework and the examples that accompany it can provide a fine grained way of identifying sources of quality performance and of developing these through individual, group and organisational learning.
- The skill levels can be used to map capabilities and career pathways and to foster intergenerational skill transfer and thus contribute to the retention of skilled staff.

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[74] Richardson (2007).

3. WHAT DOES THE SPOTLIGHT SKILLS RECOGNITION TOOL LOOK LIKE?

3.1 The basic components

3.1.1 The three skill sets

The basic skill sets are:

A. **Shaping awareness** – capacity to develop, focus and shape your own and other participants' awareness
B. **Interacting and relating** – capacity to negotiate interpersonal, organisational and intercultural relationships
C. **Coordinating** – capacity to organise your own work, link it into the overall workflow and deal with disruptions

The analysis of jobs can be refined by identifying work activities that call for the use of these skills.

Table 5 provides an example of activities drawing on each of the three skill sets.

Table 5: Examples: Activities drawing on the three skill sets

Skill sets	Activities drawing on these skills
A. **Shaping awareness** – capacity to develop, focus and shape your own and others' awareness of work contexts, situations and impacts	A park ranger notes very slight signs of vegetation change. He shows colleagues how to look for these signs, and then they work together to build a picture of environmental impacts.
B. **Interacting and relating** – capacity to negotiate interpersonal, organisational and intercultural relationships	An education support worker builds trusting relationships with colleagues, clients, families and whānau. She negotiates with more senior teachers to gain changes to programmes that are not helping the children she is assisting.
C. **Coordinating** – capacity to organise your own work, link it into the overall workflow and deal with disruptions	An anaesthetic technician has learned to prepare for emergencies by memorising different theatre layouts and anaesthetists' requirements, setting up equipment so that she can anticipate colleagues' needs during operations. She contributes to the planning of rosters so that less experienced team members are never left without experienced backup.

The capabilities of jobholders and work teams can be defined more clearly by identifying their capacities for using these three sets of skills.

For consistency, Spotlight tables always list these skill sets vertically down the page, or use a triangular diagram to show how the three skill sets may reinforce each other.

Figure 4 is designed to illustrate the point that the three skill sets are both logically distinct and interdependent.

Figure 4: Integration of the three skill sets in work activity
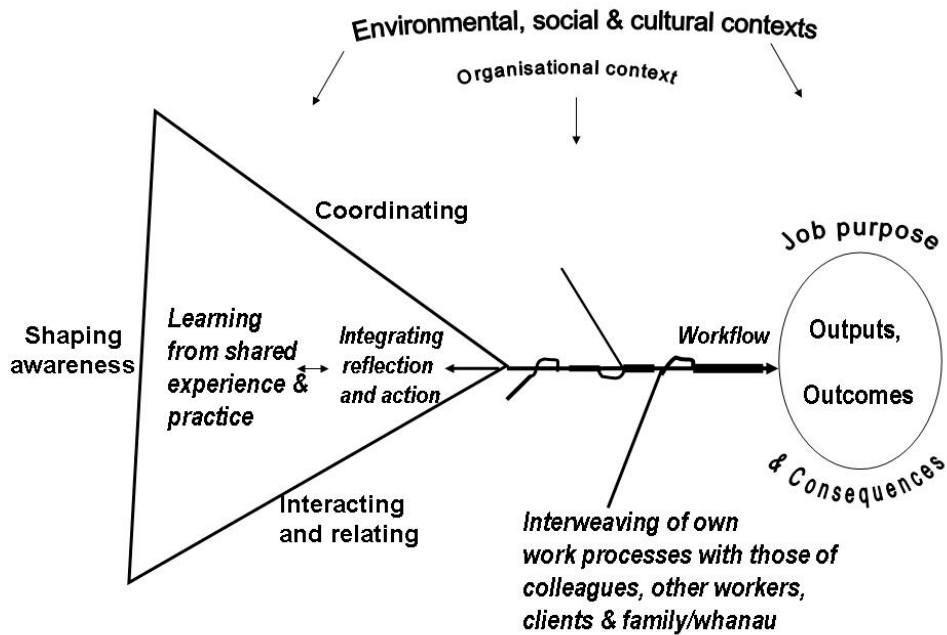
- Effective interaction depends on awareness of self and of one's impacts on others, as well as awareness of other people's awareness.
- Awareness-shaping skills include both a focusing of the jobholder's own awareness and subtle guidance in focusing the awareness of others, consistent with the collective nature of workplace learning.
- The skill of situational awareness is also required in effective contingency management (a type of coordination skill).
- Ethical persuasion involves negotiating boundaries through communication, based on awareness of reactions and impacts.

Whilst the skill sets and elements are used in an integrated way, unless they are unpacked, the levers for developing the sources of effective performance remain locked within a black box of concepts like problem-solving (actually a level of all the Spotlight skills, not a skill in its own right) and good communication.

3.1.2 The five skill levels

The Spotlight framework recognises that, within each of the skill sets, work will be performed at different levels of proficiency.

Level of proficiency is defined in terms of the learning embedded in the skill requirement being analysed.

The levels of learning enable increasing levels of participation in workplace activity.

By convention, the five Spotlight skill levels are always depicted in the horizontal plane of the grid, moving from left to right.

The five levels are set out in Table 6.

Table 6: The five Spotlight skill levels

1. Familiarisation	2. Automatic fluency	3. Proficient problem-solving	4. Creative solution-sharing	5. Expert system-shaping
Capacity to:				
Build experience through practice, reflection and learning from others	Apply experience independently and automatically	Use automatic proficiency while solving new problems	Help create new approaches through shared solutions	Embed expertise in an ongoing work system

More extended definitions of the levels follow.

Level 1 – To perform a work activity, a jobholder develops a verbal or non-verbal understanding of what to do.

Through observation, asking, reflection and trial and error, the jobholder brings together:
- experience of the work situation (sensory or conceptual)
- relevant formal knowledge
- accumulated practice-based knowledge picked up inside and outside the workplace.

At this level, learning involves much conscious problem-solving, but the problems are novel only to the jobholder and their solution is unlikely to result in new knowledge or practice.

Level 2 – Through practice, the jobholder builds automatic proficiency in performing a set of work activities, getting better at bringing together the new experiences and accumulated experience described in level 1.

Routine work may involve polished proficiency based on considerable learning and practice. The work is done automatically, and close supervision is not needed.

Level 3 – Through practice and experience, the jobholder can integrate the subconscious application of practised proficiency with a conscious focus on problem-solving or with the creative production of something new.

Once each problem is solved, the worker internalises this solution, widening and perhaps deepening their expertise on the basis of increased experience.

Level 4 – The jobholder is now contributing to the workplace pool of shared practical knowledge and helping create informal workplace knowledge systems by contributing to one or more of the following activities:
- Flagging the solutions typical of level 3 so they are not lost.
- Sharing solutions informally either non-verbally by tacit 'modelling' and imitation or verbally through the exchange of stories about how problems were approached.
- Helping to embed informal knowledge in system shortcuts (for example the automation of a spreadsheet function) in catchphrases or in shared tricks of the trade.
- Coaching novices and noting any new insights that arise from doing so.

Level 5 – The jobholder is embedding learned work process skills through informal or formal leadership in the codification, design, change or implementation of work systems.

Table 6 takes the three examples already used to illustrate the three skill sets (Table 5) and provides examples of activities drawing on each skill set at each of the five levels

Table 7: Examples of activities using each level of the three Spotlight skill sets

LEVEL	1. Familiarisation	2. Automatic fluency	3. Proficient problem-solving	4. Creative solution-sharing	5. Expert system-shaping
Shaping awareness – capacity to:	Learn job contexts, demands and impacts	Automatically monitor the work situation and assess its impacts	Monitor contexts and impacts whilst solving problems	Share situational awareness and new solutions	Understand systems and opportunities to influence them
Example: Park ranger	Is learning to notice signs of change in vegetation	Automatically notes patterns of change in vegetation	Works out reasons for vegetation change whilst carrying out daily routines	Works with colleagues to build a shared picture of environmental impacts	Helps develop a system for monitoring and preventing parkland degradation
Interacting and relating – capacity to:	Learn work roles and boundaries	Communicate flexibly and negotiate boundaries deftly	Maintain interactions whilst focusing on solving problems	Contribute creatively to working relationships and networks	Help build organisational practices that contribute to diverse communities
Example: Education support worker	Learns to use verbal and non-verbal cues to establish consistent rules	Strikes a balance between supportiveness and over-involvement with clients	Solves learning problems by persuading a child, a parent or a teacher to change their approach	With colleagues, exchanges solutions to learning problems encountered	Helps develop guidelines (for example, on implementing Treaty of Waitangi principles)
Coordinating – capacity to:	Learn to sort and sequence activities	Smoothly link up tasks and interweave activities	Solve problems whilst maintaining workflow	Share creative approaches to keeping work on track	Help build and maintain sustainable work systems
Example: Anaesthetic technician	Memorises steps to be followed before, during and after an operation	Anticipates what the anaesthetist will need at each step and provides it before being asked	Being familiar with a range of equipment, is able to deal quickly and calmly with emergencies	Coaches less experienced colleagues in the approaches of different surgeons and anaesthetists	Develops rules to ensure that inexperienced technicians work with an experienced partner

In Section 2.4.1 above, it was suggested that a bar chart (Figure 2) be used to profile less visible skills in position descriptions.

A blank version of this bar chart is reproduced in Figure 5. Alongside it is an alternative format for profiling the level of each skill set required in a job.

This is our basic triangular diagram of Figure 4, drawn to suggest the integrated use of the three skill sets. We now insert grid lines for the five levels.

The miniature inserted into Figure 5 illustrates how the required skill level for each set might be illustrated using the grid.

Figure 5: Grids for representing skill set levels

Skill Elements	Levels				
	1 Familiar-isation	2 Automatic Fluency	3 Proficient problem-solving	4 Creative solution sharing	5 Expert system shaping
A. Shaping awareness					
B. Interacting/ relating					
C. Coordinating					
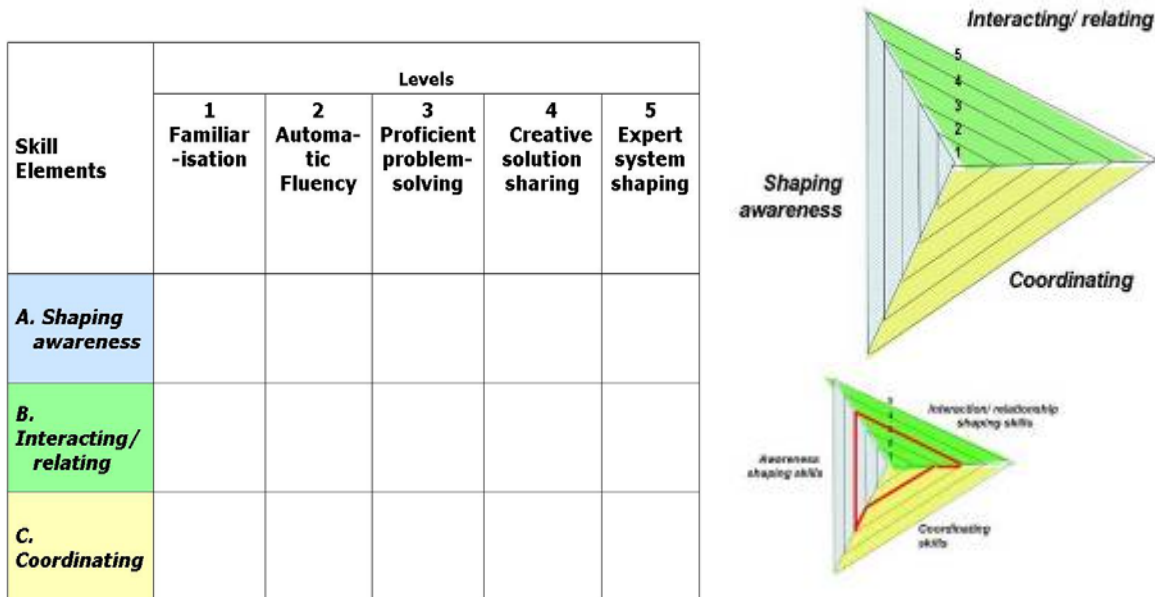
For example, the park ranger in the example from Table 6 may be using awareness-shaping skills at level 3 and may also be using level 3 skills of interaction, solving the problem of how to explain the vegetation changes to colleagues and persuade them to take the matter seriously, whilst carrying on at level 2 efficiency in coordinating daily work routines.

The Spotlight model of learning levels is better thought of as a dynamic model of participative learning rather than as a static skills hierarchy.

It represents a spiral process of learning in that people in jobs at all levels must repeatedly go through stages of familiarisation and practice if their jobs change or if they move into a new job.

Whilst the Spotlight framework draws on the notion of a progression in proficiency from novice to expert,[75] it is important to recognise that the five levels are not discrete stages that a jobholder attains and passes through on the way to the next level.

Each level incorporates those preceding it, so that:
- at each level, jobholders are actively gaining familiarity with new requirements by learning from colleagues
- from level 3 onwards, the jobholder is turning this familiarity into practised, unconscious routines
- from level 4 onwards, what were earlier conscious solutions to problems are now being folded into unconscious routines but also being shared through conscious and unconscious informal team learning.

The Spotlight skill levels may not coincide neatly with existing job grades or occupational levels. High-level awareness, social and coordinating skills may need to be recognised in jobs that require lower levels of formal knowledge, technical expertise or motor skills.

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[75] Dreyfus and Dreyfus (1986).

If the hidden Spotlight elements are taken into account fully when assigning points during job evaluation, or if Spotlight skills could be used to provide more precise indicators of experience than the current indicator (workplace training time) in determining occupational levels, assumptions about the skill demands of some jobs might require revision.

3.1.3 The nine skill elements

Each of the three skill sets can be unpacked into three skill elements.

We begin with shaping awareness.

A. Shaping awareness

A1. Sensing contexts or situations – capacity to notice and understand the significance of work contexts or changed workplace situations

A2. Monitoring and guiding reactions – capacity to monitor and guide your own reactions and those of others and to manage situations where awareness levels vary

A3. Judging impacts – capacity to evaluate the impacts of your own or the work group's actions in the workplace and on clients or community

Comments

- The word 'sensing' is used to cover both explicit and tacit awareness.
- All three skill elements cover aspects of the jobholder's capacity to focus and shape their own awareness, building on experiences inside and outside the workplace and using a range of ideas, cognitive techniques, rules, values and social roles.
- The term 'shaping', when applied to the jobholder's own awareness, covers the capacity to focus attention, notice, perceive significance, monitor and evaluate.
- The term 'shaping', when the jobholder is working on the awareness of others, covers the capacity to see things from another person's perspective and to guide that person's awareness, for example, by using cues called contextors.[76] It is the basis of shared learning, and a precondition for the negotiations that result in influence (these belong in skill set B).
- Contexts may be past, present or future; they may be outside or inside the work unit; they may involve physical, social and cultural environments, emotional climates and resources in the form of roles, rules and tools (physical and mental).
- Situations include emerging events, changing circumstances and significant (though often small) signs of change in environments or workplace participants or wider communities.
- Awareness also shapes context, and situations include those in which participants have different types and levels of awareness. In working with other people, jobholders need to be aware of own perspectives and the impact they are having on other people.
- Awareness involves recognition of reactions – both the jobholder's own reactions and the reactions of others. These reactions may be indicators of impacts.
- Awareness also involves an evaluation of impacts – the impacts or likely impacts of the jobholder's actions and reactions on others, on contexts and on situations and the impacts or likely impacts of contextual factors.

Definitions and examples of activities using the awareness-shaping skill elements are provided in Table 8.

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[76] Lawler (1991).

