

Constructing Work: The Hidden Impact of Generic Competencies in the Australian Construction Industry

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ABSTRACT

The Australian construction industry has been undergoing significant workplace reform for the past decade. In NSW, workplace reform has included an emphasis on cooperative workplace relations and new approaches to training including generic competencies.

This paper is a brief summary of the current Strategic Partnership with Industry Research and Training (SPIRT) research project we are conducting in partnership with the NSW Department of Public Works and Services. The research has primarily focussed on the role and effects of the generic competencies within a workplace reform context. In this context, the transferability of generic competencies has been identified by key industry stakeholders as a continuing concern.

The project was designed in three phases with the third phase now forming. Phase one examined ways in which generic competencies tend to cluster, by highlighting the roles of collecting & analysing of information, teamwork, communication and planning & organising activities in construction work of all kinds. Phase Two identified the growth in influence of the workplace reforms that surround 'occupational health & safety' and 'environmental' practices —, as this is terrain in which transferability of generic competencies could be more extensively examined.

Our findings to date tend to confirm that the development of the generic competencies is relevant to continued industry improvement. However the industry has yet to develop systems and mechanisms for facilitating the optimum transferability and recognition of such skills. Experience and/or expertise in workplace reform do not necessarily transfer easily from job to job, and it is the aim of Phase Three is to explore why this may be so.

INTRODUCTION

The construction industry

Nationally the industry annual output 'is expected to exceed \$45 billion through to the year 2005.' (DPWS, 1998, p. 17). In New South Wales government ongoing capital investment expenditure is around \$5-6 billion each year (DPWS, 1998, p. 10). While government is a significant client and regulator of the industry, the actual work in the state is dominated by private enterprise.

It is a large and complex industry comprising of about 25,000 enterprises in New South Wales alone. Sixty-five per cent of these businesses fit the Australian Bureau of Statistics (ABS, 1998) classification of "small businesses". Only 1.3 percent of construction industry enterprises have a turnover of \$20 million a year or more (DPWS, 1998). The industry-wide influence of these major companies is very significant.

The industry is also made up of a complex set of relations. Large enterprises take on the role of project managers, subcontracting to specialised and usually smaller enterprises for particular parts of the job. In addition the work site itself is constantly changing. This changing workplace means that new configurations of problems arise with each location. Overarching all of this is the vulnerability of the industry to a boom/bust cycle. One year there is more work than can be comfortably undertaken; the next year there is none. These conditions provide the environment in which industry reform has to occur. The peculiarities of the industry develop a very particular character or culture. As with human 'character' some people within the industry see it as something you are born with that is

unchangeable, while others argue the character has to adapt to a changing environment, including a nation currently experiencing enormous economic, technological and societal change.

The industry is presently affected by competing elements evoked by the tendering process, an increase in project-management approaches that rely on specialist subcontracting and out-sourcing, the independence of subcontractors, the pressure of completion dates, financial constraints and a culture that emphasises material outcomes.

Industry stakeholders have worked together to develop a more consensual approach (Gyles, 1992) and government is encouraging change and regulation, through the development of policy, industry agreements and legislation. The work being done in policy regarding occupational health and safety and environmental practices, is significant, although there are indications in this research that the gap between policy and practice is also significant. For instance a source of tension in the implementation of current changes relates to how to include subcontractors and 'out-sourced' labour in learning and training reforms.

The recognition and development of the generic competencies in the construction industry is acknowledged (Hayton et al, 1993a, 1993b) as fundamental by many in the industry to the industry's own development, while our research data suggests that transferability of the generic competencies is a not so straightforward issue.

TERMINOLOGY

Workplace reform

Workplace reform as initiated in the building and construction industry during the late 1980s by the then Federal Labor government had its philosophical roots in a vision of cooperative workplace relations. Initially the project sought interpretations of workplace reform from the interviewees. As the project has developed aspects of workplace reform has been selected that clearly example the generic competencies. Workplace reform was understood most frequently to relate to industrial relations and included multi-skilling and training as well as a move away from conflict and toward cooperation. For the final stage of the project we identified two sites of workplace reform for study — occupational health and safety and environmental practices because they are influential in the developing aspects of the industry and raise significant issues for workplace learning.

