



A CONCERTED APPROACH:

Aligning New Zealand OHS qualifications and professionalism with our health and safety expectations

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Executive summary

This study conducted a qualitative review of the literature surrounding occupational health and safety education in New Zealand and Australia; and a qualitative enquiry of stakeholders with an interest in ensuring that New Zealand has the best opportunity for improving health and safety in the country's workforce. The report is driven by New Zealand's failure to even partly achieve the vision of the Independent Taskforce on Workplace Health and Safety, ie. ... "within 10 years New Zealand will be among the best places in the world for people to go to work each day and come home safe and sound" (Jager et al., 2013).

The qualitative study revealed eight themes.

- 1. 'Generalist' expert status. There is currently no high level standard in generalist health and safety education by which all parties can be confident that the advice given is world-class (as for engineers, surveyors etc.).
- 2. Employer uncertainty. Employers are (in general) confused as to the meaning of 'qualified'.
- 3. **Student/employer mismatch**. There is frequently a mismatch between the aspirations of health and safety graduates and the expectations of their employers and clients.
- 4. **Employer introspection.** Employers often want to mould their occupational health and safety (OHS) staff to 'their way of doing things'.
- 5. **Compliance/safety confusion.** In general, many of the three key stakeholders appear to focus more on compliance with NZ laws than on safety itself (even though clearly, the two should be aligned).
- 6. **Student frustration.** Many students are frustrated that their achievement is not always recognised by organisations such as NZISM and therefore they cannot readily become 'safety professionals' in the eyes of the industry.
- 7. **Improving Australian standard.** Accreditation of OHS (professional) safety qualifications appears to have raised the standard and improved the status of safety professionals in Australia.
- 8. **International qualification parity.** Students, along with most other New Zealand stakeholders, want their qualifications to be internationally relevant and comparable.

These themes are discussed in the context of the available literature and the following general recommendations are promoted:

- 1. That all health and safety courses above level 3 should be accredited (along with subrecommendations as to how this should be achieved).
- 2. That the member associations of the Health and Safety Association of New Zealand (HASANZ) should ensure that a 'chartered professional' category exists within their membership so that all the health and safety associations are moving towards a 'closed occupation' with assured levels of proficiency.

- 3. That tertiary institutions, private training companies, and industry organisations are entirely independent in the formulation of their qualifications, and that if accreditation is achieved, these courses are strongly promoted to employers by the New Zealand Institute of Safety Management (NZISM) and others.
- 4. That within NZISM, pathways to the higher levels of membership be made more flexible to include areas of specialisation and equivalency.

In conclusion, the study observes that the 'step-change' required in New Zealand safety (as recommended by the 2013 Independent Taskforce on Workplace Health and Safety) has not taken place over the past 8 years, and that the recommendations of this report are required as critical components to achieving meaningful improvement in New Zealand's health and safety record.



Introduction

Background

The report was funded by WorkSafe and commissioned to articulate how the New Zealand Institute of Safety Management (NZISM) can better work with tertiary education providers, employers and NZISM members to ensure the provision of high-quality health and safety qualifications which align academic rigour with contemporary best-practice. As the umbrella organisation representing workplace health and safety professions in New Zealand, the Health and Safety Association of New Zealand (HASANZ) has commissioned this report in order to more effectively meet the needs of the market and the profession.

NZISM has almost 2,400 members currently working in health and safety in New Zealand; and as such, the organisation constitutes more than 80% of those registered with HASANZ, and delivers the most common 'gateway' onto the HASANZ register of safety professionals in this country.

Currently, there is an unclear basis for education programmes in occupational health and safety in New Zealand. Education providers (polytechnics, private training establishments, industry organisations, and universities) design and run OHS programmes/qualifications which, while following New Zealand Qualifications Authority (NZQA) requirements for the respective certificates, diplomas, and degrees etc. are not necessarily aligned to current international competency frameworks; nor are they directly engaged with local industry sectors or professional organisations. Therefore, it is unclear whether the education programmes provide graduates with the breadth and depth of knowledge needed to work as a health and safety professional in this country.

This project is intended to undertake an in-depth analysis of the issues and challenges that NZISM sees in the current OHS Tertiary Qualifications – and to propose courses of action to resolve these issues.

New Zealand's position in the world of OHS education

New Zealand's grim record of occupational injury and ill-health within the Organisation for Economic Co-operation and Development (OECD) has been well documented and there have been repeated calls to urgently improve the country's occupational health and safety (Jager et al. 2013).

The Independent Taskforce on Workplace Health and Safety took an aspirational stance that called for an *"urgent, broad-based step change"*:

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Our vision is that within 10 years New Zealand will be among the best places in the world for people to go to work each day and come home safe and sound. We believe that this is absolutely possible, but it will require an urgent, broad-based step-change in approach and a seismic shift in attitude. (Jager et al. 2013). Accordingly, the taskforce made a number of recommendations to achieve this – including the following specific references to the education system.

"The Taskforce recommends that the new agency¹ deliver the following priority actions:

a. takes a leadership role to ensure that workplace health and safety standards are embedded in all academic and vocational training at levels 1-6 on the NZQF

b. collaborates with professional registration bodies and professional associations to ensure that university level qualifications and professional standard processes support their members' capability to address workplace health, safety and risk matters

c. collaborates with professional bodies, industry organisations and unions to ensure that general management training better addresses workplace health and safety matters

d. engages with trade certification bodies to ensure that workplace health and safety matters are mandatory elements of certification." (Jager et al. 2013)

The "seismic shift" has yet to happen. At the time of writing (2021/2022) New Zealand's safety record has yet to show a sustainable improvement – after eight of the ten years specified in the Taskforce's vision.

It is the intent of this report to provide specific "priority actions" in order to support realisation of the taskforce's educational recommendations applicable to our accreditation frame.

The professional health and safety education landscape in New Zealand

There are five stakeholder groups in the professional health and safety education landscape in New Zealand.

Three stakeholder groups directly involved in the education/employment transaction:

- 1. **CONSUMERS** students who intend to enter the workforce as safety professionals; or current health and safety practitioners and professionals (or equivalent) who intend to further their employment prospects, knowledge, and skills through higher education.
- EMPLOYERS (PCBUs) organisations legally and ethically required to protect their workers from harm – and to that end, require qualified professionals, either as employees or consultants, to advance their health and safety proficiency. Under the Health and Safety at Work Act 2015, (HSWA) these employers are known as Persons Conducting a Business Undertaking (PCBU).
- 3. **PROVIDERS** organisations that provide the qualifications which assure both the students and the employers that the successful ('qualified') graduate has the knowledge and attributes to advise or act on behalf of a PCBU to keep their employees, contractors, and the public from harm.

¹ The "new agency" referred to is now HASANZ – the organisation that commissioned this report.

And two stakeholder groups with coordination and regulatory responsibilities:

- 4. **COORDINATORS** member-driven organisations that offer collegiality, advice, and membership categories based on qualification and experience, continuing professional development (CPD), and industry representation.
- 5. NZ GOVERNMENT primarily Worksafe, the organisation charged with enforcing the requirements of the HSWA and providing advice and guidance to encourage compliance. Other governmental departments, legislation, regulations, and local body authorities may also be stakeholders in New Zealand health and safety.

While there is considerable collegiality and goodwill among the stakeholders, there are very few structural links between them. The exceptions *inter alia* are:

- HASANZ which liaises between the government (primarily WorkSafe) and the coordinators (such as NZISM).
- The New Zealand Qualifications Authority (NZQA) and the Tertiary Education Commission (TEC) which provide assurance that providers of qualifications are meeting required educative standards. But these governmental bodies do not generally assess the specific components of the knowledge being taught such as the relevance and accuracy of safety topics.

HASANZ has delivered the HASANZ Register and its contributing associations have worked hard towards assuring that their professional members are qualified to at least Level 6 on the New Zealand Qualifications Framework. But aside from NZQA approval of the Level 6 and above qualifications, there is little interaction between the five stakeholders. In particular, there is minimal interaction between the providers/educators, consumers/students, and employers. This disconnect suggests the opportunities for a "seismic shift" are limited.

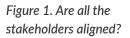
What is the problem to be solved?

Initial comments from the three stakeholder groups indicate the following issues.

- 1. How do employers know that a graduate's qualification includes current best practice based on pragmatic contemporary evidence? ie. will it improve their worksite's safety?
- 2. How do students and graduates know that a qualification (and therefore the graduate) has the confidence of employers?
- 3. How do education providers know that they are providing what employers (and therefore students) require?

These three questions are clearly linked; yet the answers are far from obvious.





