



The University of Sydney

AUSTRALIAN CENTRE FOR INDUSTRIAL RELATIONS
RESEARCH AND TEACHING (ACIRRT)

EDUCATION IN OCCUPATIONAL HEALTH AND SAFETY

edited by Michael Quinlan



Co-sponsored by Worksafe Australia

MONOGRAPH No. 5

Education in Occupational Health and Safety

The Role of Universities in Teaching Occupational Health and Safety to Industrial Relations, Law and Behavioural Science Students

edited by

Michael Quinlan

Co-sponsored by Worksafe Australia

ACIRRT Monograph No. 5

Published December 1991

by

Australian Centre for Industrial Relations Research and Teaching (ACIRRT)
University of Sydney
NSW 2006
Australia

Tel: (02) 692 3786/3869
Fax: (02) 692 4729

ISBN 0 86758 713 X

Contents

<i>Contents</i>	<i>i</i>
<i>Acknowledgements</i>	<i>ii</i>
<i>Abbreviations</i>	<i>iii</i>
<i>Notes on Contributors</i>	<i>iv</i>
1 Teaching OH&S to Industrial Relations, Law and Behavioural Science Students: An Overview <i>Michael Quinlan</i>	1
2 Teaching OH&S in a Law School <i>Richard Johnstone</i>	14
3 Teaching OH&S to Behavioural Science Students <i>Claire James</i>	31
4 Education in OH&S - It's Time To Stop Blaming the Victim <i>Ann Long</i>	39
Appendix 1: OH&S Programmes at Australian Universities - A Guide and Selective Profile	47
Appendix 2: Examples of Self Study Materials for an Occupational Health and Safety Course	76

Acknowledgements

This monograph, and the conference on which it is based, received generous financial assistance from the National Institute of Occupational Health and Safety (Worksafe Australia). I would like to express my gratitude for this assistance and to the efforts of Ralph Catts in particular. I would also like to thank ACIRRT for giving me the opportunity to run the conference at the University and Sydney and providing the necessary financial and logistical assistance. I am especially indebted to Greg Patmore, Russell Lansbury and Ron Callus for their help and good humour. Sue Edwards undertook a herculean organisational task which ensured the conference ran smoothly. She is also to be thanked for her help with this monograph. The Law School at the University of Melbourne provided facilities which enabled me to finish the monograph while I was on leave. Richard Johnstone, Graham Smith, Rosemary Hunter and others ensured that my stay there was both pleasant and informative. My own university (Griffith University) provided additional infrastructural support for the conference, especially via the efforts of Bob Collins and Helen Creevey. Finally, I would like to thank those who gave papers at the conference and also those who attended and took part in the proceedings. I hope this monograph bears some small testimony to the important contribution they have made.

Michael Quinlan

Abbreviations

ABS	Australian Bureau of Statistics
ACIRRT	Australian Centre for Industrial Relations Research and Teaching
ACTU	Australian Council of Trade Unions
ALDA	Australian Lead Development Association
AWIRS	Australian Workplace Industrial Relations Survey
CAD	Division of Commerce and Administration (Griffith University)
ENS	Environmental Studies (Griffith University)
HBS	Health and Behavioural Sciences (Griffith University)
HRM	Human Resource Management
MSDS	Material Safety Data Sheets
NIOSH	National Institute of Occupational Safety and Health (US)
NIOSHTIC	NIOSH Scientific and Technical Bibliographic Database
OH	Occupational Health
OH&S	Occupational Health and Safety
QUT	Queensland University of Technology
RTECS	Registry of Toxic Effects of Chemical Substances (US)
SIA	Safety Institute of Australia
TAFE	Technical And Further Education
VIOSH	Victorian Institute of Occupational Safety and Health (Ballarat University College)
VTHC	Victorian Trades Hall Council
WH&S	Workplace Health and Safety
WH&SO	Workplace Health and Safety Officer (Qld)
WHO	World Health Organisation

Contributors

Claire James is a Lecturer in OH&S at Griffith University. Originally trained as a nurse she helped to establish the first undergraduate degree course in OH&S in Queensland and has published articles on the social origins and impacts of occupational injury and disease. She is currently completing a research project on OH&S amongst subcontractors in the building and transport industries.

Richard Johnstone is a Senior Lecturer in law at the University of Melbourne. Apart from teaching OH&S to law students he has undertaken research upon a number of legal aspects of OH&S including court and inspectoral practices and the legal ramifications of pre-employment health screening. He is currently completing a major study of OH&S law and enforcement practices in Victoria. He has been a member of the organising committee of the ALTA Law Teaching Workshop since 1988 and has produced a number of publications on various aspects of law teaching.

Ann Long is an occupational physician with Worksafe Australia and a senior lecturer in occupational health at the University of Sydney. She is co-ordinator of the university's Master of OH&S programme - the first masters level course in OH&S offered in Australia. Her research has included directing a major study of blood pressure in the workplace, participation in the Australian Veterans' Health Studies (Agent Orange), and a longitudinal study of the effects of solvents on spray painters.

Michael Quinlan is Associate Professor in industrial relations at Griffith University. He teaches OH&S to both commerce and behavioural science students and has published widely on the subject of OH&S. He is the author (with Philip Bohle) of *Managing Occupational Health and Safety in Australia* (Macmillan 1991) and the editor of *Work and Health: Critical Essays in the Origins, Management and Regulation of Occupational Illness* (Macmillan, forthcoming).

1 The Teaching of OH&S to Industrial Relations, Law and Behavioural Science Students: An Overview

Michael Quinlan

Over the last 15 years the issue of occupational health and safety has assumed dramatically increased significance in Australia. Changes to legislation, policy and practices have created demands for new knowledge and skills at the workplace. Apart from the growing need for broadly trained OH&S co-ordinators and technical specialists it is also clear that all levels of management, trade union officials, elected worker representatives, lawyers practising in the area of industrial relations, and government officers require some knowledge of OH&S if they are to carry out their tasks effectively. Given this education in OH&S is important not only for specialist professionals but also for those undertaking training in the fields of industrial relations/human resource management, engineering, law, commerce, behavioural and social sciences.

The papers in this monograph are revised versions of papers presented at a conference on *Research and Education in OH&S* held at the University of Sydney on July 5 1991. The conference was organised by the Australian Centre for Industrial Relations Research and Teaching (ACIRRT) - a DEET funded national key centre - as part of its function of promoting research and teaching in industrial relations. The conference also received significant funding support from Worksafe Australia. Given the multidisciplinary nature of both industrial relations and OH&S a broad approach was adopted involving contributions by lawyers, psychologists, sociologists, occupational physicians and government officials as well as industrial relations academics. The conference had two related aims. The first was to indicate how recent research on industrial relations and related aspects of OH&S can contribute to a better understanding of why health problems arise at work and how they can be most effectively remedied. This involved looking at things such as the interaction of shiftwork with health and the

impact of union initiatives and regulation.¹ The second theme of the conference considered how universities could provide industrial relations, management, law, engineering and behavioural science students with a knowledge of OH&S appropriate to their future role in industry, unions, welfare agencies and the public sector. It is the second theme which forms the basis for this monograph.

In several respects the holding of the conference at the University of Sydney was especially appropriate. ACIRRT had recently published the first comprehensive survey of industrial relations teaching in Australia - and one which made specific reference to OH&S as part of the industrial relations teaching agenda. The industrial relations department (where ACIRRT is based) had also just initiated a masters level course in OH&S and was planning to introduce an undergraduate course in the subject the following year. Moreover, the University of Sydney has long been recognised as a leading pioneer of OH&S education in Australia. The university's School of Public Health and Tropical Medicine first offered a Diploma in Occupational Health in 1974 and this programme formed the basis for subsequently developments, notably the Master of Public Health and Master of Occupational Health and Safety. The industrial relations department could also claim that its interest in OH&S is not recent given that OH&S was first taught as part of an industrial relations course in the late 1970s by Dr Peter Sheldon (then a tutor in the department).² This initiative played no small part in my own decision to see OH&S as something that was not only relevant to research in industrial relations but also something which should be taught as an integral element of an industrial relations teaching programme. On moving from the University of Sydney to Griffith University in 1980 I was able to draw on the lead offered by Peter to incorporate OH&S into industrial relations programme although it was only in 1989 that a separate course was initiated (see Chapter 3).

Of course, tracing the roots of OH&S within the teaching of industrial relations at universities to demonstrate longevity does not, of itself, indicate why OH&S should be seen as an integral part of training in industrial relations or management more generally. It is clear that some industrial relations academics still see OH&S as tangential or temporary issue of at best limited significance to the subject. It is entirely reasonable for academics to question what should and what

-
1. Revised versions of papers from this part of the conference and a number of other papers are to be published in a separate volume. See M Quinlan (ed) *Work and Health: Critical Essays in the Origins, Management and Regulation of Occupational Illness*, Macmillan, Melbourne, forthcoming.
 2. A staff member in another faculty raised an official objection to this, questioning whether industrial relations had either the right or expertise to teach OH&S. The University of Sydney Senate referred this objection back to the Department of Industrial Relations which decided to proceed with the OH&S component. It is a mark of how far the field has progressed that not only have OH&S courses been developed within a number of industrial relations/management programmes but that constructive collaboration between various disciplines/academic divisions interested in OH&S is becoming increasingly common.

should not be taught within the bounds of a subject. Indeed, such critical questions, as well as questions in relation to teaching and assessment methods, should form a basis for deciding on course/programme design and revision. After suggesting that some of those critics might examine the content of their own courses in such a light I would offer a number of reasons why OH&S should be seen as an important aspect of an education in industrial relations and why until very recently industrial relations scholars have failed to recognise this.

From an industrial relations perspective OH&S has largely been seen as an issue relating to working conditions which could form the basis for industrial conflict and negotiation. Union and worker claims in relation to OH&S can be traced back at least 150 years even in Australia and we should not ignore the fact that struggles built entirely or in part around OH&S helped give rise to reduced working hours and the introduction of protective legislation and workers' compensation. More recently we have seen union campaigns in relation to numerous OH&S risks including asbestos and other toxic substances to name only the most obvious examples. Indeed, unpublished ABS data indicates that in recent years OH&S has been the primary causal factor in at least 10 percent of all industrial disputes - resulting in almost five percent of all working days lost - and has been a contributory factor in an unknown number of others (Quinlan and Bohle, 1991:337-338). We also know from the Australian Workplace Industrial Relations Survey (Callus et al, 1990) that OH&S plays an even more significant part of localised negotiations between shop stewards and management, being the third most frequent subject raised between the parties (after wages and working conditions).

An apparent increase in (or at least increased interest in) disputation and negotiation in relation to OH&S may be seen as indicative of broad and fundamental changes affecting the workplace. It seems clear that changes to OH&S laws in the last 15 years together with a rising community interest in health and environmental matters as well as the shift in production systems away from *Fordism* towards an emphasis on flexibility and quality (through notions such as Total Quality Management)³ have strengthened the significance accorded to OH&S in workplace management. Historically, OH&S standards and regulations were hived off from industrial relations and developed under a separate legal framework - a framework where avenues for the input of workers and their unions was minimal or non-existent. This represented, as Carson (1984:61-65; see also Carson and Henenberg, 1988) has shown a deliberate and ideological separation. The recent major overhaul of OH&S laws in Australia (providing for worker/union involvement in standard setting, monitoring and

-
3. A growing body of literature has begun to indicate the interconnectedness between maximising quality and OH&S in production/work systems including those involving maintenance and the provision of services. See for example T Fisher (1991), 'A "quality" approach to occupational health, safety and rehabilitation', *Journal of Occupational Health and Safety, Australia and New Zealand*, 7/1, 23-28 and K D'Souza, W Aldridge, K Belt, IB Campbell and H McKenzie (1989), *Quality and Safety Systems*, Maritime Transport, Wellington, New Zealand.

enforcement as well as empowering arbitral tribunals to handle some types of disputes or appeals) and other changes to industrial relations laws and awards⁴ have tended to reverse this separation at least in part.

This partial legal reintegration of OH&S and industrial relations has only recently begun to influence mainstream industrial relations literature and teaching. A number of early writers on unions and industrial relations such as the Webbs, Commons and others, although not questioning the legislative separation of OH&S and industrial relations, did nonetheless see OH&S as a relevant and important subject worthy of significant attention within their broader works (see Quinlan and Bohle, 1991:83). However, during the postwar flowering of industrial relations academics within the field went one step further by appearing to treat this divide as an appropriate intellectual boundary to the subject. There was a concentration on the institutional processes of job regulation and especially the determination of economic rewards (ie wage fixing). This undoubtedly reflected the development of the field within universities as an offshoot of applied economics. The waning influence of psychology (which has always maintained a strong interest in OH&S) on the field - at least in Australia - during the 1960s and 1970s also played a part. While the increasing influence of labour process literature on the field from the 1980s offered the potential to escape these confines little of this was realised because the health effects of the workplace hardly figured within the writings of leading labour process theorists (Quinlan, 1988).

Thus, we have been left with a situation where the growing general interest in OH&S has yielded little more in terms of industrial relations research than the odd article on a particular dispute over a health and safety matter. We also have been left with a situation where in the 40 or more years of teaching industrial relations at Australian universities the topic of workers' compensation, for instance, received virtually no attention⁵ even though it occupies a considerable amount of employer and union time/resources; even though workers are far more likely to suffer an illness as a result of their work than they are to engage in industrial action; even though the injuries giving rise to compensation claims entail four to six times the working time lost through industrial action; and even though the compensation system represents a major organ for dispensing social

-
4. Notable examples includes 124 of the Australian Industrial Relations Act (1988) which empowers the Commission to award strike pay where it is satisfied that industrial action was based on a reasonable concern about OH&S. It is now also increasingly common practice for grievance procedures in awards to explicitly recognise the right of workers to stop work where they have a bona fide OH&S concern notwithstanding the general requirement of such procedures that work shall continue while a grievance is being dealt with (see Quinlan and Bohle, 1991:344 & 356).
 5. This observation is also largely true in relation to the teaching workers' compensation within law schools. Although workers' compensation and common law damages claims for occupational illnesses represent a major source of employment for industrial lawyers these areas have only received brief attention within law degree programmes (being touched on in courses on employment law and torts).

justice at the workplace. If this is not sufficiently pointed criticism of limitations in terms of industrial relations teaching and research then several additional observations can be made.

First, the answer is not simply to devote time to the teaching of particular topics in industrial relations in rough accordance with the frequency that they become matters for dispute and negotiation. The emphasis on formalised bargaining as the core model of industrial relations has been responsible for a number of important omissions of which OH&S is only one. Indeed, at one level it is misleading to see wages, OH&S or other matters simply as separate issues. In practice they are often inextricably intertwined. A dispute over staffing levels, for example, may simultaneously involve questions of income security, seniority, job rights, union recognition or influence and OH&S. These dimensions cannot be neatly separated out. One implication of this is that the oft repeated claim that OH&S should not be subject to industrial bargaining is based on at least one demonstrably false premise.

Another implication is that OH&S does not simply represent an *issue* but is an integral part of workers' experiences - an ongoing part of their relationship to their job which interacts with other experiences to shape their attitudes and behaviour. It therefore has considerable if often recognised significance to industrial relations. Recent work by both sociologists and psychologists has much to offer industrial relations in this regard. For instance, research by the latter have shown that workers employed on rapid machined paced (ie externally controlled) tasks or those paid under piece rate payment systems (as opposed to time payment) suffered higher levels of physiological stress (see Spillane, 1984; and others cited in Quinlan and Bohle, 1991:156). Equally, negotiations over shift arrangements should be predicated on at least some understanding on the likely health implications (there is now a wealth of information on the health effects of shiftwork). These findings should be of interest to industrial relations academics in their efforts to better understand the sources of tension and dissent at work which give rise to conflict. To ignore the physiological underpinnings of worker behaviour or indeed the complex interaction between the physiological, psychological and sociological aspects of the workplace is to sell the subject short in favour of neatly defined but flawed intellectual boxes.

Second, recognition of the intertwining of OH&S with other considerations and aspects of industrial behaviour indirectly raises a further question worthy of attention. This concerns how certain of a number of intertwined issues are selectively converted into specific demands by industrial relations mechanisms and are then differentially treated by these mechanisms, including the importance that is attached to their resolution. There has been a tendency by industrial relations academics to ignore this selection and prioritising process rather than subjecting it to critical examination. Yet both academics and their students may learn much from asking why certain demands are handled differently and in this regard looking at how worker OH&S claims are handled. It may be suggested, for instance, that unlike questions of economic rewards OH&S problems have a pronounced tendency to give rise to control-based demands (such as the location and type of machinery or materials used, staffing levels and the timing of work)

which infringe more directly on what are seen to be relatively sacrosanct areas management authority than a wage claim. Of course, this observation itself rests on the ways in which negotiating agendas have been shaped in the past and especially the notion of managerial prerogative. Leaving the latter point aside it may also be suggested that OH&S demands are often of a type that are more easily resolved at workplace level both because the fear of setting precedents and unintended consequences make management concessions at industry or national level far less likely and because many of these demands will call for highly specific solutions (such as changes to particular manual handling arrangements) that would be difficult to generalise in any case. Both these suggestions raise interesting questions about how for instance the arbitration system has responded to OH&S claims.

Third, industrial relations academics need to recognise that the institutional processes which have most attraction to them - notably collective bargaining, conciliation and arbitration - represent only part of the range of partial mechanisms which deal with the employment relationship, or at least those parts of it with which they are centrally concerned. Like arbitration laws, OH&S laws are laws relating to labour or the regulation of employment. Industrial relations cannot confine its concerns to those OH&S issues which form the subject of collective negotiation within the framework of the arbitration system. In this regard it is worth noting the AWIRS (1991) finding that OH&S committees represented by far the most pervasive mechanism of formal joint consultation in Australian workplaces - something that has clearly flowed from recent changes to OH&S laws. Nor should we, or labour lawyers for that matter, confine our attention to those workers or workplaces which are subject to some form of collective/arbitral regulation. The limits of regulation in terms of OH&S laws and conventional industrial relations mechanisms (as in the case of subcontractors and the huge number of small firms) raise important policy and other issues.

