Whaiwhia te kete mātauranga

Learning and improving together by filling your basket of knowledge.

August 2023

Maritime Learning Teams Project Order Case Study

FULLERS GROUP LIMITED WAS GRANTED IN JUNE 2020 A HEALTH AND SAFETY PROJECT ORDER (SECTION 155 OF HSWA) IN RELATION TO THE KEA INCIDENT IN NOVEMBER 2017.

The project order is for the development and implementation of a Learning Teams competency framework across a diverse group of Maritime stakeholders. The Project supports up to 10 different stakeholders to participate for a period of 18 to 24 months.

The project includes the development of;

- Learning Teams competency framework
- Training resources
- Assessment tools
- Facilitation guide
- Learning Teams and facilitation training sessions for 150 to 200 people
- Coaching, mentoring and assessment of competency of those participants.

This is the case study of that project order.

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Executive Summary

This case study provides insights into a court-ordered project order implemented in the New Zealand maritime industry. The case study explores the use of HOP (Human and Organisational Performance) principles and Learning Teams and their influence on improving work practices, safety, organisational learning, and operational excellence. It emphasises the importance of worker involvement, critical thinking, and reflection in problem-solving and risk management. The case study focuses on implementing a project order in the maritime industry, specifically using Learning Teams. In summary, this case study;

(1) Highlights the importance of worker involvement and expertise in improving work practices and safety,
(2) Discusses key learnings from the project, including the value of learning from everyday work, the brittleness of safe systems of work, and the importance of leadership skills like curiosity, empathy, vulnerability, and reflection.
(3) Emphasises the importance of learning at multiple levels (worker, workgroup, organisation) and the essential skills of curiosity, empathy, and reflection and reflects on the challenges faced during project delivery, including the impact of COVID-19 and the need for new ways of working.
(4) Addresses challenges faced during the project, such as the need for structured processes, technological issues, and varying mindsets within teams, and discusses the importance of organisational memory, engagement, the development of sustainable tools and integration into existing systems.
(5) Provides reflection and learning opportunities for readers by telling the stories of the participants throughout the case study.

This case study provides a comprehensive overview of the Maritime Learning Teams Project Order, its objectives, challenges, and key learnings. It offers valuable insights into improving safety, knowledge sharing, and organisational learning in the maritime industry. It highlights the importance of worker involvement, critical thinking, and reflection in improving work practices and safety.

As the authors, we thank all the workers, crew members, supervisors, skippers, safety practitioners, managers, senior leaders, and board members who participated in this project and for sharing your stories, learnings, and experiences. You embraced our Whakataukī for this project, "Wahiwhia te kete mātauranga", which means "*Learning and improving together by filling your basket of knowledge.*" Thank you for your mahi.

Brent Sutton
Project Order Architect

Diane Ah-Chan
Programme Lead Facilitator and Coach

Foreword - Dr Todd Conklin

LEARNING IS A DELIBERATE IMPROVEMENT STRATEGY

Learning is fundamental to improving performance. And organizations have an opportunity to learn pretty much all the time. Anytime something happens, a success, an unusual event, an occurrence, even an accident. The organisation is in a position where they make some choices, they can either learn and improve, or blame and punish. We believe learning and improving is the most important and most significant goal an organisation can have. For learning to happen, we present the idea that the world's experts in your operations already work in your organisation.

And by tapping workers and asking them to be part of both problem discovery, and solution generation, we can build a better organisation, we can create better operational excellence, we can learn from ourselves. But to do that, it's not accidental. Learning is a deliberate improvement strategy. And we recommend learning on purpose by engaging the people who do the work. Form small ad hoc groups, that function really to help you learn and understand what your organisation is doing well, and where the organisation has the potential to improve.

Case Study Welcome

Mike Horne, Chief Executive, Fullers360

In November 2017, I received a phone call from one of our Senior Masters. It's the kind of call you never want to get and one that I will never forget. When I heard that one of our boats, the Kea, had struck the Devonport Wharf and some passengers had suffered injuries, I was shocked and devastated.

As the investigation proceeded, we discovered more about what had happened and what had led to the incident. The Maritime New Zealand and legal process was conducted, resulting in Fullers360 paying a fine and reparations to passengers.