In the first instance, education providers must follow the New Zealand Qualifications Framework (NZQF) requirements for each qualification. These requirements are prescribed in the respective qualification's specifications which "*makes explicit what graduates can 'do, be and know' on completion of the qualification*²". The qualification specifications are regularly reviewed by industry members³, but there are no ongoing procedures or frameworks for directly addressing the following issues:

- Where does the taught information originate ie. is it evidence-based, current and relevant?
- Are there any links between specific New Zealand industries and the selected topics ie. is the taught information directly relevant to New Zealand workplaces?
- Are the lecturers/trainers qualified or acknowledged as experts in their field of learning?
- Is there any coordination between employers and graduates ie. do employers actively seek employees who have graduated from acknowledged courses?

While the contributing associations making up HASANZ have established (at least) Level 6 qualifications as part of their assurance that their professional members may apply for HASANZ registration, there is little scrutiny of the qualifications themselves by the stakeholders (other than the education institution that is offering them). In other words, the fact that the applicant has a Level 6 (or higher) qualification is now assured - but the qualification itself is not. The qualification specifications must meet NZQA approval but the course content is, in essence, whatever the educational institution wants it to be.

It is inevitable that different courses will have their own 'flavour' in accordance with the strengths of each institution – and this sort of variation is desirable to meet different workplace sectors – but how do the stakeholders know that the New Zealand qualifications meet the evidence-based, best-practice standards required for significant improvement in New Zealand safety? This report seeks to answer this question and the specific stakeholders' questions previously outlined.

² https://www.nzqa.govt.nz/studying-in-new-zealand/understand-nz-quals/nzqf/

³ The author and NZISM CEO recently participated in the review of the Level 3, 4 & 6 health and safety qualifications.

Methods

Literature review

Despite the uniqueness of New Zealand's workplaces and the opportunity to introduce a bespoke structure for cooperation among the stakeholders, there are a small number of highly pertinent 'torchlight' publications that may indicate appropriate courses of action (and traps to avoid) for New Zealand's safety education. This report will review the following publications insofar as they relate to the questions posed in the Introduction.

- 1. Reports and papers specific to the New Zealand situation
- Report of the Independent Taskforce on Workplace Health and Safety (2013)
- Health and safety accreditation in New Zealand: a proposed approach. A report prepared for NZISM by Martin, Jenkins and Associates Ltd in 2013.
- The evolution of the OHS profession in New Zealand (Peace, Lamm, Dearsly, Parkes. 2019)
- Building the Professions HASANZ, (2019)
- 2. Reports and papers reviewing Australia's accreditation journey
- Review of implementation of accreditation of OHS professional education in Australia (2015)
- Review of the implementation of the Australian Occupational Health and Safety Education Accreditation process (Brown, Driscoll, Cook, King & Pryor; 2016)
- Accredited OHS professional education: A step change for OHS capability (Pryor, 2016 Safety Science 81 pp5-12)
- The emergence of the occupational health and safety profession in Australia (Provan, D. & Pryor, P., 2019)
- Development of a global framework for OHS professional practice (Pryor, P. et al, 2019)
- The Generalist OHS Professional: International and Australian Perspectives (AIHA 2021)
- 3. Report on international professionalism/capability levels
- The Occupational Health and Safety Professional Capability Framework A Global Framework for Practice (INSHPO)

Qualitative enquiry

Qualitative data was gathered by interviewing members of the stakeholder groups to solicit their thoughts and opinions on the questions posed in the Introduction. Structured interview schedules were prepared to record their responses. These structured interview schedules were completed by the author after speaking to the participants in person or by video-conference.

Qualitative research was preferred over quantitative data drawn from the structured interview schedules due to the 'deep dive' nature of the questioning. Quotes identified as being rich in detail and contextual meaning were highlighted (Patton, 2002) – and ultimately incorporated into this report.

Interviews were conducted with figures across the stakeholder groups. A purposive critical case sample of in-depth interviews was chosen to provide rich data on topics of interest to this project. The interviewees were "...deliberately selected for the important information they can provide that cannot be gotten as well from other choices" (Maxwell, 1997 p.87). Purposive sampling leads to greater depth of information from a smaller number of carefully selected cases (Teddlie & Yu, 2007).

The structured interview schedules were interpreted according to themes emerging from the participants' responses. Upon completion of this interpretation, the data set was considered to have reached saturation, since nothing new was emerging and replication and redundancy of dialogue were strengthening, but not expanding, the identified themes (Bowen, 2008). An inductive analysis was developed interpreting the participants' statements insofar as they related to the research project's questions.

The answers to the interviews were recorded on separate forms, and given random number identification titles so that the identity of the person was not linked to the information on the form (except insofar as being identifiable as belonging to one of the stakeholder groups). The forms were kept in the author's computer until the final draft of the report was published – whereupon all the forms were destroyed.

Results

Literature review

The New Zealand context

Report of the Independent Taskforce on Workplace Health and Safety

This 2013 report set out a roadmap for improving New Zealand's workplace safety – including many observations and recommendations for safety education, the increased competency of safety professionals, and their anticipated positive influence on the country's workplaces.

The report highlighted low health and safety capabilities within many businesses and a lack of external training available. It also pointed out the lack of suitably qualified or accredited professionals; and the problems firms face when trying to identify appropriately qualified professionals. Deficiencies in the quality, consistency and availability of tertiary training courses were also identified.

The Taskforce also recommended that practitioners be accredited and that MBIE should explore setting up a registration or accreditation system establishing agreed professional standards for health and safety professionals.

Some of the salient quotes and points from this report are examined in the Introduction of the current document.

Health and safety accreditation in New Zealand: a proposed approach. Prepared for NZISM by Martin, Jenkins and Associates Ltd in 2013.

This report appears to have little profile in New Zealand and seems to have been overlooked in the ongoing discussion about improving safety in this country. In August 2013, the Government announced a comprehensive programme of reform to lift the capability of New Zealand's health and safety profession. In addition to setting up what was to become HASANZ, it recommended exploring setting up a registration or accreditation system and establishing agreed professional standards for health and safety professionals.

As New Zealand's leading professional organisation for health and safety professionals, the report regarded NZISM as being best-placed to deliver an accreditation pathway. The costs were estimated (in 2013) at between \$340,000 and \$370,000 to establish the scheme, and between \$300,000 and \$610,000 per year to run – although no basis for these figures is given. The report also recommended support from large employers to accredit their health and safety professionals, and support from the Ministry for Business, Innovation and Employment (MBIE) in the form of mandated accreditation for health and safety professionals and financial support.

The report identified the three key benefits of accreditation as:

- 1. Providing quality assurance;
- 2. Lifting the capability of health and safety practitioners; and
- 3. Strengthening the credibility of the health and safety profession.

The writers of the report understood that, in assessing how accreditation should be delivered, MBIE believed that a professional body is more likely to have the required knowledge and credibility to strengthen the credibility of the health and safety profession – and that NZISM is that professional body.

It proposed that the accreditation pathway required all Technician Members (now Practitioner Members) have a minimum NZQF Level 4 qualification; and all Graduate Members (now Professional Members) have a minimum NZQF Level 7 qualification (ie. Bachelor's degree or equivalent).

The evolution of the OHS profession in New Zealand (Peace, Lamm, Dearsly, Parkes. 2019)

This paper, published in the Safety Science Journal, considered the nature of a true profession and pointed out that a profession must be "accepted by the public as possessing special knowledge and skills" (p.256) and include "higher education necessary to gain a body of special knowledge; skills developed over a period of time..." (p.256).

It also considers a 2017 HASANZ survey of businesses, managers, and practitioners which referred to confusion and uncertainty around what professional qualifications were needed and which standards were required. The paper quotes the first chief executive of WorkSafe as writing "...without these there was no way the punter purchasing services could be assured of their quality" (p.260).

In the Discussion and conclusions section, the paper points out that "OHS practitioners (should) be well-educated and outward looking if they are to provide the necessary thought leadership to employers. This will require management and analytical skills beyond those traditionally forming part of their training and continuous revision of INSHPO standards and tertiary education" (p.261).

Finally, the author asserts, "The necessary improvements in workplace health and safety that New Zealand aspires to will need to be achieved through the collaborative efforts of Government, business, tertiary education and the health and safety professions. These need to include closing the capability and capacity gaps identified in the Taskforce report (Jager et al, 2013), contributing to professionalisation of OHS practitioners, and so helping build confidence with business and creating pathways for professional development." (p.261).