Table 8: Shaping awareness skill elements

Descriptor	Capacity to:	Activities drawing on these skills
A1. Sensing contexts or situations	Notice, interpret and understand the significance of wider job contexts or changed workplace situations	A cultural advisor uses awareness of local community networks
A2. Monitoring and guiding reactions	Monitor and guide your own reactions and those of others; manage situations where awareness levels vary	A probation officer monitors her own and team members' reactions in a dangerous situation
A3. Judging impacts	evaluate your own or team's impacts in the workplace, or on clients or community	A clinic administrative officer weighs the impacts on the queue of interrupting a doctor and the risks of treating a client's case as not serious

B. Interacting and relating

B1. Negotiating boundaries – capacity to set your own boundaries and respect those of others and to influence or negotiate within and across authority lines

B2. Communicating verbally and non-verbally – capacity to respond to and use non-verbal and verbal communication adaptively

B3. Connecting across cultures – capacity to deepen your understanding of diverse cultures and of your own cultural impact and/or to build intercultural relations

Comments

- People in the workplace are engaged in a wide range of interactions, ranging from impersonal transactions to episodes in longer-term working relationships.
- Interactions and longer-term relationship work involve work done to achieve a range of purposes, which may be combined, for example, commercial, educative, therapeutic, designed to support daily living, cultural, custodial, collaborative, managerial.
- Such work is likely to involve a combination of information work, emotion work and aesthetic work, performed to forge, change or terminate working relationships.
- Jobholders may need to manage themselves and to maintain their own boundaries and those of the job and to respect the boundaries of others.
- Skilled activities may involve influencing people, inside or outside formal authority lines.

Definitions and examples of activities using these skill elements are provided in Table 9.

Table 9: Interacting and relating skill elements

Descriptor	Capacity to:	Activities drawing on these skills
B1. Negotiating boundaries	Set your own boundaries and respect those of others, or influence or negotiate within and across boundaries or authority lines	A care assistant finds a pleasant way of saying 'not now' to nurses whose requests for help cut across her own required activity.
B2. Communicating verbally and non-verbally	Respond to and use verbal and non-verbal communication adaptively or aesthetically	An early childhood teacher uses visual displays and music to stimulate learning
B3. Connecting across cultures	Deepen your understanding of diverse cultures and of your own cultural impact and/or build intercultural trust relations	A social worker uses culturally appropriate networks and protocols in searching out sources of support for a client

C. Coordinating

C1. Sequencing and combining your own activities – capacity to organise your work by prioritising, switching and refocusing attention, and combining and linking activities

C2. Interweaving activities collectively – capacity to follow up tasks, follow through on undertakings and interlink activities with those of colleagues

C3. Maintaining and/or restoring workflow – capacity to maintain, balance or restore workflow, deal with emergencies, overcome obstacles, or help put things back on track

Comments

- Coordinating skills are used in the workplace to organise the jobholder's own work and to mesh its outcomes with the overall workflow.
- The time element of coordinating skills is two-fold, involving managing work at each point in time and managing work over periods of time.
- At any time, jobholders may require skill to balance and prioritise job demands, combine and sequence tasks and assignments, switch attention among competing requirements and handle interruptions.
- As well, jobholders need to use skill in contributing to an overall flow of work, meshing their own activities and outputs with those of colleagues and people inside and outside authority lines such as contractors.
- A particular skill is that required when working with people who have a different approach to time.
- There is a skill in weaving together short-term tasks and longer-term work assignments and sequences.
- Coordinating skills are also required in responding to emergencies, deadlines and disruptions and working around barriers, obstacles and resource constraints, keeping things on track.
- If things do get off track or even go off the rails entirely, jobholders may use the skills of rectifying breakdowns, putting things back on track or picking up the pieces to restore purpose, targets and quality outcomes.
- Finally, there are preventative skills used in foreseeing potential obstacles and averting potential break-downs – technical or relational.

Definitions and examples of activities using the skill elements of coordinating are provided in Table 10.

Table 10: Coordinating skill elements

Descriptor	Capacity to:	Activities drawing on these skills
C1. Sequencing and combining activities	Organise your work by prioritising, switching, combining and linking activities	A ward assistant maintains a tight schedule of patient care and ward upkeep, quickly refocusing after frequent interruptions
C2. Interweaving your activities with others'	Follow up tasks and follow through on undertakings, and interlink activities with those of colleagues	Caseworkers reallocate caseloads within teams in order to match clients with those best able to follow cases through
C3. Maintaining and/or restoring workflow	Maintain and balance workflow, deal with emergencies, overcome obstacles or help put things back on track	In dealing with an IT outage, technicians put aside personal opinions, agree on an approach and then work together to develop a back-up system

3.1.4 Applying the skill levels to the nine skill elements

The same five skill levels apply to the skill elements as to the skill sets. To summarise them, we have a choice of a matrix or of a radial diagram to present these skills.

Figure 6 shows two ways of indicating the levels at which the nine skill elements may be required or used in a job.

Figure 6: Grids for representing skill element levels

SKILL ELEMENTS	LEVELS				
	1. Familiarisation	2. Automatic fluency	3. Proficient problem-solving	4. Creative solution-sharing	5. Expert system-shaping
A. Shaping awareness					
A1. Sensing contexts or situations					
A2. Monitoring and guiding reactions					
A3. Judging impacts					
B. Interacting and relating					
B1. Negotiating boundaries					
B2. Communicating verbally and non-verbally					
B3. Connecting across cultures					
C. Coordinating					
C1. Sequencing and combining activities					
C2. Interweaving your activities with others'					
C3. Maintaining and/or restoring workflow					

3.2. Turning the Spotlight on

The three ways to use the framework of skill sets or elements and skill levels are:
• applying the concepts directly to a work activity
• using the grids to classify the skill demands of work activities
• using the activity examples to identify skill elements and levels.

To provide greater assistance in identifying skills and levels, aspects of the job can be matched against the activity descriptors set out in Table 11, which is provided amongst the Spotlight practitioner tools as a resource for writing job activity descriptors, classified into levels.

Table 11 is based on research. It contains a large list of activities, classified according to the Spotlight skills they were found to utilise. The activity descriptors were written by summarising and compressing together a range of similar accounts of job activities, relating to the same skill. The jobs from which they were drawn are not indicated, and contextual detail has been stripped away. The descriptors thus apply to many jobs.

In using the framework of Table 11 in order to identify the skill level required by a relevant job activity or used by an individual performing this aspect of the job, it is important to remember:
• the levels need to be assessed independently of the current grading of a job
• in beginning a job at any grade, it may be necessary to work through from level 1 in acquiring new skills
• not to assume that people at low level grades are exercising skills at level 1 – in fact, they may bring accumulated experience from elsewhere, quickly assimilating experiences so that they are soon beginning to function at higher proficiency levels
• jobs at high grades may not require high levels of proficiency in all nine skill elements
• skills can be exercised at higher levels only by acquiring the relevant earlier learning
• the same job may require a combination of skills exercised at different levels.

3.2.1. Using the grids to classify the skill demands of work activities

Example 1
A community care nurse has a client who does not want to hear the details of his deteriorating condition. The client's son does not think this wish reasonable and starts to turn up during visits from the nurse in an attempt to gain information and get his father to face reality. Whilst busy completing care tasks and getting to the next client in a timely way, the nurse must solve the problem of how ethically to manage this context of competing awareness levels and needs.

SKILL ELEMENTS	LEVELS				
	1. Familiarisation	2. Automatic fluency	3. Proficient problem-solving	4. Creative solution-sharing	5. Expert system-shaping
A. Shaping awareness					
A1. Sensing contexts or situations					
A2. Monitoring and guiding reactions			Solving disclosure problem on the run		
A3. Judging impacts					

Comment: The nurse is aware of the dynamics of a situation in which there are conflicting wishes for awareness on the part of the father and son. The nurse is also judging the impact on the client of the way in which the situation is handled, sSo the situation calls for skill set A – shaping awareness.

Specifically, skill elements A2 and A3 are required – the capacity to be aware of and hide the nurse's own feelings about the father and son, an awareness of the reactions of both father and son, an assessment of the consequences of breaching the father's confidence, an awareness of the impact on subsequent clients of how smoothly visits can be handled, and the nurse's capacity to realise how her reactions to the situation may flow over to her manner to the next client unless she controls this.

These skills will almost certainly be integrated with the use of boundary management (B1) skills and coordinating (C1) skills, but for the purposes of this illustration, we focus on awareness-shaping skills.

Level 3 has been chosen as the appropriate level to describe the way these skills are being used, because the problem-solving we see here is not that of the novice, but that of the proficient worker who can continue to carry out all the normal routines of the visit, whilst dealing with the problem.

Example 2

A telephone advisor efficiently handles a series of calls by retaining control of each interaction, letting callers vent just long enough to find a point at which to begin focusing on a solution and restraining any feelings of sympathy.

SKILL ELEMENTS	LEVELS				
	1. Familiarisation	2. Automatic fluency	3. Proficient problem-solving	4. Creative solution-sharing	5. Expert system-shaping
B. Interacting and relating					
B1. Negotiating boundaries		Putting boundaries around interaction			
B2. Communicating verbally and non-verbally					
B3. Connecting across cultures					

Comment: The telephone advisor is practicing the B1 skill element skill of boundary-setting, and is also experienced at managing clients, keeping control of the duration of calls, not being drawn into callers' venting and picking the right moment to come in with a suggested solution. The level is 2, automatic fluency, as the capacity to retain control of the focus and timing of each interaction can only be learned by practice and appears to have become almost effortless.

Example 3

A project team may be required to produce results, despite the risks of false starts and potential conflicts over methodology. Often, team members may drop out. Part of the skill in getting a result lies in the capacity to pool ideas, overcome obstacles, regroup and come up with a new approach.

SKILL ELEMENTS	LEVELS				
	1. Familiarisation	2. Automatic fluency	3. Proficient problem-solving	4. Creative solution-sharing	5. Expert system-shaping
C. Coordinating					
C1. Sequencing and combining activities					
C2. Interweaving your activities with others'					
C3. Maintaining and/or restoring workflow					Rebuilding team, creating new system

Comment: Success involves maintaining and/or restoring workflow (C3), both in relation to putting the project back on track (rectification) and in relation to maintaining or rebuilding a team (resilience). Skill level 5 has been chosen because a new system is being created. Level 5 skills build on level 3 (problem-solving) and level 4 (team-based solution-sharing) skills.

3.2.2 Using the activity examples to identify skill elements and levels

The easiest way to identify the hidden skill elements and levels of a job may be to match its activities with those listed in Table 11. The process is illustrated with two examples. The first focuses on uses of the Spotlight tool in analysing a job; the second shows how it can be used in diagnosing individual performance and career development needs.

Example A
Customs officers X-ray luggage and contents of shipping containers and use endoscopes to examine ship cavities, as well as searching luggage and cargo at airports. They respond to top priority call-outs at short notice and work at speed to follow the legal and policy steps in conducting interviews and detaining and seizing items. Not only must Police permits be obtained, but cooperation with Quarantine is likely to be involved (and with Police crime units in the case of live animal smuggling). Procedures may vary slightly in different work areas, so officers seconded to work in a range of locations must learn local variations in the application of policy. Maintaining a tracking system for all goods is crucial.

Personal searches must follow strict protocols, up to and including internal body searches. These involve detention of up to 28 days, with Customs officers assisting the Investigations Group by going through bowel movements. As the legal ramifications are major, every step of such a search has to be followed meticulously, in the correct order and with precise timing. For example, the decision to detain has to be taken in the first four hours, but can be actioned only after a signed court order is obtained.

There is a hierarchical formal command structure and an informal system of mentoring where experienced Customs officers share local work process knowledge (for example, safe use of ships' ladders) that are unlikely to be taught in formal courses. Customs officers are often called on to brief importers, and may face sometimes confrontational questions about finer points of law. In communicating, as in the field, they have to be able to think on their feet.

Comment: Whilst position descriptions will contain reference to some of the skill requirements highlighted here, the Spotlight framework may provide a useful cross-check for completeness and also give a concrete sense of what is involved in using these skills. Consulting Table 11, we can use the Spotlight framework to pinpoint explicitly some skill requirements that might

otherwise be assumed and to identify the skill levels at which they are required for effective job performance.

Skill element/level	Activity descriptor	Evidence from job
A1. Sensing contexts – level 3	Use knowledge of internal and external contexts to anticipate problems.	Jobholders must be aware of legal and policy steps well enough to follow them precisely.
A1. Sensing contexts – level 2	Draw on wider experience of workplaces to fit in with the styles of different work groups.	Jobholders must learn local variations in the application of policy in order to fit in with the styles of work groups in different areas.
A1 Sensing situations – level 1 (mentees), level 4 (mentors)	By listening, asking and reflecting, build up understanding of worksite layout, resources, contacts, roles and rules (mentees). In conversations with colleagues, share ideas and approaches to solving client or technical problems.	A mentoring relationship is described. For mentees, a familiarisation process may, over time, turn into a mutual exchange. The lengthy buddying process indicates the range of skills to be learned and helps establish job size. For mentors, the awareness-shaping is occurring at level 4, sharing of solutions not taught in training classrooms or manuals.
A2. Monitoring reactions – level 2	Through practice, control reactions to a frightening or disgusting situation.	In going through bowel movements for signs of internally smuggled items, jobholders are practising the skill of controlling their reactions.
B1. Negotiating boundaries – level 2	Maintain cordial relations with people outside your authority to expedite their responses to requests.	The job entails gaining rapid cooperation of Police and judges to obtain permits within tight timeframes. There is close collaboration with Quarantine and sometimes with Police crime units. Assuming that the cooperation is routine on both sides, the skill is level 2.
C1. Sequencing and combining activities – level 3	If interrupted whilst concentrating deeply on solving a problem, carry the idea and quickly get back to the same point.	Every step has to be followed meticulously in the correct order and with precise timing. This will require concentration. As others are involved, it will also require follow-through and follow-up.
C2. Interweaving your activities with others' – level 3	Carry out all steps to ensure legal and safe procedures when working with others in a rapidly changing situation.	Both descriptors have been classified at level 3, the level at which jobholders are simultaneously carrying out routines and problem-solving.
C3. Maintaining workflow – level 3	In jobs calling for rapid responses and legal or financial accountability, use an agreed tracking system whilst problem-solving.	Maintaining a tracking system is necessary to avert possible challenges down the track. This level 3 skill element was chosen rather than level 4 'develop codes' as the codes have already been developed and are widely accepted.
	Make safe decisions where information is ambiguous, rapidly changing or unavailable.	Responding to top priority call-outs at short notice is a form of emergency response at skill level 3, combining action and problem-solving.
C1. Combining activities – level 3	Think on feet when challenged in the course of an activity.	In representing the organisation to importers resentful of regulations, Customs Officers must think on their feet.

Whilst this little sketch is far from providing a complete analysis of the job, it suggests the beginnings of an approach to profiling the hidden skill requirements, as indicated in Figure 7:

Figure 7: Bar chart profiling hidden skill demands of a job

SKILL ELEMENTS	LEVELS				
	1. Familiarisation	2. Automatic fluency	3. Proficient problem-solving	4. Creative solution-sharing	5. Expert system-shaping
A. Shaping awareness					
A1. Sensing contexts or situations					
A2. Monitoring and guiding reactions					
A3. Judging impacts					
B. Interacting and relating					
B1. Negotiating boundaries					
B2. Communicating verbally and non-verbally					
B3. Connecting across cultures					
C. Coordinating					
C1. Sequencing and combining activities					
C2. Interweaving your activities with others'					
C3. Maintaining and/or restoring workflow					

Example B

An administrative assistant employed in the head office of a government information service provides back-up to six executive officers who, in turn, work to the directors of six specialist units, ranging from finance to services to Māori. The administrative assistant needs a general understanding of all six directors' work areas as she directs general telephone and email inquiries to the correct area, prepares meeting documents and helps with budgets, minute-taking, record-keeping and archiving.

