



Report for Manufacturing Skills Australia

Recognising the skill in jobs traditionally considered unskilled

Professor Erica Smith and Professor Andy Smith, Federation University Australia
Associate Professor Ian Hampson and Associate Professor Anne Junor,
University of New South Wales

June 2015

Contact: Professor Erica Smith e.smith@federation.edu.au

Recognising skill in jobs traditionally considered unskilled 2011-14

Project team:

Erica Smith and Andy Smith (Federation University Australia)
Ian Hampson and Anne Junor (University of NSW)

This national research project investigated unidentified and undervalued skill in people's jobs through research in nine occupations in service and manufacturing industries. It aimed to provide evidence that could be used to improve government policy, qualification-based training for work, and companies' management practices that relate to skill, skill levels and the perception of skill. Specifically, it aimed to suggest improvements in the development of vocational education and training (VET) qualifications (through Training Packages) and in companies' use of skills. The aim was to improve the current inaccurate perceptions of skill in Australian jobs, through close study of nine occupations, providing individuals with better life chances and improved self-efficacy in the labour market.

Our research aims were:

1. To achieve better recognition of skill and skill levels in occupations and work processes which are labelled 'low level' or 'low skill' but which may contain unrecognised or under-recognised skills.
2. To examine the effects on policy and practice, at national and company level, of labelling as 'low skilled' work that contains under-recognised and under-valued skill.
3. To investigate the potential outcomes of the findings about under-recognised skill for occupational qualifications as expressed in national Training Packages, the major basis for curriculum for the Vocational Education and Training (VET) sector.

We hoped that the impact of our study might help to provide individuals with better life chances and improved self-efficacy in the labour market.

The project was funded through the Australian Research Council Linkage program. Our industry partners were: Service Skills Australia, Manufacturing Skills Australia and United Voice. Service Skills Australia had previously funded a small pilot project in four Service Skills occupations.

BACKGROUND

In the international literature on skill, the nature of skill in particular jobs¹ has been long contested. Roughly speaking, there are four major schools of thought. These are explained

¹ Our project did not examine the skill that workers possess or how it is developed; it was about the nature of skill and perceptions of skill.

below. For reasons of space, the cited references are not included in this paper but can be sent on request.

1. *Positivist/technicist approaches* view skill as an unproblematic, measurable ‘quantity’ based on indicators such as complexity and autonomy . Skills relating to working with people are generally seen as less important than skills relating to working with things.
2. *Proxy measures of skill*, such as length of training, wage rates or, in Australia, the Australian Bureau of Statistics ASCO (occupational) classifications, are often used to measure skill. However it is argued that such proxy measures may be problematic and are used primarily because of a lack of other data that would enable skill to be measured directly.
3. *Social construction* theory explains how beliefs about skill and the job hierarchies are operationalised through institutions such as industrial relations arrangements and requirements for qualifications. Feminist literature extends this labour process approach, arguing that ‘male’ jobs have gained the reputation of being skilled at the expense of ‘female’ jobs. In social construction theory, the proxy measures and the positivist/technicist approaches described above are themselves regarded as products of social construction.
4. *Soft or generic skills* have received an increasing emphasis internationally over the last thirty years . Soft skills have been operationalised in Australian training policy as ‘key competencies’ or ‘employability skills’, and more recently as ‘foundation skills’, and in other countries through different lists of ‘generic skills’. The issue of ‘soft skills’ has become a further problematic in the debate around skill.

Different views about what skills there are in work has very real and significant effects in terms of policy and practice. Hence our project set out to uncover more information about skill in jobs covered by the VET sector, with a view to more effective and evidence-based policy formation.

We formed a project reference group consisting of representatives from the three partner organisations. The Construction and Property Services Industry Skills Council was involved in the project throughout most of its life, although that ISC was not a formal partner organisation.

The nine occupations that we researched were: Hotel reception worker (Guest service agent), Cleaner, Security Operator, Metal fitter & machinist, Concrete products operator, Sewing machinist, Waiter, Chef, Retail (non-supermarket) assistant.

Our research questions were:

1. What are the perceptions of ‘skill’ held by workers, managers, policy makers and other stakeholders about selected service and manufacturing jobs, and what are the provenance of these perceptions ?
2. How do these perceptions accord with evidence about the skill in these jobs, to be gathered using the recently developed ‘Spotlight’ skill recognition instrument?
3. How do the perceptions influence and frame HRM and work organisation practices in the researched companies? How can the researched evidence improve these practices?
4. How do the perceptions affect workers’ life chances, labour market self-efficacy and career paths? How can the researched evidence improve their situation?
5. How do the perceptions affect the development of relevant VET policy? How can the researched evidence improve policy in terms of effectiveness, efficiency and equity?

