

Workplace safety implications of cultural diversity on Australian Construction Sites: A pilot study

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Abstract

Cultural diversity has become a distinctive feature of Australia's construction workforce. There is a need for a systematic investigation into the cultural divergences among workers in different ethnic groups and their implications for the workplace health and safety management in the construction industry. This research was proposed to examine the workplace safety implications of cultural diversity issues on construction sites. As the pilot study of a 3-year research program, this paper aims to identify potential workplace safety issues caused by cultural diversity on construction sites. Data were collected through semi-structured interviews with 10 safety professionals. The results of the semi-structured interviews indicate that cultural diversity has an influential impact on many aspects of safety practices on construction sites, e.g., management commitment; communication; workers' involvement; supportive environment; supervisory environment; personal risk appreciation; work pressure; training and education; and rules and procedures. The issues that were identified from the semi-structured interviews will be used to develop a quantitative data collection instrument which aims to develop a framework for managing construction safety in a multicultural workforce (the second stage of this research).

Keywords

Construction, safety, cultural diversity, Australia

1. Introduction

Ethnic and cultural diversity is one of the defining features of Australian social and economic life. Historically, Australia has relied heavily on immigration for its population growth. Ac-

According to the 2006 Census 22.2% of the Australian population was born over-seas, and 62% of this overseas born population, originate from non-English speaking countries (ABS, 2009; DIAC, 2009). A high level of ethnic and cultural diversity also characterizes the Australian workforce. Sixteen per cent of the Australian labor force is from non-English speaking background (DIAC, 2009) and the Australian construction industry is one of Australia's largest and most culturally diverse, directly employing about 9.2% of the working population (ABS, 2009). Diversity may be defined as the presence of differences among members of a social unit (Jackson et al, 1995). Diversity is an increasingly important factor in organizational life as organizations worldwide become more diverse in terms of gender, race, ethnicity, age, national origin and other personal characteristics of member (Shaw and Barrett-Power, 1998). The construction industry is notorious for its poor safety record when compared with other industries. It was estimated that 640,700 persons suffer a work related injury each year in Australia (Australian Bureau of Statistics, 2010). There were 40 fatalities recorded in the preliminary data for 2008-09, which was the highest number of fatalities of all industries. This corresponds to a fatality rate of 5.9 fatalities per 100,000 in 2008-09, which is more than twice the rate of 2.3 for all industries (Safe Work Australia, 2010).

Numerous studies undertaken regarding cultural diversity within the construction industry have already identified that if workplace safety is not effectively managed, the consequences result in increased safety risks on construction sites. Studies have also identified that workers of non-English speaking backgrounds (NESB) are more exposed to safety risks compared to other workers. Geraghty (1979) identified that migrant workers contribute an alarming rate of accidents and an injury rate at twice of the local workers. It has been revealed that injuries to foreign-born workers accounted for 29% of all documented occupational grievances (ABS, 2001) and this data has been linked to 44,300 work related injuries to NESB workers. Consequently, if management is ineffective, NESB workers can place significant risk on employers who must comply with the strict safety regulations (Loosemore et al, 2003).

Previous research has identified various factors that may contribute to the high level of workplace injuries of workers within the Australian construction industry. However, there are few studies which systematically investigate the workplace safety issues in a multicultural workforce in the construction industry. Additionally there is little evidence that Construction Company's provide sufficient training to supervisors and managers on how to work with the cultural diverse workforce. Against this background, this research was proposed to examine the workplace safety implications of cultural diversity issues on construction sites. This paper presents the preliminary results of the pilot study, which focused on the identification of safety issues in a multicultural workforce and the development of a data collection instrument for the next stage of this research project.

2. Literature Review

2.1 Cultural diversity in Australia

The American Heritage Dictionary defines culture as 'the totality of socially transmitted behaviour patterns, arts, beliefs, institutions, and all other products of human work and thought considered as the expression of a particular period, class, community, or population'. Culture determines how we communicate, how we relate to people, how we regard property, our interaction with the environment, and our perspectives of time.