With her desk in the reception area near the lifts, she handles telephone inquiries whilst working on the counter, connecting staff members up with visitors and callers from inside and outside the organisation. These include some high status people from a range of language/cultural backgrounds. Doing the mail involves maintaining tracking databases for internal and external letters, emails and memos, and cajoling the directors and staff in their units to action correspondence. To help keep track of tasks and information flows, this administrative assistant has found it necessary to teach herself several software applications and shortcuts. When she notices colleagues using software such as pop-up reminders, she requisitions and uses it. To avoid delays and backlogs, she has also taught herself to deal unaided with problems such as computer viruses.

As an administrative assistant, she is often loaned to one of the six work units, quickly learning specialist codes and procedures. She is also often asked to drop everything and help an executive officer collate materials and do the setting-up for meetings called at short notice. During a job analysis interview, she described her work as involving doing whatever is thrown at her. At the same time, after a year in the job, she feels there is not a lot new to learn. She is concerned that people think she is 'a bit of a dim wit' because she sits at reception, and is planning to leave.

Comment: The Spotlight tool may be used as a learning and development tool, assessing an individual's under-recognised skills. In this case, it can confirm successful acquisition of familiarisation skills and pick up the point at which a jobholder needs to be moved into a more demanding role if turnover is to be avoided. Spotlight can also be used in job design. If the jobholder is regularly doing work beyond the position description, this may suggest the need to broaden the position.

Consulting Table 11, we see that the following Spotlight skills and levels are being used:

| Skill element/level	Activity descriptor	Evidence from job
A1. Sensing contexts or situations – level 1	Build up a general understanding of terms used by specialists in the work area.	Working with executive officers from six distinct fields, this administration officer needs a general understanding of all six directors' work areas.
A1. Sensing contexts or situations – level 2	Draw on wider experience of workplace(s) to fit in with the styles of different work groups.	Being often loaned to one of the six work units, this administrative assistant has been required to quickly learn specialist codes and procedures. This is being done with polished proficiency.
B1. Negotiating boundaries – level 2	Maintain cordial relations with people outside your authority to expedite their responses to requests.	The work involves managing up – cajoling the directors and staff in their units to action correspondence. Again, this is being done with self-assured proficiency.
B3. Connecting across cultures – level 1	Learn accurate pronunciation of personal and place names of different language groups. Learn to interact easily and respectfully with people from diverse cultures.	Interactions with people from a range of language and cultural backgrounds are at a brief, transactional level.
C1. Combining and sequencing activities – level 1	Learn to sort your own tasks according to importance and urgency.	The job requires the administrative officer to handle telephone inquiries whilst working on the counter.
C2. Interweaving activities – level 1	Learn to keep notes or use electronic reminders of 'loose ends' that need to be finished off.	In being called on to work with others, the administration officer needs to keep track of tasks and information flow.
C1. Combining and sequencing activities – level 3	Find (or develop) and apply tools for solving the problem of keeping track of many things at once.	Getting her own work done whilst responding to short-notice requests for help with other people's deadlines involves both contingency management and interweaving skills.
C1. Combining and sequencing activities – level 2	Respond to a range of demands by making sense of the muddle and smoothly slotting each request into the day.	A sense of having to accept what is thrown at her suggests a need to sort and prioritise a range of demands.

In profiling the skills this jobholder is using (Figure 7), we see that she has moved to an overall level of automatic proficiency in the three skill sets and is ready to start using problem-solving skills.

In particular, a range of coordinating skills is used and the jobholder is beginning to solve problems in using this skill set.

Whilst many of the skills the jobholder is using were described in Table 11 at level 1 (Familiarisation) and were described in terms of learning, it is clear that this administrative assistant has really gone through the learning stage with these skills and is using them fluently.

The problem is that she is not being challenged, feels stuck and is planning to leave.

Figure 8: Radial diagrams profiling individual levels of skill attainment
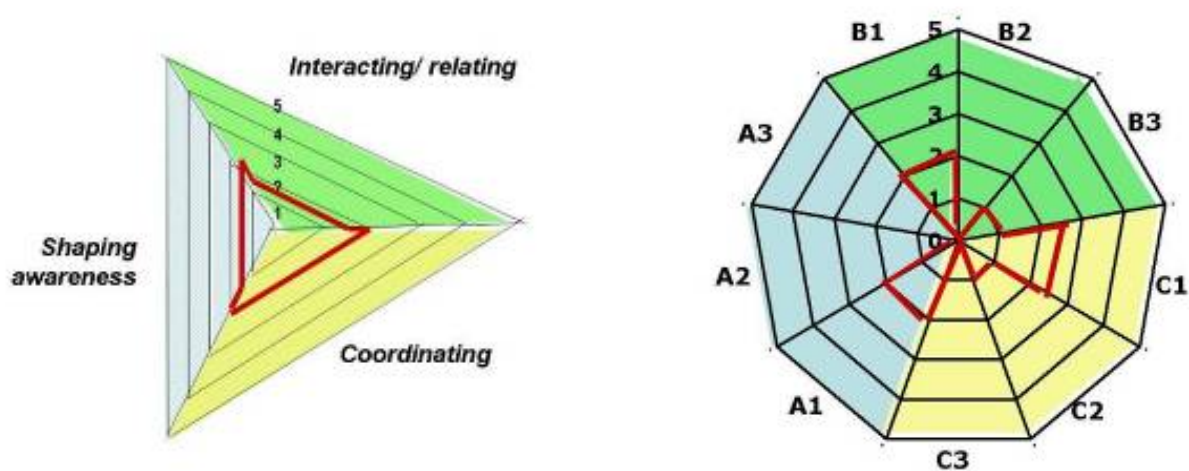
Drilling down into the skill elements, we see that there are certain skills where the administrative assistant is already using automatic fluency and, indeed, she is starting to solve problems of coordination, showing considerable initiative.

There are several areas, however, where we have collected little evidence – some awareness-shaping and communicating skills, and also the coordinating skills of managing contingencies (C3). Either more information is needed – something that can be resolved in a feedback meeting – or some developmental opportunities need to be provided in these areas. It is time to start thinking about some career development opportunities, in-filling any of the missing skills and moving into problem-solving in the skills where automatic proficiency is being shown.

This could be done through position broadening or job rotation.

Table 11: Examples of activities requiring these skills and levels

SKILL SET/ELEMENT	1. Familiarisation	2. Automatic fluency	3. Proficient problem-solving	4. Creative solution-sharing	5. Expert system-shaping
A. Shaping awareness – capacity to develop, focus and shape your own and others' awareness of work contexts, situations and impacts	Learn your job contexts, demands and impacts.	Automatically monitor the work situation and evaluate its impacts.	Monitor contexts and impacts whilst solving problems.	Share situational awareness and new solutions.	Understand systems and opportunities to influence them.
A1. Sensing contexts or situations – capacity to notice, interpret and understand the significance of wider job contexts or changed workplace situations	Build up understanding of worksite, resources, contacts, roles and rules. Build up a general understanding of terms and technology used by specialists in the work area. Use observation, questions, reading and reflection to understand wider work contexts.	Adapt and apply practical knowledge and skills gained outside the workplace. Draw on wider experience of workplaces to fit in with the styles of different work groups. Automatically pick up on small situational changes or early warning signs.	Piece together information and perspectives from various sources to solve a problem. Use knowledge of internal and external contexts to anticipate problems. Solve a problem for a client or colleague by sifting key issues from masses of detail.	Handle uncertainty by exchanging rapid situational updates with colleagues, using codes or signals. With colleagues, share ideas and approaches to solving client or technical problems. By helping create and maintain internal and external networks, keep up to date on developments and trends relevant to the work area.	Use understanding of organisation's priorities to influence systems and policies. Develop a system of regular information exchange on developments inside and outside the organisation. Bring together people with theoretical knowledge and practical experience to think about an issue in a new way.

SKILL SET/ELEMENT	1. Familiarisation	2. Automatic fluency	3. Proficient problem-solving	4. Creative solution-sharing	5. Expert system-shaping
A2. Monitoring and guiding reactions – capacity to monitor and guide your own and others' reactions, or manage situations where awareness levels vary	Learn to recognise and set aside your own pre-judgements of people or situations. Gain insight into difficult behaviour by seeing when it is a response to fear or embarrassment. Learn to control your reactions to frightening or disgusting situations.	Recognise provocations (try-ons) and deftly avoid responding to them. Use cues or formulas to guide or coach others in how to behave in a situation. In a difficult situation, automatically cross-check your own and co-workers' reactions.	By keying in to other people's way of thinking, filter information for its relevance to them. Handle situations where participants have varying levels of awareness and want different degrees of disclosure. Manage responses to overwhelming tasks by breaking them into steps.	Be alert to the work group's emotional under-currents, strengths and needs. Compare notes with colleagues, to identify underlying causes of difficulties and share approaches to handling them. Prepare for a key event by going through all the steps and gaining feedback from a trusted colleague.	Know when to persevere and when to let go of a system change you are seeking to introduce. Monitor perceptions of an initiative, to clear up misinterpretations. Foresee potential difficulties with a policy proposal and find ways of addressing them in advance.
A3. Judging impacts – capacity to evaluate your own or team's impacts in the workplace or on clients or community	Learn to predict how your responses to a situation will affect the reactions of other people. Learn to screen unnecessarily worrying or unsettling work processes from clients. Learn to read a situation and consider consequences before responding.	By listening and watching, sense the point at which someone is beginning to be uncomfortable with what you are saying or doing. Automatically minimise others' fear or shame (for example, calmly refer to a little mishap). Automatically act to reduce the stress of others, for example, by explaining actions and delays.	Pick the right moment for conveying news, judging from reactions how much to say. In using technology on or with people, monitor/analyse information whilst chatting to relax them. Test your ideas by listening, observing and reflecting in coming up with a solution to a problem.	Regularly summarise your understanding of what is going on in order to check that others agree. Help create a supportive context for giving and receiving feedback when approaches are not working well. Constructively challenge practices that compromise the safety or dignity of others.	Set up processes for drawing together feedback from a wide range of sources in order to assess wider and longer term impacts. Perceive flow-on impacts of decisions on other parts of the organisation. Develop a system for analysing and addressing longer-term impacts by reviewing unintended outcomes and their causes.

SKILL SET/ELEMENT	1. Familiarisation	2. Automatic fluency	3. Proficient problem-solving	4. Creative solution-sharing	5. Expert system-shaping
B. Interacting and relating – capacity to negotiate interpersonal, organisational and intercultural relationships	Learn work roles and boundaries.	Deftly negotiate boundaries and viewpoints.	Manage challenging interactions whilst solving problems.	Contribute imaginatively to networks.	Help build ongoing relations in diverse communities.
B1. Negotiating boundaries – capacity to set your own boundaries and respect those of others, or influence or negotiate within and across boundaries	In responding to requests from clients or colleagues, learn to establish the boundaries of your role. Learn to allow upset people to calm down before trying to help. Learn to gain understanding and consent by explaining each step of a process.	Communicate clear and consistent limits in a way that gains acceptance. Maintain cordial relations with people outside your authority, thereby gaining cooperation. Provide support unobtrusively to enhance others' independence.	Find a pleasant way to refuse requests that would deflect from deadlines. Confront problems quickly and directly (for example, 'You aren't going to want to hear this, but …'). Negotiate or advocate in a way that retains good-will, whilst not giving way on bottom line solutions.	Quietly share knowledge and experience with people who do not accept your authority. Give others space to learn and make mistakes. Find ways to improve work practices by constructively giving and receiving negative feedback in unequal power situations.	Carry a proposal forward by networking with key stakeholders. Gain support for a change proposal by planting the idea in stages or testing the water with key people. Provide a sense of direction that energises others by reflecting their aspirations.

SKILL SET/ELEMENT	1. Familiarisation	2. Automatic fluency	3. Proficient problem-solving	4. Creative solution-sharing	5. Expert system-shaping
B2. Communicating verbally and non-verbally – capacity to respond to and use verbal and non-verbal communication adaptively or aesthetically	Learn to interpret tone of voice and body language. Learn to use conversation or tone of voice to put people at ease, keep their spirits up or allow closure. Learn to set out concepts clearly and logically using written and spoken language and other media.	Interpret the needs and intentions of people who have restricted mobility or verbal language. Use silent friendly listening, allowing people to talk through their concerns. Use reassuring and respectful touch (when appropriate), to convey or gain information.	Pace communication to the varying attention spans of different listeners. Pitch language to people with varying levels of understanding. Overcome miscommunication problems by translating, for example, between children and experts.	Solve technical problems for non-experts by using symbols or familiar comparisons to identify the problem and communicate solutions. Coin catchphrases that will serve as a shared guide to action. Collaboratively use resources and media to build a stimulating or reassuring environment.	Crystallise the views of a diverse audience with apt or memorable language or images. Use understanding of community issues to ensure communications gain acceptance by a range of audiences. Help build a consistent, aesthetic and ethical communication style for the organisation.
B3. Connecting across cultures – capacity to develop awareness of diverse cultures and understand your own cultural impact, or build intercultural trust relations	Learn the rules for interacting appropriately in intercultural situations. Learn to interact easily and respectfully with people from diverse cultures. Learn protocols for respectful use of traditional knowledge.	See your own and your work team's behaviour from the perspective of another culture. Identify the correct community spokespeople to approach for specific purposes. Speak and act in a way that fits with cultural protocols and values, for example, Māori respect for status and mutual care.	Approach work practices from the perspectives of Māori staff and staff from other cultural backgrounds. Work effectively with people who have different approaches to time. Help negotiate solutions to problems caused by disability or cultural misunderstandings.	Listen attentively to key in to the sub-text and dynamics of gatherings based on Māori or another language or culture. Incorporate elements of te reo Māori, a community language, NZSL, Braille or Makaton into your work practices. Informally interpret or mediate between work colleagues and members of cultural communities.	Work with people from diverse backgrounds to help knock over systemic barriers. In consultation with appropriate spokespeople, work at a systems level to implement Treaty obligations of partnership, participation and protection of Māori interests. By immersion in a community, help build culturally appropriate programmes.

SKILL SET/ELEMENT	1. Familiarisation	2. Automatic fluency	3. Proficient problem-solving	4. Creative solution-sharing	5. Expert system-shaping
C. Coordinating – capacity to organise your own work, link it into the overall workflow and deal with disruptions	Learn to sequence your work activities smoothly.	Smoothly link tasks and interweave your activities with those of others.	Solve problems and deal with emergencies whilst maintaining workflow.	Share creative approaches to streamlining work and overcoming or working around obstacles.	Help maintain or restore systems.
C1. Sequencing and combining activities – capacity to organise your work by prioritising, switching, combining and linking activities	Develop a list of contacts, definitions, reminders and shortcuts to help streamline work. Learn to incorporate new tools and techniques into work processes. Learn to sort your own tasks according to importance and urgency.	See what needs to be done and automatically do it, so that no-one notices your input until absent. Respond to a range of demands by making sense of the muddle slotting each request into the day. If interrupted, carry the idea and get back quickly to the same point.	Assess urgency and importance of simultaneous calls on attention, any of which could become a crisis. As new demands arise during the day, frequently reprioritise tasks and streamline movements to keep within deadlines. Think quickly on your feet when challenged or when something malfunctions in the course of an activity.	Exchange tricks of the trade and ideas for shortcuts with colleagues. Plan team briefings by using a logical sequence and leaving out non-essentials in order to avoid confusion. Develop codes for recording key details of events as they happen to allow effective follow-up.	Help embed useful elements of your own systems and codes in the organisation's programmes. Maintain a range of initiatives at various stages of completion, switching attention among them to even out workload peaks. Map long-term goals, to help align them with organisational realities.