While our initial assessment showed that we had met our compliance obligations, this accident was still able to occur.

Safety is a powerful influence for change, and we did not wish to simply pay a fine and move on. This is why we sought a Project Order – to provide a meaningful contribution to the maritime sector that utilised Fullers360's collective knowledge and skillset to build a safer industry.

During the MNZ and legal proceedings, Fullers360 was sentenced based on having "insufficient training provided to a trainee master" and "requiring more prominent safety warnings and advice to passengers". As we considered ways to address these call outs, our perspective shifted. We came to understand that improving signage, enhancing communication, and providing specific training would address these concerns, but doing so wouldn't necessarily lead to better safety outcomes. We needed to look at the root causes: the use of stairs on vessels; the repetition and fatigue associated with berthing vessels in wind, tide, wake, and reduced visibility; and, most importantly, the effectiveness of our training.

As we continued our assessment, our view evolved further. We felt that despite our attention to compliance and our intent and desire to always keep passengers safe, it wasn't enough. It became clear to our team that we needed to completely rethink safety. Therefore, seeking a Project Order was the right decision, and the ways in which that decision has influenced our business and driven fundamental cultural change are significant.

Above all else, we have worked to change the culture of our business. To move beyond the desire to meet our timetables and ensuring that, first and foremost, the priority right across our business is to get passengers and crew safely where they need to be.

"Safety has become a powerful capacity for change."

We transformed the operating model of our business through a safety lens. We evolved the ways in which we engage with the regulator, local government, central government, and our customers and the public, so that we continually seek ways to enhance our approach to health and safety. As part of the Project Order, the training of people across the sector to become Learning Team facilitators further strengthened our safety culture, which now underpins everything we do, including our commitment to customer service.

Looking outside of our business, while the tide is starting to shift, too often decisions to make changes that prioritise maritime health and safety are guided by budget or complacency. There's no doubt that we operate in a unique, complex, and challenging environment, but my hope is that the lessons we learned will benefit other operators and maritime professionals and ultimately their passengers through improved safety outcomes for all.

The desire to seek a Project Order and to change our business took courage, commitment, and hard work. We acknowledge that completion of the Project Order does not mean that the job is done, and that our journey will continue to evolve and progress.

The transformational change on the ground is now about listening, not telling. The lines of communication that have opened, with 4D's in particular, and with our people and passengers, has opened our eyes to what is work imagined versus work done. We now see ourselves tackling risks and hazards before they become incidents that present harm – safety has become a powerful capacity for change.

Mike Horne, Chief Executive, Fullers360

Section 1: Introduction

Background of the incident

In November 2017, Fullers' ferry, *Kea*, collided with the Devonport ferry terminal wharf. The *Kea* was carrying 52 passengers at the time and was under the command of an experienced master who was supervising a trainee to become the *Kea's* new master. Several passengers were injured because of the collision and Fullers was prosecuted by Maritime New Zealand (MNZ) following the incident.

The Sentence

Fullers entered an early guilty plea. It admitted that it did not take practicable steps to ensure the public's safety, in breach of the Health and Safety at Work Act (2015) (HSWA), by not providing the trainee master sufficient training, and "*more prominent safety warnings and advice to passengers aboard the* Kea *about the need to remain seated while berthing*". The Judge ordered Fullers to pay a fine and pay reparations to the injured passengers and award of costs to MNZ.

Fullers proposed a project order in lieu of the fine, pursuant to section 155 of the HSWA. A project order is a lesser-known alternative to a traditional fine given under the Health and Safety at Work Act (2015) and had not been granted previously. On 5th June 2020, Fullers were granted a work health and safety project order (Section 155 of HSWA) in relation to the Kea incident in November 2017.

The Maritime Project Order (MPO) had to be a specific (including content, time and output) project for the general improvement of work health and safety.

Why a Project Order?

