Construction Work Health and Safety Research @ RMIT

A retrospective

RMIT UNIVERSITY

SHINe
Safety and Health Innovation Network

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SHINe – Safety and Health Innovation Network

Acknowledgements
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Secure the future of construction health and safety research through SHINe
Established in 2024, SHINe brings together industry leaders and experienced academics who are committed to driving innovation and improvements in safety, health and wellbeing research in construction.

This first-of-its-kind industry forum allows its members to decide what research to fund. The findings of research delivered by SHINe will be made publicly available, with the aim of finding new ways to improve workplace health and safety across the industry by providing sector-wide access.

Members are encouraged to participate on the research teams, helping us strengthen the relationship between research and practice through evidence-based ideals. By providing a contribution, you're also supporting a world-class, multi-disciplinary research team continue to be based in Melbourne, Victoria, Australia.

SHINe is built on 20+ years of RMIT's excellence in the field of construction work safety, health and wellbeing research. SHINe represents a new way of partnering with organisations to deliver more impactful research outcomes that are integrated into everyday practice on a large scale. SHINe members contribute to a program of rigorous scientific research and knowledge sharing with the potential to benefit the whole construction sector.

The SHINe Mission
To collaboratively undertake original and industry-relevant research that produces tangible improvements in the prevention of death, life-changing injury and chronic ill-health in the construction sector.

Find us online
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Foreword

This reflective report highlights the second decade of achievements by the Construction Work Health and Safety Research group at RMIT University. This body of work stands as a testament to the power of collaboration, the value of interdisciplinary research, and the enduring commitment to improving the lives of those who build our world.

Over the past twenty years, the Construction Work Health and Safety Research @ RMIT group has become a beacon of excellence—both nationally and internationally—in the field of construction health and safety. At the heart of this success are Professor Ron Wakefield and Distinguished Professor Helen Lingard, whose visionary leadership and unwavering dedication have shaped a research program that is not only academically rigorous but also deeply grounded in real-world realities. They are to be congratulated for providing the Australian construction industry with robust, evidence-based insights that can improve both the physical and psychological health and safety of countless workers and the productivity of the industry.

RMIT University has long been recognised for its close ties with industry and its commitment to research that makes a difference. This report exemplifies that ethos. It showcases how the university's unique ability to bridge the gap between academia and practice has led to meaningful change in one of Australia's most vital and high-risk sectors.

What makes this body of work particularly remarkable is its integration of the physical and social sciences. By bringing together engineering, design, social science and public health, the research has tackled complex challenges from multiple angles. This interdisciplinary approach has enabled the development of innovative tools, frameworks, and resources that are not only theoretically sound but also practical and scalable.

A defining feature of the research has been its focus on safety in construction design—a domain where early decisions have profound implications for downstream physical and psychosocial safety and health outcomes. Through pioneering work in safety-in-design, social network analysis, and performance measurement, the team has illuminated how thoughtful, collaborative design processes can eliminate hazards before they reach the worksite. These insights have the potential to reshape how clients, designers, and contractors approach their responsibilities, fostering a culture of shared accountability and proactive risk management.

This report is more than a record of academic achievement—it is a celebration of partnership, innovation, and impact. It reflects the voices of researchers, industry leaders, government agencies, and workers at all levels, united by a common goal: to make construction a safer, healthier, and more inclusive industry.

As we look to the future, the legacy of this research group offers a powerful reminder of what is possible when knowledge is shared, disciplines are united, and people are placed at the centre of progress.

Dr Dennis Else
ESG Chair Global, Multiplex
May 2025

The first decade (2005-2015)

Distinguished Professor Helen Lingard joined RMIT University's School of Property, Construction and Project Management in 2005. Prior to this, Helen had been in a consulting role, providing work health and safety advisory services to clients in the Australian mining, telecommunications and infrastructure sectors.

Helen was attracted to RMIT University as an institution that takes pride in having a close relationship with industry and engaging in research that has a positive impact. Helen joined Professors Ron Wakefield (Dean of the School of Property, Construction and Project Management) and Nick Blismas. Together, Helen, Ron and Nick engaged in collaborative research into many different aspects of construction work health and safety.

Much of this early work was funded by competitive Australian Research Council (ARC) grants. ARC grants during this period include:

- An investigation of supervisory practices for improving occupational health and safety behaviour in construction teams: A cross-level experimental analysis (Lingard, Blismas & Wakefield)
- From finger pointing to life saving: Defining professional responsibility for health and safety in construction design (Lingard, Tombesi, Blismas & Gardiner)
- Safe and healthy construction: The influence of clients in driving improvement through construction procurement and project management practices (Lingard, Blismas, Wakefield), and
- An experimental evaluation of the usefulness of computer-supported argumentation to improve occupational health and safety in construction design (Blismas, Lingard, Stranieri).

In addition to these projects, the Construction Work Health and Safety Research @ RMIT research team developed evidence-informed guidance materials to help the industry adopt a model of collaboration and appropriately shared responsibility for work health and safety across the entire lifecycle of construction projects.

For example, Helen and Ron were lead researchers and authors (alongside Tim Fleming, then with the John Holland Group) of the Guide to Best Practice for Safer Construction. The Guide to Best Practice was commissioned by Engineers Australia and delivered through the Cooperative Research Centre for Construction Innovation. A high-level industry task force consisting of peak bodies representing public and private sector construction companies and client organisations was appointed. The guide established a set of principles to drive collaboration and sharing of work health and safety responsibility between clients, designers and constructors engaged in the delivery of construction projects. Practices were identified that would embed work health and safety across the project life cycle, from planning and design through to construction and completion. The guide had a substantial impact and was implemented by large client organisations, including the Port of Melbourne Corporation at the $1.6 billion Port Capacity Project.

Concurrent with this work, Helen and Nick were engaged by the Office of the Federal Safety Commissioner (OFSC) to undertake a review of model client work health and safety activities. This review documented best work health and safety practices for construction industry clients and described the potential for Australian Government agencies to significantly improve construction workers' health and safety in their procurement and project management activities. In 2007, the OFSC commissioned our team to develop a Model Client Framework, a set of five booklets describing the actions that clients could undertake in the procurement and management stages of construction projects that could help to improve work health and safety.

The Model Client Framework received international attention, being cited as an example of the translation of research-to-practice in the US Centers for Disease Control National Occupational Research Agenda (NORA) for the construction industry. It was also adopted for use in the delivery of major transport infrastructure projects in Victoria, including the Regional Rail Link Program and subsequent major projects.

The Construction Work Health and Safety Research @ RMIT group strives to ensure industry is embedded in everything that we do. Since our formative years we have extended our partnerships with industry, government and trade union organisations within Australia and established some key strategic partnerships with like-minded international research groups and partners.

The last ten years (2015-2025)

New (and long-standing) staff

One notable characteristic of the Construction Work Health and Safety Research @ RMIT group is the longevity and career progression of staff. The group continues to be led by Helen and, in 2025, Associate Professor Rita Peihua Zhang was appointed as Deputy Director. Several members of our group have been with us for more than a decade, including Rita, Professor Michelle Turner and Dr Payam Pirzadeh. We are very pleased that Michelle and Payam have stayed with us since completing their PhDs.

Distinguished Professor Helen Lingard

Helen is the founding Director of the Construction Work Health and Safety Research @ RMIT group. Having completed her PhD in construction safety at The University of Kong Kong in 1995, Helen joined Costain Building and Civil Engineering and worked at major infrastructure construction projects including the Hong Kong International Airport, the construction of the Strategic Sewerage Disposal Scheme, the Kwu Tung reservoir and the Tsing Ma Bridge. Helen joined RMIT University's School of Property, Construction and Project Management in 2005 and quickly established a strong program of construction WHS research, securing five Australian Research Council (ARC) Linkage Project grants and one ARC Discovery Grant.

In 2009 Helen was awarded an inaugural ARC Future Fellowship for a four-year program of research titled: 'Differentiation not disintegration: Integrating strategies to improve occupational health and safety in the construction industry.' In the same year, she led the RMIT component of a project funded by the US-Government's National Institute of Occupational Safety and Health (and undertaken under a subcontract agreement with Virginia Tech.) titled 'From finger-pointing to lifesaving: defining the terms of a whole of industry approach to occupational safety and health in the construction supply chain.'