SKILL SET/ELEMENT	1. Familiarisation	2. Automatic fluency	3. Proficient problem-solving	4. Creative solution-sharing	5. Expert system-shaping
C2. Interweaving your activities with others' – capacity to follow up tasks and follow through on undertakings, or interweave your contribution smoothly with that of others	Learn to keep notes of loose ends that need to be followed up with colleagues. Learn the best timing and approach in interrupting others and when not to interrupt. Learn to record information accurately and to convey it to relevant people in a timely way.	Use knowledge of how the workplace runs to ensure issues are followed through to closure. Automatically check to prevent duplicating the work of others. Use general familiarity with the work process to stand in for others at short notice.	Monitor each step of a group work process so that everything is at hand for individuals with varying work styles. Carry out all steps to ensure legal and safe procedures in a rapidly changing situation. Reorganise the weekly plan with colleagues as new demands crop up, adapting your intentions and timing.	Develop shared information exchange, such as mental maps, flow-charts, coding systems, templates or automated spreadsheets. Mobilise support networks for a quick and individualised emergency response. Organise your long-term work cycle to be available to team members at key times.	Create systems for sharing innovations or solutions to intractable problems. Develop network for accessing, tracking, sharing and building on solutions. Foster a long-term perspective through a system for maintaining key records.
C3. Maintaining and/or restoring workflow – capacity to maintain and balance workflow, deal with emergencies, overcome obstacles, or help put things back on track	Learn to patch up minor misunderstandings before they escalate. Learn to rebalance and refocus quickly after something goes wrong. Learn the steps to follow in dealing calmly with an emergency.	Fix up things that have not been followed through, without undermining others. Develop safe knacks to keep fault-prone equipment running. Plan to ensure that all needs of a dependent client will be met between meetings.	Identify minor issues that have the potential to grow into bigger problems and act to prevent this. In jobs calling for rapid responses and legal or financial accountability, develop your own fail-safe tracking system. Make safe decisions in situations where information is ambiguous, rapidly changing or unavailable.	Cooperate to find a way around or through obstacles. Find ways to optimise resource use through continual fine-tuning or tweaking, for example, of the timing of outlays. Develop shared techniques for solving problems under high pressure during an emergency.	Research underlying causes of bottlenecks and negotiate the introduction of key levers to resolve them. Anticipate where existing frameworks may come under pressure and ensure backup systems are in place. Work to maintain continuity and stability as well as responsiveness to change, projecting a consistent message.

4. RESEARCH BASE OF THE SPOTLIGHT SKILLS RECOGNITION TOOL

4.1 Project phases

The Spotlight skills recognition tool was developed through the Service Sector Skills Identification Project, funded by the New Zealand Department of Labour. The project began following a competitive tendering process in 2005.

The project was carried out in the following phases:

Phase 1: August 2005–April 2006:
- Initial review of practitioner and theoretical literature relating to skills identification and work processes likely to involve hidden skills.
- Initial stakeholder consultation and formation of Reference Group.
- Writing of seven chapter report, with an Executive Summary for the Reference Group; quality assurance by two team members engaged for this role.
- First meeting with Reference Group to discuss report and set directions.
- Study of job profiles, their skills base and gender composition in the public service, public education and public health sectors, as well as relevant qualifications requirements, competency standards and job data.
- Drawing of interview sampling frame.

Phase 2: May 2006–November 2006
- Construction and refinement of questionnaire and interview schedule.
- Negotiation of permissions, background discussions with HR managers, organisation of interviews and site visits.
- Conduct and initial analysis of interviews in three waves, with refinement of questionnaire between each wave.
- Consultation with Reference Group in September and November to present early findings and obtain guidance on shape of practitioner tools.
- Group consultation with HR managers to discuss useful format of practitioner tools.
- Ongoing literature review to resolve difficulties in identifying levels.

Phase 3: December 2006–November 2007
- Detailed data analysis to derive skills recognition tool framework and develop activity statements.
- Iterative analysis of data and ongoing literature to distil skill sets, elements and levels.
- Writing of draft research report.
- Development of draft users' guide.
- Presentation of draft research report and practitioner guides to combined Reference Group and practitioner meeting.

Further refinement and validation – December 2007–December 2008
- Revision and finalisation of skills recognition framework, research report and practitioner tools.
- First practitioner use of skills recognition framework in a job evaluation.
- Peer review process through international academic and practitioner forums and submission of refereed journal articles.

- Trials and successive refinements of practitioner tools, working with public sector HR practitioners and 100 community sector people from governance, management, service providers and service consumers (organised through Workplace Wellbeing).

4.2 Empirical basis of the research

The Spotlight skills recognition tool was derived from empirical research conducted during 2006 in the Aotearoa-New Zealand public service, public education and public health sectors.

The empirical research involved drawing out the common threads of:
- data from 94 position descriptions
- job analysis questionnaires completed by 57 jobholders
- 1,500 pages of transcripts of interviews with jobholders analysed using NVivo qualitative data analysis software.

These data were collected from various agencies and worksites, with the assistance of HR practitioners who recruited volunteer informants.

4.2.1 The jobs and jobholders

The interviews were located in the public administration (24), public education (19) and public health (14) sectors. The jobholders ranged from administrative assistant to senior policy advisor, from education support worker to senior lecturer, from patient receptionist and ward assistant to director of nursing. Job families in a single area (for example, team member, team leader, manager) and members of cross-disciplinary teams were represented. A quarter of the jobs were in predominantly male occupations, a third were in gender mixed occupations and a little over half were in jobs that were over 70 per cent female. Appendix A sets out the jobs analysed and gender concentrations.

In summary, selection was designed to include:
- jobs that were male-dominated (0–39 per cent F – 13 jobs), gender mixed (40–59 per cent F – 19 jobs) and female-dominated (60–100 per cent F – 25 jobs)
- jobs involving work with people, ideas and tools (most jobs turned out to involve all three, though there were 14 manual and technical jobs and six information type jobs such as statistician and systems analyst)
- emerging allied occupations (for example, anaesthetic technician) and jobs with the designation aide, assistant or support (14 positions)
- bicultural and intercultural work and Māori, Pasifika and immigrant jobholders (7 positions)
- coordinating jobs (for example, community support links, business operations advisor) and project work (8 positions).

4.2.2 The interview schedule, questionnaire and interview process

The interview schedule and questionnaire was based on a mix of formats:
- A semi-structured interview schedule with narrative and critical incident questions, as well as questions about the intangible aspects of working with people, data, tools and time.
- A questionnaire of structured questions using checklists and various types of rating scales.

The content of the questions was based on concepts drawn from our analysis of the theoretical literature on skills and invisible work processes, and the checklists were organised on the basis of the classical work with people-data-things categories of functional job analysis,[77] to which we added 'working with time'. The format of the open-ended questions was based on standard

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[77] Fine and Cronshaw (1999).

narrative and critical incident questions.[78] The format of the rating scales was modelled where possible on the various types of measures used in the various O*NET scales.[79]

The interviews were conducted in three waves over a period of six months. They served multiple purposes including:

- trialling a job analysis methodology that would allow identification of skills not previously identified and to allow a classification of these skills
- providing the data set from which the Spotlight skill elements and levels would be derived
- testing a format for future use in identifying under-recognised skills.

As the questionnaires were sent to participants in advance, they were encouraged to complete the checklist sections in advance, discuss them with colleagues and bring them to the interview along with their position description.

The interviews with the 57 jobholders were predominantly one-on-one, though several involved discussions with two people. Most were onsite. Where telephone interviews occurred in the health sector, care was taken to ensure that the interviewer had a background either of working in the sector or as an intensive service user. The average length of interviews was 90 minutes. Most interviews were recorded. Participants were encouraged to think aloud about their responses to the rating scale questions, and feedback about areas of uncertainty was thus recorded and transcribed. The scaled questions were arranged in topic areas, and space for details of other responses was provided. The interviewer observed and wrote notes on questions that presented ambiguity or difficulty or where the language needed clarifying. These notes, together with 'other, please specify' responses, were used to adapt the questionnaire between interviewing rounds.

In all cases, completed questionnaires were collected. The recorded interviews were transcribed and notes of the non-recorded interviews were typed up. Interviewer notes and completed checklists and ratings were later collated with transcripts for overall analysis. The transcripts were sent to jobholders confidentially for feedback and comment.

The interviews were carried out in three rounds between July and November 2006. In each round, the interview questionnaires were slightly modified, mainly in rating scale formats. The early interviews were designed as broad skill-mapping exercises – over the three rounds, the focus was shifted to refining the questionnaire for subsequent use by job analysts.

4.2.3 Analysis of interview data

The responses to the structured questions were quickly compiled and checked for inter-rater reliability. Results were compiled for a quick numerical overview and put together with impressionistic selections from the transcripts of interesting and unexpected statements about required skills. This material was presented to the Reference Group for comment. Key emerging themes were noted as possible bases for classifying a small number of key under-recognised skills.

Then began the process of painstaking free-text coding of the transcripts and position descriptions. NVivo qualitative data analysis software was used in a strict application of the analytical method it is designed to support – the concept-abstracting approach of Glaser,

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[78] Flanagan (1954).

[79] Peterson, Mumford, Borman Jeanneret and Fleishman (1999).

Strauss and Corbin.[80] The process was one of grouping statements about work processes and activities into clusters called nodes. The nodes were gradually grouped into trees of related concepts. Provisional mappings of interrelated groups were developed using the graphic capacities of the software. Notes of the earlier impressions of emerging themes and notes from the literature review database were added as further information sources and coded. The researchers met frequently to compare various ways of grouping the activities according to the skills required to carry them out.

In line with the methodology of grounded theory building, the emerging conceptual nodes were constantly cross-referenced to key concepts drawn from the literature review and were refined by ongoing reading whenever it became necessary to add new explorations of concepts to the literature database. Gradually, the nodes were grouped into an irreducible set of key work activity descriptors. To ensure that the interview data had provided a complete picture, these descriptors were cross-referenced to a content analysis of further position descriptions from the three sectors, obtained from public sector organisations' websites and other organisational sources.

The three skill sets emerged fairly readily from the combinations of tree nodes. They were 'awareness-shaping', 'interaction/relationship shaping' and 'coordinating'. It took rather more analysis, grouping activities on the contexts and consequences principle expounded by Strauss and Corbin, to derive a parsimonious set of skill elements, organised under these three broad headings. We started with 16 and, by sacrificing some fineness of grain, gradually compressed these into nine elements.

It was then a matter of going back to the work activity descriptors from which the skills had been derived in order to select a range of succinct and illuminating work activity statements for subsequent use in identifying activities requiring these skills.

It proved more difficult to identify the level of the relevant skill associated with each activity description. This is because the rating scales of the questionnaire, being based on traditional analysis of the skill level of jobs or occupations, turned out to be useful in selecting the salient skills but not in differentiating the skill levels of isolated activities. We had asked jobholders to attempt ratings of whole-job autonomy, complexity and scope of impact, but found that they did not have the context for making such a relative assessment, even using standard scale criteria. This problem sent us back to the literature on workplace learning. We cross-referenced our activity descriptions against theoretical analyses of the development of knowledge and skill in workplace contexts. As a result of much collaborative discussion in the project team, the five learning-based proficiency levels were derived.

4.2.4 Translating the findings into user-friendly materials

The taxonomy had now been developed. The next step was to explain it in user-friendly language and develop guidelines for its use. Two team members had been recruited with the specific task of checking the coherence of the model and writing it up in plain, concise English.

The first draft practitioner guide was presented to an expanded Reference Group, who found it too detailed and prescriptive (a by-product of thinking through the applications hypothetically in isolation from a practical workplace situation). Meanwhile, two members of the Reference Group drew from the draft guidelines and found the framework useful in gathering data for a job evaluation process.

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[80] Glaser and Strauss (1967) and Strauss and Corbin (1998).

Two further reworkings of the practitioner tools occurred between October and December 2008, based on extensive trials in Australia and four centres in New Zealand.

4.2.5 Validation

The project team contained two members whose role it was to provide critical feedback and quality assurance. The Reference Group provided feedback at each stage of the project, endorsing the directions of the findings and being enthusiastic about the potential of the Spotlight framework but consistently advising simplification.

A consultation with a meeting of HR practitioners in November 2006 provided strong confirmation of consistent advice from the Unit Director that the value added by using the Spotlight tool would need to be demonstrated.

In November 2007, a Reference Group meeting accepted the model but sent the practitioner tools back for further simplification. In the first half of 2008, new practitioner tools were developed, and the job analysis workbook, designed for use with jobholders, was trialled in Australia with diverse jobholders from the public, private and community sectors.

In April, May and November 2008, the Spotlight model was presented at a range of academic and practitioner forums in New Zealand, Australia and Ireland and was, on the whole, well received. The academic peer review process has resulted in a range of journal articles and a book chapter.[81]

In June 2008, with UNSW Ethics Committee approval, the job skills recognition workbook was trailed with 10 Australian volunteers drawn from a range of occupations in the aged care, entrepreneurial health, research and finance industries.

In October 2008, the practitioner tools for position description writing, recruitment and performance management were assessed in a two-day workshop involving HR practitioners from the public and State services and higher education. As a result, the tools were extensively restructured. In November–December 2008, approximately 100 people from the academic and community sectors involved in governance, management, service delivery and service use undertook trials of sections of the job skills recognition workbook and job description tools.

The framework of skill sets, elements and levels and the activity examples have proved robust, and the skills profile grid and radial diagram have achieved a good level of acceptance.

4.3 The contribution of the Reference Group

The Reference Group initially consisted of seven people and was augmented at the end of Phase 3 by further practitioners, particularly in HR. The original group was drawn from a central government agency; a regional industry training organisation; HR, workforce and training consultancies; a disability advocacy service and public sector unions.

The original and expanded Reference Group played a critical role in guiding the research and in steering the research team towards a usable outcome – in four half-day meetings and many emails, they provided invaluable feedback and critical advice. Janice Burns from Top Drawer

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[81] Junor and Hampson (2008) and Junor, Hampson and Smith (2008).

Consultants and Kerry Davies of the NZPSA and the NZCTU have provided ongoing guidance and feedback.

4.4 Theoretical base

4.4.1 Overview

Four discrete bodies of theoretical and practitioner literature were reviewed and abstracted.

The initial literature review brought together a discussion of:
- existing approaches to job analysis,[82] job evaluation[83] and skill and competency analysis[84] in the United Kingdom, North and South America, Australia and New Zealand
- debates about the implications of economic and labour market restructuring and work reorganisation for future skill demands[85]

[82] On critical incident analysis, see Flanagan (1954). On functional job analysis, see Fine and Cronshaw (1999). For macro- and micro-analyses using the 'people, data, things' typology, see Spenner (1990, 1995). On worker-oriented job analysis methods, see McCormick, Jeanneret and Mecham (1989). On an attempt to grapple with the problem of generalisable ratings and the search for a common metric, see Harvey (1991) and Harvey and Lozada-Larsen (1993). On the development of the various occupational, person-oriented and job-oriented rating scales in O*NET, see Peterson, Mumford, Borman, Jeanneret and Fleishman (1999). For an overview of job analysis approaches, see Brannick and Levine (2002). Equitable job analysis underpins equitable job evaluation. For a job analysis methodology designed to minimise gender bias, see United Kingdom National Health Service Agenda for Change Project Team (2004).

[83] Off-the-shelf job evaluation schemes date back to at least the 1920s – see Figart (2000). In the 1980s and early 1990s, particularly in public sector organisations in the United States, Canada and the UK, job evaluation become a tool for demonstrating gender pay inequity and its sources in biased factor plan systems. Some redress was provided through a range of pay equity and comparable worth claims and cases – see England and Dunn (1988), Evans and Nelson (1989), Steinberg (1990), Ontario (1991), Ontario (1992), Kahn and Meehan (1992) and Hallock (1999). Since the 1990s, second and third wave approaches to the use of job evaluation in equitable remuneration have shifted to ensuring the adoption of unbiased job evaluation systems – see Canada Pay Equity Task Force (2004), United Kingdom Equal Opportunities Commission (2005) and New Zealand Taskforce on Pay and Employment Equity in the Public Service and the Public Health and Public Education Sectors (2004). New Zealand has been in the vanguard of the construction of equitable job evaluation systems – see Burns and Coleman (1991) and New Zealand Department of Labour (Te Tari Mahi) Pay and Employment Equity Unit (2007a, 2007b, 2007c). Recent approaches have addressed the long-understood need to extend the approach to low-paid workers – see McColgan (1997) – and to make the process transparent – see Armstrong, Cornish and Miller (2003), Hill (2004) and Hyman (2004). However equitable the job evaluation processes being implemented, their outcomes depend on the adequacy of the job data provided as inputs.