Generic competencies

In this project we take an integrated approach to competence (Hager et al, 1994). This means competence is thought of in terms of knowledge, abilities, skills and attitudes displayed in the context of a carefully chosen set of realistic occupational tasks that are of an appropriate level of generality. This contrasts with the narrow task-based approach now generally discredited. We draw on the generic competencies set out in the reports by the Finn, (1991) and Mayer (1992) (with the Minister for Education and Training (1993) amendment) as follows:

- Collecting, analysing and organising information (KC 1)
- Communicating ideas and information (KC 2)
- Planning and organising activities (KC 3)
- Working with others and in teams (KC 4)
- Using mathematical ideas and techniques (KC 5)
- Solving problems (KC 6)
- Using technology (KC 7)
- Using cultural understandings (KC 8)

Transferability

Transferability of the generic competencies and skills is about the capacity of each workplace to utilise and develop the competencies and skills of its employees. An employee may have developed excellent skills in communicating the importance of environmental practices on one site. On the next site those same skills of that employee may not be utilised. Our focus is on what facilitates and what hinders the transfer of specific competencies or skills.

METHODOLOGY

The project has several expected outcomes that inform the framework of the research. These include clarifying the impact of generic competencies on the performance of work, their relationship to workplace reform, the identification of generic competency exemplars and performance indicators. We also examine how generic competencies transfer from site to site in particular occupations.

We began this project by selecting four major construction sites in New South Wales. The construction enterprises responsible for these sites have annual turnovers that placed them well above the \$20 million or 1.3 % category of large enterprises identified in Construct New South Wales (DPWS 1998). Each of these large enterprises were selected because of:

1. the significant role they play in the direction and development of the construction industry in the state;
2. their relationship with the State government as a client;
3. their support for this research project either through membership of the steering committee or as a direct industry partner, and
4. possibility of providing examples of innovation.

Interviews on the generic competencies and their relationship to workplace reform were conducted with site employees. The data identified the generic competencies of communicating ideas and information (KC 2), planning and organising activities (KC 3), working with others and in teams (KC 4) and collecting, analysing and organising information (KC 1) as having an unequivocal role in the new construction industry workplace where consensus and cooperation are emphasised.

In the initial stages of the research workplace reform covered a range of construction industry issues including, OH& S training, teamwork, the way work is organised, environmental practices, industrial relations and technology.

Research design

Phase 1 had two components. Firstly, interviews were conducted that allowed for a generalised exploration of potential themes and issues using a standard protocol. After all the necessary approvals were obtained to enter each construction site, seven to ten detailed interviews were conducted with a cross-section of employees. It was decided that interviews would not be tape-recorded to ensure an easy rapport was established with every participant. Detailed field-notes were kept; accurate records of comments made and these, in turn were shown to participants for verification and in some instances their approval to quote.

The interview protocol requested general descriptive information about the company, the site, work organisation, formal training arrangements and informal learning practices. In requesting each interviewee to describe a typical day the interview then focussed on the role of the key competencies and workplace reform. Responses were recorded by the interviewers working in partnership with one taking notes. The responses were drafted and returned to the participants to allow for comment. This material was then written up in case study format. These case studies provided documentation of themes and issues to be investigated in the next phases of the project.

Secondly, an industry forum was conducted, using the data collected as a basis and providing an opportunity for a variety of industry players including, training organisations, construction companies, union representatives, government agencies and master builders associations, to meet and discuss industry issues. The forum itself contributed data to be utilised in Phase 2.

Phase 2 involved an initial analysis of the Phase 1 data that showed the generic competencies: teamwork, communication and planning as particularly significant to site performance. A survey instrument was developed to focus specifically on these — particularly their transferability. Purposive sampling was used for the follow-up interviews to allow examination of

- the transferability of generic competence
- the effects of subcontracting arrangements on generic competency transfer within the industry

This data then informed the third and final phase of the project studies the workplace reforms of occupation health and safety and environmental practices and the transferability of generic competencies within these areas of practice.