Since joining RMIT, Helen has led a large program of research work in the areas of construction WHS and work-life interaction, which has been funded by government agencies, clients, regulators, industry associations and trade unions.

In 2010, Helen was admitted to the Australian Institute for Health and Safety's College of Fellows and she serves on the AIHS Research Committee. Helen was a member of the New South Wales Government Centre for Work Health and Safety Research Foundation from the Centre's establishment in 2018 until 2024 and was appointed to the Program Advisory Committee for the 23rd World Congress on Health and Safety at Work held in Sydney in 2023.

In 2018, Helen was appointed a member of the Construction Industry Culture Taskforce (CICT) alongside the Chief Executive Officers of the Australian Constructors Association, and several major construction companies and leaders from the governments of New South Wales and Victoria. The CICT developed a Culture Standard to improve time for life, gender diversity and health and wellbeing in the Australian construction industry. Helen led a large program of research that evaluated the implementation of Culture Standard at five pilot construction projects and the resulting evidence led to the adoption of the Culture Standard into government procurement processes for construction work.

Helen is also an active member of the CIB (International Council for Building Research) Working Commission (W099) on Construction Health and Safety and, in 2014 was appointed an Affiliated Faculty Member at the Myers-Lawson School of Construction at Virginia Tech.

Helen has supervised multiple PhD students to completion in the field of construction WHS and work-life balance, including Dr Payam Pirzadeh and Professor Michelle Turner, who are still active members of the Construction Work Health and Safety Research @ RMIT group.

Since 2020, Helen has been listed in the world's top 2% of scientists list, compiled by Stanford University and published by Elsevier, for the field of Built Environment and Design and her contribution to construction WHS scholarship was recognised in 2025, when she was invited, by the AIHS, to deliver the prestigious Dr Eric Wigglesworth Memorial Lecture.

Helen continues to lead the Construction Work Health and Safety Research @ RMIT group and, in 2024, she also established the industry-funded Safety and Health Innovation Network (SHINe).

To learn more about SHINe, visit the SHINe website by scanning this QR code.

Associate Professor Rita Peihua Zhang

Rita joined the Construction Work Health and Safety Research @ RMIT group as a Postdoctoral Research Fellow in 2012, having completed her doctorate at the University of Hong Kong. Her early work with the group involved working on a review of the concept of health and safety culture undertaken for the Australian Constructors Association. This critical review concluded that the prevailing culture within construction organisations and projects has an important impact on work health and safety performance. However, the term 'safety culture' is problematic because it implies that a safety culture is something that can be 'bolted on' to an organisation as an easy fix. Rather, the review concluded it is better to examine how broader organisational and project cultures influence the way that decisions are made and work is done that, in turn, shapes workers' health and safety. The review also distinguished between the concepts of culture and climate. The latter describes the surface-level manifestation of culture which can be measured using surveys to quantify workers' perceptions of the extent to which health and safety are prioritised and well-managed within an organisation or project. Culture, on the other hand, is a deeper concept that cannot easily be measured but can only be understood by in-depth qualitative inquiry and, in particular, ethnographic approaches.

After working initially on the Health and Safety Culture report, Rita joined Helen in developing a multi-level safety climate tool that was used by the Fonterra Cooperative Group in their capital works program. Initially this work was undertaken by Helen and Rita together but, after a short period of time, Rita took over as the lead researcher in this work and managed the data collection, reporting and debriefing activities with Fonterra's project teams.

Around this time, Rita also worked with Nick, Helen and Ron in a major research collaboration with Profs. Brian Kleiner and Thom Mills at Virginia Tech. The work, titled 'Defining the terms of a 'whole of industry' approach to workers' health and safety in the construction supply chain' was funded by NIOSH and undertaken under a subcontract agreement with the Myers-Lawson School of Construction at Virginia Tech. Together with Helen and Nick, Rita developed an innovative photographic Q-Sort tool to understand the differences in perceptions of risk associated with different construction technologies. This tool (affectionately nicknamed 'Do you see what I see?') revealed significant differences between the risk perceptions of design professionals (architects and engineers), constructors and health and safety professionals. The tool can be used to help project team members better understand one another's risk perceptions and build consensus about project design decision-making.

More recently Rita led a body of work examining young workers' experiences of work health and safety, which culminated in the development and evaluation of some digital training resources, as well as a project commissioned by SafeWork New South Wales on safety in subcontracting in the construction industry.

Rita was appointed to the academic staff of the School of Property, Construction and Project Management in 2015, and was promoted to Senior Lecturer in 2019 and Associate Professor in 2023.

Professor Michelle Turner

Like Rita, Michelle is a long-standing member of the group. Having completed a bachelor's degree in psychology, and postgraduate studies in project management, Michelle embarked on a PhD within the group. Her work — The development of a work-life fit model: A demands and resources approach - examined the interaction between demands and resources as they are experienced in the three domains of work, family and community. This work produced fascinating insights into the way the demands and resources experienced by workers in the construction industry in different life domains interact to produce a high or low level of work-life fit. This work had important implications for construction organisations seeking to support workers in different life stages and circumstances to achieve a satisfactory 'fit' between their work and non-work lives, which is critical for the maintenance of health and wellbeing.

On completion of her doctorate, Michelle stayed in the group and has made a major contribution to the research we have undertaken in the subjects of health and wellbeing. In her early postdoctoral years, Michelle worked with Helen on an action-research project to evaluate health promotion programs in the Queensland construction industry. Funded by the Queensland Government Department of Justice and Attorney General, and undertaken in partnership with Lendlease, the project revealed that the effectiveness of health promotion programs that target workers' behaviours (e.g. healthy eating, exercise, smoking cessation etc) are limited in effectiveness when workers are exposed to high job demands, low levels of job control and high levels of job insecurity. The research pointed to the need for a more holistic approach that considers job quality as part of a preventive approach for ill-health. Michelle also led a project funded by the Chartered Institute of Building that examined the relationship between bodily pain and mental health experienced by manual/non-managerial construction workers. The research revealed that workers experience bodily pain associated with their work frequently and that this is linked to higher levels of depression and anxiety. Along with Helen, Michelle developed a Sense of Place model and measurement methodology to help construction organisations to assess the extent to which their project workplaces are environments in which workers' mental wellbeing is supported.

A Sense of Place comprises different facets of the work environment including, respect, social support, community, resilience, life balance and engagement. The model was adopted in the New Zealand construction industry where the Sense of Place components were found to be linked to positive mental wellbeing.

Michelle and Helen's partnership in research led to the publication of a jointly authored book titled 'Work, Health and Wellbeing in the Construction Industry' that was published in 2023.

Michelle was appointed to the academic staff of the School of Property, Construction and Project Management in 2011, and was promoted to Senior Lecturer in 2014, Associate Professor in 2019 and full Professor in 2024.