Further, as has been increasingly recognised (see for instance Boxall and Dowling, 1990:195-214), industrial relations must engage another more managerialist and internal mechanism addressing the employment relationship, namely human resource management. The concern of human resource management with recruitment, selection and training and its heavy reliance on psychology (see above) have OH&S implications (such as the increasing use of pre-employment health screening) which industrial relations cannot ignore. On the other hand, the recognition of other mechanisms (and their limitations) by industrial relations is not one-sided. Indeed, one implication of this recognition will be an opportunity to enhance the influence and legitimacy of the forms of joint determination which have developed within industrial relations both as an avenue for handling particular OH&S problems and as a critical component of a more participatory approach to OH&S generally. There is some evidence to indicate that a small but increasing number of generally large employers have recognised the opportunities provided by a more participatory approach to OH&S (including union involvement). In several cases of which I am aware (notably *Chep Australia* and the Queensland Railways workshops at Ipswich) a participatory approach to OH&S, including worker innovation in tool design, has become to a greater or lesser degree a vehicle for more general workplace reform.

The particular cases just mentioned, which came to light as part of student field work for a course on OH&S being taught at Griffith University, reflected a broader experience that teaching OH&S has helped to build academic bridges between industrial relations and human resource management.

Fourth, although OH&S demonstrates the need for industrial relations research and teaching to critically examine its traditional boundaries and concepts there is another argument which rests less on the benefits to industrial relations from doing this but rather the benefits that will flow towards a better understanding of OH&S. That is, just as industrial relations may benefit in its understanding of OH&S by opening itself to the contributions of disciplines such as law, criminology, sociology, ergonomics and psychology so it may also contribute through its own particular knowledge of worker/management interactions to a better understanding of OH&S. A number of Australian books on OH&S already incorporate industrial relations as an important part of their handling of the subject (see for example, Gunningham, 1984; Mathews, 1985 and Quinlan and Bohle, 1991). The building of a genuinely multidisciplinary approach to OH&S has gained significant support over the last decade even if the precise nature of how various disciplines and perspectives are to be integrated (they cannot be simply lumped together) remains contentious.

Fifth and finally, ignoring all other arguments one could simply point to the stark facts that OH&S represents a major social problem both in terms of economic costs (estimated at \$10 billion per year in Australia in 1989, Morris, 1989) and in terms of human costs (underestimated at more than 500 killed [Harrison et al, 1989], more than 500,000 suffering lost time injuries or disease, plus numerous unrecorded instances of family disruption and suffering per year) which is placing increasing demands on managers, union officials, governments and various professional groups. This can be seen in the establishment or upgrading of the OH&S function within the industrial relations/human resource management unit of many organisations; the demands made on and by unions, workers' health centres and other voluntary agencies; and the upgrading and increased scrutiny of government activity. Of course these observations are relevant to the training needs of a far broader spectrum of professionals than general management and industrial relations specialists (with the private sector, government, unions or other agencies). The same point could be made in relation to the education of engineers, labour lawyers and other non-health specialists who nonetheless need such knowledge either because are likely to make decisions with critical OH&S implications (as in the case of an engineer) or they are likely to have offer advice or represent others in situations where such knowledge is important (as in the case of labour lawyers).

It is partly for this reason that neither the conference nor this monograph confined its attention to the role of OH&S in an industrial relations education. Indeed, there is much to be learned from looking at OH&S education amongst other *non-health* professionals as well as an even broader perspective on OH&S education from Ann Long of Worksafe Australia (see chapter 4). The chapters by Richard Johnstone and Claire James discuss the teaching of OH&S to law and behavioural science students respectively. Another useful contribution would have been from

engineering, especially given the strong safety science and engineering programme which has been pioneered at the University of New South Wales.⁶ In a number of these fields just mentioned there is already an overlapping of educational interests with industrial relations. There is already a trend here to recognise and cater for these overlapping interests - a trend the needs for OH&S education may be built into. For instance, there is commonly a management component in engineering education programmes and in a number of institutions such as the University of Sydney this includes a specific course offering in industrial relations. Acquiring knowledge of OH&S could be seen as a further part of this management education. Likewise those training as psychologists, rehabilitation counsellors and change agency consultants are likely to find themselves in situations where a knowledge of both industrial relations and OH&S is valuable. This too is finding recognition in programme design (see for example Griffith University's Health and Behavioural Science [HBS] Programme discussed in a later chapter). Finally, labour lawyers and industrial relations/human resource management professionals regularly interact in practice. Once again we may point to the University of Sydney with its Masters of Labour Law and Relations which is jointly run by the Law Faculty and the Department of Industrial Relations and includes a course in OH&S.

Such multidisciplinary or combined courses are not without problems. Some of these problems are made clear in later chapters. One problem is that overlapping interests do not mean that training needs are identical. Industrial relations professionals and labour lawyers both need a knowledge of labour laws but their needs are rather different given their later work roles. Labour lawyers will need a much finer appreciation of some aspects of the law which can lead to complex litigation. The same point can be made in relation to the provision of OH&S training to industrial relations professionals, labour lawyers and OH&S management professionals. Account also needs to be taken of what sort of knowledge base the students are coming from. For example, devising and running an OH&S law course as part of a law degree is very different to running a course for behavioural science students specialising in OH&S. As Richard Johnstone makes clear in his paper on teaching OH&S in the law school while he can presume these students have a good understanding of basic legal concepts and techniques he can presume no basic knowledge about OH&S or social theory. On the contrary, he may expect to encounter popularised prejudicial stereotypes like "the careless worker" which must be addressed before discussion of the law can fully commence. Nor does the teaching of OH&S law necessarily neatly mesh with other legal concepts and training, presenting additional challenges. He has also to battle with the widespread view that, like labour law generally, OH&S law is not seen as a very *prestigious* or important body of law within the broad ambit of a legal education. Teaching OH&S law to non-law students who are specialising in OH&S (such as students undertaking a work and health major in HBS at Griffith University discussed in Claire James' chapter) presents a quite different set of challenges as these students already have a strong knowledge of

6. The reasons for this omission are totally to do with the lack of foresight on the part of the conference convenor, from whom the editor completely disassociates himself.

OH&S by the time they undertake the course but have little knowledge of basic legal concepts and techniques. Although their knowledge of the latter will not need to be as refined as that of the law students a basic knowledge of prosecutorial and evidentiary provisions, for instance, will be valuable in their tasks as specialist OH&S co-ordinators, advisers and managers. Industrial relations education in OH&S law is likely to have requirements of a roughly similar order.

More fundamentally perhaps, as Claire James' paper highlights the introduction of a number of different disciplinary perspectives into a degree programme is fraught with difficulties even if the potential benefits are significant. Multiple disciplinary inputs may create friction amongst staff especially if these staff are drawn from different academic divisions which are engaged in struggles over scarce resources (a common feature of post-Dawkins universities). It can also lead to confusion amongst students if the contribution of the different disciplines are not related and the point of their engagement, including disagreements made clear. Obviously, to overcome these problems requires the development of a core philosophy or approach on the part of the teaching team which recognises the value of each disciplinary contribution, accords each an input appropriate to the overall goals of the programme, and tries as far as possible not simply to reconcile differences but to explain the basis of these differences so that students are in the best position to make their own judgement. Ultimately as Richard Johnstone's paper makes clear a university education has to balance skills training with the development of a wider knowledge of the world and the critical evaluative capacities essential to this. If multidisciplinary education in OH&S is fraught with difficulty it also provides a stimulating challenge.

The search for a core philosophy with which to bind an OH&S education is not a remote task nor one where important leads have not already been established. As Ann Long's chapter makes clear, for many years *victim blaming* explanations of occupational injury and disease enjoyed an undeserved popularity and acceptance even amongst OH&S practitioners. In recent years it has become clear that whatever their other disagreements leading researchers and educators in fields as diverse as occupational medicine, safety engineering, industrial relations, sociology, labour law, ergonomics, occupational hygiene and industrial psychology have, at least in broad terms, rejected *victim-blaming* explanations in favour of one which looks more closely at the physical or social/behavioural characteristics of the workplace. This represents an important shift and has already yielded better knowledge and policies with which to address OH&S problems.

Long's paper also highlights recent important initiatives by Worksafe Australia and the National Training Board which will provide a powerful stimulus to the provision of OH&S education not only for those being trained for roles in industrial relations but also the university training of engineers and architects - professions which play a critical role in the design of workplaces. Such initiatives need to involve not only undergraduate degree programmes but also graduate

degree and diploma programmes aimed at enabled those already practicing in these fields to upgrade their skills.⁷

State governments may also play an important role in terms of fostering OH&S education. As noted in James' chapter since 1990 the Queensland government has endeavoured to oversee the development of a comprehensive array of OH&S education programmes whereby overall standards can be progressively raised and unnecessary duplication of offerings by different institutions be avoided. To do this there has been a direct linking of educational standard setting and programme accreditation with perceived needs under the *Workplace Health and Safety Act (1989)*. The tripartite Workplace Health and Safety Council both sets minimum standards for various functionaries under the legislation (such as Workplace Health and Safety Officers) and accredits programmes, including those offered by universities, in terms meeting these standards. This could form a model for other states although as yet it has understandably concentrated on those with specific responsibilities for OH&S. Thus far, no direct initiatives have been made by the state government in relation to the need for a general OH&S input into the education of industrial relations professionals, engineers and architects. But there can be no doubt that the Queensland government has helped to stimulate development of OH&S education programmes (even providing direct funding assistance in some instances). There is, of course, a need to ensure that such developments at state level do not interfere with the national agenda which Worksafe is trying to develop.

There is evidence that activity by a number of professional groups is encouraging the growth of individual courses and programmes in OH&S. At least some, such as the Institute of Personnel Management of Australia, are considering the need for an OH&S component in their accreditation criteria. Such changes are of vital importance to industrial relations educators both directly and indirectly, given changes to the professional job market and the resulting development of courses in human resource management (generally as part of industrial relations programmes) at universities. The Industrial Relations Society of Australia has never been really concerned with professional accreditation. This lack of interest has often carried over to industrial relations academics. Yet a failure to consider and respond to moves, like those just mentioned, by related professional bodies could undermine the employment prospects of their students, especially as credentialing in OH&S becomes more widespread. At present a not insignificant number of industrial relations and human resource management practitioners belong to the Safety Institute of Australia - the largest OH&S professional body in Australia - which has a tiered accreditation system. Yet in the future access to it

7. One professional body which has shown a strong interest in the skills required by those already involved in OH&S at the workplace, and the education/training programmes most able to meet those requirements, is the Safety Institute of Australia (SIA). In August 1991, for example, a report was prepared for the Queensland Division of the SIA on the training needs of OH&S practitioners. In developing its recommendations the report drew closely on the performance criteria developed by the National Competency Standards Policy and Guidelines (see Farr et al, 1991).

for industrial relations graduates, even at the lowest grade, could become more difficult. It is not unreasonable to suggest as formal university courses and programmes in OH&S become more common, professional accreditation will be increasingly geared towards this. In turn, this is likely to affect initial job entry requirements and promotion prospects.

In sum, OH&S education has received impetus from both government and some professional bodies and this influence is likely to grow in the future. Industrial relations educators must take cognisance of this if they are to fulfil their own role effectively. However, the expansion of education in OH&S has not been only driven by government policy and professional interests. It was also critically dependent upon the initiative of individuals and groups of academics within the university system. This independent input, and the infrastructure upon which it was(is) based, need to be recognised.

Thus, in concluding this discussion of OH&S education in the universities it is worth commenting on what OH&S education demonstrates in relation to a disturbing set of pronouncements which have been made about the links between teaching and research in universities. In recent times it has become fashionable for some to question that there is any necessary or useful link between teaching and research. This has been associated with an attempt to redefine universities and, more especially, the role of academics within them. In short, it has represented an attack on the previously held notion that all university academics should be trained for and have a right to engage in both teaching and research. A partial splitting of these functions has been seen as both more realistic and cost-effective. Without entering into all the aspects of this debate some observations can be made which cast severe doubt on these (seldom if ever substantiated) assertions. Those making these allegations appear to overlook that there is a symbiotic relationship between the two. In most instances research directly or indirectly provides the literature which forms the basis for teaching. Thus, in industrial relations it has been the research of individual academics in the *pre-Dawkins* universities who supplied the overwhelming bulk of material used for teaching both in these institutions and in the former college sector. In the case of OH&S the foundation laid by research for teaching is, if anything, even more explicit. Research and publications on legal, management and industrial relations aspects of OH&S in Australia began to take off from the late 1970s but, with some notable exceptions⁸, it was not till a decade after (ie the late 1980s) that courses devoted to these aspects of OH&S began to be introduced. In most instances these courses were by pioneered by academics with a strong research interest in OH&S. A number, notably Breen Creighton, Neil Gunningham and

8. An OH&S law course taught by Breen Creighton was introduced in 1982 (previously it had been taught as a component of the course in Employment Law). More comprehensive programmes in OH&S which included some industrial relations, management and legal components were introduced by Ballarat College of Advanced Education (now Ballarat College of Melbourne University) and the Western Australian Institute of Technology (now Curtin University of Technology) in the late 1970s and mid 1980s respectively.

Adrian Brooks, produced books which were used as texts in the subject. It is also worth mentioning in passing that a number were actively involved in the development of better OH&S laws, policies and practices.⁹

In my own case it was only after researching in the field for more than ten years (and reading the books of others) that I felt able to initiate a full course on OH&S. Teaching this course with a psychologist (Philip Bohle) and learning from the enthusiastic feedback from students provided the basis for writing our own attempt at a book (Quinlan and Bohle, 1991). This book has since formed the basis for teaching OH&S courses at other institutions (including TAFE colleges) and has also found a ready market amongst OH&S practitioners. The explicit linking of teaching and research at the conference held at the University of Sydney in July 1991 represented in some senses the culmination of more than a decade of development (including two earlier conferences¹⁰). It helped give rise to an edited research monograph (see footnote 1) which will be used as a teaching tool. Hopefully it will also be succeeded by other conferences which can build upon and extend this momentum. Such details, generally unknown to those trying to reshape the education system, establish not only the symbiotic relationship between teaching and research but also the contingent manner in which such relations develop. The maintenance of multiskilled academics able to critically examine their own research and teaching agendas is essential if such innovative interactions are to continue into the future.

REFERENCES

- Boxall, P. and Dowling, P. (1990), 'Human Resource Management and the Industrial Relations Tradition' *Labour and Industry*, 3/2&3, 195-214.
- Brooks, A. (1988), *Guidebook to Australian Occupational Health and Safety Law* (CCH, Sydney, 3rd edition).
- Callus, R. Morehead, A., Cully, M. and Buchanan, J. (1991), *Industrial Relations at Work: The Australian Workplace Industrial Relations Survey* (Australian Government Publishing Service, Canberra).
- Carson, W.G. (1984), 'Hostages to History: Some Aspects of the Occupational Health and Safety Debate in Historical Perspective' in WB Creighton and

9. One person to move the other way (ie from policy and practice to academia) was John Mathews who was instrumental in establishing the ACTU/VTHC OH&S Unit and played a leading role in developing revised OH&S laws in South Australia. He also wrote a book on OH&S for worker health and safety representatives which came to be far more widely utilised (including being used as an introductory text in a number of OH&S courses) before ultimately taking a senior lecturing position within the Department of Industrial Relations at the University of New South Wales.

10. The first of these conferences was convened by Dr Evan Willis at La Trobe University, Melbourne in 1986 and the second by Dr Claire Williams at Flinders University, Adelaide in 1988. The next conference is being tentatively planned by Richard Johnstone to be held at Melbourne University in 1993.

- Gunningham, N. (eds), *The Industrial Relations of Occupational Health and Safety* (Croom Helm, Sydney), 60-78.
- Carson, W.G. and Henenberg, C. (1988), 'The Political Economy of Legislative Change: Making Sense of Victoria's New Occupational Health and Safety legislation' *Law in Context*, 6/2, 1-19.
- Creighton, W.B. (1986), *Understanding Occupational Health and Safety Laws in Victoria* (CCH, Sydney).
- Creighton, W.B. and N Gunningham (eds), (1985), *The Industrial Relations of Occupational Health and Safety* (Croom Helm, Sydney).
- D'Souza, K., Aldridge, W., Belt, K., Campbell, I.B. and McKenzie, H. (1989), *Quality and Safety Systems*, Maritime Transport, Wellington, New Zealand.
- Farr, T., Patterson, C. and Witheriff, J. (1991), *An occupational analysis and skills audit of workplace health and safety practitioners prepared for the Queensland Division of the Safety Institute of Australia* (School of Public Health, Queensland University of Technology).
- Fisher, T. (1991), 'A "quality" approach to occupational health, safety and rehabilitation', *Journal of Occupational Health and Safety, Australia and New Zealand*, 7/1, 23-28.
- Gunningham, N. (1984), *Safeguarding the Worker: Job Hazards and the Role of Law* (Law Book Co., Sydney).
- Harrison, J., Frommer, M.S., Ruck, E.A. and Blyth, F.M. (1989), 'Death as a result of work-related injury in Australia, 1982-1984' *Medical Journal of Australia*, 150, 118-125.
- Mathews, J. (1985), *Health and Safety at Work: A Trade Union Safety Representatives Handbook* (Pluto, Sydney).
- Morris, P. (1989), Minister for Industrial Relations, *Safer Workplaces - A National Approach*, Discussion Paper.
- Quinlan, M. (1988), 'Psychological and Sociological Approaches to the Study of Occupational Illness: A Critical Review' *Australian and New Zealand Journal of Sociology*, 24/2, 189-207.
- Quinlan, M. (ed) (forthcoming), *Work and Health: Critical Essays in the Origins, Management and Regulation of Occupational Illness* (Macmillan, Melbourne).
- Quinlan, M. and Bohle, P. (1991), *Managing Occupational Health and Safety in Australia: A Multidisciplinary Approach* (Macmillan, Melbourne).
- Webb, S & B. (1914), *Industrial Democracy* (Longman Green and Co, London).

