

Managing the interface between work and study in a construction management program

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Abstract

Many construction management students work in industry both before and during their formal tertiary studies. This often means that they have to balance conflicting demands on their time. Project managers in the industry often work very long hours and sometimes they expect the same of their building cadets and trainees. Flexible delivery of study programs can go some way to assisting with this problem. However, there are specific areas where universities are able to give a valid educational experience which is quite different from that of the workplace. It is desirable that working students are given sufficient time to participate in both the formal and informal aspects of university life. A statistical analysis of student evidence provided for a compulsory industry based learning unit in one university in Sydney has revealed that some students work as many hours as a full time employee, while at the same time attempting to study full time. The phenomenon of 'burn out' among such individuals has been identified by several researchers. This paper describes the situation at one Australian university. It concludes that the problem cannot be solved by the universities alone. Professional bodies and employer groups should take a lead in explaining the need for a reasonable time allocation for working students to study. A broader dialogue between industry and universities about how best to manage the competing demands on student time is highly desirable.

Keywords: Work integrated learning; working hours; experienced based learning.

1. Introduction

Most university students in Australia undertake some form of paid work while they study. Robbins (2010) reports that over 70% of full time Australian university students engage in an average of 14.8 hours of paid employment per week. Recent years have seen an increased concern about the impact on student performance of long hours spent in the workforce (D'Alessandro and Volet 2012; Hall 2010; Robbins 2010; Devlin et al. 2008; Lingard 2007; Jonkman et al. 2006; Lingard 2005). In some cases this work is low-paid and low-skilled and

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can be completely unrelated to the area of study that the students are pursuing at university. For construction and building students, however, the reported picture is somewhat different. Most construction management students find employment in the construction industry while they are studying at university (Lingard et al. 2003). This has both positive and negative effects. There are certainly many aspects of construction management that are best learnt through experience. Students are able to compare formal university education with on-site training. They may have the benefit of the best of both worlds. Many employers go to considerable effort to see that students are exposed to a plethora of different areas in construction in a structured and managed fashion. Nevertheless, there is considerable anecdotal evidence that some students are working very long hours and finding it difficult to manage their study workload.

There has been a general increase in the working hours of fulltime employees in Australia over the past ten years (Townsend et al. 2011; ABS 2012). The construction industry is widely recognised as a sector where long working hours are commonplace (Lingard and Francis 2007). This may stem from the competitive nature of construction procurement, job insecurity, strictly regulated time constraints and the complexities of project-based delivery. Lingard and Francis (2004) reported that the average number of hours worked by site-based workers was 63. 56 hours was the average worked by employees in site offices and 49 was the average among construction company head office employees. All these figures are well above the average weekly hours work by the general workforce which is 40.3 (ABS 2010). With these long hours becoming the industry standard, it is not surprising that there is pressure on those who are new to the industry to work long hours as well. In this context, some critical issues have been raised about the human impact of long work hours. These include: the 'burnout' phenomenon; family life deficits; workplace injury rates; mental illness; and even suicide among stressed-out workers.

1.1 Burnout phenomenon

Lingard et al. (2007) defined the burnout phenomenon among construction students as being described by three components: emotional exhaustion; cynicism and reduced personal efficacy. Research has also linked burnout to lower levels of worker performance, job satisfaction and organisational commitment (Maslach et al. 2001). At the same time, motivational issues have been linked to higher levels of absenteeism and staff turnover in construction businesses (Smithers and Walker 2000). Burnout can be regarded as the antithesis of engagement. Highly engaged people are said to have confidence in their own ability to act effectively and to deal with competing demands on their energy and time. Engaged learning is said to occur when students have the time, energy and the resources to devote to activities designed to enhance their learning at university. (Krause 2007). There is significant evidence to the effect that at least some construction students are working sufficiently long hours to make them vulnerable to potential burnout (Lingard 2007).