Dr Payam Pirzadeh

Payam joined the Construction Work Health and Safety Research @ RMIT group in 2013 and contributed to the NIOSH-funded research on designing for construction workers' health and safety. This work involved collecting extensive data from construction projects in Australia and the USA. Analysis of the data revealed that significantly better risk control outcomes (measured in relation to the proportion of hazards that are eliminated or reduced at source through substitution or engineering controls) when two conditions are met in design decision-making:

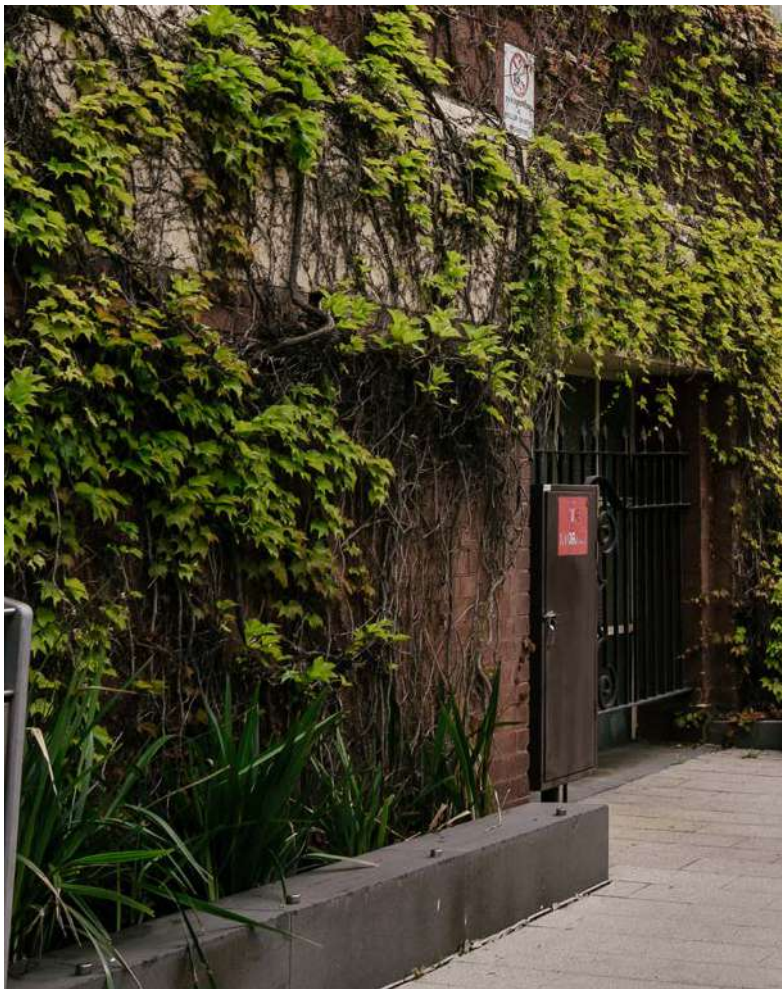
1. when people with construction process knowledge are central to communication networks and therefore are able to influence decisions that are made, and
2. when workers' safety is considered early in the project design stage.

These two conditions may not be surprising to construction contractors, but the strong statistical evidence for their links to the quality and effectiveness with which hazards are controlled provides key insights to why some safety in design activities produce modest benefits. The results also highlight the value in collaboration by those involved in design development and construction. Payam went on to complete his PhD, 'A social network perspective on design for construction safety' in 2018. His thesis was passed without modification, with two leading international Professors of design and construction commenting that it was one of the best PhD theses they had read in their long academic careers. Consistent with these comments, Payam's doctoral work was recognised in numerous awards, including the RMIT Prize for Research Excellence for a Higher Degree by Research and a Chartered Institute of Building Research Excellence Award.

Payam has also contributed as a chief investigator to many other research projects within the Construction Work Health and Safety Research @ RMIT group. For, example, during the COVID-19 pandemic, Payam led the analysis of the experiences and mental health impacts for fly-in/fly-out and drive-in/drive-out workers engaged in the delivery of a major energy infrastructure construction project in regional Australia. Payam also analysed the health and wellbeing impacts experienced by professional construction workers who worked from home during the pandemic, with this work being published in the American Society of Civil Engineers' Journal of Construction Engineering and Management.

Payam has written extensively on the subjects of safety incident causation and, with Helen, Ron and others, he contributed to an in-depth analysis of the causes of crane safety incidents in the construction industry in New South Wales. Payam also undertook an analysis of what constitutes high risk work on behalf of the Office of the Federal Safety Commissioner.

More recently, Payam and Helen have undertaken research examining the way that client organisations measure and manage contractors' work health and safety performance. Problematic aspects of measurement and management were found to produce unintended consequences, including under-reporting, low levels of trust and an unwillingness to share information. In contrast, where measurement approaches were mature and client-contractor relationships were more collaborative, better safety outcomes were observed. The key recommendations from this research relate to the need for clients to move away from old-fashioned lag indicators, such as the Total Recordable Injury Frequency Rate when measuring performance at a project level and move to more suitable metrics that capture the quality and effectiveness of safety management and risk control activities, rather than just their frequency. A comprehensive literature review on this subject was undertaken for the



Suburban Rail Loop Authority that led to the development of some recommended metrics that were aligned with their strategic plan.

Payam was appointed to the academic staff of the School of Property, Construction and Project Management in 2022, and was promoted to Senior Lecturer in 2024.

Research Fellows

In recent years our research has also been supported by the work of a diverse group of postdoctoral researchers who have joined us and who each make a valuable contribution to the work of the group.

Dr Jack Clarke initially joined our group to work on an icare NSW-funded project examining the way that construction companies could better protect the health, safety and wellbeing of young workers. However, Jack's work has extended well beyond this original project and he continues to play an instrumental role in the development of interactive, digital training resources related to different aspects of construction work health and safety (see 'Play it Safe').

After completing her PhD in mental health in the construction industry at Queensland University of Technology, Dr Chenjunyan Sun (Yan), joined the Construction Work Health and Safety Research @ RMIT group as a Research Fellow in 2024. During her time with the group, Yan has contributed to numerous projects, most notably the analysis of survey data collected as part of the Culture in construction pilot projects. Yan brings a wealth of statistical capability and subject matter expertise to the group and is currently working on the research projects selected as part of the group's new Safety and Health Innovation Network (SHINe) initiative.

Dr Janet Mayowa Nwaogu joined the group in late 2024 to work with Helen, Rita and Payam (as well as Dr Pauline Teo and Dr Azizur Rahman) on a study of the factors contributing to poor health and safety performance in construction subcontracting. This work, funded by SafeWork New South Wales, involved undertaking a comprehensive literature review, an industry-wide survey and system dynamics modelling to identify aspects of industry practice that can substantially improve subcontracted workers' health and safety. Janet completed her PhD at the Hong Kong Polytechnic University where she undertook research into the organisational factors contributing to construction workers' mental health.

In 2025, Dr Huey Wen Lim (Wen) joined the group. In 2020, Wen completed her PhD at Tsinghua University with a focus on urban disaster resilience and community health resilience. She has completed bachelor's degrees in both construction management and psychology and has been the recipient of several prestigious postdoctoral awards, including a McKenzie Postdoctoral Fellowship at the University of Melbourne. Wen joined the group to work primarily on the projects funded under the SHINe initiative and is currently working on a project focused on decluttering safety management systems.

Selected projects

Frontline leadership in construction work health and safety

During 2016-2017, Helen and Rita were funded by the Department of Economic Development, Jobs, Transport and Resources, Victoria, to examine the impact of supervisors' and site managers' leadership behaviour on work health and safety in the construction industry. This work involved conducting a survey among workers to examine the relationships between supervisors' leadership styles, workgroup health and safety climate and self-reported health and safety-related behaviour. In addition, Payam applied his expertise in social network analysis to analyse communication patterns within workgroups. Drawing on his ethnographic training, Associate Professor David Oswald engaged in site-based observations and conversations with supervisors and workers, which helped to supplement survey data and gain deeper insight into supervisors' health and safety leadership practices and their impact.

The research showed significant variation in supervisors' leadership styles, workgroup health and safety climates and workers' self-reported participation in discretionary health and safety activities between workgroups. Further, workers' perceptions of the workgroup health and safety climate fully mediated the relationship between leadership style and health and safety behaviour. This indicates that supervisors who adopt positive leadership practices influence workers' behaviour by creating a workgroup climate in which health and safety are consistently understood to be of high priority relative to other project goals.

On-site observation and conversations with supervisors and workers confirmed the importance of a variety of supervisors' leadership practices, which is shown in F 1.