At the time of the Kea incident, the CEO of Fullers had been in the role for four months. He was aware this was the second incident that involved the Kea. Along with the incumbent Safety and risk manager, it was decided that a fine was not overly useful to the company or the Maritime industry.
Following the incident and during the court process, Fullers had incorporated safety changes that reflected the new view of safety. e.g., the incorporation of safety by design process for the new ferry build. During this time, Fullers leadership learned more about the concept of 'Work as Imagined' (WAI) vs 'Work as Done' (WAD). Determined to create more good from bad, and go beyond just paying the fine, the question was posed:

"What could better look like for the people (employees and customers) when it came to safety?"
– Mike Horne, Fullers CEO

The desire to add further contribution to safety from the prosecution, saw the organisation introduced to Safety Associates/Learning Teams Inc. This company had new view safety/operational learning expertise and was given the brief to co-create a project that would truly evolve and challenge safety in the Maritime sector.

The outcome was a project order that could allow Fullers to develop and introduce using operational learning and learning from everyday work to create safety in the Maritime sector.

The overall project aim was to help evolve the Maritime industry from a traditional view of compliance to understanding and embedding safety as a capacity through a Learning Teams competency framework.

Creating a project order

The project co-design involved the regulator and other industry stakeholders seeking feedback on the innovative intention. The regulator, Maritime New Zealand (MNZ) suggested the project order incorporate certain factors. That the project order must at the very least:

(1) go beyond compliance with the HSWA;
(2) have a meaningful connection to the conduct for which the defendant is to be sentenced
(3) do not propose things which already exist;
(4) require engagement from workers; and
(5) require something above and beyond existing health and safety obligations.

The Judge noted that they must not stifle innovation, and the factors proposed are to remain as guidelines[1]. Using these guidelines, the Project order determined that introducing a Learning Teams competency framework would align and support a change of mindset away from traditional compliance to the HSWA.

The Learning Teams competency framework proposed is:

"An approach to safety which is more effective than traditional approaches, in particular, it is more effective in involving workers in problem identification/solving than traditional methods of thinking about health and safety. So, it is an approach to safety which will promote higher safety standards."

– *Brent Sutton, Project Order Architect.*

What is BetterWork#NZ

The project was designed to align with and support the BetterWork#NZ approach. This is WorkSafe NZ innovation team's initiative to challenge New Zealand organisations to make a fundamental shift in their way of thinking about Health and Safety. This team is led by Daniel Hummerdal, who joined WorkSafe NZ as the Chief Advisor Health and Safety Innovation in September 2018. With a background in the development and implementation of Safety II and Safety Differently, the mandate of the team is to challenge traditional models and spark new approaches.[2]

The BetterWork#NZ initiative aims to challenge current practices. Workplace improvement efforts often start with a focus on what's wrong or what problems need fixing. The solutions tend to be imposed top-down, and often, it is the privilege of a few select individuals who get to say what goes.

BetterWork#NZ is a call to action to mobilise more of 'the team of 5 million' to create better workplaces where more things go right. The good news is that there is a wealth of experience, insights, creativity, and care in any workplace. By opening a conversation about what is happening in our workplaces and what could be going on, the hope is that we can collectively create a better New Zealand where more things go right more often. They describe the principles of improvement between the traditional way and the BetterWork#NZ way as:

Traditional Improvements	Better Work Way
Starts with 'What is wrong'.	Starts with 'What to grow'.
Compares with an ideal of what should happen.	Invites deeper learning about what is driving performance.
A few individuals get to say what solutions should be in place.	Builds community and connections between people.
Responses are developed for each problem.	Risk management is integrated into how work is done.
Locks organisations into reactive management.	Enable organisations to take steps toward the future they desire.
Zero deficits are the goal "Zero Harm".	Capacity to work successfully across varying conditions is the goal.
The future is created based on problems from the past.	The future is created based on strengths and possibilities.

[1] Notes of Auckland District Court Judge Nicola Mathers on sentencing.
[2] World-leading health and safety innovator to join WorkSafe NZ, 7 Sept 2018 Media release, WorkSafe NZ

PROMOTIONAL FEATURE

"IT FELT LIKE THE RIGHT THING TO DO"

Fullers360's journey towards doing safety differently with a Project Order – focusing on Maritime Learning Teams

IN NOVEMBER 2017 the Devonport Ferry *Kea* struck the Devonport Wharf on approach. A passenger was standing at the top of the stairs preparing to disembark. The collision caused her to fall forward to the deck at the bottom of the stairwell. She hit her head, causing a serious head injury.