2 Teaching Occupational Health and Safety Law in a Law School

Richard Johnstone

INTRODUCTION

This paper deals with the teaching of occupational health and safety law in Australian law schools. Its focus is not prescriptive or historical, but rather suggests one way in which the subject might be taught. The substance of the paper is drawn from my own experience of teaching occupational health and safety law at the University of Melbourne Law School.

Very little has been written about the teaching of occupational health and safety law in Australian law schools. This is not all that surprising, considering that until the 1980s very little had been written about any aspect of occupational health and safety in Australia.

Occupational health and safety law has never been considered to be part of any of the "core" compulsory subjects in Australian law schools. The two subjects in which issues relating to occupational health and safety law might be included are tort law (compensation for work related illness and injury) and criminal law (criminal liability for occupational health and safety contraventions). Most torts courses focus primarily on the common law, but rarely is there specific focus on work related injuries and illness - cases dealing with such issues are only included in courses because of their importance to development of the general body of tort law. Some torts courses do include components dealing with statutory compensation, and might include, albeit very briefly, some consideration of workers' compensation schemes. Most criminal law courses, however, deal with "traditional" crime - homicide, assault, sexual offences, theft, perhaps drug offences and so on. I am aware of no criminal law course which features occupational health and safety statutes, although recently some criminal law text books and case books (see for example Fisse, 1990; Brown et al 1990; and Gillies 1990) have included sections on corporate crime generally.

At the University of Melbourne, occupational health and safety law is taught in the undergraduate program, where just under half of the subject Employment Law is devoted to the topic. Occupational health and safety law is allocated twenty

two hours of class time. It is also taught as a discrete subject, Health and Safety at Work, a thirty nine hour course which is one of six courses in the new developed Graduate Diploma in Labour Relations Law. In this course students are not necessarily law graduates, but may be graduates in other disciplines, or have special experience in industrial relations.

To complete the full picture of the teaching of occupational health and safety topics in the Melbourne Law School, the first year subject, Torts and the Process of Law, includes the law of torts as well as a brief examination of Victoria's *Accident Compensation Act 1985*. The other first year subject, History and Philosophy of Law, does include some discussion of occupational health and safety law, principally in the section of the course which provides an introduction to empirical legal theory. In particular, the course materials include a number of articles dealing with occupational health and safety. These are Kit Carson and Cathy Henenberg's (1988) analysis of the genesis of Victoria's *Occupational Health and Safety Act 1985*, Kit Carson's (1970) empirical study of the exercise of the prosecutorial discretion under the *British Factories Act 1961*, Bridget Hutter's (1989) excellent study of "Variations in Regulatory Enforcement Styles", and Samuel Rea's (1983) rather narrow and philosophically conservative economic analysis of North American occupational health and safety regimes. Two other studies (Hawkins, 1984:225-233; Grabosky, Braithwaite and Wilson, 1987) further introduce students to issues of research into white collar crime. While all of these extracts are used to illustrate different aspects of the sociology of law or law and economics, they have the secondary function of focusing first year students on issues to do with prevention, the industrial relations of occupational health and safety, and the use of the criminal law in regulating white collar crime. This early focus on preventing workplace illness and injury helps to combat one of the central legal ideologies relating to health and safety at work - that prevention takes second place to compensation in the legal mind (See, for example, Creighton and Gunningham, 1985: 1,5-6; and Robens, 1972: para 218). This ideology is reinforced by the fact that all law students are taught about compensation early in their degrees, and never consider issues of prevention unless they do a course in health and safety law.

Both the graduate Health and Safety at Work course and the occupational health and safety component of the undergraduate Employment Law course basically take the same approach. The basic difference between the courses is that the graduate course is taught to non lawyers, and so more time needs to be spent dealing with basic legal issues and legal skills which are already familiar to undergraduate law students by the time they come to study Employment Law. Discussions of legal issues in the graduate class tend to take longer as students learn for themselves the methods and parameters of legal discourse. In addition, the graduate class is smaller, with students who have had a lot of industrial relations experience. This means that class discussion tends to be more closely related to the experiences of students at the workplace. This adds another dimension to class activities, and helps broaden the focus of the law graduates in the course who, in my experience, often have a disconcertingly narrow view of legal education and legal regulation.

The remainder of this paper sets out the basic issues involved in teaching occupational health and safety law in a law school. It examines teaching objectives relevant to a law school, and particularises them in relation to a course on occupational health and safety law. It then discusses the kinds of course content and the teaching methods that will facilitate the achievement of the teaching objectives set out.

THE COURSE OBJECTIVES

A university course should do more than train lawyers in the professional skills required for practise. Many law graduates, in fact, do not enter the legal profession. They may end up working in universities, as industrial relations practitioners, or in the public service, where they may be concerned largely with issues of legal policy or the enforcement of law. While law courses should, of course, teach students the content of the substantive law, they should also enable students to see law as a phenomenon located in history and society, interconnected with other political and cultural institutions, and the subject of philosophical theories and debates. At the bare minimum, a legal education should enable students to achieve a broad range of learning objectives.

I would argue that there are at least three kinds of objectives relevant to law teaching (see R. Johnstone 1991; and A Petter, 1982:77), and all three kinds are relevant to course on occupational health and safety law.

Cognitive and Skills Objectives

- (i) At a basic, fairly traditional level, legal education should develop basic knowledge and skills to equip students to be lawyers. These have always included requiring students to:
 - (a) *Know and understand* the basic elements and principles of important and basic areas of the substantive law. Students studying occupational health and safety law need to know and understand the basic principles of occupational health and safety law, whether these principles be derived from statute or case law. They need to have "structured, principled knowledge", so that they can access meaningful patterns and principles of knowledge rapidly (see Chi and Glaser, 1980:37-47).
 - (b) *Understand the likely future developments* in the substantive law. This is an important skill for legal and industrial relations practitioners, as well as for policy makers. It enables students to give legal advice that will enable work practices to be structured to take into account future developments in the law. It is also an important intellectual skill in its own right. An understanding of the future development of legal principles requires learning that focuses on the history and context of the legal principles, and the internal tensions in the principles and their operation in society, so that their future development can be anticipated, at least in broad

outline. As I will argue later in this paper, a basic grounding in the history and sociology of health and safety legislation is absolutely crucial to any understanding of occupational health and safety law and practice.

- (c) *Analyse* cases and statutes pertaining to health and safety at work, and to analyse fact situations that give rise to health and safety issues. Analysis essentially involves breaking down the subject matter into its basic components and examining the relationship between these elements. Students should be taught to read and analyse cases and statutes in a competent manner. Occupational health and safety law is principally statute based, and is therefore an ideal subject to develop students skills in statutory interpretation (this point will be further developed in the section on teaching method). Students need to be able to discern the important facts in any workplace situation and ask questions to get further relevant facts. This is a skill not traditionally taught in law schools.
- (d) *Apply* legal principles, and their likely practical implementation, to the "facts" of a particular problem. In other words, students should develop "proceduralised knowledge" so that they know when and how to use what they know (Chi and Glaser, 1980). They need also be able to represent problems effectively in the sense of qualitatively assessing the nature of the problem and building a mental model or representation from which they can make inferences and add constraints (Chi and Glaser, 1980). Application is a crucially important skill for lawyers and industrial relations practitioners. Traditional legal education has required students to apply legal principles to facts but has ignored the more socio-legal issues relating to the way that the law is implemented or enforced in practice. In other words, how does the occupational health and safety inspectorate enforce the law, and how do legal practitioners resolve civil law compensation claims? How do the courts exercise sentencing discretions?
- (e) *Synthesise* the legal principles emerging from cases and statutes, and from the practice of legal agencies and practitioners. Synthesis involves students putting together the component parts of the law into a new form for a particular purpose. Students should have the opportunity to develop "skilled memories" where their memories are developed in larger configurations or patterns, reducing the need to remember detail (Chi and Glaser, 1980). Students can be taught how to synthesise legal material by being asked to write judgments to resolve the dispute before them, or to prepare the argument for one of the parties, or to advise one of the parties of their legal rights in the problem, the likely outcome of the dispute, and the strategy they should utilise in trying to resolve the dispute. They can be asked to synthesise their understanding of an area by drafting a document or clause of a document.

- (f) *Evaluate* the internal logic of an opinion, judgment, statute, empirical study or theoretical analysis of the law in operation, or any other analysis of the law. Is the analysis consistent within its own terms? Are the arguments internally coherent? Does the evidence presented by the writer support her or his conclusions?
- (ii) There are other cognitive and skills objectives to be achieved in legal education. Less traditionally, legal education should link the study of law to other disciplines in the humanities and the social sciences. Law operates in a complex society. It is a social phenomenon laden with values, ideologies and complex histories. Nowhere is this more true than in occupational health and safety where dominant ideologies such as the managerial prerogative, the production imperative, the "careless worker" myth, the "inevitability" of industrial accidents and similar notions are widely held and accepted. A course on occupational health and safety law should equip students to examine the role of occupational health and safety law in society by utilising relevant perspectives from the social sciences (particularly feminist analysis, sociology, political science, and economics) and the humanities (particularly history and philosophy).
- (iii) Occupational health and safety law should be taught within the context that it has an impact on society, and its content and practice is shaped by that society. Interdisciplinary studies can be used to show the impact of occupational health and safety law on different groups and classes within society, and the impact of different classes and groups, depending on their power, on occupational health and safety law. Students should be encouraged to ask who benefits from different aspects of the law; who is disadvantaged; who has best access to the law; whose rights are ignored by the law and similar questions.
- (iv) In learning all these different cognitive skills, students should be encouraged to develop important communication skills, written and oral. Law students also need to develop research skills, as well as the ability to work with other people. Face to face communication skills are important and can be exercised in many contexts, including class discussions. Students should also be developing skills in communicating with people who are not lawyers or who have speech, hearing, visual or other impairments. Equally important is the ability to work creatively and constructively with other people, to be open minded, to be willing to have a point of view challenged and to question other viewpoints, and to understand and accept other cultures. Students should also be encouraged to learn how to listen to others, to work together in a team, and to learn to think creatively.

Research into the nature of competence and expertise suggests that experts not only display the kinds of cognitive skills outlined above, but that they also display "automaticity". This entails being able to perform component skills automatically, so that their conscious processing capacity can be devoted to comprehending, thinking, and considering strategies for problem solving and decision making. Legal education should therefore equip students with the basic

skills so that they can execute them almost "without thinking", so that their thought processes can focus on the complex, less usual aspects of the task (Chi and Glaser, 1980).

Experts also have self regulatory skills, which they use to monitor and control their performance. Experts are able to give themselves good critical feedback. The development of self regulatory skills should therefore be part of a course on occupational health and safety law. Not only should student competence be developed, but students should develop the kinds of skills that enable them to tell whether they are performing competently (Chi and Glaser, 1980).

Objectives Relating to Values

Students should not just be taught different cognitive skills. I have already argued that law cannot be considered merely as a closed formalistic, logical structure. Certain values and ideologies are "built into" legal doctrine, procedures, institutions and practice, and personal attitudes and values shape responses to law and the activities of lawyers. A course of occupational health and safety law therefore needs to provide the opportunity to explore these ideologies, attitudes and values, and should enable students to develop their own attitudes, values and interests in an environment that is not only supportive of this process, but also challenging and exciting. In short, while students need to be able to "think like lawyers" they must also be able to stand back and reflect on "how lawyers think".

Equally important is the opportunity for students to develop their own system of values pertaining to occupational health and safety practice, and the role of law in regulating health and safety at work. Students should be able to develop their own values about the law in a challenging but supportive learning environment.

Motivational Objectives

An important objective of legal education, which strongly supports the other objectives discussed in this section, is the motivating of students to learn about the law, to explore all aspects of legal phenomena, and constructively to criticise legal theory, legal education and legal rules and their application. Recently there has been much research into self directed learning (Caffarella and O'Donnell, 1987:206; and Oddi, 1984:97-107). Legal education should not just enable the student to learn about the law in all the different aspects discussed above, but should involve freeing the learner from dependence upon traditional pedagogical methods, and enabling the learner to learn how to learn. But, as Chene (1983:42) notes, before learners can direct their own learning, they have to be introduced to the tradition of knowledge. A course in occupational health and safety law should therefore play its part in introducing students to the tradition of knowledge in the broadest sense, and help students to develop the intellectual tools and the motivation and interest to keep on learning for themselves.

The objectives outlined in this section are far reaching and complex. Their achievement would result in students with a reasonable level of all round competence, not just in legal analysis, but also in interdisciplinary skills and

occupational health and safety practice. These objectives drive the two other sections of this paper - the course content and the teaching method.

THE COURSE CONTENT AND TEACHING METHOD

This section describes the content of the occupational health and safety courses as taught at the University of Melbourne Law School. It also describes the kinds of methods used to teach the course. The two are so closely intertwined that I have resisted the temptation to discuss them in separate sections.

There is clearly not just one way of teaching this kind of course. All courses are idiosyncratic - there is no one correct way of approaching the teaching of a phenomenon as complex as law. Readers no doubt will take issue with many of the topics or their emphasis. The purpose of this section is to suggest at least one way in which the objectives outlined in the previous section can be achieved. I should also add that the description which follows is the way I aspire to teach the course. I cannot claim to have achieved the standard of teaching that I consider to be adequate or appropriate to achieve the stated objectives.

There are a number of very good text books on occupational health and safety law. I generally recommend, but not prescribe, that students look at three key Australian books. These are Adrian Brooks' (1988b) *Guidebook to Australian Occupational Health and Safety Laws*, Breen Creighton's (1986) *Understanding Occupational Health and Safety Law in Victoria* and Neil Gunningham's (1984) *Safeguarding the Worker*. I provide students with a comprehensive reading guide, which includes basic questions, issues and readings (and indicating which have to be read for class). I also provide students with a set of materials that includes key cases, articles and empirical data.

Before discussing the content and method of the course, a general comment on teaching method might be in order. All tertiary teachers are familiar with students who do not seem to be able to apply concepts that they have been taught in class. Seely Brown, Collins and Duguid suggest that this perceived breach between learning ("know what") and use ("know how") may be result of the way we teach and learn (Seely Brown, Collins and Duguid, 1989:32 and Johnstone, 1991 forthcoming). The primary concern of traditional legal education, for example, is with the transmission, by the lecture method, of abstract, decontextualized formal concepts. The activity and context in which learning takes place are regarded as secondary to this primary function.

Seely Brown, Collins and Duguid (1989) report that recent investigations in learning challenge this separation of what is learned from how it is learned and used. Far from the activity in which knowledge is developed and deployed being separable from or ancillary to learning and cognition, or in any way neutral, it is an integral part of what is learnt. Situations structure the process of gaining knowledge. Concepts are not abstract, self contained entities, but rather continually evolve with each new occasion of use.

They argue that by "ignoring the situated nature of cognition, education defeats its own goal of providing useable, robust knowledge", and instead will produce only "inert" knowledge. Conceptual knowledge, like a set of tools, can only be fully understood through use, and using them entails both changing the user's view of the world and adopting the belief system of the culture in which they are used (Seely Brown, Collins and Duguid, 1989:33). It is possible to acquire a tool but be unable to use it. Similarly it is possible to acquire decontextualised knowledge, and even carry out exercises with that knowledge, but be unable to use it in a truly practical sense.

In short, activity, concept and culture are interdependent. Learning must involve all three. Consequently teachers should avoid teaching methods that impart abstracted concepts as fixed, well defined, independent entities that can be understood by prototypical examples and text book exercises. Academic disciplines, and the professions, are communities with cultures, bound by intricate, socially constructed webs of belief, which are essential to understanding what they do (Geertz, 1983). The activities of these communities can only be understood if they are viewed from within the culture.

As Seely Brown, Collins and Duguid (1989:34) comment, students need "to be exposed to the use of a domain's conceptual tools in authentic activity - to teachers acting as practitioners and using these tools in wrestling with problems of the world." Such activity can tease out the way lawyers, historians, social theorists, occupational health and safety inspectors or industrial relations practitioners look at the world and solve emergent problems.

So what is "authentic activity"? Authentic activities are simply defined as the ordinary practices of the culture (Seely Brown, Collins and Duguid, 1989). For learners to discover inventive solutions to problems, they need to see the problem in the proper context, which itself is embedded in an ongoing activity. This is the way experts resolve problems. The problem solver needs to be able to use the inventive and intuitive problem solving skills used in every day life and in the particular culture that is being explored. The adequacy of the solution should become apparent in relation to the role it has to play in allowing activity to continue.

The teaching of occupational health and safety law should therefore involve generating legal, industrial relations, economic, feminist, historical and sociological practice. It should show students how to think about the world in those frameworks, how to see the world through the eyes of those who practice in those disciplines, and how to use their tools. This means more than simply giving students problem solving strategies (Seely Brown, Collins and Duguid, 1989:37). It should provide students with the opportunity to enter the culture of legal, sociological, feminist, historical, economic and industrial relations practice, and to reflect on these cultures and practices. Seely Brown, Collins and Duguid (1989) list procedures that are characteristic of this type of learning, which they call "cognitive apprenticeship".

First, the task is embedded in familiar activity. This will show students the legitimacy of their everyday knowledge and its availability as scaffolding in

apparently unfamiliar tasks. An example of this in the occupational health and safety law is to ask students in the first class to describe work hazards that they have been exposed to, and then discuss the way those hazards can be countered, and the possible role of the law. Alternatively students can be required in their first class to examine a case study of the exposure of workers to an occupational hazard.