Family life issues

1.2 Family life issues

The long hours commonly worked in the construction industry mean that even for those individuals who do not succumb to burnout, there may be ongoing issues with balancing family life and work/study demands (Lingard and Francis 2007). This is an increasingly important issue for universities as the number of mature age students rises as a proportion of overall student numbers. At some Australian universities, many construction students enter tertiary study after some years working in industry in a trade or labouring capacity. These students often have existing family and work commitments which are difficult to balance with study requirements. In this respect, Brown et al. (2010) found that making provision for dedicated days off on weekends was more important than total hours worked. This is useful to note in the context of university pressure to schedule classes and examinations on weekends in order to make better use of capital resources.

1.3 Financial pressures

According to Curtis and Lucas (2001), there has been a fundamental shift in the youth employment market in recent decades. The young workers of the 1970s and 1980s were mostly school leavers. These have been replaced by students, trainees and the underemployed. Devlin et al (2008) has reported that student expectations and engagement with their university has changed significantly as a result of cost pressures stemming from the application of the 'user pays' principle to higher education. In a large national study, they found that students were making more money in industry than in the past but were also receiving less government assistance. In addition, one quarter of the undergraduates who were working reported regularly missing classes or equivalent activities because of employment commitments (Devlin et al 2008, p.118). Many students also reported that their courses did not provide for the flexibility that they needed to fit in with their paid employment. The shift away from public support to private support has a definite impact on student engagement. Krause et al. (2005) found that 16% of surveyed students felt that they did not belong to the university community. This disengagement does not stem entirely from financial pressures but there is a relationship between the two.

1.4 Workplace injury and serious illness rates

The negative impacts that long working hours have on student performance are increased when the potential for workplace injury is considered. Loudoun (2010) analysed injury rates of construction workers and found that young workers are at an elevated risk of injury. It was suggested that this may be due to their limited work experience, poor risk assessment, vulnerability to peer or work pressure and sensation seeking. Anecdotally, several academics have observed an increase in students needing time off from study to recover from workplace injury.

As well as physical injury there is some evidence to suggest that working in the construction industry can have severe mental health consequences for some people. Heller et al. (2007) studied the incidence of suicide in the construction industry in Queensland and found a

crude suicide rate of 40.3 per 100,000. This was significantly greater than the average working age Australian male rate. Young male employees were considered to be at excessive risk of suicide. Separation or divorce, relationship problems, and untreated psychiatric conditions were considered to be the likely major contributors to the problem. This is another factor which policy makers need to consider when making decisions about the structure of work and tertiary study linkages.

1.5 Role of professional bodies

Industry and professional bodies are well aware of the current situation with regard to the stresses created by long working hours. Many professional bodies have spoken out on the issue of construction industry suicide rates. Robert Hunt, Australian Institute of Building Chief Executive officer has declared that:

“The fact that construction workers are six times more likely to die from suicide than an accident at work is a shocking statistic” and “Through a variety of events for professional builders, AIB tries to play its role to build morale and support networks in the construction industry.” (AIB press release)

A similar emphasis may need to be given to the issue among future construction professionals.

1.6 Student profile from study

The research for this paper was undertaken at one Sydney university. The student profile in the construction management program consists of a high percentage of non-school leavers, articulating students from vocational training programs and a high level of ‘first in family’ at university students. As McLaughlin et al (2012) report, students enrolled in the construction management program at the subject university are more likely to come from low and medium Socio-Economic Status (SES) groups than other universities (The low and medium SEs rates at the subject university are 16% and 46% compared with the study group of five universities where the corresponding rates are 12% and 35%). For these reasons an analysis of the workplace hours for this one university is likely to present a useful window into the potential difficulties caused by student burnout, family life imbalance, financial pressures and workplace injury and serious illness. These issues if left unaddressed have the potential to cause considerable difficulty for the construction industry in the coming decade.