6. How do the perceptions affect the nature and quality of VET curriculum as expressed in Training Packages and their delivery? How can the researched evidence improve Training Packages and provide better advice for delivery?

RESEARCH METHOD

Table 1 provides a snapshot of the research reported in this paper. More detail can be seen on the project web site.

Table 1: Project phases and participants

Phase	Activity	Number of participants
1	Telephone and face to face interviews with senior officials and stakeholders in VET and industrial relations	19
2	Telephone and face to face interviews with targeted senior stakeholders in each of the nine occupational areas	44
3	19 company case studies (two per occupation - three in retail), involving interviews with managers, workers, trainers; “Spotlight” interviews in 8 companies (workers only)	115 31
4	Analysis to produce occupational summaries; and specific analysis of “Spotlight” skills	
5	Eight industry forums (waiter and chef were combined) to validate findings to date, through guided discussion of occupational summaries.	53*
6	National validation (policy/practice) via stakeholder forum International validation via overseas academics	22 6

* Plus two to four Industry Skills Council representatives per forum

Approximately 10 other interviewees were accessed at different stages to provide a more rounded picture of the data for some occupations.

A little over 250 people in total were involved as direct research participants.

THE FINDINGS FOR THE NINE OCCUPATIONS

In this section, we present the findings from Phases 1, 2 and 3 of the project:

- Interviews with senior official and stakeholders
- Industry level interviews with senior staff
- The 19 company case studies.

These primary research phases were also validated and discussed in eight industry forums (Phase 5) and in a final, stakeholder workshop (Phase 6) held in Melbourne in May 2015.

Interviews with national officials

In 2011, we interviewed 19 senior officials in the Australian VET and industrial relations system. Interviewees discussed their own and others' perceptions of skill in work, the provenance of these perceptions, and the influence of those perceptions on policy, companies, workers. The interviews covered the following question areas:

1. What do you think a skilled job is?
2. What basis/bases did you use to form that definition? From where did you derive your views?
3. Thinking about jobs that you regard as unskilled or low skilled, what makes you think they are unskilled or low skilled?
4. Can you see any changes over the past X years in the way people think about skill?
5. How do perceptions of skill affect debates and policy, in the area in which you operate (e.g. funding for apprenticeships etc.) and more generally?
6. Apart from policy effects, are there other effects of jobs being perceived as skilled or low-skilled?
7. To sum up, what do you think (a?) skill is, and how would you recognise it?

The interviewees, all in key roles in the VET or industrial relations systems, displayed a nuanced understanding of skill. While recognising the role that qualifications played they did not see qualifications as defining skill or as the markers of the presence or absence of skill. The most obvious conclusion to be drawn from the analysis was that, overwhelmingly, respondents saw skill in all jobs, albeit to varying extents. There was also a sense that they did not like to see jobs 'looked down upon'. They were conscious, however, to varying extents of the official positions they were supposed to hold and two State VET officials explicitly said that in making decisions that were based on whether jobs were more or less skilled they needed to adhere to their departments' official views but that they held quite different views themselves. The views expressed provided some indication that policies based on 'old' perceptions of skill were not necessarily immovable. The differences between VET-sector respondents and industrial relations respondents suggested that IR respondents were more bounded in their views and their actions by the industrial structures that they helped to administer. In this research, although many respondents felt that all jobs contained skills and that many jobs were unfairly categorised as low skilled or unskilled, the pay and award structures within which employers operate are firmly determined by formal scales and provisions often based on qualification levels as a proxy for skill. These structures have proved to be remarkably resilient over long periods of time and tend to reinforce traditional views of skill. So, despite the personal views held by industrial relations respondents, the prospect of structural change in the industrial relations system is probably lower than in VET.

Industry level interviews

Industry-level interviews were undertaken across the nine occupational areas in 2012. 44 interviews altogether were completed. We aimed at five targeted interviews per occupation: officers in the Skills Councils, employer associations, trade unions and senior staff in major TAFE Institutes and private providers which offered those qualifications. The aim of these interviews was to set the context of industries and the occupations, discuss stakeholders' perceptions of skill and to examine the outcomes of perception of skill on policy, companies, workers and Training Packages. The interviews covered the following question areas:

1. Overview of the industry
2. Nature of the workforce
3. Occupational labour market
4. Main points from the interviews about skill levels
5. Any surprising points that emerged for our project

These overviews were fed back to the reference group for comment and were used among the research team to inform the development of the project.