Second, by pointing to different approaches to the problem, the teacher shows that problem solving approaches are not absolute, but assessed with respect to a particular task.

Third, by allowing students to generate their own solution paths, they are given a chance to be conscious, creative members of the culture of problem solving lawyers, occupational health and safety practitioners, sociologists of law etc. In enculturing through this activity, they acquire some of the culture's tools - a shared vocabulary and the means to discuss, reflect upon, evaluate, and validate community procedures in a collaborating process.

This kind of learning involves the student progressing from embedded activity to general principles of culture. It begins by "providing modeling in situ and scaffolding for students to get started in an authentic activity. As students gain more self confidence and control, they move to a more autonomous phase of collaborative learning, where they begin to participate consciously in the culture. The social network within the culture helps them to develop its language and belief systems, and promotes the process of enculturation. Collaboration also leads to articulation of strategies, which can then be discussed and reflected upon. This then fosters generalising, grounded in the students situated understanding. From here, students can use their fledgling conceptual knowledge in activity, seeing that activity in a new light, which in turn leads to the further development of the conceptual knowledge" (Seely Brown et al, 1989:39, See figure 3 on page 40).

Students in law schools should therefore recognize and resolve the ill defined problems that issue out of authentic activity, in contrast to the well defined exercises that are typically given to them in text books and examinations. Students should be behaving as practitioners and developing their conceptual understanding through social interaction and collaboration in the culture of the domain, not the school. Learning involves some form of social interaction, social construction of knowledge, and collaboration.

It is rare that Law Schools will be able to teach students in situations that are totally authentic. Nevertheless students can be involved in hypothetical situations that closely approximate the kind of work that legal practitioners and legal theorists engage in. It is also useful for students to observe how practitioners at various levels behave and talk to get a sense of how expertise is manifest in conversation and other activities.

One of the great insights provided by much of the research in the sociology of law is that law reform very rarely achieves the objectives of those who are responsible for its introduction. The content of law is constantly shaped by prevailing

ideologies and the practices of those who take those ideologies for granted. This theme underpins the first half of the course as I teach it.

The first week introduces students to the hazards of work, the costs of work related illness and injury, the dominant, "taken for granted" ideologies of occupational health and safety (the managerial prerogative, careless worker etc), and what can be considered to be "sound" occupational health and safety practice. An important focus is the way in which health and safety at work can be analysed in a theoretical perspective (Quinlan and Bohle, 1991: chs 1-6; and Mathews, 1985: chs 4-22; Carson and Henenberg, 1988; and Carson, 1989). This part is taught in a full class discussion. In a brainstorming session 1 students are asked to list all the workplace hazards of which they are aware. Once they have run out of ideas, I prompt them with questions or examples. We then discuss the hazards generally, and the problem of illness and injury statistics (see, Quinlan and Bohle, 1991:18; and Creighton, Ford and Mitchell, 1983: ch 38). In another brainstorming exercise, we talk about all the costs involved in workplace illness and injury, and in its prevention (See Rea, 1983; and Gunningham, 1984: ch 13). The focus of the class is on two case studies. The first is the "David and the foam on the floor" case study from Patrick Kinnersley's (1973) *The Hazards of Work and How to Fight Them* (extracted in Creighton, Ford and Mitchell, 1983:14-16) and the second is the GMH "careless worker myth" case study in John Mathews' (1985: ch 1) book. These case studies are used because they not only "situate" students in concrete situations and expose them to the occupational health and safety culture, but they provide a platform for a discussion on how to prevent illness and injury occurring at work (students are required to read the Victorian Trades Hall Council's pamphlet *Hierarchy of Hazard Control Measures*), raise key theoretical issues and themes (Carson, 1989), and flush out some student attitudes based on the dominant ideologies of occupational health and safety. In this way two paradigms are developed: (i) these "taken for granted" notions of the "inevitability" of "accidents", the managerial prerogative, the production imperative, the "careless worker" etc; and (ii) "good" occupational health and safety practice. These paradigms are constantly referred to during the rest of the course, and form important points of reference for discussion. They also highlight the key issue of who should bear responsibility for occupational health and safety.

This first week provides students with an important opportunity to develop and explore their own values relating to occupational health and safety, and the role of legal regulation. They can then spend the rest of the course developing these values in the different contexts in which they will find themselves.

At the end of the first week we discuss the way that the law can respond to issues raised by workplace illness and injury. Essentially the discussion revolves around prevention, rehabilitation and compensation (Gunningham, 1984: ch 2). We discuss why the course should focus, as it does, on prevention.

Weeks two and three are concerned with compensation and rehabilitation. Even though the course is primarily about prevention, it is important to give students a basic understanding of the other two functions. Undergraduate law students would have already looked at the basics of compensation in Torts and the Process of Law. I find it useful to begin week two with a discussion of three key High

Court cases on common law compensation 2. These cases summarise the common law position, but they are important in that they show the High Court's rigorous attitude to common law duties that resemble the statutory general duties in the *Occupational Health and Safety Act* 1985. In addition, cases like **McLean v Tedman** reinforce the discussions of the first week, particularly in relation to issues of responsibility for workplace illness and injury.

The remainder of the second and third week is devoted to an examination of the compensation and rehabilitation aspects of the *Accident Compensation Act* 1985 (Vic). This part of the course is taught on two levels. The first is the political economy and policy level (see the Cooney Report, 1984; and Arup, 1990). The second is the workings of the Act itself. Students are exposed, generally in a lecture/discussion style, to the basics of the compensation and rehabilitation system. In some courses the class on the substantive provisions of the Act has been given by a solicitor practising in the area, so that students are exposed to the "culture" of the accident compensation process as well as to the provisions of the Act. The class focuses on the process of making an accident compensation claim.

The fourth week is spent looking at the history of occupational health and safety legislation, both in Britain and Australia. Students are expected to do a lot of reading for this week (key readings are Gunningham, 1984: ch4; Carson, 1970, 1979, 1980; and Prior, 1985). This section begins with a half hour mini lecture summarising the basic legislative developments from 1802 in Britain until the 1970s in Victoria. The focus then switches to class discussion of the key concepts of the "ambiguity" and "conventionalisation" of Factory crime, the enforcement culture of the British inspectorate, and the way in which occupational health and safety was removed from the domain of industrial relations. These concepts are discussed until it is clear that students are comfortable with them.

The week finishes with a mini lecture on the development of the Victorian system, a discussion of the parallels between the enforcement practices and culture of the Victorian (Prior, 1985) and British inspectorates, and a discussion of a few key early Victorian occupational health and safety cases 3. The cases are chosen to reflect judicial attitudes and approaches to the interpretation of the Factories legislation over time, and to illustrate the virtual non development of the principles of sentencing in occupational health and safety prosecutions. This fourth week is a very important week for developing the key theoretical themes in the course.

The fifth week is devoted to the British Robens Report (1972), its embodiment in the British *Health and Safety at Work Act* of 1974, and the Swedish occupational health and safety provisions. Students are required to read extracts of the Robens Report before coming to class, and are guided in their reading by a number of questions directing them to the defects of the traditional approach to prevention, the assumptions of the Robens Report, and a critical analysis of its recommendations. They are also asked to consider the extent to which the Report's recommendations perpetuate the "ambiguity" of factory crime. Students are also asked to critically analyse Adrian Brooks' critique of the Robens schema (1988a:347).

In class the readings are developed by the use of "pyramids" (Gibbs, S Habeshaw and T Habeshaw, 1987:121-4). Students are divided into pairs to discuss the Robens' criticisms of the traditional legislative approach to prevention. Each pair then pairs up with another pair to discuss critically the assumptions of the Robens Report itself.¹ Each group of four then pairs up with another group of four to discuss critically the Robens recommendations in the light of the criticisms of the assumptions. Each group then reports back to the class on the gist of their discussions. By the end of this exercise students should have thoroughly considered the report, its assumptions and recommendations. This is an important aspect of the course. All the Australian legislation is built on the Robens framework, and students need to be able to assess the strengths and weaknesses of this framework.

The analysis of the Robens report is followed by a mini lecture on the *Health and Safety at Work Act* of 1974 and on the Swedish provisions. The Swedish provisions are useful because of their focus on whole total working environment; their emphasis on restructuring the work environment to remove hazards, and on industrial relations processes to deal with health and safety issues; and the right given to workers to stop dangerous work. Students are reminded of basic methodological issues in comparative law - provisions from foreign statutes should not be copied without careful consideration of the political, economic, social and industrial environments which spawned the foreign legislation.

The sixth week deals very briefly with the occupational health and safety statutes in all the other Australian jurisdictions. All jurisdictions have now enacted Robens type legislation, although the exact configuration of the legislation varies in each jurisdiction. The major purpose of this section of the course is to examine the permutations on the Robens model, and to relate the differences to the political economy of each jurisdiction (Quinlan, 1980; and Pearse and Refshauge, 1987). The constant reiteration of the basic legislative model also enables students to become familiar and comfortable with its basic shape, so that they are ready for a detailed discussion of the Victorian Act in the last half of the course. The Commonwealth legislation and arrangements are dealt with in greater detail than the other jurisdictions.

The sixth week finishes with a discussion of the origins of the Victorian Act. Here the focus is on Carson and Henenberg's article (1988; see also Doran, 1985), which once again shows the ideological framework underpinning occupational health and safety legislation, highlighting issues likely to shape the operation of the Act.

The second half of the course is essentially a contextualised analysis of the provisions of the *Occupational Health and Safety Act* 1985 (Vic). There are essentially five components to this examination of the legislation.

-
1. For instance, the assumption that the most important cause of workplace illness and injury was "apathy"; that there was a great identity of interest between the "two sides" in occupational health and safety; and assumptions about the level of state regulation and the use of the criminal law. See Creighton, 1983:195; and Quinlan and Bohle, 1991: ch7.

The first component deals with the preliminary aspects of the Act: its objects and application to the Crown. The structure and functions of the Occupational Health and Safety Commission are then analysed. We then look at the "standard setting" component of the legislation, the process of making regulations and the codes of practice. I teach this part of the course by mini lecture and discussion. When teaching the objects of the Act, I usually also divide the class into small groups to discuss whether the objects of the Act require an interpretation focusing on dealing with work hazards by restructuring the working environment, or taking action against workers who have special susceptibilities.

The second component focuses in great detail on the general duty provisions in Part III of the Act. The analysis starts with a review of the Robens framework and the role of the general duties. It then examines the criticisms of performance standard legislation made by Adrian Brooks (1988a). The general duties are then taught through problem solving. Students are asked to read the relevant sections and key reported² and unreported cases.³ They are then expected to discuss the provisions and the cases critically in a full class discussion. The sections are essentially taught using problem situations, and students are expected, in class, to work with their copies of the Act to solve the problems. This is generally done as a class exercise, with students putting arguments for each party, and discussing the likely outcome. The basic approach is for students to learn by doing the kinds of things that lawyers and industrial relations practitioners would themselves do; that is, discuss and prepare advice and arguments about the applicability of various provisions to specific situations. This, however, is done within the theoretical framework introduced in the first half of the course.

The third component examines the occupational health and safety inspectorate, within the context of the previous historical survey of the enforcement practices of the nineteenth century British inspectorate. The course materials include Department of Labour publications describing the way in which the inspectorate is organised and the manner in which they exercise their enforcement powers. Also included are official prosecution statistics and brief summaries of prosecutions, the Department of Labour's prosecution policy, my own data on the appellate function of the Victorian Industrial Relations Commission in relation to improvement and prohibition notices, and extracts of the La Trobe/Melbourne Project report which analyse the current enforcement approaches of the Victorian inspectorate and of the Victorian courts.

The inspectors powers in Part V of the Act are studied through students dealing with problem situations involving the giving of advice to employers upon the visits of inspectors. Students are also asked to read the data on the enforcement of

2. Chugg v Pacific Dunlop Limited (1988) V.R. 411; Chugg v Pacific Dunlop Limited (1990) 64 ALJR 599; R v Swan Hunter Ship Builders (1981) ICR 831; and Collins v State Rail Authority of New South Wales (1986) 5 NSWLR 209 (Cf Kondis case above).
3. Barnes v T & D Fortuna Cabinets Pty Ltd (Williamstown Magistrates Court, 1986), noted in the La Trobe/Melbourne Occupational Health and Safety Project (1989) 222-5, and Herless Pty Ltd v Barnes (Industrial Relations Commission of Victoria in Court Session, 26 September 1986, unreported, noted in the La Trobe/Melbourne Project 233-235).

the Act, and to draw, and justify, their own conclusions on how the legislation is being enforced. They are then asked to relate their findings to the previous discussions of the ambiguity and conventionalisation of factory crime. These theoretical themes are further explored by requiring students to give advice to the Minister of Labour as to whether s/he should introduce a specialist Industrial Magistracy to hear prosecutions under the Act, and whether s/he should utilise her or his power to introduce regulations empowering inspectors to issue summary infringement notices (see s47A of the *Occupational Health and Safety Act 1985* [Vic]).

To complete this component I have invited an investigator and a prosecutor from the Department of Labour's Central Investigation Unit to take students through a case study of a recent prosecution. The prosecutor and investigator explain the situation they were faced with, how the investigation took place, why they decided to prosecute, and how the prosecution proceeded. Students are given an opportunity to raise issues and ask questions.

The fourth component comprises an analysis of the "self regulation" provisions in Part IV of the Act. Once again the provisions relating to designated work groups, election of health and safety representatives, powers of representatives, the accountability of representatives, and health and safety committees are explored through problem solving. The problems are structured to draw out most of the issues involved in interpreting the legislation.

The major themes in this part of the course are the extent to which health and safety representatives can themselves enforce the legislation, and the extent to which women workers, particularly those from non English speaking backgrounds, are likely to benefit from the provisions of the Act. This theme is pursued by a case study where the characteristics of the Textile, Clothing and Footwear industry are set out, particularly details of the employment of women and the hazards prevalent in the industry, and student are asked to consider these issues as they examine the various provisions. They are also asked to think of the extent to which law can be expected to have an impact on matters as deeply entrenched as worker-management relations and gender relations in the workplace (Carson and Henenberg, 1988).

The final component consists of a number of small topics - health and safety agreements (Mathews, 1985b), awards dealing with health and safety matters (Gunningham, 1990), industrial manslaughter prosecutions (Wells, 1988: and Carson and Johnstone, 1990), and the use of *Crimes Act* provisions dealing with the infliction of serious injury, and the *Dangerous Goods Act 1985*.

I have spent some time during the first half of 1991 preparing self study teaching materials for the five legal components of the course that enable students to develop responses to written problem situations during their private study. These responses then become the basis of class discussion and class activities. The materials have three aims - to enable students to developed well structured and principled knowledge through fairly authentic activities carried out during private study and in the classroom; to provide basic "scaffolding" in the form of carefully worked out questions and problems so that students can learn how to learn on

their own; and to free up class time for activities that enable students to prepare arguments and give opinions about the solutions to problems. Students are also expected to use the various theoretical frameworks developed during the first half of the course to evaluate the law, and to reflect upon their own values as future or current practitioners. Problem solving always involves legal and ethical issues. A brief extract of these materials is provided in the appendix to this paper.

CONCLUSION

This account has set out one approach to the teaching of occupational health and safety law in a law school. While the approach is idiosyncratic, it does try to teach occupational health and safety law in a practical and theoretical context, and through activities rather than by didactic transmission of information. The courses described in this account are still in the development stages. The next stage is to complete compilation of self study materials for all aspects of the course so that students can learn, through their private study of well structured activities in the instructional materials, the basic principles and issues in occupational health and safety. This will free up class time for group activities that will develop other skills objectives as set out in the second part of this paper. It is hoped that the courses will evolve into well rounded, challenging and well integrated multi-disciplinary courses on the law pertaining to health and safety at work.

REFERENCES

- Arup, C. (1990), 'Workcare: Administrative Rationality, Legal Process, and Political Reform' *Australian Journal of Labour Law* 3, 159.
- Brooks, A. (1988a), 'Rethinking Occupational Health and Safety Legislation', *Journal of Industrial Relations*, 30/3, 347-362.
- Brooks, A. (1988b), *Guidebook to Australian Occupational Health and Safety Laws* (CCH, Sydney).
- Brown, D., Farrier, D., Neal and Weisbrot, D. (1990), *Criminal Laws*, (Federation Press, Sydney).
- Caffarella, R.S. and O'Donnell, J.M. (1987), 'Self Directed Adult Learning: A Critical Paradigm Revisited' *Adult Education Quarterly* 37, 199-206.
- Carson, W.G. (1970a), 'Some Sociological Aspects of Strict Liability and the Enforcement of Factory Legislation', *Modern Law Review*, 33, 383-396
- Carson, W.G. (1970b) 'White Collar Crime and the Enforcement of Factory Legislation' *British Journal of Criminology*, 10, 383.
- Carson, W.G. (1979), 'The Conventionalisation of Early Factory Crime' *International Journal for the Sociology of Law*, 7, 37.
- Carson, W.G. (1980), 'The Institutionalisation of Ambiguity: Early British Factory Acts' in G. Geis and E. Stotland (eds) *White Collar Crime*.
- Carson, W.G. and Henenberg, C. (1988), 'The Political Economy of Legislative Change: Making Sense of Victoria's New Occupational Health and Safety legislation' *Law in Context*, 6/2, 1-19.