Building the Professions – HASANZ Health and Safety Workforce Pipeline Report (November 2019)

This useful report makes six key recommendations "to build capacity and grow capability of the workforce" (p.4):

- 1. Improve understanding of the disciplines.
- 2. Develop and adopt appropriate competency frameworks.
- 3. Improve accessibility and quality of education and training pathways.

- 4. Meet current and future demand.
- 5. Improve access to continuing professional development.
- 6. Get the best out of professional health and safety association networks.

The report uses a traffic light system to review the state of the disciplines (p.11):

- Occupational therapists and Occupational health physiotherapists are regarded (by HASANZ) as having robust competency frameworks, education and training pathways, and no major intermediate pressures on supply and demand;
- Occupational hygienists and Occupational health nurses are regarded as having robust competency frameworks; but gaps or relatively inaccessible education and training pathways, and significant pressures on supply and demand;
- Hazardous substances professionals 'score' lowly in all three categories ie. competency frameworks, education and training pathways, and pressures on supply and demand⁴;
- Health and safety Generalists and Human Factors and Ergonomists are characterised with the words 'incomplete', 'gaps', or 'challenges' in the three areas of consideration.

While some progress has been made over the two years since the release of this report, the 'broad brush' approach is nonetheless sobering in the light of the recommendations of the Independent Taskforce.

The Australian experience

Review of implementation of accreditation of OHS professional education in Australia (Brown et al., 2016)

Accreditation of university-level OHS professional education was implemented in 2012, and reviewed in 2014, and in this 'Final Report' in 2015. The accreditation process and criteria were benchmarked to international examples. Most universities offering OHS courses have attained accreditation or have advised their intention to seek accreditation. Accreditation is assessed by the Australian OHS Education Accreditation Board (AOHSEAB)⁵. The accreditation process was considered time consuming and resource intensive by most people, but outcomes were regarded as having a positive impact on the quality of OHS professional education in Australia.

Strong correlations were found with the Accreditation Board for Engineering and Technology (ABET) in the United States and the Institute of Occupational Health and Safety (IOSH) in the United Kingdom with respect to the accreditation process and criteria. Further, the Body of Knowledge (AIHS) was mapped to the INSHPO Global Framework for Practice and a high level of correlation was noted.

The conclusion reflects on the strengths and "less positive elements" of the accreditation process in its early years. These are paraphrased overpage:

⁴ This now appears out of date as at least one New Zealand university is moving to meet the demand in this area.

⁵ Set up by the Safety Institute of Australia (SIA) – now the Australian Institute of Health and Safety (AIHS).

Strengths

- Involvement of both professional practitioners and academics.
- Early support provided to institutions.
- Resource materials supplied.
- Respect for institutional autonomy.
- Relationship between OHS accreditation and wider demands for quality assurance and accountability.

Less positive elements

- Constraints of both time and resources.
- Early low level of expectations to encourage participation.
- Need to increase the rate of accreditations rapidly to achieve an appropriate cycle of review.

The Generalist OHS Professional: International and Australian Perspectives (Pryor, Provan, Casey & Hu, 2021) [Chapter in the OHS Body of Knowledge (AIHS)]

This chapter of the OHS Body of Knowledge provides some useful guidance on what a profession is, how it should be recognised, the role of the OHS Professional, and standards of entry:

A hallmark of a profession... is "special knowledge and skills in a widely recognised body of learning derived from research, education and training at a high level." (p.1)

Recognition of a profession "is enhanced when its standards and structures have cross-country and international consistency." (p.2)

With respect to the INSHPO Professional Capability Network (see below) it points out the need for the role of OHS professional to be reconceptualised from 'problem solver' to "a continuous improvement expert, or 'value engineer' "(p.4)

Standards of entry

The Body of Knowledge Chapter also refers to 'Occupational closure' as referring to "the process whereby a trade or occupation transforms itself into a true profession by closing off entry to the profession to all but those suitably qualified".

Accredited OHS professional education: A step change for OHS capability (Pryor, 2016 Safety Science 81 pp5–12)

This paper follows the introduction of the OHS Body of Knowledge for Generalist Professionals into Australia in 2012, followed by the accreditation of OHS professional education. It also emphasises the difference between capability and competence (see 'A Global Framework for Practice' paper overpage). The paper concludes with an evaluation of the contribution of the OHS Body of Knowledge and qualification accreditation to the capability outcomes of the Australian Work Health and Safety Strategy for 2012–22.

The emergence of the occupational health and safety profession in Australia (Provan, D. & Pryor, P. 2019

This paper investigates the 'professionalisation' strategy of the Safety Institute of Australia (SIA)⁶ over eight years - including the development of the OHS Body of Knowledge, and accreditation of OHS qualifications – concluding that the OHS profession in Australia can be considered an 'emerging profession'. An emerging profession is a recognised discipline or occupation that has established, although not consistently implemented, the structures, capability and recognition necessary to be considered an established profession.

The global environment for OHS professionals

The Occupational Health and Safety Professional Capability Framework – A Global Framework for Practice (2017). International Network of Safety and Health Professionals (INSHPO)

This document continues INSHPO's excellent work in supporting and elucidating international standardisation of health and safety understanding and professionalism. Its relevance to New Zealand and this report is that it identifies the roles, position profiles, and responsibilities of OHS Practitioners and OHS Professionals.

The issues in relating the INSHPO Capability Framework to NZISM membership categories and their requirements are examined later in this document.

Development of a global framework for OHS professional practice. Safety Science 117 (2019), 404–416. Pryor, P., Hale, A., Hudson D.

This paper describes the INSHPO Capability Framework and explains the rationale for change and the methodology behind the 2013-2017 development of the framework. It also draws the distinction between 'capability' and 'competence'. "Professions, industries, and organisations were found to be moving to develop capability rather than competency frameworks... In some countries 'competency' is strongly associated with the vocational training sector and is seen as leading to a somewhat narrow educational outcome" (p.410).

See also the OHS Professional Capability Framework: A Global Framework for Practice Knowledge Matrix Mapped to the OHS Body of Knowledge which maps and correlates the OHS Body of Knowledge for Generalist OHS Professionals to the INSHPO matrix.

⁶ Now the Australian Institute of Health and Safety (AIHS).

Qualitative enquiry

Needs of employers

All employers interviewed supported the idea that their occupational health and safety (OHS) recruits / new employees should be 'qualified'; but there was some variation and uncertainty as to what 'qualified' actually meant. Several employers responded well to a prompt that Professional Membership of a HASANZ member organisation like NZISM would provide assurance that the employee had attained a relevant Level 6 qualification (along with a level of experience), but their commitment to this attainment was not strong. Some employers pointed out that once they had found the 'right' employee (whether a new recruit or an existing staff member), they would encourage and even pay for that person to then 'get a qualification'. Often they were unsure as to what that qualification should be or where the employee would study to achieve it. Some employers mentioned the 'NEBOSH qualifications'⁷ but few others were specified.

Similarly, few employers specified a tertiary institution as their preferred provider of qualified OHS staff.

Further to the employers' preference for the 'right' employee (above), most employers stressed the need for the people they employed to have a range of 'soft skills': these are attributes like empathy, an ability to work in teams, to 'get on' with people, being able to take instruction etc. – as well as having a good level of intelligence and self-efficacy⁸. Some employers also cited a requirement for an understanding of 'how organisations work'.

One employer's representative used a supply and demand model to describe the growing function and use of the OHS professional. He described a fluid 'market' for OHS professionals, where the more employers could see the benefits of having a strong, professional adviser working within their organisations, the more OHS professionals would strive to attain higher qualifications.

Despite the uncertainty surrounding qualifications and supply of OHS professionals, all employers included in the qualitative enquiry were supportive of the initiative to raise the quality of safety management in New Zealand. There was some uncertainty regarding the distinction between achieving compliance with the Health and Safety at Work Act (2015) (ie. not being prosecuted) and education designed to generally provide a 'safe' workplace – but employers did not express any cynicism over that distinction.

The position of tertiary and organisational teaching institutions in New Zealand

Following on from the 'supply and demand' model expressed above, tertiary institutions and other providers obviously wish to attract more students into an area of growing demand and are therefore eager to supply courses to meet a significant demand.

⁷ Over 200,000 people (worldwide) hold a NEBOSH National General Certificate in Occupational Health and Safety.

⁸ Self-efficacy is a concept originally proposed by the psychologist Albert Bandura. It refers to an individual's belief in their capacity to execute behaviours necessary to produce specific performance attainments.