EMERGING ISSUES

Our study has identified particular tensions in the industry that warrant explication including the multiple understandings of what constitutes workplace reform, competencies and problems of knowledge transfer

Workplace Reform

Workplace reform held a wide range of meanings for people across the industry including;

- Removal of demarcation
- Multi-skilling
- Work organisation — including teamwork
- OH& S training
- New environmental guidelines and practices
- Industrial relations consultative processes and
- New technology

More recently, major changes to the way work is performed have been affected by occupational health and safety reforms. In many respects reforms in the field of occupational health and safety have been perceived to be very successful, for instance:

"Scaffolding is 100% better than it was 10 years ago from an OH&S perspective"

Briefly, the main workplace reform trends identified in the initial data related to workplace agreements being well received — except for the issue of long hours:

"I often work 6 days per week. I can be rostered on for Saturdays and Sundays. I was working 60 hours plus per week..."

We found this to be quite typical.

Union/management relations were identified as generally good with a clear improvement in collaboration compared with earlier eras. But while relationships are co-operative and amicable on the surface there remain some residual tensions underneath

Teamwork was crucial to multi-skilling and work organisation. It was reported from one site that multi-skilling enhanced the development of a learning culture, increased productivity and helped keep teams together. Other data indicated multi-skilling in relation to subcontractors, was still difficult perceived to have more relevance for company direct employees than subcontractors. This can be problematic when a site relies heavily on sub-contractors performing specialist trade/task roles.

Management styles varied with individuals but all project managers were "reform conscious".

There remains a lack of formal accreditation for experienced competent construction workers.

Environmentally sustainable construction was practiced, but not necessarily supported by all workers:

"Waste management and recycling is being taken really seriously at the site. Getting all the subbies to take the environment seriously is a challenge..."

Training

The current emphasis on environment & OH&S issues has lead to their becoming very strong drivers of training.

Forum participants in Phase One of the research raised the issue of a fragmented Industry structure. Participants felt there is a need to address the implications of labour hire and out-sourcing on training and skills supply. Currently the labour hire companies are meeting the demands of the industry although they may have little or no involvement in training.

The Industry has been slow to respond to the promotion of the life-long learning agenda promoted by ANTA. The workplace reform that has occurred has driven training developments in the construction industry. Forum participants emphasised the need for the industry to develop a learning culture.

Debate at the Forum also arose concerning 'who is responsible' for driving the cultural shift from training to learning. This concern included questions about how to implement change, regulation through legislation and self-regulation. Participants acknowledged that the industry historically has tended to operate in an opportunistic way. Some key training initiatives however were perceived as offering a catalyst to change, and assisting in integrating learning into the industry's culture.

The processes of tendering and the reliance on subcontracting and labour-hire arrangements mean reforms sometimes have to be enforced:

"The problem is that recycling takes time and this can be costing the subbies money."

"They're pressured because of the tenders they offered and if there is a delay...they have to work longer hours and weekends to get the job done. They're being squeezed..."

Generic Competencies

A variety of interpretations and understandings of Competency Based Training are prevalent. There is also continued widespread confusion about what the competencies actually are.

The skills requirements of the construction worker are changing and are underpinned by clusters of the generic competencies.

Analysis of the competencies; using mathematical ideas and techniques (KC 5), solving problems (KC 6), using technology (KC 7) and cultural understandings (KC 8) was more problematic than the first four. Interviewees were equivocal about their relevance; some of the skills relating to these competencies were so implicit interviewees did not necessarily recognise their own skill. Also the link of these competencies except KC 8 to workplace reform was equivocal.

There is indication of an attitude in the industry that you either have a skill or you don't, and that the skill is something innate that cannot be learned:

"We had one foreman manager who was really good...He was organised, he wrote everything down...he had Man skills...You can't bottle it."