Company case studies

In 2012-13, we undertook 19 company case studies: two for each of the nine occupations under study and three for the retail sales assistant. In each case study, senior managers, HR managers, line managers, and workers were interviewed. The case studies were carried out in four States in Australia. During these interviews perceptions of skill in the roles were discussed, and evidence of the use of skill by the workers was gathered.

As well as a series of qualitative questions, a short questionnaire designed to profile less visible skills in jobs, the “Spotlight tool”, was used for six of the occupations (in two instances, only in one case study each). All of the case studies also used another instrument, the “Ways of Seeing” tool which contained three components: employability skills; six other selected skill indicators (such as level of autonomy) based on the literature; and literacy and numeracy requirements. The following overview consists of summary material from the occupational summaries covering Phases 2 (industry-level interviews) and 3 (the company case studies). The seven occupations that are not recognised as being skilled are presented first.

The findings for each of the nine occupations from these three phases are summarised under each occupational heading

Occupations that are not recognised as being skilled

Cleaner

Cleaning work was found to be diverse and to require a range and hierarchy of skills, corresponding with the way the work was structured and the consequent task range. The isolated and self-managed work of office cleaners, often international students, and the more visible and respected work of school cleaners were discussed by industry stakeholders, but not explored in the company case studies, which focused on full-time day cleaning in university and retail mall settings. The consensus was that the invisibility of part-time cleaning contributed to the under-recognition of the occupation’s skill requirements.

Cleaning involved a range of social, organisational and contingency management skills, involving medium to high levels of autonomy, initiative and judgment. For example, full-time day cleaners provided quality assurance feedback and coaching to part-time night staff; and in malls, cleaners communicated by radio, responding to calls to respond to spills, vandalism or emergencies such as unattended suspicious parcels. Team work and flexible self-organisation were important, as colleagues needed to step in to cover staff called away to such contingencies. Cleaners needed to communicate effectively with security staff and mall management, and to follow protocols and exercise judgment in dealing with erratic or abusive customer behaviour. Being uniformed and visible, mall cleaners needed the skills to interact with the public, being

frequently asked for help with routine directions, or lost keys or children. Levels of education amongst cleaners tended to be under-valued, although they might have contributed to the capacity for independent self-organisation.

Concrete Products Operator

The occupation examined in pre-mix concrete was batcher. The batcher oversees the mixing of the concrete, which is usually then loaded into trucks for delivery to building sites. In the 'pre-cast' arm of the industry, which makes items such as bridges for freeways and panels for large buildings, a range of jobs within concrete works were studied. In general the evidence from the stakeholder interviews and the company case studies suggested that concrete manufacture, both 'pre-mix' and 'pre-cast' concrete formed part of a 'hidden' industry which is little understood by the public unless they happen to end up in employment in the industry. Concrete manufacture was not seen as an industry to which people actively aspire. Workers were nearly all male and mature-aged and may have undertaken a range of jobs, generally other jobs regarded as low-skilled, before entering the industry. While there was some variation, the workers interviewed generally enjoyed the work although it was stressful, particularly in wet concrete; and, in pre-cast, heavy.

Workers were not required to have formal qualifications and yet the jobs are complex and may take a long time to learn. In particular literacy and numeracy requirements were quite high, although under-rated. The low rating could be because they were used routinely and therefore became invisible, or even because they were skills learned at school and therefore regarded as low-level. While qualifications were available, they seemed to be little used and it is not clear why this should be so. While numbers of workers were not great, the industry – particularly wet concrete because it has to get to the customer quickly - is necessarily widespread. Also, the risks in the work are high; if mistakes are made, consequences are great. The main points from Phases 1 to 3 were:

- A mature male workforce with low self-efficacy;
- An occupation with many skill components and high risk;
- A lack of consensus on skill evidenced in wide variations (for concrete labourers) in lengths of time it takes to become skilled;
- Very low penetration of qualification-based training amongst employers;
- Public image that combines low awareness with low status.