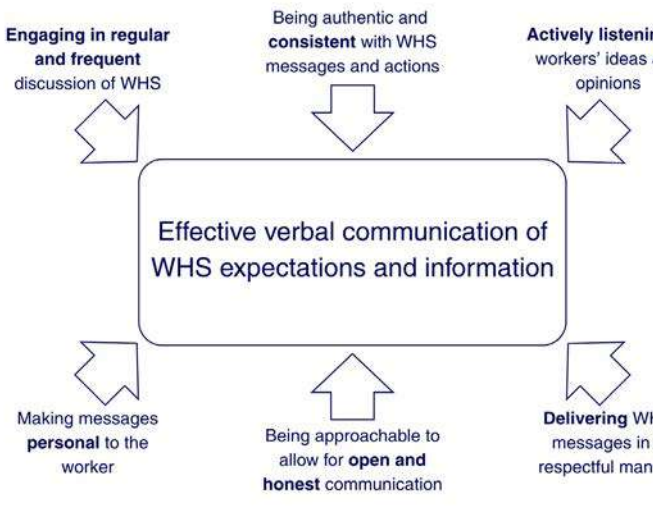


Figure 1: Characteristics of effective supervisor-worke communication

Further ethnographic work, involving 150+ hours of site-based observational data collection at commercial building construction projects in Melbourne, explored the relationships involved in frontline leadership in the construction industry. They identified that frontline leadership is more than just the way that a supervisor interacts with their workers. In fact, many different relationships and behaviours form the frontline leadership 'ecosystem' in construction workplaces. Each of these relationships has the potential to affect work health and safety outcomes.

Relationships and behaviours of importance are:

A. the relationship between principal contractors' and subcontractors' supervisors

B. leadership behaviours of supervisors in both principal contractor and subcontractor organisations

C. the relationship between principal contractors' supervisor and subcontracted workers

D. 'horizontal' communication and coordination between subcontracted supervisors

E. communication about health and safety within subcontracted workgroups, and

F. relationships with health and safety advisors (Figure 2).

The research findings were developed into a maturity model describing different levels of maturity of each of the relationships identified as being important in the social ecosystem of frontline leadership in construction projects.

Together, these research findings are critical in informing the development of leadership training programs for construction frontline supervisors in construction.

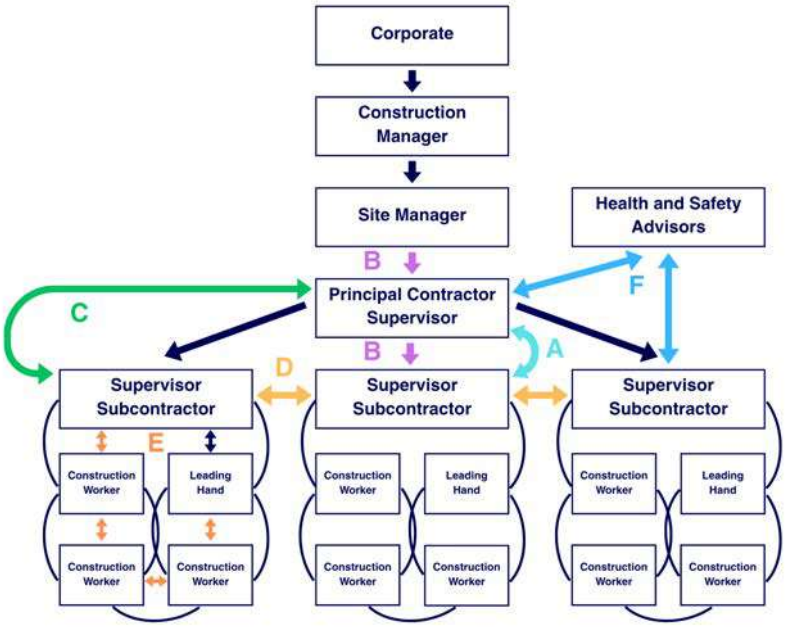


Figure 2: The frontline leadership ecosystem

Selected publications relevant to frontline leadership

ZHANG, R.P., LINGARD, H., CLARKE, J., GREUTER, S., STRAZDINS, L., LABOND, C. & DOAN, T., (2024) Supportive communication between apprentices and supervisors: Development of a digital role play game. Engineering, Construction and Architectural Management. https://doi.org/10.1108/ECAM-11-2023-1157

OSWALD, D. & LINGARD, H., (2024) An ethnography exploring H&S communication in construction workgroups. In D. Oswald & L. olde Scholtenhuis (Eds.), Embracing Ethnography: Doing Contextualised Construction Research. Taylor & Francis, Routledge, London. 253-266.

LINGARD, H., ZHANG, R. P., LABOND, C., CLARKE, J. & DOAN, T., (2022) Situated learning: How interactions with supervisors shape construction apprentices' safety learning and practice. Journal of Construction Engineering and Management. 148(10), 04022107.

OSWALD, D., LINGARD, H. & ZHANG, R. P., (2022) How transactional and transformational safety leadership behaviours are demonstrated within the construction industry. Construction Management and Economics. 40(5), 374-390.

LYU, S., HON, C. K., CHAN, A. P., JAVED, A. A., ZHANG, R. P. & WONG, F. K., (2021) An exploratory study of safety communication networks of ethnic minority crews in the Hong Kong construction industry. Engineering, Construction and Architectural Management.28(4), 1156-1175.

CHEUNG, C. M. & ZHANG, R. P., (2020) How organizational support can cultivate a multilevel safety climate in the construction industry. Journal of Management in Engineering. 36(3), 04020014.

ZHANG, R. P., LINGARD, H. & OSWALD, D., (2020) Impact of supervisory safety communication on safety climate and behaviour in construction workgroups. Journal of Construction Engineering and Management. 146(8), 04020089.

LINGARD, H. & OSWALD, D., (2020) Safety at the frontline: The social negotiation of work and safety at the principal contractorsubcontractor interface. Journal of Construction Engineering and Management. 146(4), 04020024.

LINGARD, H., ZHANG, R P. & OSWALD, D., (2019) The effect of leadership and communication practices on the safety climate and behaviour of construction workgroups. Engineering, Construction and Architectural Management. 26(6), 886-906.

OSWALD, D. & LINGARD, H., (2019) Development of a frontline H&S leadership maturity model in the construction industry. Safety Science. 118, 674-686.

LINGARD, H., PIRZADEH, P. & OSWALD, D., (2019) Talking safety: Work health and safety communication and safety climate in subcontracted construction workgroups. Journal of Construction Engineering and Management. 145(5), 04019029.

Supporting positive industry culture change

The Construction Industry Culture Taskforce was an ambitious government and industry-led initiative to change the settings of the infrastructure construction industry to improve the attractiveness of the industry as a career and the wellbeing of its people. The taskforce developed a Standard for use in procurement as a way of improving work and life balance, diversity and wellbeing, especially mental health.

The case for industry change needed to be solidly evidence-based. RMIT played a critical role in leading a team of expert researchers from four institutions, working closely with the taskforce over more than five years as the Standard was developed and piloted on major projects in NSW and Victoria.

The positive results of the taskforce's work could not have been achieved without RMIT's reputation, expertise, independence and rigour. RMIT designed and delivered a strong research program providing the necessary evidence base to support broad adoption of the Culture Standard. The data and findings prepared by RMIT have played an important role in progressing positive momentum.

Working with RMIT was an outstandingly positive experience. RMIT's approach was at all times collaborative, problem-solving and committed to the project's objectives. At the same time, the rigour of the research and the manner of its delivery were exemplary.

I could not recommend RMIT highly enough for the quality of the research, the strength of its reputation in the industry and for the spirit of collaboration it brought to us.