[84] In the late 1980s and early 1990s, as New Zealand and Australia sought to establish new industry-based structures for the development and recognition of skills, they drew on the British behavioural model of competency – see Ashworth and Saxton (1990). This contrasts sharply with US models, based on the personal 'below the waterline' attributes thought to predict competence, mainly at managerial levels – see McClelland (1973) and Spencer and Spencer (1993). UK attempts to use the latter as a basis for variable pay have been well critiqued – see Strebler, Thompson and Heron (1997). For an overview of the debate between behavioural and attribute models of competence, see Hager and Gonczi (1993). As service jobs and women's employment increased in the 1990s, competency-based assessment and particularly recognition of prior learning or current competencies appeared to offer a broadened base for skill recognition – see Kamp (2003). Competency standards, however, define threshold attainment requirements at a particular job level; they are not designed as accurate descriptors of the qualities of highly proficient performance based on situated workplace learning – see Capper (1999) and Smith and Comyn (2004).

[85] The past decade has witnessed polarised debates between those who predict a transition to autonomous careers in an upskilled knowledge economy and those who believe that the main trend is towards the growth of low-skilled, badly paid and highly controlled jobs. For recent and somewhat more measured statements of the deskilling thesis, see

- theories of emotional labour, articulation work and gendered jobs, based on analyses of work processes in service industries such as computer-based work, teaching, care work, office work and call centre work
- theories of levels of skill and workplace learning.

The first two bodies of literature provided background and have been relegated to footnotes in this report. Here, we focus only on those that had a direct role in the derivation of the skill sets, elements and levels of the Spotlight tool.

There is much confusion in the literature about the nature of skill, let alone hidden skill. The terms 'skill' and 'work' are often used interchangeably. Because of the importance of clarity, we have already addressed a number of these issues in Section 1 of this report.

The theoretical basis of the Spotlight framework has enabled it to focus clearly on the hidden skill demands of jobs and the learned work process skills of people.

As a result of the literature reviews, skill is seen as being developed by individuals and work groups through reflective practice and problem-solving. This is why problem-solving features in the taxonomy as the basis of a level in all of the less visible skills being investigated and not as a discrete skill in itself.

The literature review also established the importance of the collective elements of skill in contributing to learning and enabling jobholders to contribute to work groups. The literature review resulted in a process-based and contextual approach to hidden skills.

4.4.2 Deriving a typology of social and coordinating skills

In defining unrecognised skills, it was important to see how other researchers had described unseen work processes and the skills they require. Because of its industrial origins in manufacturing work, the concept of skill is still better adapted to describing technical and manual skill than social skill.

Attempts to describe the latter have seized on and over extended single concepts such as that of emotional labour, but there are other process-oriented theories, both of work and of tacit skill. Theorisations of service work have focused rather heavily on frontline work. An empirical focus on the public service, education and health sectors allowed an exploration of combinations of technical, social, conceptual and organisational work.

Appendix C summarises the concepts derived from two key bodies of literature and used to develop the questionnaire – the widely used concept of emotional labour and the less widely used concept of articulation work. It also identifies useful theories of the management of time in care work.

Theories of emotional labour have been important as a first step in gaining recognition of the invisible skills of service work, particularly work done by women. Airlie Hoschschild is usually

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Thompson (2007). It is possible that service jobs may be deskilled (subject to intensification) despite requirements for quite high levels of either formal knowledge or work process skills, particularly if the latter are not well recognised. For a view that job complexity is rising whilst autonomy may be declining – see Spenner (1995) and Felstead, Gallie and Green (2004). In fact, between 'McDonaldised' and 'knowledge economy' service jobs, there is likely to lie a whole spectrum of jobs requiring different levels of service skills: the Spotlight tool is designed to help fill in this middle ground – see Gatta, Boushey and Appelbaum (2007).

credited with creating the concept, and her study of the work of flight attendants is very widely cited.[86] After nearly two decades of ~~groundbreaking~~ground-breaking work on comparable worth, for example, in the health and care sectors, Ronnie Steinberg picked up the concept of emotional labour as a possible pay equity tool.[87]

The concept of emotional labour has been used extensively in studies of frontline service work, where the management of feeling has been taken as a sign of deskilling, that is, loss of discretion and control and intensification of work. Through a conflation of the concepts of deskilling and low skill, emotional labourers were then seen as low-skilled, with work in call centres and fast food outlets being seen as two parallel examples. This view has been contested by Sharon Bolton (2005), who uses the terms 'emotion work' and 'emotional management' to emphasise employee discretion. Bolton developed an influential typology of emotion management work that included a notion of the initiative exercised by workers skilled in setting the rules of emotional display.[88]

Most useful for this project, however, was an earlier typology by Anselm Strauss and co-researchers.[89] Based on close long-term ethnographic observation in hospitals, it provides a rich and nuanced analysis of types of work involving sensitivity to patients' feelings, and the management of emotions during medical procedures and on the journey to healing or death. Many elements of this typology were tested in the questionnaire. Because the language fails us and we simply do not have the words to describe the work in question, some of Strauss's terminology is unfamiliar ('rectification work') or a bit misleading ('sentimental work'). Nevertheless, as Appendix C suggests, the concepts used by Strauss are valuable, and we found that a number applied generally enough beyond the health sector to have ended up providing categories in the Spotlight tool.

It is, however, important not to dilute the concept of emotion work by over-extending it as a way of describing all service work. The literature on articulation work, also developed by Strauss and co-researchers,[90] provides valuable insights into the linking work required to turn task lists into ongoing, interrelated workflows. At the individual level, articulation work is a 'supra' kind of work, which integrates and coordinates other forms of work. At the collective level, the term covers the processes of working out and carrying through arrangements by which different people's and work units' tasks and lines of work are meshed together and arrangements are established, kept going and renegotiated in order to create an overall 'arc of work'.[91]

In the 1990s, Lucy Suchman, Leigh Star and others adapted the notion of articulation work to describe the role of invisible problem-solving skills in the maintenance of office technology and its 'artful integration' into the workflow. As well, she documented relevance of integrative skills to the hidden contextual and knowledge required in para-legal data-processing, the situational skills of airport air and ground traffic control and the coordinating skills of project work and, more recently, call centre work.[92]

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[86] Hochschild (1983).

[87] Steinberg (1999).

[88] Bolton (2005)

[89] Strauss, Fagerhaugh, Suczek and Weiner (1982, 1985).

[90] Strauss (1985, 1988, 1993).

[91] Strauss, Fagerhaugh, Suczek and Weiner (1985) p. 2.

[92] Star (1991), Star and Strauss (1999), Suchman (1995, 1996, 2000) and Hampson and Junor (2005).

Very helpful to the research was an analysis by Jacqueline Lawler of how nurses negotiate the problem of the body and its taboos.[93] This study was the source of the notion of 'contextors' (non-verbal cues to manage patient awareness of appropriate behaviour) as well as that of 'minifisms' (verbal cues to manage shame, embarrassment and fear).

Celia Davies has analysed the skills required to manage the ongoing attentiveness and uncertainty of care work.[94] Also important were Karen Davies's studies of how care workers manage the incompatible requirements of clock time and the process time required for working with the very young and the very old.[95]

We also turned to ethnographic studies of daily work in particular occupations, such as teaching and call centre work. Ground-breaking work done in the early 1990s on naming women's skills was also revisited.[96]

Analysis of the interviews indicated that service work involves more than feelings, interactions and relationships. As part of the iterative coding and later literature reviewing, we turned back to Glaser and Strauss for concepts that had later been folded into the hospital studies. There we found a missing element that made sense of the data – a capacity to manage contexts of awareness, for example, in situations where participants may have varying levels of capacity and desire for knowledge.[97] At first, this skill set seemed to belong to a group of generic or underpinning mental skills of the learning to learn variety, but gradually it became clear that awareness-shaping was in fact a third major group of hidden service skills.

4.4.3 Deriving the levels

It became clear during the three rounds of interviewing that the rating scales being used in the questionnaires to develop skill level descriptors were not quite right, although based on well-established techniques:

Use of descriptive criteria such as the frequency of activities requiring the use of specific skills made for a rating system that was both cumbersome and subjective. In many cases, where the skill use was ongoing rather than tied to isolated events, the estimate had to be expressed in terms of percentage of time or proportion of the job requiring this skill. Such estimates of relative importance or intensity of skill are measured relative to specific jobs, with no common or comparable metric across jobs.

Impact was a better measure, but also had problems. As one jobholder asked, "How do you compare the possible life-changing impact of a teacher on one child against the nationwide but less intense and shorter-lived impact of a policy decision?" To provide a common metric, impact had to be rated against criteria rather than being based on ranking.

It became clear that it was inappropriate to link impact to isolated skill factors rather than to whole jobs. Frequently used indicators of skill level, such as task autonomy, initiative and

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[93] Lawler (1991).

[94] Davies (1995).

[95] Davies (1990, 1994).

[96] On teaching, see Brady (1999). Much of the vast literature on call centres tends to be framed within the emotional labour debate, but see Belt, Ranald and Webster (2002). For skill identification, see Poynton and Lazenby (1992).

[97] In developing the concept of articulation work, Strauss had, in fact, extended his earlier work on the management of identity, awareness and negotiation. See Strauss (1969, 1978).

complexity, were also seen to depend on whole-job design and to mix evaluation and description.

In the end, it was decided that evaluative rating is the work of job evaluation teams and competency levels derive from groups of units, not isolated skills. The prior role of job analysis is to provide the descriptive job data on which the evaluative attribution of levels is based. Qualification levels, too, are based on groups of competency units.

By contrast with the difficulties, based on a category error, that were encountered in attempting to use rating scales based on frequency, initiative, complexity or impact, the research showed that jobholders had little difficulty in identifying the difference between novice and expert performance of the hidden skills in question.

In responding to one of the open-ended questions, many provided clear accounts of the journey through learning levels by which they accumulated experience and deepened their proficiency. Narrative and critical incident descriptions lent themselves readily to the production of activity descriptions that could be classified according to five levels of learned proficiency that they required or indicated.

The initial literature review had already explored the possibility of basing the levels of the Spotlight tool on learning stages. The first model explored was Gagné's well-known taxonomy of learning levels and capabilities.[98] Before undertaking the final analysis of the interview transcripts, this model was refined through the second literature review, in which a very thorough re-examination of job analysis and competency standards taxonomies was cross-referenced to a review of the literature on organisational learning, situated learning, activity theory and work process knowledge.[99]

Much of the literature has already been referred to extensively because it is so fundamental to understanding the Spotlight framework.

We add an account of further theories used in the stages of constructing the skills framework. The early stages of developing the skill levels were provisionally guided by the activity-based conceptual framework set out Figure 9. At the centre of this model is the worker, seeking to achieve the purposes of the job. The work takes place within the contexts of the workspace (actual or virtual) and the community of work knowledge and practice. Public sector work is unique because of the range of social contexts within which it is carried out – organisational, community, cultural, political, environmental and socio-economic. In Aotearoa-New Zealand, community contexts are bicultural (based on the Treaty of Waitangi) and multicultural (based on New Zealand's place in the Pacific and on migration patterns). The knowledge context is global.

Work contexts provide workers with resources in the form of physical tools and symbolic tools (ideas), organisational and socio-cultural rules, and defined roles such as job and occupational boundaries and divisions of labour.

All work activity is carried out by means of these resources (tools, rules and roles). It needs to be coordinated in time, and the work activity has consequences that may change the context of the organisation or community (or even the wider society).

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[98] Gagné and Driscoll (1988), Gagné and Medsker (1996) and Figart (2000).

[99] For activity theory, see Leont'ev (1978) and Sawchuk (2003).

Figure 9: Model of a service work activity system
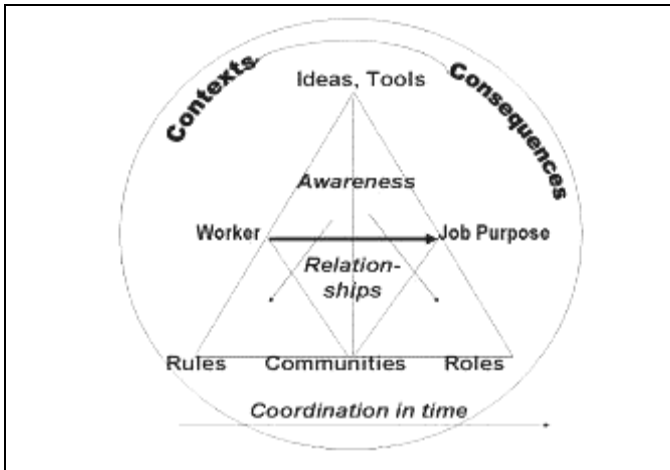
Derived from Strauss (1969, 1978); Engstrom (2001); Sawchuk (2007).

Activity generates experiences (sensory, emotional, aesthetic) that the worker perceives and comprehends on the basis of mental images of the world, built up from previous experience. Jobholders alternate between activity impacting on the outside world and internal assimilation of the results (internalisation), comparing them with previous experience. At the same time, new experiences may change this store of experience (learning by doing). Practice involves a continual movement between internalisation and external application, and proficiency is developed as a result.

Much of the workplace learning literature differentiates individual and collective, explicit and tacit learning.[100] For individuals, even explicit learning of the 'knowing what' or 'knowing that' (declarative) type, as opposed to the 'knowing how' (procedural) type, occurs not simply by taking facts on board but through large or small changes to internal thought structures (schemata or mental maps). The learning process may involve internal visualisation, or external practice/simulation.[101] People's observation of others (beginning with Spotlight level 1) and the capacity to pay attention (an aspect of awareness-shaping) are affected by a growing sense of one's own proficiency.[102] The more proficient a jobholder has become in an activity, the less conscious the activity becomes, allowing a focus on problem-solving, as in Spotlight skill level 3. Social knowledge may be communicated through shared symbols, which are as much tools as the material objects of the people-data-things typology.[103]

We drew on the (much debated) theory of communities of practice.[104] Collective tacit learning is embedded in the taken for granted workplace practices that shape behaviour. The roles described in activity theory are examples of such behaviour. Local knowledge, being embedded in action, involves continuous negotiation and awareness of the interplay of events, practice and others' needs and interests. Much collective knowledge may be relatively hidden from the individual jobholders, but it can be seen in the way people share work stories to make sense of what is happening.[105] Yet practitioners create this knowledge – a view that underpins Spotlight level 4. As they learn more, their awareness increases and the more likely they are to try to

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[100] See for example Spender (1994). Although Spender focused on managerial learning, his analysis applies to work at all levels of the service sector.

[101] Bandura (1977).

[102] Bandura (1997).

[103] Sawchuk (2003).

[104] Lave and Wenger (1990).