Guest Service Agent (Hotel receptionist)

Interviews with stakeholders emphasised the casualised and transient nature of employment in this occupation, although it was emphasised that it could be a 'stepping stone' in a vocational 'pathway' or career, particularly for those completing studies in areas such as hotel management. Many GSAs had had no previous hospitality experience, and in some hotel chains there was a preference for imparting a 'brand' image, so that recruitment from outside and informal training was preferred. Several stakeholders argued strongly for the value of formal qualifications. All of these themes were reiterated in the case studies. Both case study sites were in upper-end hotels, and were reported as distinctive in being able to hand-pick GSAs with significant prior experience in the industry and more likely to be hospitality career oriented. Despite the high volume of work, the hotels placed a high value upon the reception staff providing quality personalised service, with one Director of Human Capital defining this

in terms of the skill of turning a *transaction* into an *interaction*. Teamwork, judgment, initiative and problem-solving were highly rated. In the second, boutique hotel, with some long-term residents, the GSA role involved building ongoing friendly relationships with some guests through high-level communication skills. Several case study participants with significant overseas experience reported that the status, or recognition of hospitality work as a profession was indeed lower in Australia than in some European countries.

Overall, GSA work was seen as undervalued and low paid. Perhaps because of relatively high turnover rates, the perception of ‘replaceability’ led to the *perception* of the work as low-skilled – a perception that participants saw as *erroneous and unhelpful*. One Senior Manager, who had been a GSA, commented on the ‘complexity’ of the work. The skills identified included the capacity quickly to understand (and represent) the culture, policies and procedures of the hotel or chain; the diplomacy, discretion, intercultural awareness, conflict resolution, complaint handling, and co-ordination skills required to deal with stressed guests and emergencies; and the ability to ‘read the guest’ and anticipate needs or requests.

Retail assistant (non-supermarket)

There was a high emphasis on the possession of sales assistants’ ‘personal’ skills in their recruitment and in their performance. In recruitment, experience and maturity were seen as better indicators of the possession of these skills than formal qualifications, even when the value of a formal qualification for the role was acknowledged. However, the case studies also showed the requirement for more technical skills including a heavy emphasis on product knowledge and closing the sale. As customer knowledge had grown with the internet, so the requirement for sales assistants to have a full mastery of product knowledge had come to define the public’s perception of what a good customer experience comprises. In effect, these personal and more technical skills were combined into what some interviewees described as the ability to “read” the customer and know how to nudge customers towards purchase. There was significant correlation between the views of the stakeholders, management and sales assistants about the level of skills required for the job. If anything, in one case the management identified the role as more skilled than those in the role. Many of the skills identified as being needed in the role were difficult to articulate, and were seen as personal traits or natural qualities, rather than being considered in the traditional notion of skill.

The case studies also revealed that retail can offer fast tracked career pathways. This is contrast to the widespread public perception of low skilled work and lack of advancement in the industry and the notion that retail is, in some way, a “transitional” occupation for those seeking “better” work in other industries. In fact, all three case studies produced strong evidence of effective career pathways in management which were often filled by relatively young people who had gained significant experience on the shop-floor. These perceptions affected training policies, and training for staff in these roles in the case studies was quite cursory and largely on the job. They were seen as skills to be acquired as much as to be taught. Although one of the case study companies made formal qualifications available for long term employees with a future at the company, generally the qualifications were not greatly valued, even by employees working for that company.

Security Officer

Interviewees in Phases 2 and 3 pointed out a range of security roles including crowd control, aviation security, concierge duties, security for shopping centres and public buildings, armed guard for ATM fill-up, and technology-related security work (e.g. CCTV monitoring). In the case study sites, the job involved patrolling premises, responding to instructions from a supervisor, dealing with incidents among members of the public, assisting colleagues in incidents, and helping with tasks that were more properly part of the job of those employed in the premises or those visiting, for example (in the shopping centre) assisting with setting up and dismantling exhibits, directing tourists to sites, or (in the museum) helping to control school parties. The security officers used a radio to communicate with each other and their supervisors. The officers needed to record their patrolling e.g. by touch point. They needed to write incident reports if anything unusual occurred and could be required to appear in court. From time to time they would need to manage evacuation of the premises, in conjunction with others, and to assist in other emergencies e.g. if a customer had a heart attack.

It should be acknowledged as a limitation that the company case studies focused on the permanent full-time workforce. We did not undertake field research in the large casual workforce servicing events. Acknowledging this, our major findings were as follows:

- A diverse workforce divided into casual and full-time mature people;
- An occupation with occasional but high risk associated with people's behaviour;
- A need for communication skills rather than physical strength; companies recruited for inter-personal skills.
- A high public awareness of the job, but low public perception, which impeded the ability to recruit good staff;
- A business model based on contracting, driving wages down and hence further devaluing the occupation;
- A requirement for qualification-based training, but a lack of satisfaction with its quality and/or efficacy.