- Carson, W.G. (1989) 'Occupational Health and Safety: A Political Economy Perspective', *Labour and Industry* 2/2, 301-316.
- Carson, W.G. and Johnstone, R. (1990), 'The Dupes of Hazard: Occupational Health and Safety and the Victorian Sanctions Debate' *Australian and New Zealand Journal of Sociology*, 26/1, 126-141
- Chene, A. (1983), 'The Concept of Autonomy in Adult Education: A Philosophical Discussion' *Adult Education Quarterly*, 34, 38-42.
- Chi, M. and Glaser, R. (1980), 'The Measurement of Expertise: Analysis of the development of knowledge and skill as a basis for assessing achievement' in EL Baker and ES Quellmetz (eds) *Educational Testing and evaluation: Design, analysis and policy*, Beverley Hills, CA, Sage Publications, 37-47.
- Creighton, W.B. (1983), 'The Industrial Safety, Health and Welfare Act - Radical Advance or Passing Phase?' *Monash Law Rev*, 9, 195.
- Creighton, W.B., Ford, W.J. and Mitchell, R.J. (1983), *Labour Law - Materials and Commentary* (Law Book Company, Sydney).
- Creighton, B. and Gunningham, N. (1985), 'Is there an Industrial Relations of Occupational Health and Safety?' in B Creighton and N Gunningham, *The Industrial Relations of Occupational Health and Safety* (Croom Helm, Sydney) 1-10.
- Creighton, B. (1986), *Understanding Occupational Health and Safety Law in Victoria* (CCH, Sydney).
- Doran, J. (1985) 'Implementing the Victorian Government's Policy on Occupational Health and Safety 1982-4' in B Creighton and N Gunningham, *The Industrial Relations of Occupational Health and Safety* (Croom Helm, Sydney), ch 8.
- Fisse, B. (1990), *Howard's Criminal Law*, (Law Book Co., Sydney, 5th edition).
- Geertz, C. (1983), *Local Knowledge*, (Basic Books, New York).
- Gibbs, G., Habeshaw, S. and Habeshaw, T. (1987), *53 Interesting Things To Do in Your Lectures*, (Technical and Educational Services Ltd, Bristol).
- Gillies, P. (1990), *Criminal Law*, (Law Book Co., Sydney).
- Grabosky, P., Braithwaite, J. and Wilson, P. (1987), 'The Myth of Community Tolerance Toward White Collar Crime', *Australian and New Zealand Journal of Criminology*, 20/33, 38-44
- Gunningham, N. (1984), *Safeguarding the Worker*, (Law Book Co, Sydney).
- Gunningham, N. (1990), 'The Role of Federal Awards in regulating Occupational Health and Safety Standards' *Australian Journal of Labour Law*, 3, 54.
- Hawkins, K. (1984), *Environment and Enforcement: Regulation and the Social Definition of Pollution*, (Oxford University Press, Oxford).
- Hutter, B. (1989), 'Variations in Regulatory Enforcement Styles', *Law and Policy*, 11, 153.
- Johnstone, R. (1991), 'Rethinking the Teaching of Law', *Legal Education Review*, 3 (forthcoming).
- Kinnersley, P. (1973), *The Hazards of Work and How to Fight Them* (Pluto Press, London)
- Mathews, J. (1985a), *Health and Safety at Work: Australian Trade Union Safety Representatives Handbook*, (Pluto Press, Sydney).
- Mathews, J. (1985b) 'Trade Union Occupational Health and Safety Initiatives' in B Creighton and N Gunningham, *The Industrial Relations of Occupational Health and Safety* (Croom Helm, Sydney), ch 11.
- Occupational Health and Safety Act 1985* (Vic).

- Oddi, L.F. (1984), 'Development and validation of an instrument to identify self directed continuing learners' *Adult Education Quarterly*, 36, 97-107.
- Pearse, W. and Refshauge, C. (1987), 'Workers' Health and Safety in Australia: An Overview' *International Journal of Health Services*, 17, 635.
- Petter, A. (1982), 'A Closet Within the House: Learning Objectives and the Law School Curriculum' in N. Gold (ed) *Essays on Legal Education*, Butterworths, Toronto, 77.
- P. Prior's 'Enforcement: An Inspectorate's View' in B Creighton and N Gunningham (eds), *The Industrial Relations of Occupational Health and Safety* (Croom Helm, Sydney)
- Quinlan, M. (1980), 'The Profits of Death: Workers' Health and Australian Capitalism' *Journal of Australian Political Economy*, 8, 29-44.
- Quinlan, M. and Bohle, P. (1991), *Managing Occupational Health and Safety in Australia: A Multidisciplinary Approach* (Macmillan, Melbourne).
- Rea, A. (1983), 'Regulating Occupational Health and Safety' in DN Reeves (ed) *The Regulation of Quality* (Butterworths, Toronto) 109.
- Report of the Committee on Health and Safety at Work 1970-72* (the Robens Report), (HMSO, London, 1972).
- Report of the Committee of Inquiry into the Victorian Workers' Compensation System* (The Cooney Report) (1984); Victoria Workers' Compensation Reforms, Victorian Government Printer, 1984;
- Seely-Brown, J., Collins, A. and Duguid, P. (1989), 'Situated Cognition and the Culture of Learning' *Educational Researcher*, 19, 32.
- Victorian Trades Hall Council, *Hierarchy of Hazard Control Measures*.
- Wells, C. (1988), 'The Decline and Rise of English Murder: Corporate Crime and Individual Responsibility' *Crim Law Rev*, 788;

3 Teaching OH&S to Behavioural Science Students: Developing an OH&S Undergraduate Degree Course

Claire James

INTRODUCTION

This paper will discuss the development of the an undergraduate degree in occupational health and safety (OH&S) at Griffith University in Brisbane. The OH&S degree program grew out of a long-standing commitment at this University to the general area. First, an elective course "Health and Safety at Work" had been taught in the Bachelor of Commerce program in the Division of Commerce and Administration since 1989. Second, a Bachelor of Science degree with a concentration area in "Pollution and Health" had been available for many years. These areas were so popular that in 1990 a full "major" in Work and Health became available as part of the new Bachelor of Behavioural Science degree. This paper will concentrate on the development of the OH&S degree, but will point out the positive interactions that have evolved between the different Griffith degree programs. Comparisons with short industry-based courses in OH&S will also be made. It will be argued that debates over content in the wider OH&S area, industry skill demands, a tighter labour market and legislative imperatives have influenced outcomes. These debates replicate the struggles seen between disciplines over the scope and control of OH&S.

THE EXTERNAL ENVIRONMENT FOR OH&S COURSES AND WORKERS

The World Health Organisation has recommended a number of important areas in OH&S educational programs (WHO, 1981:38-44). Organisational factors and the personal characteristics of workers in the field have also been identified (Atherley and Hale, 1975:323,326), as has the essentially applied nature of OH&S. Some graduate programs have focused on occupational hygiene (see Temple University in the US), others on ergonomics and yet others on a broader framework. Opinions on the necessary content for a credible OH&S course vary. The

rationale for choosing "hard" versus "soft" science subjects is regularly debated. The general consensus of opinion appears to be moving more to a balance in approach with some combination of general safety, occupational hygiene, industrial relations, law, ergonomics, biology and sociology. However because few practitioners, industrial inspectors or academics have interdisciplinary backgrounds, there is almost inevitably some preference; hence a common tendency to be dogmatic about "essentials". For example, at the Ballarat College of the University of Melbourne (formerly Ballarat College of Advanced Education) there is an emphasis on safety engineering in the well accepted Graduate Diploma of Occupational Hazard Management. At Curtin University (formerly the West Australian Institute of Technology), on the other hand, a broader view of health protection is taught. Many OH&S workers have completed these courses on an external basis. Until the Griffith course commenced in 1990, no undergraduate degrees in OH&S were available in Australia.

Traditional differences in levels of influence have also existed between health workers. This status difference has been most obvious in the case of nurses and medical practitioners (see for example Willis, 1984), but tensions may also exist between occupational hygienists and safety engineers, physiotherapists and ergonomists, and safety officers and occupational health nurses. Some of these tensions are complicated by the traditional sexual division of labour in health care, with the expectations and assumptions that may accompany this. Furthermore, many health and safety workers have inherent contradictions built into their occupational roles. Conflicting demands can be made upon production managers with responsibility for keeping workers healthy; for personnel managers who are committed to rehabilitation of injured workers but who have to make decisions about layoffs, and for medical practitioners caught between patients' "right-to-know" and employer demands (for example as seen at Wittenoom). Legislative changes have increasingly influenced the role of the OH&S workforce.

In 1989 Queensland became the last of the Australian states to pass comprehensive OH&S legislation. It was also the last state to develop comprehensive OH&S training courses. As a result there are very few qualified and credible OH&S workers in Queensland. One important - indeed unique - facet of the Queensland Workplace Health and Safety Act was a requirement that a Workplace Health and Safety Officer (WH&SO) be appointed in every workplaces with 30 or more employees. The act also requires that these officer receive a specified level of formal training in OH&S. In fact, accreditation of *acceptable* courses is tightly controlled by the State government. These training requirements are being progressively extended across industries. As a result there has been a surge in demand for (full-fee paying) short courses which meet the accreditation guidelines set by the legislation. The demand for longer and more intensive courses is still developing. Some of this variation in demand may be due to the immediate needs of employers in "proclaimed" industries and much to the lack of publicity about the more intensive undergraduate programmes. Many employers have reacted to requirements for a trained person on site by upgrading the skills of existing employees, on occasion irrespective of personal interest or commitment. The Metal Trades Industry Association (MTIA) is one accredited

provider of the short courses. Some Griffith University faculty staff contribute to teaching in these WH&SO training courses, and some providers of WH&SO courses are enrolled in higher degrees at Griffith University. In this paper comparisons will be made between the different types of OH&S educational programs, commencing with the first course available.

THE OH&S COURSES AT GRIFFITH

An elective subject "Health and Safety at Work" was introduced into the Bachelor of Commerce degree program in 1989, before the new legislation was enacted. The course has been directed specifically at the needs of business students, in particular those in the Industrial Relations (IR) and Human Resource Management (HRM) concentration areas. The subject content includes: the nature and origins of OH&S, problems, legislation, and management and trade union responses. In addition the course has a technical component which acquaints students with techniques used in the monitoring and evaluation of hazards such as toxic substances, noise, airborne pollutants and various manual handling problems. Hence students can at least understand experts, know when one is needed and have some understanding of measurement techniques and results. As part of their course students are also required to undertake a field trip which essentially involves a health and safety audit. Until very recently, this was the only OH&S subject available in Queensland (apart from the highly respected Associate Diploma offered at the Kangaroo Point TAFE - which is currently under review). The subject has been taught by Michael Quinlan and Phil Bohle in conjunction with number of specialists (Phil is a psychologist and Michael teaches Industrial Relations). The text *Managing Occupational Health and Safety in Australia* is used. Since it was established the subject has proved to be increasingly popular with students, not only those in the Commerce faculty but also to others in Science and Technology and Humanities and has an enrolment of between 65 to 90 students each year. Students have reacted particularly favourably to the attempt to combine the theoretical aspects of OH&S with applied solutions. Industry has also responded very positively and has supported the effort to help train people for the professional OH&S managers role, which is growing up in many industries as a result of changes in the legislation. Such a role is now typically located in the IR and HRM functional divisions as it is increasingly recognised that there may be positive effects on production levels through increased management commitment to OH&S. This subject has also served as a springboard for commerce students to undertake courses within the new Work and Health concentration area in the Bachelor of Behavioural Science program. The expansion of OH&S from a one subject elective course to a concentration area in a degree program points to the changing recognition and importance of OH&S since the passage of the 1989 Act.

The development of the multidisciplinary degree program in health and safety at Griffith has brought together staff from a number of different disciplinary backgrounds. Only two had formal and specific OH&S qualifications. This experience has been enlightening for all, without being entirely problem-free. A synergistic relationship between the Divisions of Commerce and Administration (CAD), Health and Behavioural Sciences (HBS) and Environmental Sciences

(ENS) has emerged. Some CAD students have elected to undertake the occupational hygiene and occupational health law courses taught by HBS/ENS. On the other hand, some HBS students are seeking to combine a Work and Health major with one in industrial relations (or at least to take additional subjects in industrial relations and labour law). Finally, there has been a broadening of interest in OH&S amongst students in ENS which is extending a long established interest in the more technical aspects of OH&S (particularly in the chemistry, air pollution and noise areas). A very positive relationship is developing. As a result HBS has developed a strong industrial relations and legal input both in terms of approach and of staff. All students undertake a compulsory industrial relations unit (including those specialising in Psychology rather than Work and Health) and two other courses notably "The Industrial Relations of Occupational Health" and "Occupational Health Law and Policy" are compulsory for those majoring in Work and Health. The first students will graduate at the end of 1992 with a Bachelor of Behavioural Science with either a concentration in Work and Health or Psychology. (Some may undertake an overload to gain a "double" concentration). The *rationale for this possible combination in a degree program* has been debated. For example, it has been argued that psychology is basically *theoretical* in the early years of study; and OH&S is, from the start, an *applied* area of study. There are other major differences: psychology may have more of an individual focus whereas OH&S is more group, or even *globally* oriented (for example, if we study the movement of hazardous industries from one country to another following legislative controls as occurred with asbestos processing). Teaching styles also vary: psychology may have more of a *process* orientation, while *content* may be emphasised in many OH&S courses, particularly in technical areas. Yet there are also areas of convergence. In examining the effects of stress, or shiftwork, or the interface between people and equipment, a number of disciplines have complimentary perspectives. The ergonomics component in particular is likely to be extended further into a major specialisation, directly as a result of the interest which has stemmed from the applied multidisciplinary program. Since Griffith University adopts a "problem-oriented" approach to learning, practical applications of theoretical knowledge in an industry setting are an important facet. Thus in first year the Bhopal disaster was presented in terms of the early history of company operations, changes in technology and production methods, political and economic pressures, legislative demands, labour market features and the internationalisation of hazards. The inter-relationships between several disciplines was emphasised. This technique of combining theory and example together is particularly important for students who have limited work experiences.

The majority of entering undergraduate students were school leavers with only a few "mature age" entry people. Students who gained admission to the Bachelor of Behavioural Science program had gained a medium to high score for university entrance and included 80 females and 45 males. The background of the students was overwhelmingly middle-class. Most students had limited work experience beyond the "Kentucky Fried Chicken" part-time employment pattern common with students. The labour market orientation of the undergraduate students was pre-set. The overwhelming majority came to university with a specific occupational goal in mind: *to be* a psychologist, or at least *to be* a personnel

manager. Certification was important. The background and experience of teaching staff was important to these students.

New and existing staff contributed to the OH&S degree program. Some were employed within the division mounting the program, some were "hired" from a science division, and others came from the commerce faculty. Some staff members were experienced in particular facets of OH&S, others allocated to teaching had limited knowledge. As a result of changes in the academic labour market, there is an incentive to retrain or redirect interests into areas now deemed "in the nation's interest", whatever that may mean. Thus while utilising staff from two or three divisions would seem to be a "workable" solution in a time of restricted funding, as the "ownership" issue was never addressed, it was a source of continuing tension. In the absence of adequate additional staff, the new program inevitably resulted in further drains as faculty developing the new program were over-worked. This exacerbation of workload occurred at a time when academics generally were confronted with declining salary scales vis-a-vis many other workers in the labour market, threats to the availability of tenure and increasing workloads/student numbers through funding arrangements (FAUSA, 1990:1). A recent survey (GUFSA, 1989) indicated a working week of 55-60 hours was "normal" for academic staff even aside from those facing additional demands. The inevitable tensions that result from a labour market with decreasing job security and increasing workload pressures had predictable results. With the variety of interest groups in the OH&S area, competing claims to expertise, a shortage of accredited OH&S professionals, no uniform licensing body (apart from The Safety Institute of Australia), and the lack of uniform licensing over OH&S undergraduate programs, pressure on standards was increased. Since funding within the Griffith University system was primarily based upon the number of students enrolled in each Division (EFTSU), whoever "owned the students received the money". As funding incentives were prioritised over credibility and pedagogical debates, the struggle developed into a classic demarcation dispute between the different University Divisions which has since been "papered over". Thus the establishment of the first Australian OH&S degree program was difficult. The expected disciplinary tensions, the "ownership" problems and funding restrictions all increased tensions. However such was the success of this first undergraduate course, another degree program commenced at a second Brisbane university (QUT) within a year, with a small intake. Yet the intra-institutional rivalry took a heavy toll. Even when Griffith had the only "up-and-running" program, few people know as the publicity was restricted. The QUT on the other hand has a dedicated and highly efficient publicity arm. Hence in that institution the six-month old program is already well known. This most recent OH&S degree is aimed at producing more *technical* practitioners, rather than the OH&S managers being training at Griffith. At the QUT practical rather than theoretical OH&S practice is emphasised together with hazard evaluation procedures and broad technical expertise. Thus in a sense the two degree programs are *complimentary*. Indeed the first shared lecture and tutorial groups will occur informally in October 1991. In times of market share competitive behaviour, this spirit of co-operation may be difficult to maintain. In both degree programs the undergraduate student orientation, background and learning styles can be contrasted with that in the short industry courses.

SHORT ACCREDITED COURSES

In July 1989 the Queensland Workplace Health and Safety Act was passed. Short OH&S courses have been very popular since. Under the act a Workplace Health and Safety Officer (WH&SO) must have completed a course *accredited by the Director of the Division of WH&S* (Section 61[2]). Course content is specified and *course materials, examinations and trainers are vetted* by the Division. Thus, to a great extent, the Division of WH&S "owns" lower-level OH&S education in Queensland. (There are important debates about the extent of knowledge in the inspectorate, but these will not be discussed in this paper). Debate about the adequacy of the law is limited, and comparisons internationally or inter-state are not made. However, the Law, Regulations, Codes of Practice and "hands on" skills are covered in detail. Industry-based teaching is clearly a different style of education to that at University.

The students enrolled in short industry-based courses have had an entirely different background to the undergraduates. The progressive proclamation of different industries (for example manufacturing and construction soon after the Act was proclaimed, and rural and service industries later) has compelled organisations to employ accredited WH&SO. The students are typically lower-level management (often with a "blue-collar" background). Approximately 95 per cent are male. Organisational support for student participation may be voluntary or legislation-driven. The teaching content is intense and exams must be passed at a high level of achievement. There is great pressure on these industry-based students to pass, and pass well. Students may or may not have an interest in OH&S. Often their formal education ceased one or two decades earlier. Hence the return to formal study, with the stringent guidelines set by the Division of WH&S can be traumatic. Yet these students usually have a wealth of practical experience. Clearly this is a very different population to the undergraduate one. However, as the undergraduate program at Griffith is incorporating the requirements for WH&SO accreditation, the distinction between practitioners and degree-level students is becoming blurred.