[105] Orr (1990), Brown and Duguid (1991) and Swart and Pye (2002).

embed their understanding systematically – level 5 of the Spotlight tool. Billett argues that 'informal' is actually the wrong word to apply to workplace learning, as it is structured by workplace practices and can be restructured though participation.[106]

Subsequently, we refined the theoretical model, using the concept of work process knowledge developed by Boreham and co-researchers.[107] This model is based on the interplay of workplace experience with a growing accumulation of experience, based on both formal and informal learning, inside and outside the workplace. In the end, the evolving theory used to classify the empirical data into five skill levels used working assumptions of the following type: [108]

- Awareness of job purpose, roles, rules and tools (physical and informational) comes from formal systems of knowledge and practice and from less formal knowledge exchange in the workplace and enables people to undertake job activity. This job activity may be directed towards situations or people.
- Job activity results in an awareness of the impact of the work and also of emerging situations, opportunities or challenges that may need to be addressed in arising social, political and environmental contexts. Job activity also results in an awareness of people in the workplace and beyond. This awareness covers roles and community contexts and the need to interpret their behaviour and to understand one's own impact on them.
- This awareness is not direct but comes from the same systems of social and workplace knowledge that enable people to undertake work activity. Work experience and contextual knowledge, both formal and workplace-based, are integrated to build a new stock of experience and awareness. These are the basis of the skills of interaction that allow jobholders to work with physical and informational tools, with colleagues and with clients. Whereas the products of using some tools may be tangible, the product of using others may be intangible ideas. The product of interacting with people may also be intangible – the creation of relationships for the purpose of working together to provide services, such as healing, health promotion or learning.
- Awareness and interactions are integrated with experience and brought together to be applied through coordinating skills. Coordinating skills allow awareness and interactions to be channelled into the effective, purposeful performance of job activity yielding quality outcomes.

Our five level descriptors are based loosely on these rather abstract accounts of work process learning. The Spotlight framework does not stand or fall on the theories used as scaffolding in developing it. The fact that so many activity descriptors could be fitted into this framework suggests its relative robustness. There is scope for further modification as it is tested in practice.

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[106] Billett (2002).

[107] Boreham, Samurçay and Fischer (2002).

[108] Adapted from Rabardel and Duvenci-Langa. (2002). 'Technological change and the construction of competence.' In Boreham, Samurçay and Fischer (2002) p. 65.

5. CONCLUSION

This report has focused on the outcomes of the Service Sector Skills Identification Project. It demonstrates that the Spotlight tool was produced by a very rigorous process. The report has introduced and explained the Spotlight skills recognition tool, which provides a systemic means of shining a light on a small and interrelated group of hard to define skills – capabilities learned through work – that are key sources of quality work performance.

The Spotlight framework achieves simplicity and breadth of application, identifying three skill sets whose elements, when integrated, are hidden sources of effectiveness in all jobs.

The Spotlight framework does not set out to provide a comprehensive itemisation of skills. Its focus is on the skills or competencies that are hardest to pin down because they are the most fundamental. These are the work process skills that explain the dynamics of work activity – the awareness-shaping, interaction, relationship-moulding and coordination skills that are integrated into an ongoing flow of work. This integration occurs within the individual and the individual's work process, but it also depends on and shapes team and organisational work processes.

In the Spotlight model, skill is a capability or capacity for work activity. It is not the activity itself, nor is it a body of content acquired by an individual or group. Theories of emotion work (and more recently aesthetic labour) are attempts to grasp these skills but they are too narrow. The terms 'social skills' and 'coordinating skills' are wider, as long as we realise that social skills embrace both feeling and the ethical and cognitive elements of awareness – attentiveness, reflection and evaluation of consequences. The term 'articulation work' gives a fuller sense of coordinating skills – it involves the second-order individual meta skill of bringing together one's own conscious and unconscious activity and the second-order supra social skills that enable collective understanding and action.

Skill is thus the learning process itself – the enhanced individual and social capacity that arises out of practice and problem-solving. The skill levels are learning levels – they explain how people move from novice to expert not by passing through stages, but by increasing their own efficacy and contributing increasingly to that of the organisation. The higher levels of the Spotlight skills describe these contributions to collective tacit understandings and to work systems that enable shared work activities. Thus the Spotlight skills are dynamic and developmental.

The skill levels, whilst constant categories, take on meaning in the context of specific work. In describing the capacities of jobholders, the skill levels are describing the capacities required to perform particular work activities.

The Spotlight framework adds a micro-level of skill analysis. It is thus complementary to other systems. Because it is process-based, not content-based, it can be applied to any job. It is an open-ended tool for job analysis, easily applied in the public and community sectors and capable of extension to all fields of work, including private industry.

The Spotlight tool is designed for easy use in conjunction with other job analysis techniques and competency standards in a range of practical HR functions, from recruitment to performance development. It can be used at strategic and policy levels to aid workforce planning and HR management. Used by managers who understand the workplace, it can help identify future job skill requirements and source these internally by identifying ways of

recognising, broadening, deepening and extending skills within job families and along career paths.

The Spotlight tool is timely – its focus on skill and career development can assist in the retention of staff and help them contribute to a growing and creative knowledge economy and to a new bicultural and multicultural identity, through the enhancement of hard to identify sources of humanity and value in work processes.

REFERENCES

Aguinins, H. (2007). *Performance Management*. Pearson Prentice Hall, Upper Saddle River, NJ.

Anderson, J. (1983). *The Architecture of Cognition*. Harvard University Press, Cambridge, MA.

Armstrong, M. (2000). *Performance Management*. (2nd ed.). Kogan Page, London.

Armstrong, P., Cornish, M. and Miller, E. (2003). 'Pay equity: complexities and contradictions in legal and social processes'. In W. Clement and L. Vosko (Eds.), *Changing Canada*. McGill – Queens University Press, Montreal.

Armstrong, P. and Kits, O. (2003). 'Caregiving in historical perspective'. In P. Browne (Ed.), *The Commodity of Care: Home Care Reform in Ontario* (pp. 65–120). Canadian Centre in Historical Perspective, Ottawa.

Ashworth, P. and Saxton, B. (1990). 'On competence'. *Journal of Further and Higher Education*, 14(2): 3–25.

Australia Equal Opportunity for Women Agency. (n.d.). *EOWA Costing Turnover Calculator*. Retrieved 26 April 2006 from www.eowa.gov.au/Developing_a_Workplace_ Program/Six_Steps_to_a_Workplace_Program/Step_2/_Costing_Turnover_Calculator.htm.

Australian Bureau of Statistics. (2005). *Information Paper: ANZSCO - Australian and New Zealand Standard Classification of Occupations, 2005*. ABS Cat. No. 1221.0.

Bandura, A. (1977). *Social Learning Theory*. General Learning Press, New York.

Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. WH Freeman, New York.

Barney, J. (1991). 'Firm resources and sustained competitive advantage'. *Journal of Management Studies*, 17(1): 99–120.

Bassi, L., Lev, B., Low, J., McMurrer, D. and Siesfeld, G. (2000). 'Measuring corporate investment in human capital'. In M. Blair and T. Kochan (Eds.), *The New Relationship: Human Capital in the American Corporation* (pp. 334–382). Brookings Institute, Washington.

Belt, V., Ranald, R. and Webster, J. (2002). 'Women, social skill and interactive service work in telephone call centres'. *New Technology, Work, and Employment*, 17(1): 20–34.

Benner, P. (1984). *From Novice to Expert: Excellence and Power in Clinical Nursing Practice*. Addison Wesley, London.

Billett, S. (2002). 'Critiquing workplace learning discourses: participation and continuity at work'. *Studies. in the Education of Adults*, 34(1): 56–67.

Billett, S. (2006). 'Relational interdependence between social and individual agency in work and working life'. *Mind, Culture and Activity*, (13)1: 53–69.

Bogdanor, R. (2005). *Joined Up Government*. Oxford University Press, Oxford.

Bolton, S. (2005). *Emotion Management in the Workplace*. Palgrave Macmillan, Basingstoke.

Boreham, N. (2002) 'Work process knowledge in technological and organisational development'. In N. Boreham, R. Samurçay and M. Fischer (Eds.), *Work Process Knowledge* (pp. 1–14). Routledge, London.

Boreham, N. and Morgan, C. (2004). 'A sociocultural analysis of organisational learning'. *Oxford Review of Education*, 30(3): 307–325.

Boreham, N., Samurçay, R. and Fischer, M. (Eds.). (2002). *Work Process Knowledge*. Routledge, London.

Brady, L. (1999). *Teacher Cases: A Qualitative View of Teachers' Work.* Prentice Hall, Sydney.

Brannick, M. and Levine, E. (2002). *Job Analysis: Methods, Research and Applications for Human Resource Management in the New Millennium*. Sage Publications, Thousand Oaks.

Brown, B. and Armstrong, M. (1999). *Paying for Contribution: Real Performance-Related Pay Strategies*. Kogan Page, London.

Brown, J. and Duguid, P. (1991). 'Organisational learning and communities of practice: towards a unified view of working, learning and innovation'. *Organisation Science*, 2(1): 40–57.

Brown, P., Green, A. and Lauder, H. (2001). *High Skills: Globalisation, Competitiveness and Skill Formation*. Oxford University Press, Oxford.

Brown, P. and Hesketh, A. with Williams, S. (2004). *The Mismanagement of Talent: Employability and Jobs in the Knowledge Economy*. Oxford University Press, Oxford.

Burns, J. and Coleman, M. (1991). *Equity at Work: An Approach to Gender Neutral Job Evaluation*. State Services Commission and Department of Labour, Wellington.

Callister, P., Bedford, R. and Didham, R. (2006). *Globalisation, gendered migration and labour markets*. Working paper. Retrieved 27 September 2007 from www.dol.govt.nz/pdfs/sex-ratios-fow.pdf.

Canada Pay Equity Task Force. (2004). *Pay Equity: A New Approach to a Fundamental Human Right*. Final Report. Department of Justice, Canada Ottawa.

Cappelli, P. (2003). 'Will there *really* be a labor shortage?'. *Organisational Dynamics,* 32(3): 221–253.

Capper, P. (1999). *Understanding competence in complex work situations*. Paper delivered at the Cambridge University Symposium on Assessing Against Workplace Standards, May.

Cascio, W. (2000). *Costing Human Resources: The Financial Impact of Behavior in Organisations*. (4th ed.). South-Western College Publishing, Cincinnati.

Cascio, W. (2003). *Managing Human Resources: Productivity, Quality of Work Life, Profits*. (6th ed.). McGraw-Hill/Irwin, New York.

Charlesworth, S. (1993). *Making the Grade: Community Services and Pay Equity.* Equal Commonwealth Department of Industrial Relations, Equal Pay Research Series, Canberra.

CINTERFOR (2006). *40 questions on labour competency*. Inter-American Research and Document Centre on Vocational Training/International Labour Organisation. Retrieved 2 February 2006 from http://ilo.org/public/english/region/ampro/cineterfor/temas/complab/xxxx/10.htm.

Clark, K. (2004). 'The Job Openings and Labor Turnover Survey: what initial data show'. *Monthly Labor Review,* 127(11): 14–23.

Darr, A. (2007). *The knowledge worker and the future skill demands of the United States workforce.* Presentation at the National Academies Workshop on Research Evidence Related to Future Skill Demands, Washington, DC, 31 May – 1 June. Retrieved 10 July 2008 from www7.nationalacademies.org/cfe.

Davies, C. (1995). 'Competence versus care? Gender and caring work revisited'. *Acta Sociologica,* 38(1): 17–31.

Davies, K. (1990). *Women, Time and the Weaving of the Strands of Everyday Life.* Avebury, Aldershot.

Davies, K. (1994). 'The tensions between process time and clock time in care-work: the example of day nurseries'. *Time and Society*, 3(3): 277–303.

Dreyfus, H. and Dreyfus, S. (1986). *Mind over Machine: the Power of Human Intuition and Expertise in the Era of the Computer*. Basil Blackwell, Oxford.

Drucker, P. (1954). *The Practice of Management.* Harper, New York.

Endsley, M. (1995). 'Towards a theory of situation awareness in dynamic systems'. *Human Factors*, 37(1): 32–64.

England, P. and Dunn, D. (1988). 'Evaluating work and comparable worth'. *Annual Review of Sociology*, 14: 227–248.

Engstrom, Y. (2001). 'Expansive learning at work: towards an activity-theoretical reconceptualisation'. *Journal of Education and* Work, 14(1): 133–156.

Eraut, M. (2000). 'Non-formal learning and tacit knowledge in professional work'. *British Journal of Educational Psychology*, 70: 113–136.

Evans, S. and Nelson, B. (1989). *Wage Justice: Comparable Worth and the Paradox of Technocratic Reform.* University of Chicago Press, Chicago.

Felstead, A., Gallie, D. and Green, F. (2004). 'Job complexity and task discretion: tracking the direction of skills at work in Britain'. In C. Warhurst, I. Grugulis and E. Keep (Eds.), *The Skills that Matter* (pp. 148–169). Palgrave Macmillan, Basingstoke.

Figart, D. (2000). 'Equal pay for equal work: the role of job evaluation in an evolving social norm'. *Journal of Economic Issues,* 34(1): 1–19.

Fine, S. and Cronshaw, S. (1999). *Functional Job Analysis.* Lawrence Erlbaum Associates, Mahwah.

Fischer. M. (2002). 'Work experience as an element of work process knowledge'. in N. Boreham, R. Samurçay and M. Fischer (Eds.), *Work Process Knowledge* (pp. 119–133). Routledge, London.

Fitz-enz, J. (1997). 'It's costly to lose good employees'. *Workforce,* 76: 50–51.

Flanagan, J. (1954). 'The critical incident technique'. *Psychological Bulletin,* 51: 327–358.

Frenkel, S., Korczynski, M., Shire, K. and Tam, M. (1999). *On the Front Line: Organisation of Work in the Information Economy.* Cornell University Press, Ithaca.

Gagné, R. and Driscoll, M. (1988). *Essentials of Learning for Instruction.* (2nd ed.). Prentice Hall, Englewood Cliffs, NJ.

Gagné, R. and Medsker, K. (1996). *The Conditions of Learning: Training Applications.* Harcourt Brace, Fort Worth.

Gatta, M., Boushey, H. and Appelbaum, E. (2007). *High-touch and here-to-stay: future skills demands in low wage service occupations.* Paper commissioned for a workshop organised by the National Academies Center for Education on Research Evidence Related to Future Skills Demands Washington, DC, 31 May – 1 June. Retrieved 27 July 2007 from www7.nationalacademies.org/cfe/Future_Skill_Demands_Mary_Gatta_Paper.pdf.

Glaser, B. and Strauss, A. (1965). *Awareness of Dying.* Weidenfeld and Nicolson, London.

Glaser, B. and Strauss, A. (1967). *Discovery of Grounded Theory.* Aldine, Chicago.

Guile, D. (2002). 'Skill and work experience in the European knowledge economy'. *Journal of Education and Work,* 15(3): 251–276.

Hager, P. and Gonczi, A. (1993). 'Attributes and competence'. *Australia and New Zealand Journal of Vocational Behaviour,* 1(1): 36–45.

Hall, P. (2007). *New Zealand's pay and employment equity story – building capacity, working together to make gender equity ordinary.* Paper presented at Gender Work and Organisation Conference, Keele University, 27–29 June.

Hall, P. and Reed, R. (2007). 'Pay equity strategies: Notes from New Zealand and New South Wales'. *Labour and Industry,* 18(2): 33–50.

Hallock, M. (1999). 'Pay equity: the promise and the practice in North America'. *Labour and Industry,* 10(2): 53–73.

Hampson, I. and Junor, A. (2005). 'Invisible work, invisible skills: interactive customer service as articulation work'. *New Technology, Work and Employment,* 20(2): 166–181.

Hampson, I. and Junor, A. (2008). *Labouring over conceptions of service sector skill: old questions, 'new' theoretical resources, and 'new' skills.* Paper prepared for the International Labour Process Conference 2008, Work Matters, 18–20 March, University College Dublin.

Hampson, I., Junor, A. and Barnes, A. (Forthcoming). 'Articulation work skills and the recognition of competence in Australian call centres'. *Journal of Industrial Relations*.

Handley, K., Sturdy, A., Fincham, R. and Clark, T. (2006). 'Within and beyond communities of practice: making sense of learning through participation, identity and practice'. *Journal of Management Studies*, 43(3): 642–653.

Harvey, R. (1991). 'Job analysis'. In M. Dunnette and L. Hough (Eds.), *Handbook of Industrial and Organizational Psychology* (Vol. 2, pp. 71–163). (2nd ed.) Consulting Psychologists Press, Palo Alto, CA.