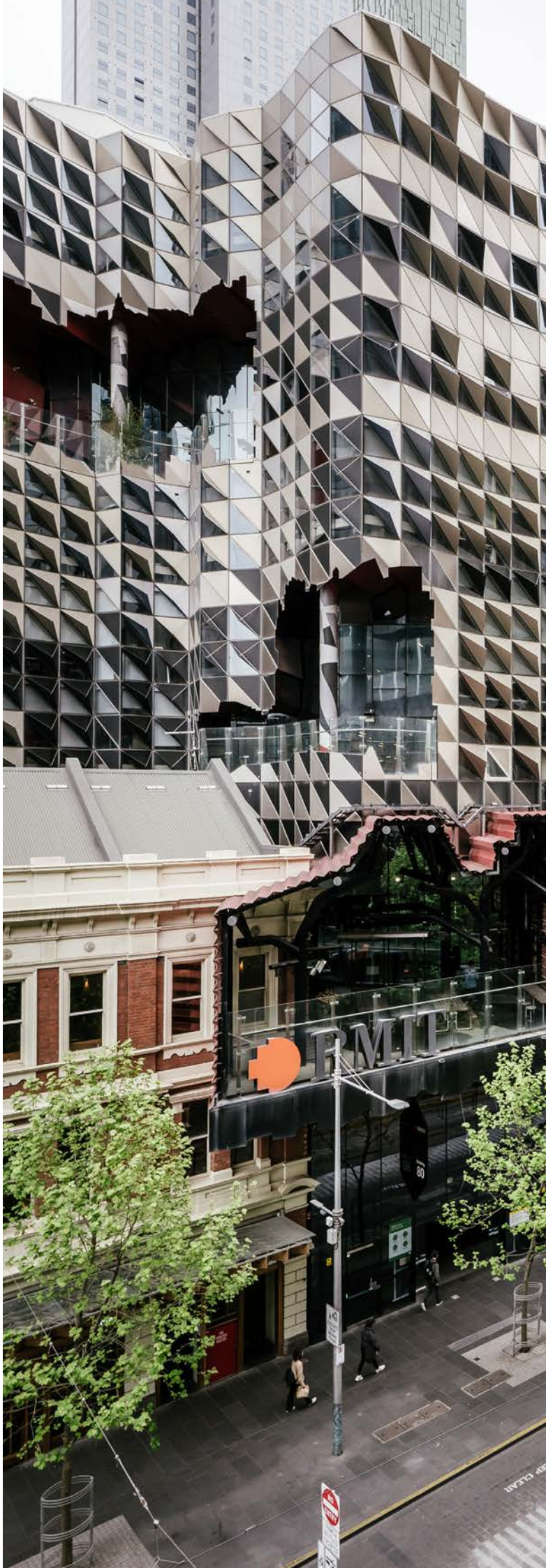
Gabrielle Trainor AO – Chair, Construction Industry Culture Taskforce

Culture in construction

After giving a presentation on work hours, health and wellbeing to the Construction Industry Leadership Forum in August 2018, Helen was invited to join a high-level Construction Industry Culture Taskforce. Established as a collaboration between the Australian Constructors Association, representing Australia's largest construction contracting organisations, the Victorian Government and the Government of New South Wales. Helen was one of only two independent members of the Taskforce. The Taskforce was established to address three important issues believed to be holding back the productivity and performance of the industry, namely:

- long hours and insufficient time for life
- low levels of gender diversity and inclusion, and
- poor health and wellbeing of the workforce.

The Taskforce drafted a Culture Standard establishing key requirements through which construction companies can create project environments in which workers can thrive (not just survive) irrespective of their gender. Key requirements include capping work hours at 50 per week and ensuring workers do not work more than five in every seven days. The Culture Standard also requires the provision of flexible work options and establishes requirements for increasing the representation of women and providing a culture that is supportive of diversity, inclusion and workers' health. The Culture Standard was informed by a literature review undertaken by Helen, in collaboration with Prof. Lyndall Strazdins at the Australian National University. The RMIT research team was subsequently engaged to lead a program of research that evaluated the impact of the implementation of the Culture Standard across the lifecycle of five infrastructure construction projects in New South Wales and Victoria. Helen was joined by Michelle and Payam in this work. Research team members Dr James Harley, Dr Chenjunyan Sun and Dr Katy Chan also assisted in the data collection and analysis. As the work of the Construction Industry Culture Taskforce progressed, key industry trade unions were engaged and government agency representatives from other Australian states/territories joined, making the Culture in Construction a truly national initiative. It is expected that the Culture Standard will be implemented through governments' procurement policies, whereby companies engaged to deliver publicly-funded infrastructure construction projects be expected to adhere to the requirements of the Culture Standard. This project is one of the largest and most significant pieces of research to be undertaken within the 20-year life of the Construction Work Health and Safety Research @ RMIT group and it is likely to have a major impact on making the Australian construction industry a healthier, fairer and more attractive industry in which to work.



Developing evidence-informed interactive training tools for industry

Since 2021, Master Builders Association of New South Wales (the Master Builders NSW) has had the privilege of collaborating with RMIT University on initiatives that have significantly contributed to enhancing health, safety, and inclusivity within the construction industry.

One notable project was “Conversations about Life, Health, and Safety: Social Supports for Young Construction Workers’ Health and Safety” (2021– 2023), funded by Insurance and Care NSW (icare NSW). This research aimed to understand and improve communication between young construction workers and their supervisors regarding life, health, and safety issues. The project utilised a mixed-methods approach, including interviews and a randomised controlled trial, to develop interventions encouraging open dialogue and supportive interactions on construction sites. The findings have been instrumental in informing training and guidance strategies for workplaces engaging young construction workers.

Currently, we are engaged in “The Experience of Workplace Humour Among Women in the NSW Construction Industry” project (July 2024–June 2025), funded by the NSW Government’s Women in Construction Industry Innovation Program (IIP). This study explores the types and impacts of workplace humour and banter experienced by women in the construction sector. Through surveys and interviews, the research aims to understand how humour affects women’s work life, wellbeing, and career development, to promote a more inclusive and respectful industry culture.

RMIT University’s interdisciplinary approach and commitment to applied research have been pivotal in developing practical solutions that address real-world challenges in the construction industry. Their collaborations with industry partners ensure that research outcomes are academically rigorous and directly applicable to current societal needs.

Looking ahead, I am confident our partnership will continue to thrive, driving positive change and fostering innovation. I highly recommend RMIT University to organisations seeking collaborative opportunities that yield tangible benefits and meaningful impact.

Omesh Jethwani - Government Projects & Programs Manager, Master Builders New South Wales

In 2024, Helen and Rita undertook a project to examine the experience of workplace humour among women in the NSW construction industry, in partnership with the Master Builders Association (NSW). The project was funded by NSW Government Women in Construction Industry Innovation Program, which supports initiatives to make construction a more diverse, inclusive and safe industry for women.

Construction workplaces are characterised by humour and banter, which can sometimes be inappropriate, offensive, undermining, or exclusionary. Women are particularly impacted by workplace banter that includes sexual comments or innuendo, which is linked to reduced mental health and wellbeing.

The first stage of the project involved an industry survey to understand the types and effects of workplace humour experienced by women in the NSW construction industry. Analysis of the survey data revealed that, although much of the workplace humour experienced by women in the NSW construction industry is positive, some humour is also negative and potentially harmful. In some instances, this humour constitutes sexual harassment. The survey results suggest that women’s health can be adversely affected by unacceptable humour in the workplace. Women exposed to unacceptable workplace humour indicated they avoid work situations (e.g. courses, meetings and shifts) to avoid the perpetrator. This has the potential to adversely impact their career opportunities and progression.

The survey was followed by in-depth interviews to more fully understand women’s experiences in different job roles, industry sectors, and organisational environments. Subject matter experts in workplace gender issues were also interviewed. As well as their personal experiences of workplace humour, interview participants were asked about their views on strategies and measures to prevent negative workplace humour.

The evidence gathered from both the survey and interviews is informing the development of training resources designed to change workplace cultures and the use of humour in construction. Dr Jack Clarke is leading the development of these materials, which aim to help create workplace environments that are inclusive, respectful and supportive of women in all roles.

The impact and effectiveness of the training resources will be evaluated through focus group discussions with managers and workers in the NSW construction industry. Once refined, the training resources will be disseminated to over 8000 membership organisations of the Master Builders Association NSW.

Selected publications relevant to culture in construction

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LINGARD, H. & TURNER, M., (2022) Making time for life: a wholeof-industry initiative to reducing work hours and promoting health and gender inclusion in project-based construction work. Project Leadership and Society. 3, 100065.

ZHANG, R. P. & BOWEN, P., (2021) Work-family conflict (WFC)–Examining a model of the work-family interface of construction professionals. Safety science. 144, 105469.

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ZHANG, R. P., HOLDSWORTH, S., TURNER, M. & ANDAMON, M. M., (2021) Does gender really matter? A closer look at early careerwomen in construction. Construction Management and Economics. 39(8), 669-686.