From 1973, Australian policy was implemented to accept multiculturalism. The current Australian policy is characterised by an emphasis on the productive or economic benefits of cultural diversity. The Diversity Works Policy (previously entitled Productive Diversity) seeks to promote the positive economic outcomes of managing cultural diversity. The policy commits the Australian Government to three core strategic priorities: community harmony, access and equity, and diversity management (COA, 2005). Even in best practice organisations, diversity management has a narrow focus, e.g. prioritising women, harassment, caring responsibilities and disability ahead of religion, nationality and race. Of note is the fact that there was a relative absence of initiatives addressing issues associated with race and ethnicity.

2.2 Cultural diversity in construction

Cultural diversity has resulted in Australian Construction sites being characterized by clearly distinguishable cultural and linguistic territories, typically demarked by occupational boundaries (Loosemore et al, 2003). For example, Italians tend to concentrate in concrete trades, Croatians in carpentry trades, Koreans in tiling trades, Maoris in steelwork and scaffolding, Irish in labouring, etc (Loosemore et al, 2003). There is evidence that this cultural trade demarcation presents a significant organizational challenge for project managers. For example, Loosemore and Lee (2002) found significant communication problems with migrant workers on Australian construction sites. Loosemore and Chau (2002) found worrying evidence of racism and discrimination towards them. There is also evidence that migrant workers are exposed to higher safety risks than those born locally. For example, Geraghty (1979) identified an alarming number of accidents among migrant workers and an injury rate twice that of local workers.

Cultural diversity within a workforce manifests itself in many tacit and explicit ways and can be evident in the different physical traits, customs, beliefs, attitudes, values, codes of dress, artefacts, habits and behaviours that characterize a workforce (Victor, 1992; Redding and Stening, 2003). Cultural factors also determine the ways in which employees encode and decode messages, the meanings they attribute to messages and the conditions under which certain messages may or may not be sent, noticed or interpreted (Jandt, 1998). However, arguably the most distinctive and overt expression of culture is linguistic. Language problems are the greatest barrier to the smooth integration of migrants into a workforce, at least in the short term (Victor, 1992; D'netto, 1997). Indeed, almost 40 years ago, Mills (1972) warned of this problem amongst ethnic groups in the USA construction industry and more recently. Lim and Alum (1995) identified communication problems with foreign workers as the fifth most important problem to be addressed in improving the productivity of the Singaporean construction industry.

The phenomenon of cultural conflict and racism often causes problems when two cultural groups that are in conflict in a global context, are dependent upon each other within the project program. The consequence of this phenomenon was that interactions with and between different ethnic groups on site were often difficult, repetitive, protracted and frustrating. There is evidence that over the last few years, the number of racist incidents in Australia has grown. Similarly, Loosemore and Chau (2002) found very high rates of racist experiences by Asian-Australians in construction workplaces, principally including 'racist name-calling' (66%), 'racist jokes' (67%), 'racist material' (64%), 'segregation' (56%), 'offensive gestures' (49%) and 'physical abuse' (56%). They concluded that "racism is seen as an inevitable con-

sequence of working in the construction industry, one that is largely ignored by managers and accepted and tolerated by workers”.

3. Methods

As the first stage of a 3-year research program, this paper aims to identify potential workplace safety issues caused by the cultural diversity on construction sites. The deliverable of this stage was the development of a data collection instrument for the next stage of this research, which aims to develop a framework for managing construction safety in a multicultural workforce.

The interviews were semi-structured so that the research can ask in different ways for different participants. A semi-structured interview is flexible, as it allows new questions to be brought up during the interviews as a result of what the interviewee says (Tan, 2004). The interview questions aims to explore the interviewees’ perceptions towards cultural diversity issues and their impact on the safety practices on sites. This study’s interview is shown in Table 1. The table indicates the subjects and areas of focus for the semi-structured interviews.