It is argued that the teaching and research skills of academics (as well as pragmatic issues such as student placements for practicals) are enriched if they have contact and share common ground with "hands on" people. For industry-based students, knowledge about the availability, content and value of more indepth programs is enhanced if educators teach in both types of programs. The two groups of students clearly have very different needs/requirements and the demands on staff vary greatly. The relationship between short course providers, academics and the inspectorate can be subject to additional pressures, for example, conflicts of interest may occur. Many inspectors are upgrading their qualifications: some have enrolled in TAFE OH&S programs and some in a Graduate Diploma at The QUT - where their academic work can be assessed by a short-course provider. Thus not only disciplinary focus, but also "ownership" and ethical relationship issues are important in an area where qualified and competent staff are few. One positive aspect to these links between educational institutions is that barriers to movement are declining and formal recognition and credit for studies in different institutions is becoming more common.

SUMMARY: IDEAL DIRECTIONS FOR OH&S EDUCATION

This paper has discussed the developments leading up to the first OH&S degree program in Australia. This experience may provide useful insights for OH&S professionals who plan to introduce OH&S programs in industry, as well as for other tertiary institutions. There has been a debate amongst the various OH&S professionals about subject and disciplinary requirements: technical skills, the social sciences, industrial relations etc; and between the relative balance of theory versus practice. While at Griffith a demarcation dispute over "ownership" resulted; at industry short-course level disputes have been muted. Content Debates have never surfaced *publicly* at Queensland government level in relation to the content of WH&SO programs, and even opinions about credible providers of OH&S education are difficult to elicit. The university system was found not to be immune to labour market pressures and staff reacted in a similar manner to other workers faced with job insecurity, skill redundancy fears and work overload. However, in spite of initial difficulties, strong synergies have developed between the different factions. Students in short industry-based OH&S courses also report tensions: while some organisations provide minimal support to their WH&SO in order to meet their legislative requirements and avoid prosecution; others give greater resources to OH&S. Both situations reflect the struggles over disciplinary focus, control and funding.

The experience from Griffith suggests inexperienced undergraduate students can understand OH&S issues and debates better if the problem-oriented approach is adopted: a "case study" approach is recommended. This type of approach cannot be adopted in industry-based short courses because of restricted time and the external control over content. The lesson we have learnt is that some administrative or professional control over course content and the qualifications of trainers needs to be implemented, but not to the extent where debate is stifled. Effective reform at the workplace requires that OH&S becomes an integral part of the management function and not just an afterthought, or result from an individual's special interest. Thus the CAD course promotes OH&S as an integral part of management education while providing the students with the basic skills to undertake some OH&S functions. The HBS course is specifically designed to train OH&S professionals with multidisciplinary skills in order to holistically approach health and safety problems. Hence graduates will be able to deal with overall OH&S, have a good understanding of constraints and will also have some technical expertise. The potential for the links between accredited short courses, TAFE level training and undergraduate programs have yet to be fully realised, although this process is beginning. Thus, not only will the traditional divisions between disciplines be broken down, but also the hierarchy of educational institutions. While the immediate motor for change has stemmed from the legislation, industry demands for multi-skilling are fuelling the increasing recognition of the need for skilled OH&S workers.

REFERENCES

- Atherley, G. and Hale, A. (1975), 'Pre-Requisites For a Profession in Occupational Safety and Hygiene' *Annals of Occupational Hygiene*, 18/4, 321-334.
- Chandler, S. (1990), 'Statutory Obligation Education For Workplace Health and Safety Officers in Queensland', *Journal of Occupational Health and Safety - Australia and New Zealand*, 6/4, pp.291-296.
- Division of Accident Prevention (re-named The Division of Workplace Health and Safety), *Specification for Statutory Obligation Education For The Workplace Health and Safety Act 1989* (Stage 1 Core Module, DEVET Sept. 1989).
- Federation of Australian University Staff Association, November 1990, *FAUSA News* Vol. 90(6)
- Griffith University Faculty Staff Association (GUFSA), 'Griffith Stress Survey', unpublished survey, 19 May 1989.
- World Health Organisation (WHO) (1981) *Education and Training in Occupational Health, Safety and Ergonomics*, (WHO, Geneva).
- Willis, E. (1983), *Medical Dominance*, (George Allen and Unwin, Sydney).

4 University Education in OH&S for Industrial Relations Students - It's Time To Stop Blaming the Victim

Ann Long

INTRODUCTION

It is useful to explore why those in the industrial relations arena now need to know more about OH&S, and what they should be able to do in broad terms, before discussing how appropriate OH&S education might be provided by the universities.

"Unless and until the employer has done everything - and everything means a good deal - the workman can do next to nothing to protect himself, although he is naturally enough willing to do his share" (Legge, 1934)

Sir Thomas Legge, who was the first medical inspector of factories in Britain, was appointed in 1898. He resigned in 1928 when the government refused to ratify an international convention prohibiting the use of white lead for the inside painting of buildings.

In 1910 Dr Alice Hamilton commenced her studies of the lead industries in the United States for the federal government. Armed with facts, expert understanding of the processes, and suggestions for modifications she demonstrated the disaster and persuaded many employers to change their practices and provide safer workplaces. There were, however, some employers and members of her own profession who described her reports as false and malicious.

In 1917 the lead smelting industry in Port Pirie manipulated understanding of the origin of lead poisoning and so minimised the extent of the lead hazard at the time. This manipulation ran counter both to local medical opinion and to the research of Dr Charles Badham, whose views were later shown to be correct (Gillespie, 1988).

These are sorry tales from the beginning of the century but lead is still with us. Health effects of lead are known at exposure levels which are permissible in

Australia but not elsewhere in the developed world. Lead is still an Australian problem. In 1988 there were an estimated 3654 lead exposed workers in Australia (excluding Western Australia) (ALDA, 1988). The blood levels of 3137 of these workers are shown in Table 1.

Table 1: *Blood Lead Levels of 3137 Lead Workers*

ug/100mL	percent of workers exposed
<20	11.0
20-29	19.5
30-39	24.0
40-49	22.5
50-59	15.0
60-69	6.5
70+	1.5

Source: ALDA (1988) cited in Worksafe Australia 1990.

In Australia a person with a level of 70ug/100mL must be removed from exposure (according to the legislation) until return to work has been recommended by a physician. In the USA the level is 50ug/100mL. The World Health Organisation (WHO) recommends removal of male workers when blood lead levels reach 40ug/100mL.

The point of raising the issue of lead is to illustrate that scientific evidence, which provides the information for the recognition, evaluation and control of hazards and their outcomes, is essential, but it is not enough. The control of hazards is not only science based, but becomes a social issue as those involved, employers and employees, consider the implications via risk assessment, negotiation and cost effectiveness.

Information about the appropriate control of hazards and their outcomes have to be translated to the workplace if there is to be any change. In the end, the translation can only be done effectively by informed employers and employees.

OCCUPATIONAL HEALTH AND SAFETY AND INDUSTRIAL RELATIONS

All those who are in the industrial relations field in Australia - managers and employees or their representatives and advisers - are now being challenged by the

changes of the last decade. There has been a dramatic shift in OH&S legislation from a prescriptive regulatory policing function to a general duty of care. The old style legislation depended on inspection and enforcement, an impossible task without resources. Many of the regulations had escape clauses which permitted the waiving of all or part of the regulations in certain circumstances on the advice or judgement of the inspector. There was a reluctance to prosecute, and a perception that change would be detrimental to productivity and job opportunities. But there was more to it than that.

There were no mechanisms to demonstrate that healthy and safe workplaces could contribute to productivity. Job descriptions and union demarcation requirements encouraged the view that change was a threat. There had been no structure which encouraged prevention but a simplistic conventional wisdom which said that injury and disease (which went mostly unrecognised) in the workplace was due either to unsafe acts (ie the fault of workers) or unsafe conditions, again the fault of "careless workers" or possibly management.

Qualifications required for the Inspectorate were minimal. Inspectors were not required, as part of their employment, to have any more skill than an ability to check from a list the presence or absence of items, or to check work practices set out in regulations. Trade qualifications, although desirable for an understanding of the processes, were not required. This is not to say that many inspectors were not well informed but if this was the case it was due to their own good sense and initiative rather than any plan or encouragement from the system. Even now, in some parts of Australia a driver's license is the only formal qualification required for the inspectorate.

Health and safety are characteristics which are readily understood by their absence. Traditionally, in the workplace they have been matters of concern only when they are absent and *traditionally* the health effects of work have often been regarded as an inherent part of the job. Remember boilermakers' deafness?

The new legislation with its general duty of care, the notion of "self regulation", and the absence of checklists, has changed the emphasis and function from One of routine inspections to one of informing, educating, advising and consulting in workplaces. That is, it is now a matter of prevention.

Notwithstanding these changes it is still fashionable to propose that OH&S should be taken out of the industrial relations arena either because it is a management prerogative or because it is too important to be the subject of disputes. In fact, the legislative changes have transferred OH&S out of public health into industrial relations. As industrial relations is about the relationship between employer and employee then OH&S is an industrial relations matter, in fact, and in law (Creighton and Gunningham, 1985). It is *how* the matter is dealt with that is crucial to the debate not its legitimacy on the agenda.

Consultation

The new legislation requires OH&S to be dealt with in a consultative way in a forum where joint decision making is possible, rather than a collective bargaining dispute mode. To quote Robens;

"There should be a statutory duty of care on every employer to consult with his employees or their representatives at the workplace on measures for promoting safety and health at work and to provide arrangements for the participation of employees in the development of such measures" (Robens, 1972)

Callus et al (1991) in the Australian Workplace Industrial Relations Survey (AWIRS) summarised methods of communication in Australian workplaces, recognising that effective communication is an essential part of management. Various methods of communication, both formal and informal, were described. Differences between workplaces were related to whether they were private or public sector, to unionisation, to workplace size and to type of industry. They pointed out that the expectation is that action will follow disputation. They found that employer/employee committees were established in order to provide a forum for management-employee consultation rather than decision making and that committees were more likely to be found in large and public sector workplaces.

On the other hand, the consultation required by the new OH&S legislation is not the type which has just been described in AWIRS. Consultation under this legislation should also achieve joint decision making. In NSW, for example, the legislation requires that joint OH&S committees be established in workplaces with more than 20 employees. The NSW Occupational Health and Safety (Committees and Workplaces) Regulation, 1984 states in s8(2) that the employer's representative on the OH&S committee shall include, as far as practicable, a person with authority to implement preventative measures. However, according to a study by Wyatt (1991) 90 percent of committees are acting only in an advisory mode and are not truly consultative. In other words, management is not sending representatives with authority to act (Wyatt, 1991).

Confrontation and not consultation has been the habit of the past. The lack of effective consultation needs to be recognised and addressed. One way to deal with the consultation issue is through education and training.

OCCUPATIONAL HEALTH AND SAFETY EDUCATION FOR INDUSTRIAL RELATIONS STUDENTS

Given the present climate of change, students of industrial relations need particular knowledge, skills and attitudes to function effectively from an OH&S point of view. Industrial relations professionals need to be able to analyse the workplace in order to identify the health hazards or problems, devise and implement plans for their solution, and monitor the outcome. To be able to do this they need communication skills, access to OH&S information, knowledge of

the legislation, and familiarity with the principles of OH&S management. It is not suggested that they need to know the scientific or technical details relating to all the OH&S aspects of the working environment but they need to know the scope of the matter, the challenges and the dangers.

The Working Environment

The working environment is the workplace itself (including the home in the case of homeworkers or a vehicle in the case of transport workers), the machinery or fittings of the workplace, the work process including what is done and how it is done, and work arrangements such as shiftwork and overtime. It includes the physical environment, temperature, humidity, lighting, ventilation, space and general atmospheric conditions, as well as other organisational factors, for example, systems of communication, and the presence of stress factors such as overcrowded conditions or inadequate staff levels. All these components should be familiar to people dealing with industrial relations.

Communication

New patterns of consultation must be learnt and the professionals engaged in industrial relations are the likely role models for demonstrating these new patterns. During effective consultation, problems and constraints are heard by all parties and all are in a position to work at solutions. Employees need to understand the constraints and managers will be surprised to learn how innovative those familiar with the problems can be in providing cost-effective solutions.

Information

Easy and organised access to information is essential particularly for workplace processes and substances (for example the provision of Material Safety Data Sheets [MSDS]). Worksafe Australia has published a guidance note on the completion of Material Safety Data Sheets. Almost 40 percent of MSDS for chemicals manufactured in Australia are now in this format. A new database system, the Worksafe Disc, is an important resource for Australian workplaces. It contains the National MSDS repository, and the Australian OH&S database including abstracts and some full text material. It also includes NIOSHTIC - the US OH&S scientific and technical bibliographic database - and RTECS - the US registry of toxic effects of chemical substances.

Principles of Occupational Health and Safety Management

The principles of OH&S management need to be clearly understood by all parties and particularly by those professionals who are directly involved in industrial relations. The single most important factor in the successful management of OH&S is the commitment of management. As Underwood (1991) says so eloquently the commitment must cascade through the culture of the organisation. Further, there must be an understanding of the framework of recognition, evaluation and control of hazards, and the hierarchy of controls. All should know the value of a needs assessment, workplace inspections, safety audits, and investigating and collecting basic frequencies on incidents and accidents. It must

be an expectation by all that this data be used to plan prevention. Policies must be written and implemented in consultation while all should take part in induction and training. Finally, there needs to be an expectation to seek appropriate expert advice.

Nevertheless, management commitment remains the most important factor. As Professor Jean Cross (1990) has stated "...management responsibility only works if the management system is set up so that for each individual manager or supervisor, occupational health and safety does not conflict with their goals".

Legislation

While the new OH&S Acts need to be understood, the new guidelines, standards and codes of practice which emphasize a preventative rather than prescriptive approach are essential for industrial relations personnel.

THE ROLE OF UNIVERSITIES

Postgraduate degrees or diplomas in OH&S may now be taken in all states except Tasmania (see Appendix). Undergraduate courses are offered in Queensland, New South Wales, South Australia and Western Australia. Where there was a single postgraduate OH&S course in 1980 there are now 28. The courses vary in their emphasis, their target audiences, and in the number and professional backgrounds of the educators involved. They represent, however, centres of information on training and education in OH&S available for consultation.

Individual units or courses in these programmes or entire programmes are unlikely to be suitable or efficient for industrial relations students because the focus and educational objectives need to be considered specifically for the industrial relations role. Guidelines for a course in OH&S designed for industrial relations education and training could be developed through joint consultation between OH&S and industrial relations educators, various professions, and employer and employee representatives. The course could be delivered in the industrial relations department with the assistance of departments providing OH&S courses. As Michael Quinlan points out in Chapter 1 this development is already beginning to occur.

At the present time OH&S training is not automatically including in the education of managers or potential managers, or in the education of those responsible for the design of workplaces. The role of universities should include integrating OH&S education into engineering and architecture programmes as well as degrees and diplomas in industrial relations/human resource management. In fact, the Worksafe Australia strategy for OH&S education targets these groups as vital to the goal of providing safe and health workplaces.

Recent national training initiatives through Worksafe Australia may go some way to change attitudes about the need for OH&S training and management commitment. Unions, employers and the states agreed to an Education and Training Workshop in May 1991 to recommend to the National Occupational

Health and Safety Commission (Worksafe Australia) a joint approach to training and development of common training materials. Moreover, in its recent policy and guidelines document on Competency Based Vocational Training, the National Training Board accepted that OH&S should be included in the statement of competencies. These initiatives do not directly involve the universities at the moment. However, they do imply a clear shift in attitude and expectation which will certainly impinge on industrial relations practitioners and some other professionals, increasing the demands made on them. These demands need to be reflected in education and training at the tertiary level.

At this time Worksafe Australia, in conjunction with commonwealth and state OH&S education authorities, and in consultation with OH&S professionals, is developing and will facilitate the implementation of a guidance note on the development of OH&S courses and programmes. The purpose is to establish minimum standards for the OH&S education and training of professionals. The Guidance Note will include: guidelines for qualifications for teaching staff; course advisory committee criteria; proposals for general core material; a skills audit of current OH&S practitioners; train the trainer programmes; and the provision of staff development.

There are still concerns which remain in considering the response to and implementation of the new initiatives for safe and healthy workplaces. Occupational health and safety education and training of both employers and employees is essential, however, who will really have access to the training, what will be done with it, and how will it be monitored and updated? For all practical purposes OH&S in small workplaces is not addressed by the new legislative initiatives. More than 70 percent of workplaces have less than 20 people and lack both the opportunity or resources to deal with the changes. This is a serious gap which has ramifications not only for OH&S but also for dealing with change and productivity. Finally, care must be taken that training is not used as yet another piece of personal protective equipment which once delivered shifts the responsibility for safety to the recipient and away from a culture of safety so that other appropriate controls are neglected. Thomas Legge's aphorism is pertinent: "Its time to stop blaming the victim."

REFERENCES

- Australian Lead Development Association (ALDA) in *Lead Discussion Paper on the Control and Safe Use of Lead at Work*, Worksafe Australia, Sydney, 1990.
- Badham, C. (1940), Division of Industrial Hygiene, *Report of the Director-General of Public Health of New South Wales for 1938*, Government Printer, Sydney.
- Callus, R., Morehead, A., Cully, M. and Buchanan, J. (1991), *Industrial Relations at Work: The Australian Workplace Industrial Relations Survey* (Australian Government Publishing Service, Canberra).
- Creighton, B. and Gunningham, N. (1985), 'Is there an Industrial Relations of Occupational Health and Safety?' in Creighton, B. and Gunningham, B.