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Play it Safe

Shortly before the COVID-19 pandemic, Helen and Rita were awarded a large project by icare New South Wales. This project, titled 'Conversations about life, health, and safety: Social supports for young construction workers' health and safety' was delivered in partnership with Prof. Lyndall Strazdins and her team at the Australian National University and the Master Builders Association of New South Wales. The work involved developing training materials to help construction organisations to better manage the health, safety and wellbeing of young workers. In the initial stages of the project, apprentices engaged in the Master Builders' apprenticeship program were interviewed. Interviews were also conducted with frontline supervisors. The interviews collected key insights into apprentices' experiences and the characteristics of conversations between supervisors and young workers that contribute to positive safety, health and wellbeing outcomes. The training was to be delivered to apprentices and supervisors in face-to-face sessions during an experimental evaluation. However, this plan was thwarted by the onset of the pandemic and the closure of the state borders, meaning it was impossible to travel from Melbourne to Sydney to undertake the field work.

Luckily, Dr Jack Clarke had recently joined our team to work on the 'Conversations…' project. With a doctorate in applied communications, Jack was perfectly placed to suggest innovative alternatives to face-to-face training delivery. One suggestion was to develop a role-play-based digital training tool. This idea was approved by our funding body and work began translating the stories told to us by the apprentices and supervisors in the interviews into realistic playable scenarios that would teach participants — both apprentices and supervisors — what constitutes positive communication. The scenarios were developed in consultation with an advisory group of apprentices who provided a 'reality check' to ensure the situations were relevant and relatable. Three scenarios were developed:

- Against the grain
- All due respect, and
- This time it's personal.

Figure 3: A screenshot of the 'Breaking the Silence' role-play game.

Working in partnership with industry

As a client involved with large-scale construction projects, we have been collaborating with RMIT for over a decade now — a relationship that has from our perspective continued to grow stronger over time.

Our initial connection dates back to 2012, when we worked with Helen and Rita on undertaking Climate Surveys. These surveys helped us understand the impact of our expectations on our work teams. During this period, RMIT played a crucial role in shaping meaningful questions and supporting our leaders in reflecting on the survey outcomes. Their guidance was invaluable, and we always felt well supported, growing richer from the experience. It was also great to produce a number of international research papers from this work to further contribute to wider industry discussions.

Following this, we stayed connected over various construction research publications — Socialisation in Design, Under 25's in Construction, Wellbeing in Construction, Mates in Construction Impact, Work Life Balance, Working Hours, Relationship Contracting — to name a few. These always came across as very real and relevant topics of consideration for us as a client. It was always very easy to reach out directly to Helen and her team to explore in more detail / context around any of these research topics. This has been highly valued and I can say you always came away wiser for it.

In the recent years we have been connecting in with RMIT over their 'Sense of Place' concept development. This work aligns perfectly with our lived experiences of 'people before our projects' and the importance of creating an environment where workers can meet, connect, build relationships and develop care and trust for each other. We know this hugely contributes to safe working construction environments. It was fantastic to hear via 'Sense of Place' the introduction of language such as 'connection', 'community', 'engagement', 'belonging', 'respect', 'life balance', 'support', and 'resilience' into the world of construction finally. Wellbeing is hugely complex (wicked problem?) in construction but I feel that RMIT have contributed strongly to our sensemaking around this. We are very grateful for this.

If I was to be asked about whether an organisation should consider partnering with RMIT I would give my full endorsement to undertaking such a step. Partnering with RMIT has contributed hugely to our reflective journey. It can be challenging to find trusted voices but I believe RMIT offer this. They have always been willing to hear and explore our needs, considerate in sharing their experiences, flexible while also being able to articulate their limitations. It has been a pleasure working with RMIT — Helen, Rita, Michelle, and Payam in particular — over these years and I look forward to ongoing exploration around how we can care for our people.

Steve Nevin – Major Capital Projects Risk Manager, Fonterra

As they work through the scenarios, players make decisions about how to communicate with others. These decisions have consequences from which players learn through experience what communication styles and practices lead to positive (or negative) outcomes for young workers' safety, health or wellbeing. The game was well-received by industry. A pre-test/post-test experiment with 189 apprentices showed that playing the game had a positive impact in translating apprentices' communication capability into action, e.g. voicing safety concerns in the workplace or speaking up if they saw a co-worker doing something unsafe.

The success of the 'Conversations…' role-play game led Helen, Rita and Jack to develop another role-play-based training resource — 'Breaking the silence, Building respect.' This digital experience teaches players about respectful communication and, specifically, what constitutes sexual harassment in the workplace (Figure 3).

In recognition of the potential for these training tools to make a difference, in 2024 Helen, Rita and Jack were awarded funding from RMIT's Enabling Impact Platforms to develop a hub at which these interactive training resources would be hosted. The 'Play it Safe' hub provides these tools to be accessed free of charge by anyone in the construction industry who would like to use them.

Helen, Rita and Jack have recently been joined by Payam in a project to develop some additional interactive role-play resources to support learning about the consequences of decision-making in high-risk construction scenarios. When completed this work will also be freely shared via the 'Play it Safe' hub.

Selected publications relevant to training tools and training effectiveness

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Project performance measurement and management

In 2005 – 2007, Helen and Ron worked on the Tullamarine-Calder Interchange Alliance project, developing an integrated health and safety performance method, including an index comprising leading and lagging indicators and a safety climate assessment tool.

Since then, understanding how to measure work health and safety performance in a reliable and valid way has been an ongoing theme in the work of the Construction Work Health and Safety Research @ RMIT group.

Research into the use of commercial frameworks by construction clients in driving work health and safety performance revealed challenges associated with the use of lagging indicators of performance (e.g. the total recordable injury rate), particularly when combined with financial (dis)incentives. An emphasis on lagging indicators contributed to under-reporting and 'gaming' the system, which worked to the detriment of positive work health and safety performance. It was also observed that commonly used 'leading' indicators are often frequency counts of management activities. Moreover some of the activities counted as leading indicators are of questionable value in relation to operational safety performance, while the effect of other activities (e.g. leadership safety walks) are heavily dependent on the quality and authenticity with which they are done. This led the group to identify the need to ensure work health and safety measurement captures the quality, rather than the quantity, of preventive measures.

The need to consider the quality with which work health and safety are being managed was instrumental in the development of a performance measurement method based upon the hierarchy of control (HOC). The HOC arranges types of control implemented to address hazards in the workplace in a hierarchy reflecting their effectiveness. The top three levels are: elimination, substitution and engineering. These are often described as 'above-the-line' controls because they have a direct effect in making the workplace physically safer. Below the line are administrative controls and personal protective equipment, which rely on human behaviour for their effectiveness. In their safety-in-design research, the Construction Work Health and Safety Research @ RMIT group used a rating system based on the HOC to measure the quality with which hazards were being controlled by design decisions. A higher HOC score indicated that a design solution produced more above-the-line controls than below the line (behavioural) solutions. This use of the HOC to evaluate the quality with which hazards were being addressed in design decision-making has been adopted by several large construction companies in understanding the impact of their work planning and design processes for high-risk work.

Helen and Payam were engaged by the Suburban Rail Loop Authority (SRLA) to develop an integrated WHS performance index. They undertook an extensive review of the literature and interviewed work health and safety directors in recently completed major infrastructure construction projects in three countries. Based on the literature and interviews, a set of criteria was established for mature measurement of work health and safety performance, including: that measures are carefully selected based upon their validity, reliability, sensitivity and actionability; that a combination of 'drive' and 'monitor' measures be incorporated; and that the inter-relationships between measures be understood. A balanced work health and safety performance index, linked to the SRLA's strategy, was developed as a result of this research.

Building on their previous work, Helen and Payam went on to develop a performance measurement and management framework that is intended to help clients in the construction industry to ensure that the work health and safety performance measurement systems they are using are mature, and that they are using this measurement to effectively manage work health and safety performance (Figure 4).