Table 1: Semi-structured Interview Questions

<i>Section</i>	<i>Subject</i>	<i>Area of focus</i>
A	Cultural diversity	<ul style="list-style-type: none"> • Cultural diversity situation; • Issues caused by this situation.
B	Impact on safety practices	<ul style="list-style-type: none"> • Management commitment; • Communication; • Workers’ involvement; • Supportive environment; • Supervisory environment; • Personal risk appreciation; • Work pressure; • Training and education; • Rules and procedure; • Appraisal of work hazards.
C	Recommended actions	<ul style="list-style-type: none"> • Action by managers; • Actions by supervisory staff; • Actions by frontline workers.

The interviewees consist of 10 safety officers/safety coordinators/safety managers from 10 different construction firms. All of the ten interviewees have more than 8 years of experience in the construction industry. The initial contact with the interviewees was through the researcher’s personal connections. All the 10 interviewees are currently working on the construction sites in Sydney which involve a multicultural workforce. The interviews were conducted in the interviewees’ site offices or the cafe to enable a friendly conversation. The average duration of the 10 interviews was 2 hours and 10 minutes. Sometime the interviewees had to get back to work and then the interviews had to be interrupted. In such cases, a follow-up interview was scheduled at another day. The interviews were recorded for the subsequent coding and analysis.

4. Results and Discussions

Through the analysis of the contents of interviews, the workplace safety related issues which were caused by the cultural diversity on the ten construction sites were identified. These issues are now discussed in the following 10 categories of safety practices (Feng, 2013): (1) Management commitment; (2) Communication; (3) Workers' involvement; (4) Supportive environment; (5) Supervisory environment; (6) Personal risk appreciation; (7) Work pressure; (8) Training and education; (9) Rules and procedure; (10) Appraisal of work hazards.

4.1 Management commitment

The interview result shows that the management's commitment to workplace safety was impacted by the cultural diversity on site. A safety manager of Firm C noted:

Cultural diversity is obviously a factor which has an impact on the demonstration of the management's support or priority towards workers' safety. The fact is that managers, supervisors and workers in my project belong to different ethnic groups. We did not perceive the efforts of managements to address the cultural conflicts between workers and construct a harmonious working environment. The managers did not provide enough language assistance for the workers with limited English. Moreover, management seldom recognizes the custom of different ethnic groups.

Moreover, it was also noted that different ethnic groups may have different views on the company's incentives and penalties schemes, as a safety manager of Firm A shared:

The workers with Asian background are afraid of penalized due to safety reasons; while the workers with Australian cultural background do not seem to care about the penalties as they feel that the chance of being punished would be very small.

4.2 Communication

Communication is a major issue which is caused by the cultural diversity in a project team. This is consistent with the findings of previous studies regarding cultural diversity issues in construction industry (e.g. Loosemore and Lee, 2002; Loosemore and Chau, 2002). The interviews of this study indicate the following communication problems caused by the cultural diversity on site:

- *Workers with limited English are more likely to breach safe work procedures;*
- *Not being able to communicate to co-workers on site increases safety risks;*
- *Workers with limited English have difficulties in understanding the safety instructions;*
- *Non-English-Speaking-Background (NESB) Workers did not report the incidents due to the limited English ability;*
- *NESB Workers are reluctant be involved in safety activities (e.g., safety audit, safety committee, and safety inspections) due to their communication problems;*
- *On site signage should be in different languages to address all cultural groups;*
- *NESB workers did not fully understand the safety risks associated with the work they undertake.*

4.3 Workers' involvement

Workers' involvement addresses the extent to which the workers are involved in safety activities, such as safety inspections, accident investigations, developing safety interventions and policies, reporting injuries and potentially hazardous situations, etc (Feng, 2011). Almost all of the interviewees have noted the impact of cultural diversity on workers' involvement in the safety related activities. For example:

- *The workers who are ethnic minorities seem reluctant to report any incidences or near misses because they do not want 'make trouble';*
- *NESB workers do not like to be involved in the safety committees because they sometimes cannot fully understand the discussions during the meetings;*
- *People do not report others for not working safely because they do not have good relationships.*

4.4 Supportive environment

Supportive environment refers to the degree of trust and support within a group of workers, confidence that people have in working relationships with co-workers, and general morale (Feng, 2011). The interview result shows that supportive environment was impacted by the cultural diversity through the following ways:

- *Workers are not likely to report unsafe behaviors of their co-workers for fear of being retaliated against;*
- *workers prefer to work with people with the same or similar cultural background;*
- *onsite racism leads to workers not working together safely;*
- *Racism lowers morale between workers;*
- *Racist name-calling and hate talk distract workers from doing their work safely.*

4.5 Supervisory environment

The success of a safety management system program relies not only upon the management commitment, but also upon the ability of supervisory personnel to ensure that the program is carried out during daily operations (Feng, 2011). The examples of the issues related to supervisory environment which were identified from the interviews are:

- *Supervisors are lack of cross-cultural leadership abilities;*
- *Supervisors are not concerned about the cultural conflict on sites;*
- *Supervisors do not have good relationships with the workers who have different cultural background with them.*

4.6 Personal risk appreciation

Attitudes toward safety have been found to be associated with personal perception of risks and individuals' willingness to take risks. Some interviewees commented that people's view and attitude on safety risks are always different to those of workers from other cultures. A safety officer from company A shared that the workers with Australian culture are more concerned about the results while the workers with Asian culture seem to be more concerned about the process of doing the job. It is therefore likely that the Australian workers are more willing to take risks to complete a construction task than the Asian workers.

4.7 Work pressure

Work pressure refers to the degree to which workers feel under pressure to complete work, and the amount of time to plan and carry out the construction work (Feng, 2011). The workers with different cultural backgrounds were observed to have different attitudes towards the work pressure. For example, the safety coordinator of company F noted that "*workers with western culture seem to be more efficient when doing a job and they tend to more self-motivated, while the workers with eastern culture seem to be more passive and tend to rely on the supervisors' instructions*". Therefore, it seems that workers with eastern culture are more likely to work under pressure.

4.8 Training and education

All the interviewees commented that cultural issues be incorporated in the current safety training systems. They argued that training is a critical source of solving cultural conflict on construction sites. The interviewees also recommended that the safety training programs should cover the contents such as overview of the workers' background on their sites, cross-cultural leadership and supervisory skills, principles of equal employee opportunities and anti-discrimination, etc.

4.9 Rules and procedure

Safety rules and procedures are the core component of safety management systems. As noted earlier, safety rules and procedures may have different impacts on the safety behaviors of workers from different ethnic groups. Workers with western culture are more concerned about the results rather than the process, thus they may not be strictly adhere to the safety rules and safe work procedures. Eight out of the ten interviewees also noted that managing cultural issues was not adequately addressed in their companies' safety management systems and rules. Another issue related to this category is that the safety rules and procedures are not fully understood by the NESB workers.

4.10 Appraisal of work hazards

Workplace hazards are defined as tangible factors that may pose risks for possible injuries. The interviewees did not report any cultural issues related to the appraisal of work hazards. They recognized that their companies have implemented the hazard analysis or risk management programme as well as the control measures for identified risks, regardless of the workers' cultural background.

5. Conclusions

This paper examined the workplace safety issues caused by the cultural diversity on the Australian construction sites. The results of the semi-structured interviews indicate that cultural diversity has an influential impact on most of the safety practices on construction sites, e.g., management commitment; communication; workers' involvement; supportive environment; supervisory environment; personal risk appreciation; work pressure; training and education; and rules and procedures. The issues that were identified from the semi-structured interviews will be used to develop a quantitative data collection instrument which aims to develop a framework for managing construction safety in a multicultural workforce (the second stage of this research). In the future, further analysis of the workplace implications of the cultural diversity on construction sites will be conducted in the context of cultural and organizational theories.

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