- The Industrial Relations of Occupational Health and Safety* (Croom Helm, Sydney) 1-10
- Cross, J. (1990), 'Towards Zero Accidents - Safety Education in the 1990s', *Safety in Australia*, 4-6.
- Gillespie, R. (1988), 'Accounting for Lead Poisoning: The Medical Politics of Occupational Health', Paper presented to conference on Social Science Research in Occupational Health and Safety, held at Flinders University, South Australia, 15-16 August.
- Legge, T. (1934), *Industrial Maladies*.
- National Training Board (1991), *National Competency Standards: Policy and Guidelines*, NTB.
- Report of the Committee on Health and Safety at Work 1970-72* (the Robens Report), (HMSO, London, 1972).
- Underwood, R. (1991), personal communication.
- Wyatt, A. (1991), *Occupational Health and Safety Committees in New South Wales*, Unpublished Phd thesis, University of New South Wales.

Appendix 1

OH&S Programmes at Australian Universities: A Guide and Selective Profile

Listed below are formal degree and diploma programmes in OH&S offered by Australian universities (derived from Worksafe Australia's guide to OH&S courses). This is followed by a selective profile of individual OH&S courses and degree or diploma programmes taught at a number of Australian universities. The profile is by no means comprehensive. Notable omissions include the University of Adelaide which has long established research interests and a strong array of programmes on OH&S. Nevertheless, the following profiles do provide a guide to the range and content of offerings with particular reference to predominantly coursework OH&S programmes with an industrial relations, legal or behavioural science component; and predominantly coursework programmes in industrial relations/human resource management, law and behavioural science with an OH&S component. No separate listing has been made of postgraduate thesis only programmes in OH&S (Masters and/or Doctorates).

A GUIDE TO DEGREE AND DIPLOMA PROGRAMMES IN OH&S OFFERED BY AUSTRALIAN UNIVERSITIES

1 MASTERS DEGREE

New South Wales

University of New South Wales
Master of Safety Sciences

University of Sydney
(*National Institute of OH&S*)
Master of Occupational Health and Safety
(*Cumberland College of Health Sciences*)
Master of Applied Science in Community Nursing (OH)

Queensland

Griffith University
Master of Environmental and Community Health

Queensland University of Technology
Master of Applied Science

South Australia

University of Adelaide
Master of Public Health

Victoria

Monash University
Master of Public Health

Royal Melbourne Institute of Technology
Master of Applied Science in Applied Technology

Ballarat College of the University of Melbourne
Master of Applied Sciences (OH&S)

Victorian University of Technology (Footscray)
Master of Applied Science

Western Australia

Curtin University of Technology
Master of Applied Sciences
Master of Public Health

2 GRADUATE DIPLOMA

New South Wales

University of New South Wales
Graduate Diploma in Safety Science
Graduate Diploma in Ergonomics

University of Sydney
(*Cumberland College of Health Sciences*)
Graduate Diploma in Applied Science (OH)

University of Newcastle
Graduate Diploma in Applied Science (OH&S)

University of Technology, Sydney
Graduate Diploma in OH&S

University of Wollongong
Graduate Diploma in Commerce (OH&S)

Queensland

Queensland University of Technology
Graduate Diploma in OH&S

South Australia

University of Adelaide
Graduate Diploma in Occupational Health

University of South Australia
Graduate Diploma in OH&S Management

Victoria

La Trobe University
(*Lincoln School of Health Sciences*)
Graduate Diploma in OH Practice

Ballarat College of the University of Melbourne
Graduate Diploma in Occupational Hazard Management

Deakin University
Graduate Diploma in Occupational Hygiene

Victorian University of Technology (Footscray)
Graduate Diploma in Health Science
(OH Nursing)

Swinburne Institute of Technology
Graduate Diploma in Risk Management

Western Australia

Curtin University of Technology
Graduate Diploma in OH&S
Graduate Diploma in Ergonomics

3 UNDERGRADUATE DEGREE

New South Wales

University of Western Sydney (Hawkesbury)
Bachelor of Applied Science
(Environmental Health)

Queensland

Griffith University
Bachelor of Behavioural Science

Queensland University of Technology
Bachelor of Applied Science (OH&S)

South Australia

University of South Australia
Bachelor of Applied Science
(Occupational Therapy)

Victoria

La Trobe University
(*Lincoln Institute of Health Sciences*)
Bachelor of Applied Science
(Occupational Therapy)

Western Australia

Curtin University of Technology
Bachelor of Applied Science
(Environmental Health)

4 ASSOCIATE DIPLOMA

New South Wales

University of Newcastle
Associate Diploma in OH&S

Victoria

Phillip Institute of Technology
Associate Diploma in OH&S

Victorian University of Technology (Footscray)
Associate Diploma in OH&S

Western Australia

Curtin University of Technology
Associate Diploma in OH&S

COURSES AND PROGRAMMES IN OH&S AT AUSTRALIAN UNIVERSITIES: A SELECTIVE PROFILE

□ CURTIN UNIVERSITY OF TECHNOLOGY Perth, Western Australia

**Degree or Diploma programmes with OH&S component,
status of that component and contact person**

PROGRAMME

Graduate Diploma in Occupational Health and Safety (School of Public Health)

OH&S COMPONENT - Programme entirely devoted to OH&S and includes elective specialisations (involving multiple courses) in Safety Technology, Occupational Health and Hygiene and Occupational Medicine in addition to the following core courses

- 05425 Occupational Health, Safety and Hygiene 581
- 05426 Human Factors 581
- 05427 Epidemiology 581
- 05428 Safety Technology 582
- 05429 Health and Safety Law and Management 582
- 05430 Toxicology Principles 582

CONTACT PERSON

**Associate Professor Peter
Hollingworth
(Department of Public Health)**

**Brief description of courses focusing on management,
industrial relations and legal aspects of OH&S.**

05426 HUMAN FACTORS 581

This course considers individual behaviour tasks, functions and jobs, human performance, danger, information processing capacities; system analysis, design and evaluation; training for hazard perception; human factors in accidents; organisation theory;

ergonomics: anthropometry, stress, design, thermal, aural and visual environment.

**05429 HEALTH AND SAFETY LAW AND MANAGEMENT
582**

This course considers health and safety law including statutes designed for the protection of health and safety at work; employers' liability; the criminal tortious and contractual duties and liabilities; constitutional and administrative law; as well as evidentiary and procedural limitations involved in litigation. The role and attitude of parties to decision making; power, authority and political influence; legislative and executive power; the role of experts and expert opinion; safety policies and loss control are also considered.

**05467 OCCUPATIONAL HEALTH AND SAFETY PROJECT
590**

This involves the investigation and preparation of a written report on a problem in health and safety. Due consideration should be given to the physiological, sociological, economic, epidemiological, scientific and legal aspects. Design, collection of evidence, identification and logical analysis, critical evaluation and communication of results obtained during the study.

PROGRAMME

Bachelor of Commerce (Division of Commerce and Administration)

OH&S COMPONENT - Single 2nd/3rd year elective in the industrial relations and human resource management majors

FF13R20 Health and Safety at Work

CONTACT PERSON *Associate Professor Michael
Quinlan
(Division of Commerce and
Administration)*

PROGRAMME

**Graduate diploma in human resource management and industrial relations.
(Division of Commerce and Administration)**

OH&S COMPONENT - Two elective courses

FF13R20 Health and safety at Work
PB13052 Occupational Health and Safety Law and Policy

CONTACT PERSON *Associate Professor Michael
Quinlan
(Division of Commerce and
Administration)*

PROGRAMME

**Bachelor of Technology Education
(Division of Education)**

OH&S COMPONENT - This 4 year degree will confer teacher accreditation in one subject plus OH&S subjects.

CONTACT PERSON *Marianne Mitchell,
(Division of Education)*

Brief description of courses focusing on management, industrial relations and legal aspects of OH&S

PB 11005 SOCIETY AND WORK

This subject introduces students to basic sociological theories, industrial sociology, the link between work-related injuries and the organisation of work, and the 1989 Queensland OH&S legislation.

PB 12053 THE INDUSTRIAL RELATIONS OF OCCUPATIONAL HEALTH AND SAFETY

This course examines the role that unions and management have to play in addressing the issue of OH&S as well as that of industrial tribunals. The course provides students with the skills to undertake negotiations over OH&S and an understanding of the policy and conceptual issues raised by such negotiations.

PB 13051 OCCUPATIONAL HEALTH AND SAFETY LAW AND POLICY

This course provides a detailed examination of occupational health and safety law and policy in Australia. It evaluates the effectiveness of particular bodies of law and relates this to more general policy questions.

FF13R20 HEALTH AND SAFETY AT WORK

This course provides a basic introduction to the issue of OH&S. The aim of the course is not only to acquaint students with the scope of OH&S problems but also to introduce them to the technical and analytical skills needed to manage such problems.

□ **LA TROBE UNIVERSITY**
Carlton Campus, Melbourne, Victoria

**Degree and Diploma programmes with OH&S component,
status of that component and contact person**

PROGRAMME

Graduate Diploma in Occupational Health Practice
(Department of Occupational Therapy, Lincoln School of
Health Sciences)

OH&S COMPONENT - Full programme in OH&S entailing the
following courses:

OH501	Concepts and Models of Occupational Health
OH502	Epidemiology in Occupational Health
OH503	Biostatistics in Occupational Health
OH504	Legislation, Law and Ethics in Occupational Health
OH505	Work and Workers
OH506	Interaction between the Worker and the Environment
OH507	Organisational Theory and Behaviour
OH508	Professional Roles and the Occupational Health Team
OH550	Graduate Research Skills
OH509	Occupational Health II
OH510	Elective Studies/Clinical Experience

CONTACT PERSON

Margaret Best
(Department of Occupational
Therapy, Lincoln School of Health
Sciences)

☐ **MONASH UNIVERSITY**
Clayton Campus, Melbourne, Victoria

**Degree and Diploma programmes with OH&S component,
status of that component and contact person**

PROGRAMME

Master of Laws (Faculty of Law)

OH&S COMPONENT - Single elective course in OH&S

Occupational Health and Safety at the Workplace

CONTACT PERSON *Associate Professor RC McCallum*
(Faculty of Law)

PROGRAMME

Graduate Diploma of Law (Faculty of Law)

OH&S COMPONENT - Single elective course in OH&S

Occupational Health and Safety at the Workplace

CONTACT PERSON *Associate Professor RC McCallum*
(Faculty of Law)

**Brief description of courses focusing on management,
industrial relations and legal aspects of OH&S**

Occupational Health and Safety at the Workplace

This course is primarily designed to acquaint practising lawyers who are enrolled in either a Master of Laws Degree or a Diploma of Law with the modern law on occupational health and safety. While the course does examine compensation to injured workers under the common law and under workers' compensation schemes, its primary focus is upon the modern OH&S statutes. It asks whether the new statutes of the 1980s are appropriate vehicles for reforming health and safety at the workplace.

☐ **QUEENSLAND UNIVERSITY OF TECHNOLOGY**
Gardens Point Campus, Brisbane, Queensland

**Degree and Diploma programmes with OH&S component,
status of that component and contact person**

PROGRAMME

Bachelor of Business
**(School of Human Resource Management and Labour
Relations)**

OH&S COMPONENT - Single 2nd or 3rd year elective

MNB 364 Personnel Administrative Systems /
Occupational Health and Safety

CONTACT PERSON **John Crittal (School of Business)**

PROGRAMME

**Bachelor of Applied Sciences - Environmental Health (School
of Public Health)**

OH&S COMPONENT - Single compulsory 3rd year subject

PNB 211 Occupational Health and Safety II

CONTACT PERSON **Peter Davey**
(School of Public Health)

PROGRAMME

Bachelor of Applied Science - Occupational Health and Safety
(School of Public Health)

OH&S COMPONENT - Full degree concentration in OH&S

PNB 212 Occupational Health and Safety I (1st year,
compulsory)

PNB 211 Occupational Health and Safety II (1st year,
compulsory)

MEB 305 Safety Technology I (2nd year, compulsory)

PNB 485 Occupational Hygiene I (2nd year, compulsory)

PNB 404 Safety Technology II (2nd year, compulsory)

PNB 482 Occupational Health (2nd year, compulsory)

☐ **UNIVERSITY OF MELBOURNE**
Parkville, Melbourne, Victoria

**Degree and Diploma programmes with OH&S component,
status of that component and contact person**

PROGRAMME

Bachelor of Laws (Faculty of Law)

OH&S COMPONENT - Half of a year long single elective course
in 730-338 Employment Law (ie equivalent to a single semester
course)

CONTACT PERSON *Richard Johnstone (Faculty of Law)*

PROGRAMME

**Graduate Diploma of Labour Relations Law
(Faculty of Law)**

OH&S COMPONENT - Single elective course in OH&S

730-806 Health and Safety at Work

CONTACT PERSON *Richard Johnstone (Faculty of Law)*

PROGRAMME

**Graduate Diploma in Occupational Hazard Management
(VIOSH, Ballarat College)**

OH&S COMPONENT - Full OH&S programme featuring the
following subjects.

EV411	Occupational Health and Safety Management I
EV441	Occupational Health and Hygiene I
MG471	Statistics and Modelling I
EV421	Accident Analysis I
EV431	Risk Control: Principles
BN435	Management Systems: Role and Context
BL471	Law
EV442	Occupational Health and Hygiene II
MG472	Statistics and Modelling II
EV422	Accident Analysis II
EV432	Risk Control: Management
BN436	Management Systems: Human Resources

EV411 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT I

The industrial relations of OH&S in historical perspective. The institutionalising of inadequate workplace standards - legislative enforcement and the resourcing of inspectorates. The Robens model - restoring the debate to the affected parties. Participation structures and roles: functions, powers, training, effectiveness - the Australian, Swedish, British and Canadian experience. Negotiating solutions and setting priorities for action within a tripartite framework.

EV412 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT II

OH&S management systems and programmes; OH&S agreements; roles and responsibilities; performance appraisal, authority and accountability mechanisms; hazard detection systems; appraisal and prioritisation of hazards; implementing control strategies; purchasing policy and procedures; training and education; accident investigation; rehabilitation; worksite health promotion; effective use of external OH&S consultants; and designing, implementing and monitoring and effective OH&S programme.

EV413 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT III

The function and applications of OH&S management audits. Developing the audit model: planning, system analysis, interviews, hazard audits, findings and reporting. Conducting an OH&S management audit. The application of audit results and implementation of outcomes.

□ **UNIVERSITY OF NEWCASTLE**
Rankin Drive, Newcastle, New South Wales

**Degree and Diploma programmes with OH&S component,
 status of that component and contact person**

PROGRAMME

**Graduate Diploma in Occupational Health and Safety
 (Department of Management)**

PROGRAMME

**Associate Diploma in Occupational Health and Safety
 (Department of Management)**

OH&S COMPONENT - The above programmes are fully devoted to OH&S and deal with technical, organisational, managerial, industrial relations and legal aspects of the subject.

CONTACT PERSON **Rod Noble**
(Department of Management)

PROGRAMME

Bachelor of Business (Department of Management)

OH&S COMPONENT - About 40 percent of the single semester course BU211B Industrial Relations is devoted to OH&S. Other industrial relations electives have an OH&S component.

CONTACT PERSON **Rod Noble**
(Department of Management)

PROGRAMME

**Bachelor of Occupational Health and Safety (Faculty of
 Medicine) [planned for introduction in 1993]**

OH&S COMPONENT - The above programme is fully devoted to OH&S and deal with streams in occupational health and hygiene, safety science, human factors and OH&S, and OH&S practice. The human factors stream covers industrial relations, psychological, management and legal aspects of OH&S.

CONTACT PERSON **Professor David Christie**
(Faculty of Medicine)

PROGRAMME

Bachelor of Health Sciences
(Department of Environmental and Occupational Health)
[planned for introduction in 1993]

OH&S COMPONENT - The above programme focuses on rehabilitation, including occupational rehabilitation

CONTACT PERSON **Dr Ihearyi Ghiobuchi**
(Department of Environmental and Occupational Health)

□ **UNIVERSITY OF NEW SOUTH WALES**
Kensington, Sydney, New South Wales

**Degree and Diploma programmes with OH&S component,
 status of that component and contact person**

PROGRAMME

Master of Safety Science (Department of Safety Science)

OH&S COMPONENT - Full programme in OH&S entailing the following courses:

Compulsory Course

ANAT6151	Introductory Functional Anatomy
SAFE9012	Statistics for Health and Safety Scientists
SAFE9011	Principles of Engineering Mechanics
SAFE9122	Computing Safety Science
SAFE9142	Organisational Communication for Safety
CMDE9701	Occupational Disease
SAFE9211	Introduction to Safety Engineering
SAFE9224	Principles of Ergonomics
SAFE9232	Introduction to OH&S Law
SAFE9242	Human Behaviour and Safety Science
SAFE9261	Occupational Health and Hygiene
SAFE9342	Management for Safety
SAFE9352	Hazard and Risk Analysis

Electives

BIOM9541	Mechanics of the Human Body
CHEM7325	Toxicology, Occupational & Public Health
SAFE9531	Community Noise Control
HEAL9411	Epidemiology
LAWS5020	Industrial Safety and Health Law
SAFE9424	Applied Ergonomics
SAFE9523	Machines and Structures Safety
SAFE9533	Electrical Safety
SAFE9543	Management of Dangerous Goods
SAFE9544	Transport Safety
SAFE9553	Radiation Protection
SAFE9561	Occupational Health Practice
SAFE9563	Assessment of the Workplace Environment
SAFE9573	Fire and Explosion
SAFE9583	Ventilation

CONTACT PERSON

Professor Jean A Cross
(Department of Safety Science)

PROGRAMME**Graduate Diploma in Safety Science
(Department of Safety Science)**

OH&S COMPONENT - Full programme in OH&S entailing the following courses:

ANAT6151	Introductory Functional Anatomy
SAFE9012	Statistics for Health and Safety Scientists
SAFE9011	Principles of Engineering Mechanics
SAFE9122	Computing Safety Science
SAFE9142	Organisational Communication for Safety
CMDE9701	Occupational Disease
SAFE9211	Introduction to Safety Engineering
SAFE9224	Principles of Ergonomics
SAFE9232	Introduction to OH&S Law
SAFE9242	Human Behaviour and Safety Science
SAFE9261	Occupational Health and Hygiene
SAFE9342	Management for Safety
SAFE9352	Hazard and Risk Analysis

CONTACT PERSON

**Professor Jean A Cross
(Department of Safety Science)**

PROGRAMME**Graduate Diploma in Ergonomics
(Department of Safety Science)**

OH&S COMPONENT - Full programme in OH&S entailing the following courses:

	ANAT6151	Introductory Functional Anatomy
	SAFE9012	Statistics for Health and Safety Scientists
	SAFE9011	Principles of Engineering Mechanics
	SAFE9142	Organisational Communication for Safety
	PSYC7110	Advanced Ergonomics
	SAFE9211	Introduction to Safety Engineering
or	CMED9701	Occupational Disease
	SAFE9224	Principles of Ergonomics
	SAFE9242	Human Behaviour and Safety Science
	SAFE9424	Applied Ergonomics

CONTACT PERSON

**Professor Jean A Cross
(Department of Safety Science)**

Brief description of courses focusing on management, industrial relations and legal aspects of OH&S

SAFE9142 ORGANISATIONAL COMMUNICATION FOR SAFETY

Overview of the development of communication skills. Principles and processes for effective communication. Communication exercises. Designing information forms. Review of currently available computer based OH&S data systems. Locating sources of OH&S information. Design and conduct of personnel training and development programmes. Organisational communication - diagnosis and change.