Harvey, R. and Lozada-Larsen, S. (1993). *The Guide to Using the CMQ for Human Resource Applications.* The Psychological Corporation, San Antonio, TX.

Herzberg, F. (1987). 'One more time: How do you motivate employees?'. *Harvard Business Review*, 65: 109–120.

Herzenberg, S., Alic, J. and Wial, H. (1998). *New Rules for a New Economy: Employment and Opportunity in Postindustrial America.* Cornell University Press, Ithaca

Hill, L. (2004). 'Equal pay for work of equal value: making human rights and employment rights laws work together'. *Social Policy Journal of New Zealand*, 21: 1–21.

Hipkins, R. (2006). *The Nature of the Key Competencies: A Background Paper*. Report prepared by NZCER for the Ministry of Education. New Zealand Council for Educational Research, Wellington.

Hochschild, A. (1983). *The Managed Heart: Commercialisation of Human Feeling.* UCLA Press, Berkeley.

Hyman, P. (2004). *Low waged work and gender pay equity in New Zealand.* Paper for National Advisory Council on the Employment of Women Conference on Pay and Employment Equity for Women, Wellington, June. Retrieved 12 November 2005 from www.nacew.govt.nz/conference2004/ docs/paper-low-waged-work.pdf.

Junor, A., Hampson, I., Piercy, G., Smith, M., Ewer, P., Barnes, A. and Ogle, R. (2006). *Service Sector Skills Identification Project literature review and first steps to a taxonomy*. Draft phase 1 report and executive summary and consultation document. Pay and Employment Equity Unit, New Zealand Department of Labour, Wellington.

Junor, A. and Hampson, I. (2008). *Shining a spotlight on hidden skills in Aotearoa New Zealand.* Paper presented at Work Matters, 26th International Labour Process Conference, March 18–20, University College, Dublin.

Junor, A., Hampson, I. and Smith, M. (2008). *The Hidden Skills Spotlight: An Aotearoa/ New Zealand public sector gender mainstreaming initiative.* Paper presented to International Society for Research in Public Management, Brisbane, 26–28 March.

Junor, A., Hampson, I. and Barnes, A. (2008). 'Beyond emotion: interactive service work and the skills of women'. *International Journal of Work, Organisation and Emotion* (forthcoming).

Kahn, P. and Meehan, E. (Eds.). (1992). *Equal Value/Comparable Worth in the UK and the USA*. Macmillan, Basingstoke.

Kamp, A. (2003). 'Mature women and the New Zealand Qualifications Framework: realising the potential of recognising prior learning'. *International Education Journal*, 4(1): 17–23.

Kaplan, R. and Norton, D. (1996). *The Balanced Scorecard*. Harvard Business School Press, Boston.

Kjaergaard, A.http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6VC4-4KVXHVT-1&_user=37161&_coverDate=04%2F30%2F2008&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000004218&_version=1&_urlVersion=0&_userid=37161&md5=a6aa3179fa5077b4c7a54982969045c4 - cor1#cor1 and Kautz, K. (2008). 'A process model of establishing knowledge management: insights from a longitudinal field study'. *Omega*, 36(2): 282–297.

Korczynski, M. and Bishop, V. (2008). 'The Job Centre: Abuse, violence and fear on the front line: implications of the rise of customer sovereignty'. In S. Fineman (Ed.), *The Emotional Organisation: Passions and Power* (pp. 74–87). Blackwell Publishing, Oxford,.

Latham, G. and Locke, E. (2002). 'Building a practically useful theory of goal setting and task motivation'. *American Psychologist*, 57(9): 705-717.

Lave, J. and Wenger, E. (1990). *Situated Learning: Legitimate Peripheral Participation.* Cambridge University Press, Cambridge.

Lawler, J. (1991). *Behind the Screens: Nursing, Somology and the Problem of the Body*. Churchill Livingstone, Melbourne.

Leont'ev, A. (1978). *Activity, Consciousness, and Personality*. Prentice Hall, Englewood Cliffs.

Lowry, D., Molloy, S. and McGlennon, S. (2006). 'Future skill needs: projections and employers' views'. In *Well-skilled future: Tailoring VET to the emerging labour market*. Research Overview 1.2. NCVER, Adelaide.

McClelland, D. (1973). 'Testing for competence rather than for "intelligence"'. *American Psychologist,* 28(1): 1–14.

McColgan, A. (1997). *Just Wages for Women*. Clarendon Press, Oxford.

McCormick, E., Jeanneret, P. and Mecham, R. (1989). *Position Analysis Questionnaire*. PAQ Services Inc, Logan UT.

Machonachie, G. (2005). 'Emotional suppression to regulated empathy: from one face of control to another'. *Labour and Industry*, 16(1): 43–58.

Main, C., McCallin, A. and Smith, N. (2006). 'Cultural safety and cultural competence: what does this mean for physiotherapists?'. *New Zealand Journal of Physiotherapy*, 34(3): 160–166.

Marchington, M., Grimshaw, D. and Rubery, J. (2004). *Fragmenting Work: Blurring Organisational Boundaries and Disordering Hierarchies*. Oxford University Press, Oxford.

Marr, B. and Spender, J-C. (2004). 'Measuring knowledge assets: implications of the knowledge economy for performance management'. *Measuring Business Excellence,* 8(1): 18–27.

Martin, P., Schrock, D., Leaf, M. and Rohr, C. (2008). 'Rape work: emotional dilemmas in work with victims'. In S. Fineman (Ed.), *The Emotional Organisation: Passions and Power* (pp. 44–60). Blackwell Publishing, Oxford.

May, S., Hill, R. and Tiakiwai, S. (2004). *Bilingual/Immersion Education: Indicators of Good Practice*. Final Report to the Ministry of Education, Wilf Malcolm Institute of Educational Research, School of Education, University of Waikato. Retrieved 27 September 2007 from www.educationcounts.edcentre.govt.nz/publications/downloads/bilingual-education.doc.

Moll, L. (1990). *Vygotsky and Education: Instructional Implications and Applications of Sociohistorical Psychology*. Cambridge University Press, Cambridge.

National Centre for Vocational Education Research. (2003). *Defining Generic Skills*. NCVER, Adelaide.

National Research Council. (2008). *Research on Future Skill Demands: A Workshop Summary.* Margaret Hilton, Rapporteur. Center for Education, Division of Behavioral and Social Sciences and Education, The National Academies Press, Washington, DC.

New Zealand Department of Labour (Te Tari Mahi) Pay and Employment Equity Unit. (2007a). *Equitable Job Evaluation: A User's Guide*. Beta version. Department of Labour, Wellington.

New Zealand Department of Labour (Te Tari Mahi) Pay and Employment Equity Unit (2007b). *Equitable Job Evaluation Factor Plan*: *Working towards Gender Equity*. Department of Labour, Wellington.

New Zealand Department of Labour (Te Tari Mahi) Pay and Employment Equity Unit (2007c) *Equitable Job Evaluation Questionnaire*. Department of Labour, Wellington.

New Zealand Ministry of Education. (2006). *The New Zealand Curriculum Draft 2006-2007.* Retrieved 16 July 2007 from www.tki.org.nz/r/nzcurriculum/draft-curriculum/key_competencies_e.php.

New Zealand Ministry of Social Development Office for Disability Issues (2001/2007). *NZ Disability Strategy*. Retrieved 8 August 2007 from www.odi.govt.nz/nzds.

New Zealand National Qualifications Project Team. (2005). *The National Qualifications Framework*. Revised paper. NZQA, Wellington.

New Zealand Qualifications Authority. (2007). *National Qualifications Framework level descriptors*. Retrieved 20 May 2007 from www.nzqa.govt.nz/framework/levels.html.

New Zealand State Services Commission. (2004). *Common and Unique Public Service Competencies*. State Services Commission, Wellington.

New Zealand Taskforce on Pay and Employment Equity in the Public Service and the Public Health and Public Education Sectors. (2004). *Report*. D. Crossan, Chair. Department of Labour, Wellington.

Ontario. (1991). Haldimand-Norfolk (No 6) 2 P.E.R. 105.

Ontario. (1992). Women's College Hospital (No 4) 3 P.E.R. 61
Orr, J. (1990). 'Sharing knowledge, celebrating identity: war stories and community memory in a service culture'. In D. Middleton and D. Edwards (Eds.), *Collective Remembering: Memory in Society* (pp. 140–169). Sage Publications, Beverly Hills.

Peterson, N., Mumford, M., Borman, W., Jeanneret, P. and Fleishman, E. (Eds.). (1999). *An Occupational Information System for the 21st Century: The Development of O*NET.* American Psychological Association, Washington.

Pinkovitz, W., Moskal, J. and Green, G. (1997). *How much does your employee turnover cost?* University of Wisconsin Cooperative Extension, Center for Community Economic Development. Retrieved 8 August 2007 from www.uwex.edu/ces/cced/publicat/turn.htm.

Porter, L. and Lawler, E. (1968). *Managerial Attitudes and Performance.* Dorsey Press, Homewood, IL.

Poynton, C. and Lazenby, K. (1992). *A Window on Women's Skills in Administrative and Clerical Work*: *Practical Guide.* Women's Adviser's Unit, South Australian Department of Labour, Adelaide.

Public Health Association of New Zealand. (2007). *Generic Competencies for Public Health in Aotearoa-New Zealand.* Retrieved 1 June 2007 from www.pha.org.nz/documents/GenericCompetenciesforPublicHealthMarch2007.pdf.

Rasmussen, E. and Hunt, V. (2007). *Turnover and retention in a tight labour market: reflecting on New Zealand research.* Paper presented at 19th Nordic Academy of Management Conference, Bergen, 9–11 August. Retrieved 9 August 2007 from www.nhh.no/conferences/nff/papers/rasmussen.pdf.

Richardson, S. (2007). *What is a Skill Shortage?* NCVER, Adelaide.

Ritzer, G. (1996). *The McDonaldisation of Society: An Investigation into the Changing Character of Contemporary Life.* Pine Forge Press, Newbury Park.

Roberts, J. (2006). 'Limits to communities of practice'. *Journal of Management Studies,* 43(3): 623–639.

Rogalski, J., Plat, M. and Antolin-Glen, O. (2002). 'Training for competence in rare and unpredictable situations'. In N. Boreham, R. Samurçay and M. Fischer (Eds.), *Work Process Knowledge* (pp. 134–147). Routledge, London.

Sandberg, J. (2000). 'Understanding human competence at work: an interpretative approach'. *The Academy of Management Journal*, 43(1): 9–25.

Sawchuk, P. (2003). *Adult Learning and Technology in Working-Class Life.* Cambridge University Press, New York.

Schwab, H., Heneman, D. and DeCotis, T. (2006). 'Behaviorally anchored rating scales: a review of the literature'. *Personnel Psychology*, 28(4): 549–562.

Shields, J. (2007). *Managing Employee Performance and Reward: Concepts, Practices and Strategies.* Cambridge University Press, Cambridge.

Smith, E. and Comyn, P. (2004). 'The development of employability skills in novice workers through employment'. In J. Gibb (Ed.), *Generic Skills in Vocational Education and Training: Research Readings* (pp. 105–108). NCVER, Adelaide.

Spencer, L. and Spencer, S. (1993). *Competence at Work.* Wiley and Sons, New York.

Spender, J-C. (1994). 'Knowing, managing and learning: a dynamic managerial epistemology'. *Management Learning*, 25(3): 387–412.

Spenner, K. (1990). 'Skill: Meanings, methods and measures'. *Work and Occupations,* 17(4): 399–421.

Spenner, K. (1995). 'Technological change, skill requirements, and education: the case for uncertainty'. In D. Bills (Ed.), *The New Modern Times: Factors Shaping the World of Work (*pp. 81–137). State University of New York Press, Albany.

Star, L. (1991). 'The sociology of the invisible: the primacy of work in the writings of Anselm Strauss'. In D. Maines (Ed.), *Social Organisation and Social Process: Essays in Honour of Anselm Strauss* (pp. 265–284). Aldine De Gruyter, New York.

Star, L. and Strauss, A. (1999). 'Layers of silence, arenas of voice: the ecology of visible and invisible work'*. Computer Supported Cooperative Work*, 8: 9–30.

Statistics New Zealand. (2004). *Demographic Trends*, *Part 8.* National demographic projections. Retrieved 15 July 2007 from www2.stats.govt.nz/domino/external/pasfull/pasfull.nsf/173371ce38d7627b4c25680900046f25/4c2567ef00247c6acc256fb10077d074?OpenDocument.

Statistics New Zealand. (2005). *National Ethnic Population Projections 2001(Base) – 2021 Update*. Retrieved 27 September 2007 from www.stats.govt.nz/store/2006/07/national-ethnic-population-projections-01 per cent28base per cent29–21-update-hotp.htm.

Statistics New Zealand. (2006). *Education Counts.* Retrieved 18 July 2007 from http://educationcounts.edcentre.govt.nz/publications/downloads/ Edstats per cent202005 per cent20Tables.xls

Statistics New Zealand. (2007a). *Labour Market Statistics 2007*, Table 1. Retrieved 12 July 2008 from www.stats.govt.nz/NR/rdonlyres/03933BDA-0147-44AF-A000-02F0E94E2600/0/2867_LabourMarketStatistics2007_WebAllTables.xls.

Statistics New Zealand. (2007b). *Quickstats National Highlights: 2006 Census.* Retrieved 8 August 2007 from www.northshorecity.govt.nz/PDFs/Population/Census-2006-national-highlights.pdf.

Statistics New Zealand. (2008). *Labour Market Statistics 200*7, Table 4.09f. Retrieved 1 July 2008 from www.stats.govt.nz/NR/rdonlyres/03933BDA-0147-44AF-A000-02F0E94E2600/0/2867_LabourMarketStatistics2007_WebAllTables.xls.

Steinberg, R. (1990). 'Social construction of skill: gender, power and comparable worth'. *Work and Occupations*, 17(4): 449–482.

Steinberg, R. (1999). 'Emotional labor in job evaluation: redesigning compensation practices'. *Annals of the American Academy of Political and Social Science*, 561: 143–157.

Stewart, T. (1997). *Intellectual Capital: The New Wealth of Organisations*. Doubleday, New York.

Stovel, M. and Bontis, N. (2002). 'Voluntary turnover: knowledge management-friend or foe?'. *Journal of Intellectual Capital*, 3(3): 303–322.

Strauss, A. (1969). *Mirrors and Masks.* Sociology Press, Mill Valley, CA.

Strauss, A. (1978). *Negotiations: Varieties, Contexts, Processes, and Social Order*. Jossey-Bass, San Francisco.

Strauss, A. (1985). 'Work and the division of labour'. *The Sociological Quarterly,* 26(1): 1–19.

Strauss, A. (1988). 'The articulation of project work: an organisational process'. *The Sociological Quarterly*, 29(2): 163–178.

Strauss, A. (1993). *Continual Permutations of Action*. Aldine de Gruyter, New York.

Strauss, A., Fagerhaugh, S., Suczek, B. and Weiner, C. (1982). 'Sentimental work in the technologized hospital'. *Sociology of Health and Illness*, 4: 254–278.

Strauss, A., Fagerhaugh, S., Suczek, B. and Weiner, C. (1985). *The Social Organization of Medical Work*. University of Chicago Press, Chicago.

Strauss, A. and Corbin, J. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (2nd ed.). Sage Publications, Thousand Oaks.

Strebler, M., Thompson, M. and Heron, P. (1997). *Skills, Competencies and Gender: Issues for Pay and Training.* Institute for Employment Studies Report No. 333. IES, University of Sussex, Brighton.

Suchman, L. (1995). 'Making work visible'. *Communications of the ACM,* 38(9): 56–64.

Suchman, L. (1996). 'Supporting articulation work'. In R. Kling (Ed.), *Computerization and Controversy* (pp. 407–423). (2nd ed.). Academic Press, San Diego.