Sewing Machinist

Consistent views of machinists' skill requirements were expressed in the two case studies and in further interviews with outworkers. The case study sites specialised in workwear/school uniforms and jeans respectively, and did not reflect other parts of the industry. Overall points to note include the diversity of the textile industry; a perception that 'unskilled' was not an appropriate term for sewing machinists, concerns about industry/employment structures, outworkers and terms and conditions of employment; and concerns about the future of clothing manufacturing in Australia. All participants agreed the skills of sewing machinists were significantly underestimated and undervalued. Required technical skills included a high degree of fine motor skill, which takes time to learn, and which entails a degree of 'tacit' skill. Attention to detail and 'visual acuity' were identified as important, for example the ability to register the different qualities of different fabrics and their tendency to behave in different ways when sewn. In addition, machinists were seen as increasingly being called upon to master

CAD-CAM operation. The skills of the machinist are to combine speed and quality, and being able to do this is entirely based on practice.

Technical skills included understanding of aspects of production management, like Quality Assurance and ensuring work process flow in 'lean' work organisation. 'Invisible' skills of coordination, awareness and communication were seen to be required to keep production lines moving at the high pace necessitated by 'lean' work organisation. Non-technical skills included the 'work process knowledge' or coordination skills required to achieve 'continuous flow'. This involved 'presenting the work to next stage in a sensitive way', so making it easier for the next person in the chain, based on awareness of context and co-workers. In this multicultural industry, workflow coordination entailed 'cross-cultural' communication skills. When asked what skills were needed to perform well as a sewing machinist, one respondent used the analogy of the difference between an ordinary driver and a racing car driver. For the business to be successful the sewing machinists needed to be operating at *maximum* speed for *extended* periods of time without any 'crashes' or mishaps.

Waiter

The occupation was found to range from work in small cafes through medium-large restaurants, to 'silver service', with a consequent diversity in pay and employment conditions – this in itself implied a career hierarchy of sorts with a hierarchy of skills. The occupation was perceived as being based on a 'core' of skilled waiters supported by others who were predominantly low skilled and casualised. The occupation had high turnover, with some employers relying on 'high performing' university students, who saw waiting as a 'stopgap' job, not a career. While there was a 'core' of committed waiters it seemed that the notion of waiting as a career was not widely held among casual workers. There seemed limited awareness of the possibilities of skill enhancement and career progression through training. There was a shortage of trained employees. 80-90% of waiters were said to have no qualifications, but high job turnover was said to be affecting employers' inclination to train.

There was widespread agreement that waiting often required high-level skills, but that these were not recognised and/or reflected in the career rewards or prospects. There was considerable agreement about what a good waiter does, in terms of reading and managing the customer, and managing the flow of information and material goods in a restaurant under time pressures. Specifically, waiting required a number of technical skills and the ability to draw on accurate and up to date product knowledge. These skills include the capacity to set tables, to take orders (using paper or digital technology), to carry plates (five loaded plates was the industry standard), to pour drinks, to clear and clean tables quickly and efficiently. In addition literacy and numeracy skills were required, and cognitive abilities associated with memory were at a premium.

Coordinating skills included capacities to: plan and organise; prioritise and reprioritise multiple and possibly competing demands; manage time and the requirements for speed; work together in a team in adapting to continually-changing situations; manage a flow of information from the dining room to the kitchen; engage in multitasking, problem solving and rectification. There were also skills of 'awareness'; including the capacity to sense work flow and customer needs at multiple tables; read body language; anticipate customer needs (e.g. do they want to 'eat and run', or are they seeking a 'dining experience'?). Lower levels of such skills were seen as being required in routinised low-end cafes, but the more the workplace came under pressure

from volume, the more important were skills supporting aware, cooperative and coordinated work.

Occupations that already have recognition as being skilled

Chef

The highly competitive, predominantly small business environment for this occupation had implications for workforce development strategy, both in technical skill and in terms of chefs' management competence. In larger workplaces, a tendency to subdivide work meant a degree of detachment from formal qualifications/classifications, leading to a kind of 'qualification deflation'. An occupational labour shortage, due to hours, pay and conditions, was seen as compounding the issue, with new recruits able to demand higher levels of classification. The tendency to outsourcing of functions – e.g. preparation of sauce, filleting of fish – was also seen as contributing to a disconnect between qualifications and skills in use. It was emphasised that the actual term 'chef' referred to a trade-based occupation, with 51% of chefs estimated by the industry association as having a Certificate III. Chefs needed to be qualified to Certificate III or Certificate IV level, but cooks could be unqualified. There was a gender dimension; around three-quarters of chefs were reported to be men, and cooks were more likely to be women. There was higher full time employment among chefs. Certificate III was an entry level qualification and the career path of a Chef was described as being 'regulated' by an informal qualification structure based on a French system.