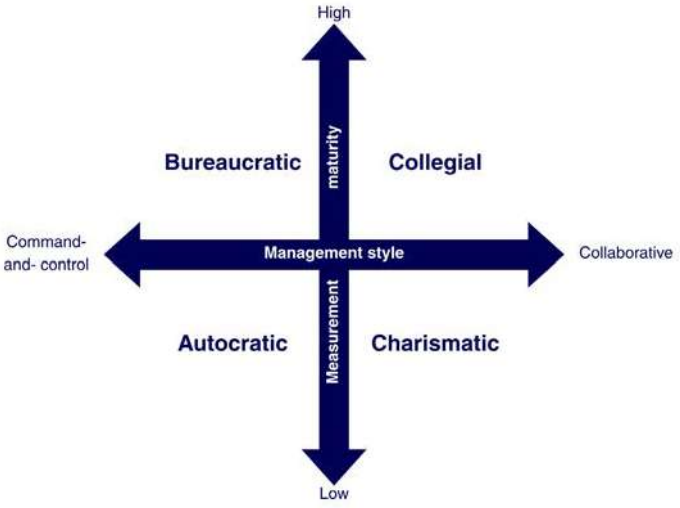

Figure 4: Performance measurement and management types

Selected publications relevant to performance measurement and management

LINGARD H. & PIRZADEH, P., (2025) Workplace health and safety performance at the client-contractor interface: Measurement, management and behaviour. Safety Science. 184, 106753.

LINGARD, H., WAKEFIELD, R. & WALKER, D. H. T., (2020) The client's role in promoting work health and safety in construction projects: balancing contracts and relationships to effect change. Construction Management and Economics. 38(11), 993-1008.

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Design for safety

Our design for safety research dates back to more than a decade ago. In 2009, a collaboration began between Helen, Nick and Ron from Construction Work Health and Safety Research @ RMIT group and the Center for Innovation in Construction Occupational Safety and Health at Virginia Tech to examine ways to develop a whole of industry approach to managing work health and safety. This collaborative research was funded by the US Government Centers for Disease Control/National Institute for Occupational Safety and Health (CDC/ NIOSH). A key component of this research involved analysing the timing of work health and safety-related decision-making during the design of 23 components selected from construction projects as well as mapping and examining the communication patterns underlying the design decision-making. This research statistically demonstrated the benefit of thinking about construction workers' health and safety early in the life of a construction project and the importance of engaging people with construction process knowledge early in project decision-making.

In 2015, a research-to-practice report was developed as an output from this research. The report contains practical tools that organisations can use to identify, understand and manage stakeholders' influences on work health and safety in construction projects and assess the effectiveness of the risk control solutions they implement through the safety in design process. A key message reinforced in the report was that the design of the permanent features of buildings and structures and the design of the associated construction process are interrelated and should be considered simultaneously in safety in design.

In 2014, Helen, Nick and Payam were engaged by the Australian Constructors Association (ACA) to conduct a comprehensive review of safety in design literature, policy and practice. The resulting research report formulated

Translating research into real-world change

A hallmark of the Construction Work Health and Safety Research @ RMIT program is its sustained focus on bridging the gap between research and implementation. While the program has produced a suite of formal Research-to-Practice (RTP) reports, several companion studies—ranging from leadership to procurement to safety-in-design—share the same purpose: to make academic evidence usable, credible, and effective in real-world settings.

These outputs offer high-quality, accessible guidance tailored to practitioners, clients, and decision-makers across the construction supply chain. Practical framing, participatory research methods, and a commitment to actionable insights characterise them. Whether formally labelled RTP or not, these reports are powerful knowledge translation tools.

For instance, the Safety Leadership summary report captures how frontline supervision shapes safety outcomes in a subcontracting-heavy environment. It goes beyond describing influence hierarchies to propose typologies of safety climate and the cascading effects of leadership behaviour, directly informing leadership capability-building programs. Similarly, the Use of Commercial Frameworks guide shows how clients can use procurement and contract levers to incentivise better WHS performance from the outset of a project.

In the ergonomics space, the Musculoskeletal Risk Reduction (MRR) series uses wearable sensor technology to provide precise recommendations on how to redesign tools and tasks to reduce injury risks in activities like steel fixing, jackhammering, and cable pulling. These findings have influenced procurement specifications and task redesigns on significant infrastructure projects.

Digital innovation also features strongly. The CodeSafe Evaluation demonstrates how mobile-enabled video storytelling improves engagement, morale, and WHS knowledge retention on site, particularly among linguistically diverse or lower-literacy workforces.

At the systems level, the Health and Safety Culture and Safety in Design reports offer maturity models, frameworks, and diagnostic tools that support capability uplift at organisational and project levels. These are not just conceptual models—they are aligned to national strategy, field-tested with industry, and ready for implementation.

From tool design and leadership behaviour to commercial incentives and digital WHS communication, this body of work represents a model for embedding research into the day-to-day systems and decisions that shape health, safety, and wellbeing in construction

Jon Harper-Slade CFIOSH - General Manager Health and Safety Innovation, CHASNZ.

recommendations relating to: the effective organisation and management of safety in design reviews; the engagement of relevant stakeholders in safety in design activities; communicating health and safety risk information; and ensuring appropriate design change management methods are in place to cope with emergent hazards.

Following this work, Payam conducted his doctoral research, supervised by Helen and Nick (and Associate Prof. Guillermo Aranda-Mena), extending the group's previous safety in design research. Payam's research specifically looked at: the complexities involved in design decision-making; the way in which design decisions build on each other; and the dynamic communication patterns underlying the design decision-making process. Applying an advanced network analysis technique, Payam analysed the changes in information exchange patterns as design decisions with health and safety implications were made and revised in case study construction projects and identified the influential participants at each decision point. This detailed analysis revealed features of effective communication that support safety in design, providing practical evidence for organisations about how to effectively integrate health and safety into construction design.

Selected publications relevant to design for safety

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Health and wellbeing

The Construction Work Health and Safety Research @ RMIT group has a long-standing history of undertaking research into construction workers' health and wellbeing. This work commenced with early work by Helen and Michelle showing that many well-intentioned health promotion programs implemented in construction companies were producing little or short-lived benefits in terms of improved worker health. In the past ten years, this work has continued, with group members paying greater attention to solutions that seek to 'fix the work' rather than 'fix the worker.'

Helen partnered with a team of biomechanists and exercise scientists from RMIT's School of Health and Biomedical Sciences to undertake an analysis of the risk of musculoskeletal injury among construction workers engaged in manual tasks involved in rail construction work. This research was jointly funded by WorkSafe Victoria and the Victorian Government Department of Economic Development, Jobs, Transport and Resources. The team used a whole-body system of wearable sensors to evaluate the musculoskeletal risks involved in the tasks of jackhammering, cable-pulling, steel-fixing, shovelling and shotcreting. Field-based research showed considerable opportunity to reduce the risk of musculoskeletal injury through improved work system design, in particular paying attention to the work environment, methods of work and equipment and tools in use. The research produced a series of four booklets and supporting videos.

The importance of reducing work-related musculoskeletal injury was reinforced by work undertaken by Michelle and Helen. Supported by a grant awarded by the Chartered Institute of Building, a survey was undertaken among manual/non-managerial construction workers. This was followed up by interviews. The survey revealed that bodily pain is frequently experienced by construction workers and that this starts early in their careers. For example, 17.6% of participants aged 20-29 years experience lower back pain and joint pain in the fingers, shoulders, hips, knees, and/or ankles daily. Moreover, construction workers who experience work-related bodily pain are more likely to also experience depression and/or anxiety.

The Construction Work Health and Safety Research @ RMIT group has also engaged in research to explore the relationship between psychosocial risk factors and mental health. Payam, Helen and Rita undertook an analysis of the Household and Labour Dynamics in Australia dataset to ascertain whether manual/non-managerial construction workers' exposure to psychosocial risk factors (e.g. high job demands and complexity, low job control, low job security, effort-reward unfairness, and job intensity) was linked to mental ill-health. Construction workers' mental health was found to decline when they experience psychosocial risks, and the magnitude of decline increased as the number of risk factors increased. Low

job security and perceived unfairness of effort and reward were significant predictors of mental ill-health in all age groups, while high job demands and complexity and job intensity were predictors of mental ill-health in middle-aged and older construction workers but did not significantly contribute to mental ill-health among younger workers.