Suchman, L. (2000). 'Making a case: "Knowledge" and "routine" work in document production'. In P. Luff, J. Hindmarsh and C. Heath (Eds.), *Workplace Studies: Recovering Work Practice and Informing System Design* (pp. 29–45). Cambridge University Press, Cambridge.

Swart, J. and Pye, A. (2002). *Conceptualising organisational knowledge as collective tacit knowledge: a model of redescription*. Paper presented to Third European Conference on Organisational Knowledge, Learning and Capabilities, ALBA, Athens, 5–6 April.

Tae Ora Tinana. (2004). *Guidelines for cultural competence in physiotherapy education and practice in Aotearoa/New Zealand*. Retrieved 27 September 2007 from

www.nzsp.org.nz/index02/members/PDF%20Files/Cultural%20Competence%20Guidelines%20 AGM%202004.pdf.

Thompson, P. (2007). 'Making capital: Strategic dilemmas for HRM'. In S. Bolton and M. Houlihan (Eds.), *Searching for the Human in Human Resource Management: Theory, Practice and Workplace Connections* (pp. 81–99). Palgrave Macmillan, Basingstoke.

Thompson, P., Warhurst, C. and Callaghan, G. (2001). 'Ignorant theory and knowledgeable workers: knowledge, skills and competencies in interactive service work'. *Journal of Management Studies*, 38(7): 923–942.

United Kingdom Equal Opportunities Commission. (2005). *Good Practice Guide – Job Evaluation Schemes Free of Sex Bias*. EOC, Manchester.

United Kingdom National Health Service Agenda for Change Project Team. (2004). *Job Evaluation Handbook*. Department of Health, Leeds.

United States Committee on Techniques for the Enhancement of Human Performance: Occupational Analysis. (1999). *The Changing Nature of Work: Implications for Occupational Analysis*. National Academy of Sciences/National Research Council, Washington DC.

United States Department of Labor (2005) *National O*NET(TM) Consortium Site*. Department of Labor Employment and Training Administration O*NET Resource Center. Retrieved 2 May 2006 from www.onetcenter.Org/overview.html.

Vroom, V. (1995). *Work and Motivation*. Jossey-Bass, San Francisco.

Watson Wyatt's Human Capital Index. Retrieved 20 July 2008 from ww.watsonwyatt.com/research/featured/hci.asp.

Wellin, C. (2007). *Paid care-giving for older adults with serious or chronic illness: Ethnographic perspectives, evidence, and implications for training*. Paper prepared for the National Academies Workshop on Research Evidence Related to Future Skill Demands. Retrieved 1 July 2008 from www7.nationalacademies.org.

Williams, R. (2002). *Managing Employee Performance: Design and Implementation in Organisations*. Thomson Learning, London.

APPENDICES

Appendix A: Positions analysed

POSITION	% WOMEN
Public Service (n=24)	
Senior Policy Advisor	51%
HR Advisor	51%
Cultural Advisor	45%
Bicultural Manager	45%
Conservation Ranger	27%
Manager Call and Contact Centre	30%
Team Leader Call and Contact Centre	75%
Information Officer Call and Contact Centre	67%
Manager Walk-in Contact Centre	30%
Officer Walk-in Contact Centre	79%
Team Leader Bibliographical Services	69%
Administrative Assistant/Executive Support	72%
Statistical Analyst Level 2	50%
Senior Systems Support Advisor	40%
Systems Support Advisor	40%
Software Applications Developer	27%
Examinations Officer	22%
Customs Officer	39%
Support/Reception	72%
Corrections Officer	24%
Probation Officer	53%
Case Manager	77%
Social Worker	75%
Child and Family Psychologist	79%
Education (n=19)	
Senior University Lecturer – Science	36%
Senior University Lecturer – Mathematics	36%
Director Business Services, University School	72%
Business Operations Advisor, University School	72%
Technical Officer, University	44%
Programme Coordinator/Tutor, Appl Tech, Polytech	54%
Tutor/Lecturer, Adult Bridging, Polytechnic	54%
Tauawhi Kahurangi Learning Support, Polytechnic	64%
Computer/System Support Polytechnic	32%
Helpdesk Administrator, IS Services, Polytechnic	32%
Head Teacher Humanities Secondary College	55%
Teacher Maths/Science Secondary College	63%
Executive Officer Central School	50%
Teacher Primary School	80%
Assistant Teacher of Students with Severe Disabilities Central School	94%
Librarian Intermediate School	80%
Teacher Aide including Library Central School	94%
Early Childhood Teacher Kindergarten	100%
Education Support Worker Special Education Kindergarten	94%

POSITION	% WOMEN
Health (n=14)	
Director of Nursing	86%
Nurse Leader Education	92%
Manager – Elder Community Support Links	75%
Professional Advisor Speech Therapy	95%
Dietitian	100%
Community Psychiatric Nurse	63%
Radiation Technologist	83%
Anaesthetic Technician	66%
Pharmacy Technician	75%
Enrolled Nurse – Geriatric Assessment and Rehab	84%
Occupational Therapy Assistant	86%
Health Care Assistant – Medical	92%
Health Care Assistant – Rehabilitation	92%
Admin/Reception Rehabilitation/Outpatients Ad	95%

Appendix B: Under-specified skills – list of rated items in questionnaire

Interactions – clients/community
1. Use professional style to define client behaviour
2. Gain consent/cooperation/trust
3. Translate professional language
4. Chat – lift spirits/closure
5. Help client maintain composure/feel independent
6. Use client cues to pace information
7. Unobtrusively cover for and fix up others' mistakes
8. Communicate, negotiate across cultures
9. Listen actively, reflecting back, pacing
10. Use silence, non-verbal communication
11. Attend to a number of people at once
12. Interpret subtle unspoken needs of people without language to express them

Interactions – workplace relationships
1. Informal feedback – co-workers/supervisor
2. Coordinate input from outside workplace
3. Negotiate/advocate for clients
4. Manage/use conflict/resistance
5. Overcome communication barriers

Self-learning – relations with clients and colleagues
1. Control sympathy
2. Manage feelings about disliked colleague
3. Make ethical decisions re disclosure
4. Personal integrity guidelines
5. Manage strain of acting
6. Control fear/disgust
7. Manage workload by setting limits/saying no to people with greater power/authority
8. Manage frustrations and disappointments (including over need to cut corners)
9. Ethically and safely work around obstacles such as inflexible rules to get things done
10. Use working knowledge of systems to get things done

Use own system for managing information and creating ideas
1. Develop/use own info tracking system
2. Develop mental maps to link/explain ideas
3. Deal quickly with routine, concentrate on complex issues

Produce, share, communicate information
1. Develop collegial information-sharing, sense-making system
2. Select/organise ideas for audience accessibility/acceptance
3. Adapt/format information style for audience
4. Share technical tricks and shortcuts with colleagues

Self-learning in use of technology/equipment
1. Adapt equipment to new uses in job
2. Teach yourself new routines/programs
3. Develop tricks for working round malfunctions
4. Solve routine technical difficulties without service call

Use technology with colleagues, clients or public

1. Share techniques, shortcuts with colleagues
2. Accurately combine use of equipment, ideas, and attention to client/colleague(s)
3. Explain tech use to people with little tech expertise
4. Reduce client fear when equipment used on/with them
5. Interpret, solve poorly described technical problems
6. Pleasantly help clients despite technological pacing

Working with time; coordination

1. Work on assignments, projects or cases with extended timeframes
2. Respond to unexpected and rapidly changing situations by quick decision-making
3. Keep track, follow-up, follow-through with work processes or on events
4. Adjust objectives, timing or outputs to workflow changes
5. Negotiate progress of work with busy colleagues
6. Search out information that is hard to find quickly
7. Balance time pressures against need for quality service
8. Work with others who have a different approach to time
9. Decide when interactions or processes need more time and when it is time to move on
10. Work to tight deadlines whilst dealing with interruptions
11. Bring together ideas and values from various sources to solve problems or create something new
12. Adjust objectives, timing and outputs to match changes in workflow
13. Prevent projects or processes from getting off track or put them back on track
14. Manage inputs from inside and outside the organisation
15. Pick up the pieces and rebuild trust when things go off the rails
16. Ethically and safely interpret rules to make processes viable
17. Apply cultural knowledge from family/home community where appropriate

Appendix C: Theories of social and coordinating work activities

Emotion work

1. Interactional work and moral rules
- Pacing to client need

2. Building trust
- Explaining
- Minimising discomfort
- Demonstrating competence
- Relationship building
- Expressing interest, empathy

3. Composure work
- Helping client regain or maintain composure

4. Identity work
- Psychological work done to maintain and improve client sense of identity in the face of difficulty
- Work designed to keep client's spirits up, allow closure, prevent client disintegration
- Also prevents the blocking of trajectory tasks

5. Awareness context work
- Providing or withholding information on the basis of assessment of client's ability to handle it
- Management of cues to help client understand his/her situation
- Ethical management of dissembling

6. Rectification work
- Picking up pieces following failure of other types of emotional labour
- Re-establishing trust or empathy
- Re-establishing identity work

Typology of emotion management (Bolton)

Pecuniary
Prescriptive
Presentational (ordinary feeling)
Philanthropic

Care work – time management

Managing care within clock time
Meshing clock time and process time

Individual articulation work

Information work
- Keeping track

Visible routine work
- Task management
- Autonomised expert work – embodied in apparently effortless routines
- Scripting

Visible and invisible non-routine work
- Novel use of technology (artful integrations)
- Behind the scenes work
- Working around the rules to make procedures viable
- Tacit behind the screens work
- Managing taboos
- Minifisms ('a little bit of a mess'), reducing fear, shame

Trajectory work
- Following up
- Following through

Error work
- Detecting consequences of mistakes and minimising or rectifying them
- Repairing the effects of mistakes by others

Negotiation work
- Setting boundaries
- Working across boundaries

Transferring skills from unpaid to paid work

Integrating paid work and other social worlds
- Often through part-time or casual work

Managing occasional contingencies

Collective articulation work

Teamwork
- Contribution to project or lines of work
- Working with people outside managerial authority

Managing contingency as the norm
- Unscripted improvisation
- Managing complex and unpredictable time dimensions

Coordination that cannot be achieved by rules
- Managing up – formally subordinate or novice workers help coordinate the work of managers or experts (a characteristic of turbulent environments)
- Managing out – coordination with non-employees

Socially embedded interactions among members of different social worlds
- Cross-cultural projects (involving ongoing negotiation)

Sharing collective tacit knowledge
- Iterative working out by means of shared action, discussion and mental mapping

- Interleaving or working out
- Folding the work of various actors into the arc or trajectory of the work project

References

Bolton (2005)
Davies (1994, 1995)
Glaser and Strauss (1968)
Lawler (1991)
Star and Strauss (1991)
Strauss (1985, 1988, 1993)
Suchman (1995, 1996, 2000)

Appendix D: Additional checklists for writing position descriptions

Roles, rules, tools, contexts and consequences – the what, who, how, why and when of jobs.

1. Easily-overlooked roles – working with people

People and roles – working relationships
a) Lines of delegation, above and below

b) Regular relations with people in other agencies, contractors and volunteers
- Contractual
- Non-contractual, informal

c) Team relations
- Horizontal and vertical relations
- Relations in a pooled team (contributions based on individual work)
- Relations in a sequential team (members depend on others' timeliness and quality)
- Relations in a reciprocal team (collaborative production)

d) Working relations with service recipients
- Relations with individuals, families/whānau, communities and their representatives, the public
- Treaty of Waitangi obligations
- Duty of care obligations
- Professional obligations – scope of practice, standards, accountability
- Responsibility to the organisation
- Social responsibility

e) Nature of the working relationship
- Special needs including intensive intervention
- Special communication requirements
- Ethical issues – control, autonomy, dependence, disclosure, privacy
- Frequency of interaction
- Multiplicity of contact (one on one to mass audience)
- Duration of relationship
- Use of technology whist working with people
- Time issues
- Scale of impact – superficial, life-changing, life and death

Working with people – list of actions
Accept differences
Accept responsibility
Activate/mobilise
Adjudicate
Advise
Advocate/represent
Attend
Care
Coach
Communicate across age differences
Communicate across cultures

Communicate in another language from your first

Conciliate

Console

Convey unwelcome news

Convince

De-escalate conflict

Develop independence of

Discipline

Empathise

Encourage/motivate

Enlist

Explain

Facilitate, help

Foster

Guide

Hear sub-texts

Influence

Initiate

Inspire

Interpret body language

Interpret unfamiliar behaviour

Introduce

Liaise

Listen actively

Manage/handle situations

Mediate

Mentor

Model behaviour

Mollify

Negotiate

Observe social customs/rituals

Organise unobtrusively

Perceive

Persuade

Protect

Respect privacy

Respond

Show acceptance

Show cultural awareness

Show cultural competence

Show patience

Translate

Understand

Understudy

Unite

Use Braille, NZSL, communication board, etc

Use calming strategies

Use humour

Use intuition

Use judgement/discretion

Use non-verbal cues

Use tact

2. Working with rules, customs and practices

Contexts
Communication barriers
Confidentiality and openness
Conventions
Cultural appropriateness – tikanga Māori
Deadlines
Multiple focus – working with people, technology and ideas; dealing with individuals whilst monitoring groups
Protocols
Organisational expectations
Uncertainty/information gaps
Tapu

Consequences
Communities – bicultural relations, intercultural relations
Individuals – special needs
Social welfare
Public opinion
Public policy
Duration of impact – transitory to life-changing
Intensity of impact – superficial, matter of life and death
Scope of impact – local, regional, national, international

Working with rules, customs and practices – list of actions
Abstract/summarise
Adapt/modify
Administer
Analyse
Apply
Arrange
Assess
Check
Classify
Collect, gather
Compile
Compose
Conceptualise
Conduct
Create
Consolidate
Debate
Deduce
Define
Demonstrate/show
Develop
Devise
Direct
Establish/set up
Evaluate

File/archive
Generate
Illustrate
Imagine
Implement
Improve
Induct
Infer
Inform
Innovate
Instruct
Investigate/study
Judge
Maintain
Model
Monitor/observe
Narrate
Navigate
Obtain
Question
Perform
Prepare
Project/extrapolate
Provide
Publicise
Reason
Rectify
Restore
Retrieve
Review
Revise
Read
Sense
Share
Signal/cue
Select
Solve
Steer
Symbolise
Synthesise
Translate
Undertake
Validate

3. Working with things, technology, techniques and tools (physical and conceptual)

Contexts
Emergencies/crises
Intense concentration
Interruptions
Monitoring of equipment to prevent breakdowns
New technology/upgrades

Risks to clients
Risks to environment
Risks to self/other staff
Unpredictable behaviour

Consequences
Heritage
Environment
Posterity, legacy
Duration of impact – transitory to life-changing
Intensity of impact – superficial, matter of life and death
Scope of impact – local, regional, national, international

Working with things, technology, techniques and tools (physical and conceptual) – list of actions
Administer
Activate
Adjust
Apply
Archive
Arrange
Assess
Build
Calculate
Calibrate
Chart
Calculate
Catalogue
Classify
Compare
Compile
Compute
Conserve
Construct
Derive
Demonstrate
Design
Develop
Diagnose
Distribute
Develop
Eliminate
Estimate
Execute
Examine
Expand
Expedite
Extrapolate
File
Finalise
Follow up/though
Forecast

Format
Formulate
Generate
Improve/enhance
Implement
Index
Innovate
Inspect
Install
Invent
Investigate
Keyboard
Log
Maintain
Measure
Monitor
Plan
Predict
Programme
Proof read
Question
Record
Rectify
Recycle
Reorganise
Research
Report
Revise
Roster
Save
Schedule
Set up
Streamline
Systemise
Simplify
Sort
Strengthen
Stimulate
Solve
Tend
Timetable
Transcribe
Trouble shoot
Transfer
Uncover
Unravel
Verify