Considerable technical knowledge of recipes and food properties was required. Manual skills were honed constantly: with knife skills, for example, *'the only way to train is practice'*. Kitchens were described as not safe workplaces, with slippery floors, hot elements, boiling water and oil, and so on – requiring careful OH&S management and awareness. The occupation of chef was seen as attractive because of the celebrity chef phenomenon, but being a commercial chef was seen as requiring the ability to cook (or manage the production of) many meals at the same time. This work process was said to require high level coordination, communication and people management skills, all exercised in a high time-pressured and often stressful environment. The skills necessary include skills of awareness, anticipation, and materials flow management.

As one progressed up the ladder, more and more management, co-ordination and people skills were called for, in addition to technical knowledge. For example, the duties of one Executive Chef interviewed included tendering, pitching for business, coming up with new food concepts and designs, pre-management set-up of new businesses, recruitment, setting up operating procedures and standards, menu planning, procurement, and overseeing the profitability of dishes. This points to two aspects of the 'skills deepening' in the occupation of Chef – first, increasing proficiency (and creativity) in food preparation, and second, increasing management responsibilities and 'span of control' as chefs ascended the informal career ladder. Frontline Management training was seen as providing needed skills.

Fitter and Machinist

Respondents explained that the occupation was divided basically into machining (making and repairing machine parts), otherwise known as toolmaking, and fitting (servicing machines – scheduled maintenance or breakdowns), although there was an overlap. There were variations in the intensity of skill in the occupation, e.g. in the rail industry, from wagon maintainers up

to locomotive maintainers. Sometimes a company would have a workforce of fitters and machinists, but only one of them would do the difficult machining. Skills were seen to be changing from ‘hand skills’ (e.g. setting a lathe to cut a thread on a bolt) to setting up a computer program. The industrial award was very closely linked to qualifications. It was explained that there were three streams – e.g. mechanical fabrication and electronic (e.g. for CNC lathes with PLCs). The machine tools might be worth millions of dollars and so the job was pivotal within organisations. Both case study companies were manufacturing companies, in different industries; they were long-lived and could be regarded as somewhat old-fashioned. All fitters and machinists were very conscious of the fact that the other workers in the factory depended on them doing their job properly, i.e. that the job was of strategic importance. The fact that fitting and machining was apprenticed had a large effect on perceptions of skill.

The skills were primarily to do with things not people, although team work was recognised as being very important. All non-technical skills were described as medium or high by all case study interviewees. The differences between a good fitter/toolmaker and a not so good one were variously described as: speed, quality, initiative, understanding consequences, knowledge, and having pride in their work. In the case study sites, there were strong beliefs about what the trade ought to be – an historical tradition. All people were able to articulate and name the skills and knowledge they deployed, perhaps as the result of the apprenticeship curriculum? However it is also possible that the fitters/machinists (although not their managers) under-rated skills they learned in their apprenticeship, such as numeracy. Both the apprenticeship curriculum and the ‘C’ industrial system to some extent seemed to constrain what people did and what they thought they could do. The latter was also reported, in one case study, to impede potential qualification-based career paths.

THE USE OF THE SPOTLIGHT TOOL

The Spotlight methodology is designed to identify key skills that are easy to overlook or hard to ‘unpack’, because they are tacit, have become ‘second nature’, or are integrative skills used in conjunction with each other and with other more visible skills, to link up aspects of work processes into smooth performance. In order to reduce the risk of under- or over-claiming of these skills, the Spotlight tool relies on descriptors of work activities linked to these skills through prior data analysis. The Spotlight tool was used to identify nine component elements of three broad skill sets - **Shaping awareness, Interacting and Relating, and Coordinating**. The integrated use of these skill sets was found to be context-specific and to occur at deepening levels of skill, based on practice: **Familiarisation (‘learn the job’), Fluent performance, Solving new problems, Solution-sharing, and Expert system-creation** (not commonly identified in the study). The Spotlight tool was not used in the analysis of all the occupations in this project, but where it was used it ‘surfaced’ a number of skills and invisible work demands. Not unexpectedly, service occupations required high levels of the three Spotlight skills. Perhaps more unexpectedly, the Spotlight skills were also strongly called for in occupations such as those of security guard and cleaner.