2. Methodology

An analysis of logbooks and employer letters from an Industry Based Learning subject was undertaken to find out what indicative hours university students were working in industry. Industry Based learning is a compulsory unit for graduation at the university concerned. Students are required at their own initiative to complete 1200 hours of industry experience during their period of study in the construction management program. They must provide documentation of this experience in the form of logbooks or employer letters. All such documentation for the years 2008 to 2011 was assessed for this study. The hours recorded were averaged and recorded in Excel spreadsheets under individual code names which de-identified the students. Statistical analysis was undertaken of the results for 230 students and these are presented below. In addition, the letters and logbooks were encoded using NVIVO9 software to classify keywords which described the industry experience of the construction management students.

3. Results and discussion

The average hours worked per week by students, most of whom were at the end of their four year program, was 35.92. The range of hours worked was between 14 and 60. The results are displayed in Figure 1. It should be remembered that these totals are average hours worked over several months or years. Many employer letters noted that students worked four days a week during semester time and five or five and a half days outside university term. The majority of these students were enrolled in a full time load. The university expects that this means that they will spend 40 hours per week in attending class and private study. For students at the high end of the scale of hours worked, this is clearly not sustainable.

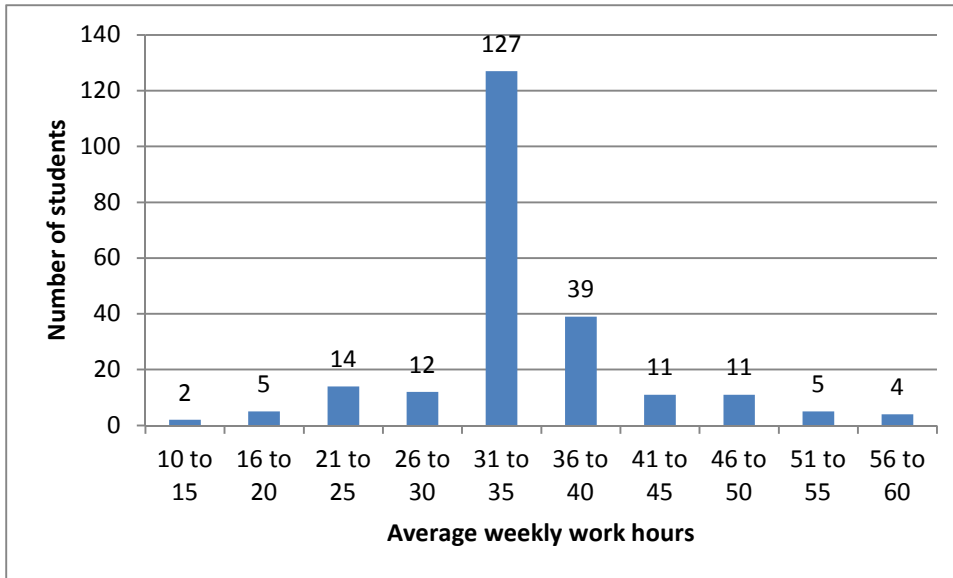


Figure 1: Average weekly hours worked in industry by construction students

Furthermore this pattern of many students working far more than what might be regarded as a reasonable number of hours was fairly consistent across the range of types and sizes of employer. Figure 2 compares the average hours worked in top tier construction companies (Dark coloured bar) compared with all other sizes of companies (Light coloured bar). Top tier companies were identified by using Construction Data lists and other market lists which identify high turnover construction and development companies.