When asked about the relevance of their courses to both employers' workplaces and people aspiring to manage health and safety in those workplaces, tertiary institutions had a range of answers:

- Senior academics interviewed from the three universities⁹ stated that their staff were "very involved" in practical health and safety around New Zealand workplaces and were therefore well informed about both perennial and contemporary OHS issues. This was generally well demonstrated to the interviewer¹⁰. Several of the associate professors working at these universities had areas of specialty that were highly sought after by industries around the country, and they were active in general safety networks they had built up over their long careers.
- Other universities¹¹ also have their own areas of expertise and an active presence in the New Zealand safety community without necessarily having a 'stand-alone' Level 6 qualification currently required for NZISM Professional Membership or Professional status in other HASANZ organisations and these areas of expertise are actively sought by industry sectors eg. the Human Factors and Ergonomics Society of New Zealand.
- The Employers and Manufacturers Association offer a range of structured courses which require students (employed in an OHS role) to use their own workplaces as subject-matter for their assignments and assessment. Therefore, the employees have an 'in-house' connection to their workplace, and are presumably focussed on health and safety matters as they pertain to that workplace.
- Similarly, the private provider, Impac, offers a range of structured courses relevant to the students' workplaces with the more advanced Level 6 Diploma comprising courses specified by the British organisation, <u>NEBOSH</u>.
- One polytechnic¹² offers a <u>Post Graduate Diploma in Professional Practice</u> with a focus on Occupational Health and Safety, and an associated Master's programme. This requires a structured (and rigorously assessed) journey of self-discovery by the student on a health and safety topic in which they already have a level of competence.
- Another polytechnic Southland Institute of Technology offers a range of OHS courses, of which the Level 6 and above courses are also largely operated through a journey of selfdiscovery by the student. Students are given a range of references round a topic and are expected to research that topic and write a report which is assessed by course facilitators.

⁹ The University of Otago, Massey University, and Victoria University of Wellington. These three are currently the only universities offering standalone level 6 (or higher) qualifications which are required for Professional Membership of NZISM.

¹⁰ It is important to note that staff members of two of the universities had previously expressed some concern that no new academics appeared to be available to succeed current senior safety academics after their imminent retirement [this was ascertained during research for the 2021 NZISM publication of "<u>Pathways</u> <u>to Professional Accreditation</u>"]. However, in the course of 2021 research for the current report, all three universities (offering Level 6 and above health and safety qualifications) had since participated in strategic reviews of their courses and several new academic positions were currently being advertised.

¹¹ For example, Auckland University of Technology (AUT).

¹² At the time of writing, all New Zealand polytechnics were being amalgamated into one entity, <u>Te Pukenga</u>. There is no reason to expect that the qualifications offered in 2020 and 2021 will not be offered in the future, so this report treats all currently offered qualifications as ongoing.

However, not all people representing the tertiary institutions interviewed agreed that the question of course prescription and tightly-coupled relevance was necessarily appropriate in all cases. One senior University academic argued strongly that a person with an OHS Master's degree (or PhD) should not have to demonstrate their competence or experience in solving an OHS issue since, by its very nature, a person with such a degree has already demonstrated their ability to research a relevant issue and provide appropriate resolutions for mitigation of that OHS problem. That staff member felt that this was the very essence of professionalism.

There was also an opinion that there should not be an exclusive focus on whole qualifications for admission to different membership levels. Virtually all tertiary institutions in New Zealand have OHS courses at Level 6 or above – but these courses are frequently not stand-alone qualifications that, in themselves, meet Professional Membership requirements. For instance, Auckland University of Technology (AUT) has Levels 6 – 8 OHS courses that may cross-credit completion of other courses from other universities in order to achieve a final Level 6 qualification.

The possibilities for specialisation and/or micro-credentialing¹³ are many and varied, and the exclusion of these courses from contributing to Professional Membership – simply because it is not one contiguous qualification – is a loss to the health and safety environment.

Furthermore, one university has progressed several specialist strategic partnerships with overseas universities. One partnership has advanced its occupational hygiene and toxicology specialty: as a result of completing the course, graduates will attain accreditation with the Australian Institute of Occupational Hygienists (AIOH). A new master's degree in occupational hygiene and toxicology will also be offered.

In general, the 'supply side' - ie. tertiary and private institutions and organisations offering Level 6 and above qualifications – are eager to offer high quality OHS courses to meet a growing demand. However, that demand is spasmodic and uncertain. One academic interviewed pointed out that 'occupational closure'¹⁴ would rapidly heighten the demand since, if only qualified professionals were employed to senior positions, then aspiring students and ambitious staff would have to become qualified in the requisite qualifications.

In the collegial and friendly conversations with many of the OHS academics within New Zealand tertiary institutions, it was proposed that there should be not only more interactive communication between tertiary institutions, employers, and students, but also a greater degree of interaction and commentary between OHS academics generally – particularly among those who had 'been around for a while'. To this end, it was proposed that an emeritus group be established which met at various OHS conferences and functions around the country - on a casual basis to begin with, but with the intention of contributing to the effectiveness of New Zealand health and safety through NZISM.

^{13 &}lt;u>Micro-credentials</u> are a formal way of recognising skills and knowledge in a particular area that employers are looking for.

¹⁴ See The Generalist OHS Professional: International and Australian Perspectives (AIHS, 2021)

Needs and aspirations of students (including prospective students and graduates)

Intending, current, and recently graduated students expressed both frustrations and optimism over OHS study in New Zealand. Many prospective students did not understand the different levels of qualifications¹⁵ nor what they should study (or where). Some graduates were even unsure whether they had done the 'right' course or not.

Among existing (or recently graduated) students, the 'fees free' option at the Southland Institute of Technology appeared popular since it was free and available through distance learning. Many students credited it with 'kick-starting' their career, while others expressed a level of cynicism over its ease of completion and perceived lack of relevance to their workplaces.

Other students¹⁶ were annoyed by the amount of self-learning required (generally, across several institutions) and some mentioned that their course was 'out of date' and not linked to any acknowledged capability framework.

Some students were inspired by their studies but did not feel they had the support of their employers (or prospective employers) to use their newly acquired knowledge and skills. Often students referred to employers only wanting their company to do what they had always done – or wanting only to do what other companies do – regardless of those companies' safety records. There was a feeling that their company could not be held accountable for an injury when they were simply doing what everyone else does.

Furthermore, students were often frustrated that their chosen profession, OHS, appeared to be more directed at 'not being prosecuted' or 'escaping conviction' [under The Health and Safety at Work Act (2015)] rather than actually using effective, evidence-based safety practices – and thereby avoiding accidents and making any question of prosecution under the Act redundant. This criticism was not only directed at employers (wanting to do what they always do and expecting to avoid prosecution) but also at the qualification that they had completed ie. they felt that there was sometimes too much emphasis on the law and too little emphasis on the practical means of avoiding occupational ill health or occupational injury.

Several graduates working in the industry also spoke of their frustration with WorkSafe inspectors who reportedly undermined their advice by directly advising the graduates' employers or clients that the advice given was 'not necessary' or 'wrong' – thereby diminishing the graduates' knowledge and value. This was particularly annoying to these graduates when a 'warranted' WorkSafe inspector had only to gain a lesser qualification to achieve 'certification' when the graduates had achieved a level 6 or higher qualification. They felt that their advisory profession was useless when a Government representative had overridden their educated and sincere advice. One student also lamented that ex-WorkSafe inspectors were apparently in demand by employers since they were thought to be able to "avoid a prosecution by telling the employer what WorkSafe would be looking for..." This was not verified, but anecdotally confirmed by another student.

¹⁵ Several students mentioned that the NZISM 2021 publication '<u>Pathways to Professional Accreditation</u>' had helped them understand what was needed to become a Professional Member.

¹⁶ Students' also includes those who had graduated and, in some instances, prospective students.

Students who were guided into their qualification by their employer were, nonetheless, grateful for their employer's support and excited by their prospects within the company; although one student also expressed some frustration that other employers were looking for 'their sort of person' (see Needs of Employers p.16) rather than paying attention to what the applicant had actually studied.

Other students were particularly interested in the transferability of their qualification – to Australia or the United Kingdom in particular. There was some uncertainty and confusion among those who wanted an internationally recognised NEBOSH qualification or a verified equivalent that would mean they could travel and work overseas. Parity with equivalent international courses was important to many students and employers.



Thematic analysis and discussion

The following themes were identified from the literature review and the qualitative interviews.