- In **Retail**, all participants indicated that their jobs required behaviours based on the solution of new problems in monitoring and guiding reactions and judging impacts, in negotiating boundaries and in communicating verbally and non-verbally.
- Among **Guest Service Agents**, most of those interviews described their jobs as demanding skills at the level of solving new problems. They identified behaviours requiring skilled management of their own and others’ awareness of contexts, reactions

and impacts, and all participants described their jobs as requiring them to solve unexpected new problems in coordinating their own work. Overall, the GSAs identified the relevance of more than half the descriptors, indicating that to perform effectively they needed to share coordination solutions with others.

- **Waiters** described behaviours that indicated they were solving unexpected problems in tactfully judging boundaries and in coordinating their own work. A majority identified behaviours indicating that they were solving problems and sharing solutions with colleagues in ways of monitoring the restaurant context and stabilising the workflow. To an even stronger degree, **Chefs** were using most elements of the Spotlight skill elements at problem-solving and solution-sharing.
- All of the behaviours indicating problem-solving skills, in the fields of contextual awareness, impact awareness and verbal and non-verbal communication were reported by the small number of **Security** work respondents.
- Across the nine skill elements, 75% of all indicators of problem-solving skills were identified by the six **cleaners** as job requirements. Behaviours requiring the judgment of impacts, boundary-negotiation and self-organising at the level of problem-solving were most strongly scored. Whilst behaviours requiring the use of the nine skill elements at the solution-sharing level were less often ticked, descriptors of skills requiring situational awareness based on solution sharing received 92% of total possible ticks.

An example of a Spotlight analysis, for the occupation of Waiter is included at Appendix 1.

OVERALL FINDINGS FROM THE PROJECT

While there is still much in the data that we have yet to analyse, some clear messages emerge from our research. For clarity and brevity we have confined analysis here to the seven occupations that are traditionally regarded as unskilled and low-skilled. We have not covered Fitter/Machinist and Chef here.

Perceptions of skill

In all seven occupations there was a great deal of skill in the work that is not generally understood, seen, or acknowledged. Perceptions of skill were diverse, both within the occupation (i.e. perceptions varied among different research participants), and between occupations.

It was clear that, as might be expected but is rarely acknowledged, **the closer interviewees were to the job, the more the skill in the job was recognised.** Thus for example, among managers or stakeholders that had done the job, the skill was well recognised but among, for example, HR managers or line managers coming from a different industry, it was less well recognised. However, the actual workers currently in the occupation varied in their perceptions of the skill in the job, but **generally they tended to underestimate it, or could not easily articulate the different sorts of skill without prompting.** Use of tools like “Spotlight” quickly uncovered the richness of the skills that were involved in the job.

Perceptions of skill were influenced by a number of factors. Those mentioned by the participants, or inferred from the interviews, included: internalisation of public perceptions, the

reputation of the industry (not just the occupation), the amount of risk in the job (which could include OH&S and effects on profits), and the visibility of the job to the public. Visibility appeared to work in two ways; firstly, as with retail and cleaning, the everydayness of the job made it appear less skilled; but conversely it was felt that concrete product workers were so invisible that the public had no idea what was contained in the occupation.

What is the skill in the job?

For ease of reference, we refer to skills as ‘technical’ or ‘non-technical’. The latter term is inclusive of employability skills, generic skills, soft skills and so on. We acknowledge the debates around these terms, and also over debates over attributes versus skills, but it is not helpful to the analysis to pursue them. We also acknowledge that in many service sector occupations, the non-technical skills in the job are in fact the technical skills.

Skills and knowledge in the jobs that are easily recognisable as ‘technical’ included:

Product knowledge, systems operations (computer or other systems), properties of materials being worked with, market knowledge (suppliers, customers), other knowledge relating to the external environment.

Skills and knowledge in the jobs that are easily recognisable as ‘non-technical’ included:

Communicating with colleague and with customers (relative proportions varied among jobs depending on the extent to which the job is customer-facing), managing and organising own work, self-managing, exercising awareness of the context, multi-tasking, detecting unexpressed customer needs, co-ordinating workflow among customers and co-workers.