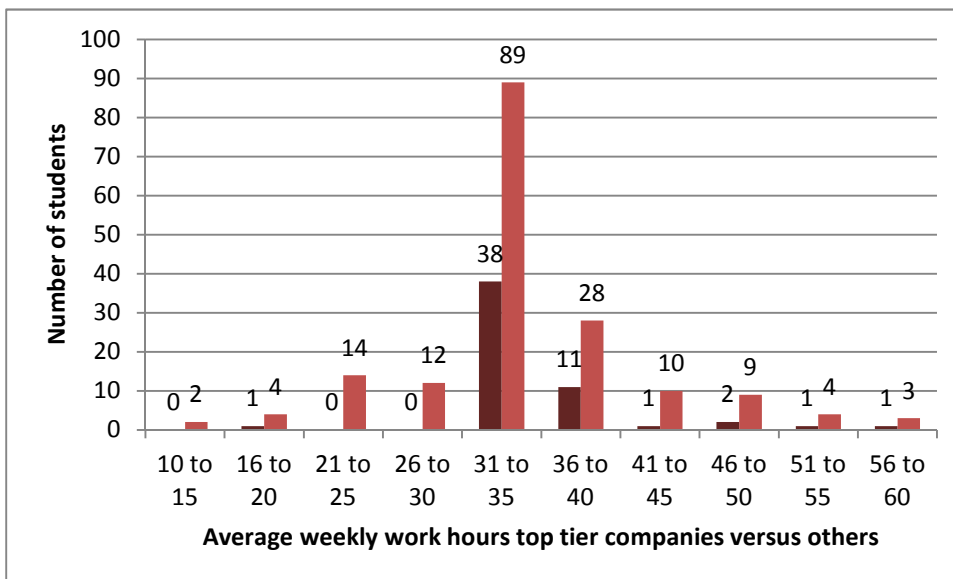


Figure 2: Average weekly hours worked by construction students with top tier employers shown in the darker shaded bars

The average hours worked was slightly higher for top tier companies at 36.56. Those students who worked very long hours (greater 45 hours per week) came from companies across the spectrum in size and turnover. They performed a variety of roles including: most commonly building cadet but also site manager, project coordinator and contracts administrator.

Employers were clearly aware of the hours worked while studying (identifying names have been removed from the quotations). One top tier employer wrote:

“Working full time as a cadet, while completing his degree, *Student A* worked an average of 52 hours per week totalling well in excess of the 1200 hours required by the University to meet the degrees requirements for practical experience.”

Another non top tier employer wrote:

“During university semesters, *Student B* works an average of 4 days per week from 7am to 5pm, and during university breaks/holidays, he works 6 days per week from 7am to 5pm.”

A similar employer wrote:

“For *Student C* a normal working week consists of a 60 hour work week, starting at 7am and finishing at 6pm Monday to Friday, with a half day on Saturdays. During his study, *he* was given one day a week to attend to his study commitments at university.”

While the total numbers involved in working very long hours is relatively small, it is indicated that some students are working excessive hours and that their employers are aware of this situation. It should also be noted that 30% of the students in the study worked more than 35 hours per week. It is difficult to see how this leaves adequate time for university study even in part-time mode.

3.1 Potential strategies

The problem of integrating work and university study is experienced in many discipline areas (Bates 2008; Barlow 2011; Brodie and Irving 2007; Curtis and Lucas 2001; Moore and Plugge 2008; Rhodes and Shiel 2007). Several possibilities are suggested as ways of dealing with the issue of excessive hours. The encouragement of online and blended learning is very much in favour at the moment. Capping the number of units that students can take if they are in full time employment is favoured by some academic staff. Compulsory attendance components have also been suggested in some cases. Such strategies are likely to fail without employer support. The professional bodies which cover the construction industry are supportive of the need to balance work, life and study. Yet despite this, long hours are still the norm for a significant percentage of workers in the industry. All stakeholders will need to be involved if a satisfactory solution is to be found.

4. Conclusion

Academics sometimes complain that student attendance at classes is less than it once was. Competing demands on student time go part to explaining this phenomenon. The pressure to work long hours in the construction industry is widespread and occurs at all levels of employment. An industry-wide strategy could potentially address the issue but will require accurate data on hours worked and a concerted effort to determine the optimum time that should be spent in the workplace while studying. The potential costs of ignoring this issue are considerable. Increased burnout rates of young employees, absenteeism, workplace injury due to fatigue and in the worst case suicide and self harm among those who cannot cope, are all possible if the current situation continues.

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