- 1. **Generalist expert status.** There is currently no high level standard in generalist OHS education at which all parties can be confident that the advice given is world-class (as exists for engineers, surveyors etc.).
- 2. Employer uncertainty. Employers are (in general) confused as to the meaning of 'qualified'.
- 3. **Student/employer mismatch.** There is frequently a mismatch between the aspirations of OHS graduates and the expectations of their employers and clients.
- 4. **Employer introspection.** Employers often want to mould their OHS staff to 'their way of doing things'.
- 5. **Compliance/safety confusion.** All three key stakeholders (employers, educational institutions, and students) appear to focus more on compliance with NZ laws than on safety itself (even though the two should clearly be aligned).
- 6. **Student frustration.** Many students, especially when they have graduated from a high quality/level OHS course, are frustrated that their achievement is not always recognised by organisations such as NZISM and therefore they cannot readily become 'safety professionals' in the eyes of the industry. Additionally, students reject the artificial distinction between 'health' and 'safety' and the apparent gap in status between 'specialist' and 'generalist'.
- 7. **Improving Australian standard.** Accreditation of OHS (professional) safety qualifications appears to have raised the standard and improved the status of OHS professionals in Australia.
- 8. **International qualification parity.** Students, along with most other New Zealand stakeholders, want their qualifications to be internationally relevant and comparable.

With reference to the discussion points that follow, and the ultimate recommendations of the report, it should be noted that the discussion points are not individually linked to each theme, but are a means of investigating the issues revealed in the qualitative study within the context of the overall New Zealand OHS environment.

1. Our work within dependable walls is not dependable

From an objective viewpoint, it is odd that we insist that every building in New Zealand is built to non-negotiable engineering specifications yet we frequently work within those buildings in hazardous conditions.

The engineering profession is an appropriate parallel – for, like OHS professionals, the engineering profession primarily provides underlying specialist advice for those actually working in their workplace: engineers ensure that the buildings we work in are fit for purpose and will not collapse and injure us. Similarly, an OHS Professional should be specifying workplaces and monitoring workplace procedures for those who are actually doing the work (employers [PCBUs] and their staff). Why should there be any difference between an engineer's specification for the strength and resilience of our walls, and an OHS professional's specification for the necessary work conditions to keep the workers unharmed within those walls? Currently, the only real difference is that the New Zealand Government regulates the specifications for the walls and only qualified engineers may 'sign off' on these – whereas there is no level of OHS Professional mandate in most New Zealand workplaces¹⁷.

This further raises the question, 'What drives the insistence that only qualified engineers may design the buildings we work in?'¹⁸ Part of the answer must be that the engineering profession (along with the health profession) has existed for millennia and has repeatedly demonstrated its worth to the human race: so much so that our reliance on its efficacy in protecting human life is largely unquestioned. This has led to its primacy in a regulatory environment – especially important in an earthquake prone country like New Zealand. On the other hand, the OHS profession is a relatively new discipline¹⁹ and does not have the automatic confidence of people with a vested interest in their own well-being.²⁰

Furthermore, the safety landscape continues to be dominated by the concept that people are responsible for their own safety²¹ and the belief that this cannot be changed.

Parallels with other professions provide similar examples - chartered²² surveyors and chartered accountants, doctors and surgeons etc. all have an unequivocal right to call themselves 'qualified' or 'chartered' within their chosen fields, once they have attained suitably advanced qualifications and experience.

¹⁷ The obvious exceptions are doctors and nurses.

¹⁸ It may be noted that New Zealand's commonplace outdoors jobs such as farming and forestry also benefit from the competency of mechanical engineers and the like.

¹⁹ The concept that people may be separated from a hazard originated with Alice Hamilton in the 1920's and that a workplace may be changed to separate hazards from people primarily originated from William Haddon's writing in the 1970s.

²⁰ This may be traced to millennia of popular interpretation of injury causation being driven by superstition, concepts of atonement, retribution, and divine punishment (Guarnieri, 1992; Haddon, 1968, 1970,1973).

²¹ This is probably due to Heinrich's (1931) assertion that 97% of accidents are caused by human error – since discredited (see for instance, Manuele 2011). Nonetheless this factoid still pervades our community understanding of safety.

²² The word 'chartered' is used to indicate that someone, such as an accountant or a surveyor, has formally qualified in their profession.

This is primarily due to their professional bodies determining the level of qualifications required to competently perform their required tasks – ultimately resulting in universal acceptance (sometimes driven by government regulation) that only 'chartered' members of that profession may be used to satisfactorily perform the critical tasks required within their occupation.

One interesting example is that of archaeologists who work under the Heritage New Zealand Pouhere Taonga Act 2014 which requires that any person or entity wishing to modify an archaeological site must first obtain an archaeological authority. This is essentially an archaeological version of a resource consent and comes with a list of conditions. An authority names an archaeologist (approved by Heritage NZ under the Act) who is legally responsible for ensuring the archaeological work is completed and the taonga²³ located on site are suitably protected from harm. The authority is issued to the client undertaking the development, and the archaeologist holds a contract with the client to do the work.

Surely our people working in their workplace are also taonga? At this extreme end of the 'charter' function, archaeologists have almost complete authority over the taonga in a particular place; surely our workers deserve some parallel status when it comes to professional advice?

In OHS, "closing off entry to the profession to all but those suitably qualified" is essential when our workforce is dealing with matters of workplace life or death. This "occupational closure" (Pryor et al., 2019) is the essence of a 'chartered' profession.

In OHS practice, there is a need to provide a chartered category of professional who is highly educated and subject to an advanced level of scrutiny and ethics. All member associations of HASANZ could offer a chartered Professional category (or similar membership categorisation). Some associations are already chartered through their profession – for instance, The Australasian Faculty of Occupational and Environmental Medicine (AFOEM) or the Royal Australasian College of Physicians (RACP). Physicians belonging to this organisation may not have 'chartered' in their title, but they are nonetheless subject to strict membership requirements and a person outside their organisation is not permitted to describe themselves (nor practice) as a doctor/physician or similar.

Accordingly, as the largest OHS organisation in New Zealand, NZISM should initiate an investigation of how it may provide a 'chartered Professional' category in the future. This would require members to hold a post-graduate qualification or equivalent.

2. Supply and demand – expectations and assurance

One employers' representative observed that in an economic analysis of the safety function, the tertiary providers of the qualifications and their graduates are the 'supply' and employers are the 'demand'²⁴. This therefore raises the raises the following questions.

On the demand side: What are the employers' expectations?

Do they expect that the graduate is able to take a hazardous workplace and train the workers to 'be safe' without making any changes to the workplace itself? Do they expect the graduate to avoid any WorkSafe investigation or prosecution without actually being able to influence the

²³ Taonga (noun) treasure, anything prized - applied to anything considered to be of value including socially or culturally valuable objects, resources, phenomenon, ideas and techniques.

²⁴ This includes the contracting of qualified safety consultants – in addition to the normal employer/employee relationship.

workplace layout or procedures? Or do they expect that the graduate will be an expert advisor to the board and/or senior management – guiding effective health and safety solutions to difficult problems?

The converse questions are also worthy of consideration with respect to the supply side:

Will the graduate insist on having the authority or influence to advise significant changes in the workplace or will they expect to simply be running training courses and ensuring people are wearing their PPE? Will they expect to work with WorkSafe where necessary or will they expect that that function will be outsourced to lawyers or consultants?

An employer may have the finest of intentions in employing an OHS professional, but if that employee simply does not have the attributes and skills required to achieve meaningful improvement, then clearly, very little will be achieved and the employer will regret employing such a person. Conversely, if an exceptionally able graduate is employed to achieve the employer's requirements – but encounters a cynical governance and management team that refuses to accept any changes in workplace layout or procedures, and whose aim is simply to minimise cost and avoid improvement notices or prosecution – then little is likely to be achieved²⁵.

Figure 2 displays these characteristics in four quadrants, relating the capability of occupational health and safety graduates/students (and by implication, the quality of the course they studied) on the horizontal axis with the expectations of employers on the vertical axis.

Figure 2.

	1. Low student/graduate capability and high employer expectations. The employer wishes to introduce exemplary practices or a high level of improvement in their health and safety performance and is prepared to provide the OHS professional with the resources and positional status to achieve this - but the graduate does not have the attributes and abilities to meet the employer's expectations.	 2. High student/graduate capability and high employer expectations. The employer wishes to introduce exemplary practices or a high level of improvement in their health and safety performance and is prepared to provide the OHS professional with the resources and positional status to achieve this. The graduate has the attributes and abilities to achieve what the employer expects.
employer expectation	3. Low student/graduate capability and low employer expectations. The employer has little interest in effecting change and wants the graduate to somehow motivate or enforce staff to avoid accidents in an unchanged workplace. Avoidance of improvement notices, prosecution, or expense is a primary aim. The graduate does not have the capability to either convince the employer that change is required nor the knowledge to provide solutions that may bring about that change.	 4. High student/graduate capability and low employer expectations. The graduate/student has high levels of relevant knowledge to bring about meaningful change in the workplace – but the employer has little interest in effecting change and wants the graduate to somehow motivate or enforce staff to avoid accidents in an unchanged workplace. Avoidance of improvement notices, prosecution, or expense is a primary aim.