Respondents, especially workers themselves, found it hard to articulate many of these skills. (This contrasted with the fitter/machinist occupation where there seemed to be less difficulty). In particular, non-technical skills were often seen as ‘innate’, i.e. personal attributes, although they were also (somewhat illogically) also described as growing with experience on the job - in other words, they were also learned. Our impression was that both sets of skills seemed to become less tangible as the job performance became more fluent, although we do not have enough evidence to assert this as a finding.

The most important conclusion from this is that **every job contains two ‘bundles’ of skills and knowledge – ‘technical’ and ‘non-technical’ - and that both sets of skills in these occupations have under-recognised elements.** Moreover, the sizes of the ‘bundles’ varies among workers doing the same jobs, as some choose to bring more to, and put more into, their work. But the importance of motivation was not a topic explicitly explored in the research.

How are career paths, training, and job prospects influenced by perceptions of skill?

Career paths are stronger in these occupations than might be expected, or might be understood, by potential applicants. In all cases except possibly waiter, there is quite a strong career path but the **paths are often within organisations, in higher-level jobs, rather than within the specific occupation.** In some cases the career paths are clear within the organisation, in other cases they are somewhat nebulous even within.

Qualifications are not required for any of these jobs except for security officer. In the latter case, a qualification is a licensing requirement and is regarded and experienced as rather

‘dodgy’ in delivery. For the others, there seems to be a vicious cycle: the qualification is not required, it therefore receives little or no funding, it is therefore regarded as inadequate and may also be inadequate, and the job is therefore not recognised as skilled. In some cases, people in the industry did not even know that qualifications were available. Often other forms of training were substituted, e.g. vendor training, company-specific training, and other non-accredited training. It should be noted that in other countries some of these jobs have qualifications that are expected, and we will get more feedback from this in our international validation, which is not yet completed.

Some of the occupations are **characterised by cohorts of workers that are disadvantaged or disempowered** in some way – e.g. sewing machinist (often mature women, people who are culturally and linguistically diverse), concrete workers (often mature men with irregular labour market records), university students (in some cases international students). Four out of seven of the occupations are jobs commonly undertaken by students. These factors seem to work (unfairly) to reduce people’s respect for the occupations and also to poor policy outcomes.

IN CONCLUSION

The findings of the project can thus be summed up in the following way:

<p>Hidden skills Hidden career paths Hidden qualifications Hidden workforces</p>
--

The project web site is at

<http://federation.edu.au/faculties-and-schools/faculty-of-education-and-arts/research/fea-research-groups/rave-researching-adult-and-vocational-education/folder2/recognising-skills>

Appendix 1: Less visible skill demands of jobs – Summary based on Spotlight Questionnaires completed by five waiters

SKILL ELEMENTS	LEVELS AND EXPLANATIONS				
	1. Learn the job (Build experience through practice, reflection and learning from others)	2. Do fluently (Apply experience independently and automatically)	3. Solve new problem on the job (Use automatic proficiency while solving new problems)	4. Share solutions with others (Help create new approaches through shared solutions)	5. Expertly create a work system (Embed expertise in an ongoing work system)
A. Shaping awareness (Respondents’ capacity to develop, focus and shape their own and other participants’ awareness by:)					
A1. Sensing contexts or situations	100%	100%	70%	100%	50%
A2. Monitoring and guiding reactions	100%	100%	80%	80%	50%
A3. Judging impacts	100%	100%	90%	80%	20%
B. Interacting and relating (Respondents’ capacity to negotiate interpersonal, organisational and intercultural relationships by:)					
B1. Negotiating boundaries	100%	100%	100%	80%	50%
B2. Communicating verbally and non-verbally	100%	100%	90%	50%	0%
B3. Connecting across cultures	90%	90%	60%	40%	10%
C. Skills of Coordinating (Respondents’ capacity to organise their own work, link it into the overall workflow and deal with disruptions by:)					
C1. Sequencing and combining activities	90%	90%	100%	70%	10%
C2. Interweaving your activities with those of others	100%	100%	70%	40%	0%
C3. Maintaining and/or restoring workflow	100%	100%	80%	90%	50%

1. Intensity of shading shows the relative proportion of interviewed participants who thought the activities demanding each skill element were required by the job at each ‘skill extension level’.
2. Percentages are based on 10 responses for each item, and each item had two questions associated with it. For example: A1 Level 1 (Sensing contexts or situations: learning the job) included “Build up understanding of the worksite, tools, contacts, roles and rules” and “Work out how your job fits into the big picture through observation, questions, reading and thinking.”