If industry improvement is a goal and involves the development of the generic competencies, then these assumptions about skills that can't be learnt has to be challenged.

The forum participants identified the generic competencies in the following skills areas, OH&S, language and literacy, environment and new technologies. The discussion also included the poor levels of communications within the industry. This links into the significance of KC 2.

The following direct quotations from construction workers illustrate indicate clustering and relevance of some of the competencies:

On teamwork:

"The work gets done quicker"
"A team can solve problems together"
"Some jobs can't be done without a team"

On effective communication:

"Facilitates teamwork"
"Helps with problem solving and learning"
"Informs the workers, facilitates inclusion, helps them do the job well"
"Helps with problem solving and learning"

On planning:

"I plan the job from the beginning, breaking it down into parts"
"Planning and deadlines are important because each job is dependent on others..."
"Lots of subbies don't plan properly — don't bring the right equipment, don't think ahead."

Transfer Knowledge and Skill:

The transfer of knowledge and skills was found to be quite inconsistent. For instance one electrical Foreman interviewed compared the experience of his current position where little communication or joint problem solving occurred, with his last job:

"[It] went really well because there were 5 buildings and each had a Foreman and there was a Senior Foreman — so we could all help each other problem solve. There was teamwork and joint problem solving. It meant the overall task was smaller."

Another interviewee pointed out that while the workers had learnt a lot the company had no mechanism to retain and build on both the experience and the attitudinal change:

"There has been a fundamental change in the attitude of the workers" [to environmental issues]...[The company] "don't have a dedicated Human Resources department...This means they make no investment in the future [they] are not very good at developing their employee skill resources."

On a different site, an interviewee commented:

"I have a reputation for enforcing occupational health and safety. I mean business. I was brought onto the site because safety was going to pot..."

The company relied very much on his individual skill rather than identifying what those skills were and developing mechanisms to replicate those skills.

DISCUSSION AND CONCLUSIONS

This paper provides an outline of the project to date. The data and results detailed outlined make clear the range and depth of the issues concerning the construction industry.

The generic competencies of communicating ideas and information, planning and organising activities, working with others and in teams and collecting, analysing and organising information play an unequivocal role in the new construction industry workplace where consensus and cooperation are emphasised. Workplace reform is changing the face of the industry, as occupational health and safety practices will attest. Ongoing reform is still occurring within OH&S and environmental practices. The competencies appear to be good indicators of how thoroughly reform has occurred, a site with good teamwork is also a productive workplace.

Workplace reform covers a range of construction industry issues including, OH&S training, teamwork, the way work is organised, environmental practices, industrial relations and technology. Generic competencies are integral to these reforms to the workplace; indeed the competency working with others and in teams is also identified as essential to reform progress.

As mentioned, the Competencies acknowledged by the industry to be significant and that link into workplace reform are Communicating Ideas and Information (KC 2), Planning and Organising Activities (KC 3), Working with Others and in Teams (KC 4) and collecting, Analysing and Organising Information (KC 1). The other four competencies (KC 5, 6, 7 & 8) were found to be problematic for this research because their relationship to workplace reform was ambiguous and fall outside the project scope.

Industry reform is by no means straightforward, affected by the competing forces as have been outlined in this paper and the industry is large and a major source of financial activity and employment. In New South Wales it has been undergoing immense changes in the last decade and this is unlikely to halt in the near future. The industry stakeholders have been attempting to work together to develop a more consensual approach and the State government is encouraging change and regulation through the development of innovative policy and legislation. The work being done in policy regarding occupational health and safety and environmental practices, is significant, although there are indications in this research that there is still a gap between policy and practice. A source of tension in the implementation of any change, is how to include the subcontractors and the increased out-sourcing of labour in learning and training practices. The industry's 'dollar and material outcomes' focus limits what is achievable in learning and training.

Nonetheless the importance of communication, teamwork, planning & organising and collecting, analysing & organising information appear to be self-evident. In reality cultivation, recognition and

enhancement of these skills do require deliberate learning and training strategies. And the same applies to the transferability of generic competencies.

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