SAEF9232 INTRODUCTION TO OCCUPATIONAL HEALTH AND SAFETY LAW

The concept of law: the creation and interpretation of statutes; the judicial and court systems; locus standi; common law and equity; basic principles of legal liability (civil and criminal); basic principles of administrative law and the liability of the Crown; the common law of employment; statutory regulation of employment; compulsory arbitration of industrial disputes. Outline of OH&S and compensation legislation of the Australian States. Actions under common law.

SAFE9342 MANAGEMENT FOR SAFETY

Managerial models and structure. The structure and responsibility of a safety manager. Integrating safety into the organisation and management systems; cost effectiveness of safety programmes. Selection and training of personnel. Comparison and evaluation of OH&S 'off the shelf' data management systems. The safety practitioner as a change agent.

LAWS5020 INDUSTRIAL SAFETY AND HEALTH LAW

The law relating to compensation for work-related injuries and disabilities and the regulation of safety standards in industry and of the processes and substances employed therein. Topics include: the employers common law duty of care; the development and application of workers' compensation schemes; comprehensive no-fault compensation schemes and inquiries relating thereto in their application to industrial injuries and disabilities; existing protective legislation in Australia; a comparative survey of protective legislation in other countries and its effectiveness; proposals for amendment of protective legislation; individual rights under protective legislation; regulation of industrial safety and health; new problems of industrial safety and health.

structural/behavioural implications, implementing strategies and case studies.

02196 MANAGEMENT OF OH&S 3G

OH&S policies and objectives, standard operating procedures, training and education of employees, OH&S information systems and utilising expertise.

02190 OCCUPATIONAL HEALTH AND SAFETY LAW

Statutory interpretation, safety legislation, workers' compensation, industrial relations of OH&S, contract of employment, employers' liability and comparative law.

UNIVERSITY OF SYDNEY
Sydney, New South Wales

**Degree and Diploma programmes with OH&S component,
 status of that component and contact person**

PROGRAMME

Master of Occupational Health and Safety (Department of Occupational Health and National Institute of OH&S [Worksafe Australia])

OH&S COMPONENT - The masters programme is fully devoted to OH&S and includes a treatise. In addition to a generalist elective, General Occupational Health and Safety there are four specialist electives namely, Occupational Ergonomics, Occupational Hygiene, Occupational Medicine and Occupational Toxicology. Core units/courses in the programme include

Site Visits
 Research Methods
 Social Aspects of Occupational Health
 The Law
 Occupational Hygiene
 Introductory Biostatistics
 Epidemiological Methods
 Ergonomics I
 Toxicology I
 Health, Disease and Work
 Communication Skills Occupational Health
 Management
 Safety and Loss Prevention
 The Economy and Industry
 Information Retrieval
 Computer Skills
 Issues in Occupational Health
 Biostatistics
 Epidemiology
 Management and Industrial Relations
 The Practice of Occupational Health

CONTACT PERSON

Dr Ann Long
**(Department of Occupational
 Health and Worksafe Australia)**

PROGRAMME

**Graduate Diploma in Occupational Health and Safety
(Department of Occupational Health and National Institute of
OH&S [Worksafe Australia])**

OH&S COMPONENT - Fully devoted to OH&S and similar to the Masters programme. However, there is no treatise requirement.

CONTACT PERSON *Dr Ann Long
(Department of Occupational
Health and Worksafe Australia)*

PROGRAMME

**Master of Public Health and Safety
(Department of Public Health)**

OH&S COMPONENT - Single elective course in OH&S

CONTACT PERSON *Dr Susan Quine
(Department of Public Health)*

PROGRAMME

Bachelor of Economics (Department of Industrial Relations)

OH&S COMPONENT - Single compulsory course in OH&S within the industrial relations major.

CONTACT PERSON *Suzanne Jamieson
(Department of Industrial
Relations)*

PROGRAMME

**Master of Labour Law and Relations and Master of Laws
(Faculty of Law and Department of Industrial Relations)**

OH&S COMPONENT - Single elective course in OH&S

CONTACT PERSON *Suzanne Jamieson
(Department of Industrial
Relations)*

PROGRAMME

**Graduate Diploma in Applied Science
(Occupational Health and Safety)
(Cumberland College of Health Sciences)**

OH&S COMPONENT - Fully devoted to OH&S.

CONTACT PERSON

**Elfreda Marshall
(Cumberland College of Health
Sciences)**

☐ **UNIVERSITY OF TECHNOLOGY, SYDNEY**
Broadway Campus, Sydney, New South Wales

**Degree and Diploma programmes with OH&S component,
 status of that component and contact person**

PROGRAMME

**Master of Occupational Health and Safety
 (School of Management)**

PROGRAMME

**Graduate Diploma in Occupational Health and Safety (School
 of Management)**

PROGRAMME

**Graduate Certificate in Occupational Health and Safety
 (School of Management)**

PROGRAMME

**Graduate Certificate in Occupational Health and Safety
 Management (School of Management)**

OH&S COMPONENT - All the above programmes are fully devoted to OH&S and deal with technical, organisational, managerial, industrial relations and legal aspects of the subject.

CONTACT PERSON

**Dr Tom Fisher
 (School of Management)**

**Brief description of courses focussing on management,
 industrial relations and legal aspects of OH&S**

**99311 OCCUPATIONAL HEALTH AND SAFETY IN
 SOCIETY**

This course covers the psychological, political and sociological dimensions of OH&S, and presents them within the context of the overall social system.

99313 ORGANISATIONAL BEHAVIOUR AND COMMUNICATION

This course examines the behaviour of people in organisations and the dynamics of interpersonal and intergroup behaviour.

99334 OCCUPATIONAL HEALTH SERVICES

This subject covers the principles underlying the establishment and functioning of an effective occupational health service within an organisation.

99342 LEGAL ASPECTS OF OCCUPATIONAL HEALTH AND SAFETY

This subject introduces students to the important aspects of both state and federal legislation and regulations, including its interpretation and the implications for the organisation and management of the OH&S function.

99343 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT

This subject brings together the management aspect of OH&S, including the role of the OH&S manager, motivation for health and safety, industrial relations issues, training and economic aspects.

Appendix 2

Examples of Self Study Materials for an Occupational Health and Safety Law Course

This appendix provides examples of self study materials that can be used to help students prepare for class discussion. Each example represents an extract from materials used in the course Employment Law at the University of Melbourne. The materials deal with the Victorian legislation although similar questions could be asked in relation to the legislation of other jurisdictions. Students would have their copies of the Act. The extracts aim to produce structured knowledge and to help students learn about legal principles through problem solving.

Example 1

The Employee's Duties

The Robens Report in paragraph 129 recommended that a general duty be placed on the employee. Read that paragraph again. The Victorian Government's Discussion Paper of 1983 did not include a proposal for a duty to be placed upon employees. Why do you think this was the case? (See again our discussion of the "careless worker myth" in week 1).

Nevertheless the response to the Discussion Paper was so strongly critical of this omission that the Occupational Health and Safety Act in section 25 placed a general duty upon employees. Read section 25.

- (i) See again section 4 for the definition of "employee". Does the definition cover senior managerial staff?

Who is not covered by the definition?

- (ii) Section 25(1) is not qualified by the concept of "practicability". Instead the employee must take all the care of which s/he is "capable" for her or his own safety or the safety of any other person affected by her or his acts at the workplace.

Does section 25(1) place a greater duty on employees the greater their responsibilities in the organisation? Give reasons for your answer.

- (iii) To whom is the duty owed? Clearly the duty is owed to fellow employees. But the duty, as we have seen, is also to "any other person". Prepare notes to moot the following scenarios in class.

(a) Consider the situation where an employee drives dangerously while delivering her employer's goods to a client. The employee's dangerous driving causes injury to a pedestrian. Could the employee be prosecuted under section 25(1)?

(b) What if the employer produces machinery of a certain type, and an employee takes the machine home over the weekend in order to "mess around with it". The machine injures a friend of the employee who is visiting the employee's house. Could the employee be prosecuted under section 25?

- (iv) What is meant by "capable"?

Does it mean the employee must do everything within her or his physical and intellectual capacity? (see Creighton *op cit* para 657). Give reasons for your answer.

Is the employee's capability to be assessed with reference to her or his responsibilities within the organisation? Give reasons for your answer.

Is the expression "capable" broader than "reasonable" or "reasonably practicable"? Give reasons for your answer.

Does the word "capable" require the employee to put herself at risk to protect another employee in the face of a hazard? Give reasons for your answer.

Do you think that the terminology used in section 25(1) has imposed a duty on the employee that is even broader than the employer's general duty? Give reasons for your answer.

- (v) Prepare an argument that the duty in section 25(1) gives an employee a right to refuse to perform dangerous work.

Prepare an argument that section 25(1) gives no such right.

Which argument do you think is correct? Why?

- (vi) Does section 25(2) add anything to section 25(1)?
- (vii) Should the Occupational Health and Safety Act have included a provision requiring employees to "co-operate" with the employer's efforts to make the workplace safe and without risks to health?

The Relationship Between the General Duties

We have already seen that there may be considerable overlap in the operation of the general duties. It is quite conceivable that more than one general duty can be contravened in any particular situation, and that more than one person can be prosecuted for breach of the various general duties.

To illustrate this point, and as a self assessment exercise, consider the following situation.

Self Assessment Exercise

An employer, B, operating a foundry decides that the noise levels at the workplace are too high, and are likely to have a detrimental impact on the hearing of employees in the workplace. B therefore approaches R, manufacturers and suppliers of hearing protection to place an order for appropriate hearing protection equipment. R supplies hearing protection equipment which does not have appropriate instructions. The employer does not warn employees of the danger of high noise levels. It merely instructs its supervisor in the shop floor to insist that every person on the shop floor wears hearing protection while at work. The supervisor does not carry out these instructions, but merely tells employees to "wear these things when you can". Higher level management does not check up as to whether the instructions have been carried out. The employees do not use the hearing protection equipment. Persons delivering goods to the premises and outside contractors coming onto the premises to repair equipment are not given hearing protection.

Advise the Department of Labour of the possible charges it may bring under the general duty provisions.

Example 2

Enforcement of the Occupational Health and Safety Act by the State: The Inspectorate.

In the previous classes we looked at the standard setting provisions of the Occupational Health and Safety Act. We now turn our attention to the mechanisms of enforcement provided by the Act. There are two basic approaches to enforcement - enforcement by the state inspectorate, and by duly elected occupational health and safety representatives. In this section of the course we look at enforcement by the state.

The Victorian Occupational Health and Safety Inspectorate has the responsibility of enforcing the *Occupational Health and Safety Act*. In this part of the course we will examine the organisation, powers and practices of the Victorian inspectorate.

The Historical and Sociological Context of State Enforcement

It is very important to see the powers and practices of the current Victorian Occupational Health and Safety inspectorate in a historical and sociological perspective. To begin this section let us review that historical perspective. In week four we looked in some detail at the history of the factory inspectorate in both Britain and Australia. Describe again the three most important characteristics of the inspection practice of these old inspectorates.

In particular, reread Carson's article on the "Ambiguity of Factory Crime". What does Carson mean by the "ambiguity" of factory crime?

Summarise the four most important points in that article.

In week four we also looked at a short article by Paul Prior, the Secretary of the Department of Labour, and a former Chief Inspector. You will remember that Prior described the practices of the Victorian inspectorate in the early 1980s. Re-read Prior's article and indicate the similarities to, and differences from, the practices of the nineteenth century British inspectorate.

You will recall from your study of the Robens Report that the restructuring of the inspectorate was an important part of the Robens framework. Re-read paragraphs 115, 206-208, 213, 215-219, and 231 and summarise in three points the Robens recommendations for the structure of an occupational health and safety inspectorate.

Example 3

Powers and Duties of the Inspectorate

The powers and duties of the inspectorate under the *Occupational Health and Safety Act* are set out in Part V (sections 39-46) of the Act. The powers are very similar to those set out in previous Victorian legislation: see section 186 of the *Labour and Industry Act 1958* and section 22(1) of the *Industrial Safety, Health and Welfare Act 1981*. You should refer to Part V of the *Occupational Health and Safety Act* to answer the following questions in order to build up an understanding of the powers and responsibilities of the inspectorate. Make short notes as a basis for class discussion.

- (i) Inspector's powers to enter workplaces are set out in section 39(1)(a) and (b).

What is the essential difference between sections 39(1)(a) and (b)?

Quickly read sections 26 and 29 to 35 of the Act. List the situations in which an inspector may be "requested or required" to attend a workplace under section 39(1)(b).

- (ii) The inspector's investigatory powers and obligations upon attending the workplace are set out in sections 39(1)(c) to (k) of the Act. Note that section 39(1)(f) should be read together with section 40(3), 39(1)(g) together with 40(4) and (5), 39(1)(h) with 40(6). Read also sections 39(2), 40(7) and (8) and 41.

Inspection Problem

Your client, Ms Susan Seger, is the production manager of a large chemical company, called Makechem Pty. Ltd. She rings you one morning seeking the following advice. A Department of Labour inspector has just arrived at her premises, together with a Greek interpreter, and has indicated that she has received a complaint from "the union" about poor

ventilation in an area where there are "toxic" chemicals. The union has alleged that a "few workers" have "fainted" due to exposure to chemicals. Ms Seger tells you that the inspector has indicated that she will take air samples, samples of the alleged "toxic chemical", and has asked for all documentation which might indicate the composition and use of the chemical. The inspector is also photographing the site of the chemicals, and sketching the layout of the area. The inspector has requested that no company employee "do any work" in the area where the chemicals are situated. She has also asked to see the breathing apparatus that has been provided for employees. The inspector is interviewing all employees in the area. (Some of the employee are Greek speaking). The inspector has also asked to interview Ms Seger. She says that she "refuses to talk to that"

Ms Seger insists that the inspector's activities are "an unwarranted interference in the running of [her] business." She wants to know "what right the inspector has to do all this", and wants to know whether she can take any action to have the investigation stopped or reviewed. She asks for any advice as to how she can "make life difficult for this [inspector]." "Surely I must be able to appeal to somebody about all this" she says.

You tell Ms Seger that you will need ten minutes to read the relevant sections of the Act, and that you will ring her back with the appropriate advice once you have done so. Jot down some notes which will form the basis of your telephone advice.

What would your advice be if the inspector had told Ms Seger over the telephone that the workplace should be left undisturbed until the inspector was able to attend the scene?

Read sections 40(1) and (2). Now assume the role of the relevant trade union in the scenario outlined earlier. What should your health and safety representatives at the chemical factory expect from the inspectorate?

Given the inspectors' obligations to health and safety representatives in section 40, how should the union and its representatives organise themselves to make the most of their rights under that section.

Offences Relating to Inspectors

As you have seen, inspectors have very broad investigatory powers. These powers are backed up by the provisions of section 42.

Prosecution Problem

Once you have read those sections make brief notes to form the basis of oral advice to the inspectorate about the appropriate course of action to take in the following situation. We will discuss your advice in class.

During the investigation at Makechem Pty. Ltd. the works supervisor, Harry Hacker, upset at the interference the inspector is causing to his production schedules, begins to argue with the inspector over her right to examine the workplace and to take samples, documents etc. He refuses to show the inspector where the breathing apparatus is kept. When the inspector starts to look on her own account, he stands in her way with his fist raised. Another employee tries to calm him down and pulls him out of the inspector's path.

Consider against whom the action should be taken.

Would your answer be any different if Harry Hacker was a contractor engaged by Makechem Pty Ltd?

ACIRRT

The Australian Centre for Industrial Relations Research and Teaching (ACIRRT) at the University of Sydney was established as a Key Centre of Teaching and Research in 1989 through a grant from the Commonwealth Department of Employment, Education and Training. The Centre is closely linked with the University's Department of Industrial Relations, which has a long and distinguished history of teaching and research in this area.

ACIRRT's main brief is to improve the quality of industrial relations teaching and research in Australia. This goal is being pursued through a range of activities including seminars and research projects conducted by members of ACIRRT and scholars from other institutions, secondments of staff, and publications.