Supported by a Malcolm Moore Industry Research Award, and in collaboration with Lendlease, Payam and Helen also investigated the effect of working from home during the COVID-19 pandemic on professional/managerial workers in the construction industry. The research revealed some positive experiences, but also some challenges associated with social disconnectedness and a blurring of the boundaries between work and non-work life.

The importance of social connectedness also underpinned a project undertaken by Helen and Michelle, which sought to identify characteristics of construction project workplaces that positively promote mental wellbeing. Starting from an understanding that mentally healthy workplaces are those in which risk factors are identified and action is taken to minimise harm, as well as where protective factors are fostered, Helen and Michelle undertook a comprehensive review of the literature to identify these protective factors for positive mental health. The resulting Sense of Place model had six components:

- sense of community
- engagement
- respect
- life balance
- social support, and
- resilience.

A survey tool was developed to measure these components. The tool was trialled in construction projects in New Zealand and the six components were found to be statistically linked to a measure of positive mental wellbeing. The Sense of Place model and survey tool were subsequently adopted for use by a large New Zealand-based client organisation.

Selected publications relevant to health and wellbeing

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Attendees of the first SHINe Advisory Board meeting in October 2024

Safety and Health Innovation Network (SHINe)

Following a visit from Prof. Matthew Hallowell, who spent a period of sabbatical leave at RMIT University in 2023, the Safety and Health Innovation Network (SHINe) was created. Helen and Matthew talked extensively about the benefits of creating a more sustainable and industry-responsive model for funding and delivering research for impact in construction work health and safety.

Funding research work through grants is uncertain and has a very long lead time meaning that, even if successful, the time between identifying an important research topic or question and the production of evidence-informed solutions can be too long. Industry partners who identify important issues worthy of research want to commence working on research projects quickly, without waiting for grant reviews and approvals, and also want to produce outputs and tools that facilitate translation of research into industry practice.

In the conversations with Matthew, Helen also observed that construction organisations are faced with similar challenges in relation to managing work health and safety, and therefore a more collaborative approach would be beneficial. Many organisations working together to solve industry-wide problems is more cost-effective and efficient than individual companies funding their own bespoke research activities that may not, ultimately, be shared with others in the industry.

To address similar concerns, Matthew had established the Construction Safety Research Alliance (CSRA) at the University of Colorado, Boulder a few years prior to his visit to Australia. Helen and Matthew discussed the opportunity to replicate the CSRA model in the Australian context and so, with the help of RMIT's Research and Innovation and Philanthropy groups, SHINe was brought to life. We are immensely grateful for Matthew's generosity, openness and support throughout this process. As part of this establishment, CSRA also came on board as a strategic partner of SHINe, with the signing of a Memorandum of Understanding between RMIT University and The University of Colorado.

A SHINe research project team meeting consisting of SHINe researchers and industry members.

Like CSRA, SHINe is a membership-based network that operates in a different way to most research collaborations. SHINe members make an annual contribution to the network. SHINe members' financial contributions are pooled and members vote on the topics that the research will focus on each year. This ensures that projects are responsive to industry needs and funds are targeted to the things that matter most with regard to construction work health and safety. In this, SHINe operates as a 'research democracy.'

Importantly, research undertaken within SHINe is also industry-led, with project teams selected from among member organisations and led by an industry nominee. Project team members will actively participate in the research activities, provide data and workplaces for fieldwork and experimentation and, ultimately, facilitate the translation of research findings into practice within their organisations.

This approach is expected to reduce the time taken in addressing issues requiring urgent attention and smooth the process of translating research evidence into industry impact.

SHINe was launched in October 2024 with six member organisations. Membership has since increased to ten members and the growth trajectory is positive. In January 2025, two projects were selected for the first cycle. These are:

1. A study looking at how to declutter safety management systems used within the Australian construction context.
2. A study examining opportunities to utilise technology to better monitor and manage the effectiveness and reliability of controls for critical safety risks in a changing project environment.

These two projects have commenced with strong member support and engagement.

> We are excited to partner with a network that aligns with our values and commitment to safety. By supporting this program, we reaffirm our dedication to collaborating with like-minded partners, ensuring a systemic and long-lasting impact.
>
> ***Jacqueline Agius – WHS Commissioner, WorkSafe ACT***

au.linkedin.com/company/rmit-shine

rmit.edu.au/shine

> We are thrilled to be a part of such a groundbreaking program that will drive innovation in how our business, and the wider industry approaches safety. Our support for the program reflects our commitment to continue to partner with research organisations to give us confidence that our initiatives and programs are going to have a lasting and positive impact on our people.
>
> ***Scott McMillan - Director of Safety, Melbourne Park***

> The Construction Safety Research Alliance (CSRA) is thrilled to partner with SHINe. With global leaders in construction work health and safety research and an innovative model of industry collaboration, SHINe is positioned to transform how research is conducted and translated to practice. SHINe and the CSRA are collaborating to integrate industry and academia, explore relevant and innovative topics, and transcend geographical boundaries. Together, we aim to prevent serious injuries and fatalities, and enhance health and wellbeing of the workforce.
>
> ***Dr Matthew Hallowell – Executive Director, CSRA, University of Colorado***

Left to Right: Daniel McLinden (SHINe Director), Dr Matthew Hallowell (CSRA Executive Director), Dist. Prof. Helen Lingard (SHINE Executive Director), and Dr Dennis Else (Chair of SHINe's Board of Advisors)

Recent Higher Degree by Research completions

Dr Tung Pham

Dr Thanh Tung Pham completed his doctoral research examining work health and safety training transfer in the construction industry, under the supervision of Helen and Rita from 2016 to 2021. Tung's research addressed a longstanding issue in the construction sector, i.e. the limited transfer of work health and safety knowledge, skills, and abilities from training into actual workplace practice. Recognising that the effectiveness of work health and safety training depends on its successful transfer to post-training performance, Tung's study investigated the critical factors shaping training transfer intentions among both managerial/professional and non-managerial/manual construction workers.

Tung's research provides valuable insights for training providers and construction organisations to develop targeted strategies to increase the transfer of work health and safety skills and knowledge among construction workers, ultimately improving work health and safety outcomes in the construction industry.

Tung's work was recognised through his selection as a finalist in the WHS Science Sprint Competition at the 2020 National Work Health and Safety Colloquium – The Impact of Research, held in Sydney. Competing alongside over 20 higher degree research (HDR) students from Australian universities, Tung was one of only three finalists.

Tung's PhD thesis was also commended as 'outstanding' work by international examiners, who considered the thesis as in the top 5% of that which they examined. One examiner commented:

"In my seven years of being involved in various thesis and dissertation committees, the thesis by Tung is clearly among the best I have seen. It is also evident from the work that Tung has been supported by an extraordinary team of supervisors who have meticulously supported him throughout his PhD journey."

Dr Mohammad Sabbir Ahmed Shourav

Dr Mohammad Sabbir Ahmed Shourav conducted his doctoral research from 2020 to 2024 under the supervision of Rita and Helen, examining and comparing the perceived impacts of job quality factors on construction workers' health and wellbeing in Australia and Bangladesh. His study makes a unique contribution to knowledge by highlighting the socio-economic and contextual differences between developing and developed countries, which contribute to the differences in perceived job quality factors that are critical to construction workers' health and wellbeing.

The research provides important implications for policymakers and industry stakeholders in both countries to develop context-specific strategies and initiatives aimed at improving the quality of jobs in the construction sector.

Mohammad shared his research with international audiences at the CIB (International Council for Research and Innovation in Building and Construction) World Building Congress in 2022, hosted by RMIT University. He was also invited to speak at the 23rd World Congress on Safety & Health at Work in 2024, hosted by the International Labour Organization (ILO), the International Social Security Association (ISSA), and SafeWork NSW in Sydney.

Mohammad's thesis received strong commendation from international examiners. One examiner recommended it as 'outstanding' and ranked it among the top 5% of theses they had assessed in the past three years.


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medibank
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