²⁵ Safety professionals may recognise this in terms of a 'pathological' or 'reactive' management style from Patrick Hudson's safety culture model. See the video 'Moving Up the Culture Ladder'

In quadrant 3, low student/graduate capability coupled with low employer expectations is unlikely to achieve any improvement in a workplace's safety. Quadrants 1 and 4 show a complete lack of alignment of ability and expectations. Only quadrant 2 – where a high level of employer expectations is combined with highly capable graduates – is likely to achieve any significant level of safety improvement.

Mismatches appear to happen frequently – with the result that very little is achieved in the pursuit of safer workplaces in New Zealand. This report has found few substandard OHS courses, underachieving students or cynical employers, while at the same time our safety record continues to disappoint. Despite there being some excellent education providers, outstanding graduates, and highly motivated employers, there is no concerted approach where all parties' expectations are aligned and our woeful OHS statistics begin to improve.

It is noted in the 'Results' section that employers were not well informed regarding qualifications of OHS staff (or potential staff).

It is clear that we need to ensure that:

1. our advanced OHS courses produce graduates of a high standard; and

2. these graduates are matched with employers whose expectations for what makes a better workplace are aspirational and appropriately resourced.

The first requirement (that our OHS courses produce graduates of a high standard) is a relatively obvious assurance exercise which is dealt with in detail below; but the second requirement (employers whose expectations for what makes a better workplace are aspirational and appropriately resourced) is more difficult.

3. The breadth of OHS knowledge

While the medical disciplines produced startling progress throughout the twentieth century in the fields of personal and community health, occupational health and safety was largely ignored until the 1970s. Over the last fifty years, health and safety in and around the workplace has been recognised as being integral to the wellbeing of all people. Accordingly, a huge volume of academic research and investigation has provided organisations with many systems, tools and procedures acknowledged as constituting effective measures to prevent workplace harm.

Formerly, a worker's 'experience' was accepted as being the indicator of his/her safe performance; yet serious injuries and fatalities occurred (and still occur) despite substantial experience in their job. Epidemiologists highlighted these realities, and researchers began to map out evidence-based measures designed to prevent these adverse events.

These measures were initially developed by academics in tertiary institutions; peer reviewed journals debunked widely accepted but nonetheless erroneous concepts of accident prevention; and credible collections of OHS knowledge were developed to support persons conducting a business or undertaking (PCBU) to ensure the wellbeing of their people. In the early part of the twenty-first century, this body of knowledge has been codified and published in several compilations to provide guidance for reliable curricula development.

Organisations such as IOSH, AIHS, and INSHPO have developed excellent resources to be used as evidence-based information for lecturers and students alike. In recent times, these knowledge bases have been compared and accepted as being of equivalent high quality and utility ["...there is a high level of correlation between the INSHPO knowledge statements and the topics covered by the OHS Body of Knowledge. (Review of Implementation... (AOHSEAB, 2014)], – so all are equally trustworthy as foundations for a professional occupational health and safety course.

It is therefore relatively straightforward for tertiary institutions, companies and organisations to prepare credible, advanced courses for OHS professionals. Nonetheless, this should be clearly specified to the prospective student so that they may be assured that the information taught will be evidence-based and up-to-date. It also requires teaching staff who are competent in the subject matter.

But how are these attributes - ie. a credible knowledge base being taught by highly competent teachers – to be assured? Such assurance is unquestionably required by all the stakeholders if the entire workplace community is to be confident in the improvement of their health and safety.

4. Prescribed curricula and self-learning

Despite the accessibility of a broad range of quality OHS teaching resources (as previously outlined), some of the Level 6 courses currently accepted as the education component of NZISM Professional Membership do not embrace a comprehensive curriculum based on one or more of the bodies of knowledge. Accreditation of all courses higher than Level 3 will assure both employers and students that those courses comprise evidence-based, peer-reviewed OHS knowledge ie. the curricula are drawn from an acknowledged body of knowledge. The courses would then be transparent (in terms of content) as being 'fit for purpose' – to both employers and students.

However, the accreditation process would have to take into account circumstances where the curricula may not be 'locked' into an acknowledged body of knowledge. There are a number of examples of this:

- The education institution has developed its own area of expertise within the broad OHS milieu. For instance, Massey University has a substantial aviation school with an Aviation Safety Management course; while the University of Otago (Wellington) has a longestablished Occupational and Aviation Medicine Unit. Neither of these universities are likely to build their curriculum around one of the bodies of knowledge – yet they have much to contribute to the safety of our aviation industry.
- 2. The course encourages a 'deep dive' into a specialist area of OHS; for instance, mitigation of a particular chemical hazard. While all the bodies of knowledge provide some good evidence-based information on chemical hazards (along with pointers towards further study), the student may concentrate on that one particular hazard to delve deeper into its properties and methods of injury prevention than that provided as a general guide. For instance, a Master's degree or PhD may provide a comprehensive insight into (say) one chemical hazard and therefore ensure the graduate is a national or world expert in the management of that hazard. Similarly, a Post-graduate Diploma in Professional Practice may also provide a high level of specialised knowledge in a narrow field of safety.

- 3. Some educational institutions may provide quality OHS courses without offering an OHS qualification per se. For instance, the engineering school at the University of Canterbury offers four specialised engineering safety courses (eg. Fire Safety Engineering Design) but does not offer a qualification in general OHS.
- 4. NZQA encourages the use of 'micro-credentials' which are "smaller than a qualification and focus on skill development opportunities not currently catered for in the regulated tertiary education system"²⁶. Again, a series of micro-credentials may not constitute a full qualification but they may introduce essential skills into an OHS professional's range of proficiencies.

These examples of exceptions to a straightforward OHS qualification based on an accepted body of knowledge illustrate that there may be many valuable skills and capable people who are unintentionally excluded from progressing through NZISM's membership grades.

For instance, research carried out in university areas of specialty (such as the University of Canterbury Engineering School cited above) may provide highly valuable context for advanced courses. The country's two excellent medical schools at the Universities of Auckland and Otago practice world-class research and development which may inform and enrich their post-graduate OHS courses. For example, the University of Otago's Post-graduate Diploma in Health Science is taught out of the Department of Preventive and Social Medicine within the university's Medical School.

But in general, accreditation to an acknowledged body of knowledge will assure employers and students of the course's impartiality and objectivity. For example, a training organisation or educational institution may introduce a bias into their curriculum and teaching by, for instance, repeatedly referring to a particular type of person who may cause an accident. This report found no significant evidence that this was occurring in any New Zealand OHS course, but unconscious bias is always a possibility in any educative environment. Use of an independent body of knowledge may reduce the possibility of that bias occurring.

5. OHS specialists and generalists

There has been an artificial gap between what is perceived as occupational health and what is perceived as occupational safety. This is illogical and inappropriate. While an acute injury ('safety') is different from a chronic injury ('health'), and may foster the safety/health distinction, it is not rational to identify occupational harm on the basis of how long the harm took to manifest itself. For instance, noise-induced hearing loss may take decades to take effect on a worker – but this is usually referred to as a safety issue; whereas transmission of a harmful virus may occur in seconds – but this is usually referred to as a health issue.

While many OHS professionals will have areas of specialty – such as occupational nurses and occupational hygienists – most employers would expect their OHS people to identify and mitigate all hazards on their site (and seek specialist help where necessary), regardless of some arbitrary classification. This the essence of the generalist.

²⁶ See https://www.nzqa.govt.nz/providers-partners/approval-accreditation-and-registration/micro-credentials/

New Zealand is relatively well-served with OHS experts and specialists from the range of disciplines operating across OHS. Aside from a current shortage of some qualified specialists (eg. occupational hygienists), these experts often belong to the specialised associations such as the Faculty of Asbestos Management Australia New Zealand (FAMANZ), Physiotherapy New Zealand, Hazardous Substances Professionals NZ (HSPNZ) etc. They can be accessed by PCBUs/ employers either through the HASANZ Register or directly through their organisations or through reputational contact. These highly qualified people can then target a well-defined health or safety issue commensurate with their knowledge base and provide a specific, often once-only service.

However, the majority of the individuals making up HASANZ (through their member organisations) belong to NZISM²⁷. Members of both generalist organisations (NZISM & NZSC) who meet the requirements can list as generalists on the HASANZ register and where they also have specialist knowledge and experience are able to select specialist competencies. The term 'generalist' does not indicate a lesser status; a generalist is usually employed to identify and mitigate hazards – and where required, will bring in specialised knowledge of a particular hazard, for example asbestos removal. Often the skill and capabilities of a generalist are the most important link in the process of achieving high quality health and safety. There is a parallel with a medical general practitioner diagnosing a patient's malady and referring the patient to a specialist if necessary; or more importantly, distinguishing between when they can prescribe a cure to the malady and when they need to seek additional specialist help.

In NZISM, a member can achieve Professional Membership by holding an approved Level 6 health and safety qualification, and being able to demonstrate that they have worked in the profession for at least 4,000 hours.

NZISM has a list of approved Level 6 OHS qualifications which meet the following criteria:

- » An OHS or cognate qualification at a minimum Level 6 Diploma (or international equivalent) with a total of 90 credits in OHS related subjects; or
- » A Level 8 OHS Graduate or Post-Graduate Certificate; or
- » A qualification accepted at Graduate level by IOSH.

Based on the literature review and qualitative interviews comprising this study, there are two issues with the criteria for NZISM Professional Membership.

Firstly, the accepted qualifications listed as being acceptable may be too restrictive. Subsequently, a substantial number of specialists from other disciplines and highly qualified generalists cannot readily gain NZISM Professional Membership.

Secondly, the level of qualifications required for NZISM Professional Membership appears to be too low for a status equivalent to other parallel professions (such as engineers etc).

²⁷ Current approximate NZISM membership exceeds 2,450 – out of a total membership from all the HASANZ membership associations of around 3,500.

6. Accreditation of the generalist person or the generalist qualification?

While all qualifications are carefully defined and reviewed by the New Zealand Qualifications Authority (NZQA), in consultation with the relevant industry sector²⁸, their content is very loosely prescribed. As long as the institutions meet NZQA's pedagogic and other educational requirements, the institutions may teach whatever they see fit. This is clearly appropriate when the institution has a well-established area of expertise in a narrow field of OHS but otherwise, the 'generalist professional' is usually defined by attaining a Level 6 qualification.

An NZISM member who has attained a Level 6 qualification approved by the NZISM Accreditation Committee may, upon satisfying the committee that they have a sufficient level of practical experience (at least 4,000 hours) in OHS, be approved as a Professional Member. Similarly, attainment of Practitioner Member status requires a Level 4 qualification and at least 2,000 hours of practical experience in OHS. The qualification (Level 6 or 4) is reviewed by a member of the Accreditation Committee who has specialist knowledge in the NZQA framework, and if satisfied that the course has been approved by NZQA at the respective levels (to meet the required standard for an 'OHS professional' or 'OHS practitioner') the course is approved and placed on a Recognised Qualification list (available on the members' website²⁹).

The Accreditation Committee is made up of volunteers with a broad range of specialist knowledge and skills. Their focus is on ensuring that qualifications undertaken by applicants have been approved by NZQA (or align internationally with the NZQA framework) and that individuals have the expected work experience to meet relevant levels of the accreditation programme. As volunteers they are limited in their capacity to undertake in-depth investigations into the specific content of qualifications, or assess their validity against internationally verified competency frameworks such as INSHPO. The Accreditation Committee rely on the NZQA assessment, which does not take into account the broader knowledge and skill requirements critical to the success of the profession. Due to the lack of systematically prescribed subject matter by NZQA, variances in quality between providers is likely to occur. At a minimum we believe a student or employer needs to know the following:

- Does the course use industry best practice supported by peer-reviewed publications?
- Is the course aligned to a recognised international body of knowledge?
- Is the course regularly reviewed to ensure currency and relevance?
- Are the lecturers acknowledged leaders in their field and/or highly qualified?
- Does the course have a strong industry connection eg. an industry advisory group?

²⁸ The author participated in this review process for health and safety Levels 3, 4, & 6 qualifications in 2021.

²⁹ NZISM's 'Qualifications/Experience Recognised for Accreditation'

7. Correlation with Australia

Many of New Zealand's regulations, work practices, and associated national statistics correlate closely to Australia's – largely due to a shared history, economic status, and geographic position. A glaring exception is New Zealand's OHS record, which stubbornly remains twice as bad as Australia's record. To address this, the New Zealand Government introduced the Health and Safety at Work Act (2015), which is almost wholly based on Australia's model health and safety law³⁰. It is too early to judge the long term effect of this law, but New Zealand's safety record has so far failed to show any significant improvement.

While there are some differences in work configurations between New Zealand and Australia, they are not enough to explain the difference in occupational records: New Zealand's PCBUs must accept much of the accountability for the country's unacceptable safety record – and by association, New Zealand's OHS advisors (both employees and consultants) must also bear their share of the responsibility.

The notable differences between the two countries are the changes made to OHS education and OHS professional associations in Australia. These changes include:

- The establishment of the Australian OHS Education Accreditation Board (AOHSEAB). The country now has 11 accredited Level 8 Graduate Diplomas (with more applications pending), 5 Level 7/8 Bachelor's degrees, and 11 Level 9 Master's degrees.
- Redefining membership categories with heightened educational requirements for each category including a Chartered OHS Professional category requiring a Master's degree minimum. The comparison between Australian and New Zealand membership categories is shown in Table 1.

The Australian OHS Education Accreditation Board stated in its 2014 review: "Most professional education programs are also subject to accreditation conducted by the relevant professional body. This is linked to recognition of the graduates by the professional body and may be a requirement for professional practice."

³⁰ The 'model law' in Australia was produced by the Federal body SafeWork Australia with the intent of achieving consistency across all Australia's states and territories. This 'harmonisation' has happened to an extent, but each state and territory has made changes and legislation and regulations change across the country depending upon which jurisdiction the PCBU is based in. Oddly, New Zealand's 2015 legislation is probably one of the closest to the 'model law' of all Australasian jurisdictions.

Table 1

Eduational components of accreditation: A comparison of New Zealand and Australian Practitioner and Professional membership categories

NZ	OHS Practitioner	OHS Professional		OHS Certified Professional
	An OHS qualification to NZQA Level 4 or any other qualification that NZISM assesses as meeting the criteria	 A completed qualification from one of the below: An OHS or cognate qualification at a minimum of Level 6 Diploma (or international equivalent) with a total of 90 credits in OHS related subjects A Level 8 OHS Graduate or Post-Graduate Certificate A qualification accepted at Graduate Level by IOSH. 		 Minimum of 2 years at Professional Level with formal CPD maintained via myCPD Skills development portfolio Peer review interview
AU	OHS Practitioner	OHS Professional Pathway #1	OHS Professional Pathway #2	Chartered OHS Professional
	Diploma or Adv. Diploma in OHS (AQF 5, 6)	Bachelor or Grad. Diploma or Masters OHS (AQF 7, 8, 9)	Diploma WHS or COHSPract or any AQF 7, 8 or 9 with some OHS related content (approx. equivalent to grad cert.)	Masters in OHS or Have met requirements for OHS Professional plus Masters or PhD in any other discipline

It can be seen that, even given the difference in population between the two countries (5:1), Australia's educative environment in OHS is considerably more sophisticated than New Zealand's. It is difficult not to attribute a significant part of New Zealand's inferior OHS record to this disparity.

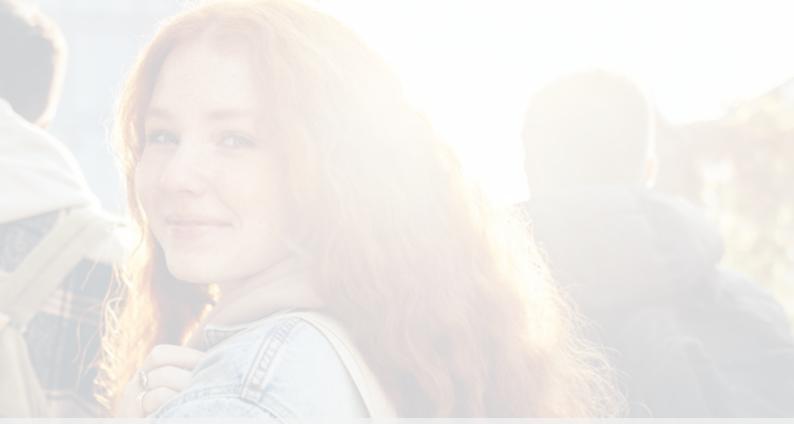
The literature reviewed above, documents an increasingly advanced safety education environment in Australia in the last 15 years, and deduces that the improvement in Australia's safety record over recent years is at least partly due to this development. The Accreditation Board (AOHSEAB) in Australia states: *"Accreditation is an important step in giving students confidence in the program and in improving the professionalism of the profession"* (AOHSEAB 2014). New Zealand, on the other hand, while it has centres of excellence in its tertiary institutions, is not openly inviting to potential scholars of OHS. As an example, there are no OHS bachelor's degrees currently offered in New Zealand³¹.

As New Zealand's leading OHS professional membership body, NZISM is best placed to actively raise the standard of New Zealand's OHS managers and advisors (both in direct employment and as consultants).

³¹ There are Bachelor's degrees in Applied Science or Management which offer majors in health and safety – but none with a structured three-year dedication to health and safety.

NZISM has seen many changes in recent years and has established itself as a mature and adept industry organisation but, as highlighted in this report, the whole safety industry in New Zealand is not performing at a high enough level to contribute to turning around New Zealand's woeful safety record.

Many of the recent developments in NZISM membership have been introduced to increase the professionalism of its members; but in the light of the literature review and qualitative research presented in this report, some further alterations may be required in the coming years.



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The people making up our workforce are our taonga: they must receive reliable, evidence-based advice from chartered OHS experts, instituted by highly capable OHS professionals, and supported by competent OHS practitioners.

Recommendations

- 1. That all New Zealand OHS courses above Level 3 should be accredited by an assessment agency within NZISM "... to ensure that workplace health and safety standards are embedded in all academic and vocational training at levels 1-6 on the NZQF." [Independent Taskforce on Workplace Health and Safety, Clause 479 (a), page 111]. The 'standards' are presumed to represent evidence-based, best practice in OHS as codified in the INSHPO capability framework [or approved equivalent, such as IOSH or the Australian Body of Knowledge].
 - 1.1 An agency be set up to study each submitted OHS course to verify the following:
 - 1.1.1 The knowledge base is drawn from a credible source (such as INSHPO or Australian Body of Knowledge); or represents a well-informed area of expertise;
 - 1.1.2 The teachers and facilitators of each course are qualified to at least a level above the course being taught eg. a Level 6 certificated tutor may teach a Level 4 certificate course etc.
 - 1.1.3 That confirmation of NZQA required standards is received for each course.
 - 1.2 The agency to be overseen by the proposed emeritus academic group and the NZISM Accreditation Committee and Senior Leadership Team.
 - 1.3 The agency should operate within the NZISM structure. The rationale for this is that NZISM is, by far, the largest OHS professional membership organisation in New Zealand.
 - 1.4 The agency should be funded partially by modest fees from the educational institutions for accreditation of their courses, and partially through the Government stakeholders WorkSafe, Tertiary Education Commission (TEC) and MBIE.
 - 1.5 The agency should have a membership advisor similar to IOSH's approach who will guide and encourage NZISM members on their educative journey. The underlying goal will be to produce the maximum number of chartered professional members over time. This recommendation is intended to meet the Independent Taskforce's education recommendation (a): that (HASANZ)... "takes a leadership role to ensure that workplace health and safety standards are embedded in all academic and vocational training at levels 1-6 on the NZQF".

- 2. Universities, polytechnics, trades and employers' associations, and private training organisations should have complete control in determining the design, format, and areas of speciality of their course(s) subject only to their compliance with NZQA and TEC specifications and regulations. HASANZ and NZISM will strongly promote accredited courses to students and employers, thereby effectively requiring the courses offered by the education institutions to meet the accreditation standards and apply for their course(s) to be accredited.
 - 2.1 The associations making up HASANZ should be encouraged to discontinue the term 'accredited' when describing individual members using the terms 'certified' 'professional' and 'chartered professional' (or their association's equivalent) instead. The word 'accredited' should refer exclusively to their (higher than Level 3) qualifications rather than a health and safety membership category. This is intended to lessen the confusion between accredited OHS courses and the category of membership of the people working as health and safety employees or consultants.
 - 2.2 NZISM (and other HASANZ members) should actively engage with NZQA and TEC to facilitate the development of higher OHS qualifications. While NZISM is already an active participant in NZQA reviews of qualifications etc., this recommendation envisages a more influential and leading role in prescribing qualifications worthy of accreditation, and in encouraging tertiary institutions to develop such courses.

Further, the public sector has a dual role in that:

- (a) it can insist that all its staff and its dependent contractors have accredited qualifications, thus creating a demand; and
- (b) it can provide targeted, on-going support for critical accredited courses at a tertiary educational level, therefore helping to stimulate the supply of OHS professionals.
- 2.3 The HASANZ Health and Safety Generalist Pathway guide should be used to clarify the different roles and their ensuing responsibilities, thereby promoting the 'best fit' between graduates and employers.
- 3. That the member associations of HASANZ, if they have not already done so, should initiate a move to a 'chartered professional' (or their equivalent) category within their membership³² which denotes a highly educated (in the varied fields of OHS) expert. A 'chartered professional' membership category should exist in all the HASANZ member associations to establish a nationwide benchmark for a highly-educated (Level 7 and above) OHS specialist or generalist. This benchmark should be vigorously promoted to all employers and students as being the required standard for high-level OHS advice.
 - 3.1 NZISM should actively engage with tertiary institutions and private training institutions to request the development of high-level and specialist courses which will qualify (once accredited) for chartered professional status. To a certain extent, NZISM (and other members of HASANZ) will be driving the demand for chartered professional status.

³² Some associations already have this. For instance, Occupational Nurses must have a current NZ Nursing Council practicing certificate, in order to practice.

- 3.2 Collaboratively, the associations should take steps to pursue a 'closed occupation' policy. This may take some years to achieve, but can be coordinated in a concerted approach by the member associations and HASANZ, including:
 - 3.2.1 Lobbying of Government safety leads to employ only chartered professionals or equivalent in their senior health and safety positions;
 - 3.2.2 Encouraging WorkSafe to employ chartered professionals or equivalent to guide and oversee the decisions made by their inspectors;
 - 3.2.3 Encouraging government departments and large businesses to employ or engage a chartered professional or equivalent in any major design project – as they currently employ or engage chartered engineers, accountants, surveyors, and archaeologists etc. – to ensure that, for instance, the principles of 'safety by design' are included.
- 4. That, as the largest generalist health and safety professional association in New Zealand, NZISM actively encourage tertiary institutions to offer Level 7 and above OHS qualifications, and actively promote these to NZISM members aspiring to higher achievement levels.
 - 4.1 This recommendation is intended to meet the Independent Taskforce's education recommendation (b): that (HASANZ)... collaborates with professional registration bodies and professional associations to ensure that university level qualifications and professional standard processes support their members' capability to address workplace health, safety and risk matters."

Conclusion – a concerted approach

The Independent Taskforce recommended (the new organisation that was to become HASANZ), "collaborates with professional registration bodies and professional associations to ensure that university level qualifications and professional standard processes support their members' capability to address workplace health, safety and risk matters."

In response to this statement, the introduction to this report posed three questions primarily focussed on significant improvements in New Zealand's OHS management:

- 1. How do employers know that a graduate's qualification includes current best practice based on pragmatic contemporary evidence? ie. Will it improve their worksites' safety?
- 2. How do students and graduates know that a qualification (and therefore the graduate) has the confidence of employers?
- 3. How do education providers know that they are providing what employers (and therefore students) require?

A program of qualitative interviews revealed eight recurring themes. These were discussed within the context of the relevant literature surrounding the OHS environment in New Zealand. The discussion resulted in recommendations which, the author believes, offer a definitive and confident response to the questions posed in the introduction.

This report makes four major recommendations for structural changes in the qualification status and professional membership categories of NZISM and its fellow HASANZ associations. These include introducing formal accreditation of OHS courses higher than Level 3, and introducing a category of chartered or equivalent membership representing an advanced level of competency similar to other chartered professions.

Along with additional recommendations specifying how this can be achieved, the report sets out a pathway to produce the step-change envisaged by the Independent Taskforce. This step change should be initiated as soon as possible.

The people making up our workforce are our taonga: they must receive reliable, evidencebased advice from chartered OHS experts, instituted by highly capable OHS professionals, and supported by competent OHS practitioners.

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From 2013 until 2018 he held the position of Post-Graduate Program Coordinator for the Victorian Institute of Occupational Safety and Health (VIOSH) at Federation University Australia. In this position, he gained accreditation for the Graduate Diploma in Hazard Management (GDOHM) with the Australian OHS Education Accreditation Board (AOHSEAB), and was accountable for twelve post graduate courses accredited through the Australian Qualifications Framework (AQF).

Steve is now a safety consultant working across New Zealand from his home town of Dunedin.

Abbreviations

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