Following a guilty plea to a charge under the Health and Safety at Work Act 2015 (HSWA), the court imposed a Project Order on Fullers360 as part of its sentence. The Project Order is an order in its own right that forms part of Fullers360's sentence. A fine was also imposed as part of the sentence. Fullers360 received a discount from the fine that would otherwise have been imposed, to take account of the cost of completing the project.

The Project Order requires Fullers360 to train up to 200 people across the maritime industry as 'learning team facilitators'.

'Learning teams' are a worker engagement process that can be used pre-event, post-event and during management of change. The project is intended to benefit the industry in a way that must address the harm caused; and incorporate a worker engagement component. It can't be something that Fullers360 is already legally obliged to do.

This is the first Project Order for the maritime sector under the HSWA. As far as Fullers360 and Safety Associates are aware, Maritime New Zealand (MNZ) is the first maritime regulator globally to consent to an industry competency-based innovation project forming part of a court-ordered sentence. Fullers360 considered this an optimistic sign from the regulator that a different approach to enforcement is on the horizon – with the process and outcome demonstrating MNZ acting as a responsive regulator, using appropriate compliance tools to fit the circumstances and achieving effective long-term health and safety outcomes.

Alistair Thomson, Fullers360 Group Safety and Risk Manager says MNZ laid a charge under the HSWA to which we pled guilty early. "We admitted that the trainee master should have had more opportunities to practice berthing without passengers on board, and that there should have been more prominent warnings instructing passengers to remain seated until the ferry was berthed.

Alistair continues, "these are key learnings that Fullers360 has taken on board and incorporated into our continuous improvement processes. It was our view that a Project Order was an opportunity to effect real change".

This is where Brent Sutton from Safety Associates came in. Brent suggested we apply for a Project Order that would deliver a competency framework for Maritime Learning Teams. The proposed Project Order was then discussed and developed with the participation of MNZ before it was put to the Court.


Alistair Thomson

The application for the Project Order wasn't without risk as almost no case law existed and Fullers360 had to balance the possibility that the Court could award a significant fine on top of the value of the Project Order. The concept of proportionality was debated at length and it came down to a decision by Fullers360 CEO, Mike Horne, who said seeking the Project Order felt like the right thing to do.

At sentencing, following consideration of submissions on the proposed Project Order from both Fullers360 and Maritime New Zealand, Judge Mathers ordered Fullers360 to undertake the project put forward. For Fullers360, and the industry, this was a great overall result and is now a unique opportunity to progress an innovative safety initiative to benefit the wider industry.

The Project Order is for the development and implementation of a Learning Teams competency framework across a diverse group of Maritime stakeholders. The Project Order supports up to 10 different stakeholders to participate for a period of 18 to 24 months.

A case study will be published on the learnings gained from the project. Any materials and resources that are developed will be freely available for industry to evaluate and make use of.

Judge Mathers of Auckland District Court stated: "I consider that considerable weight should be given to the beneficial effect of the project order both in terms of what it will cost to a defendant and in terms of its overall benefits for health and safety in the workplace. It might, in my view in some cases, amount to a full dollar for dollar reduction particularly where a defendant has limited means because fines can in some circumstances work adversely against small companies. I do note however, that there should usually be an element of a fine to respect the normal objectives of denunciation, deterrence and to be held to account. It will always be a difficult balancing exercise in the exercise of a Court's ultimate discretion."

The Project Team has the website up and running and are currently taking expressions of interest from maritime operators https://www.maritimelearningteams.org.nz/

Alistair will be providing regular project updates to *Professional Skipper* magazine so watch this space for progress reports on this ambitious industry first.

Project Story - A fresh approach

The article was published in Professional Skipper magazine in September/October 2020, announcing Fuller's intent to help the Maritime sector explore a "safety differently" journey through the Project Order. This also sought more expressions of interest in the project.

The Maritime Project Order

The Court's direction to meet the requirements of the project order under s155(1) of the Health and Safety at Work Act 2015 are outlined below. Fullers Group Limited was to:

Develop a Learning Teams competency framework (LTCF) as an analytical tool for the Maritime industry and in particular:

1. Invite a diverse range of Maritime Industry stakeholders (MIS) to participate in the development of the Learning Teams competency framework (LTCF).

2. Engage with at least six of those MIS to develop the LTCF for the Maritime sector.

3. Develop LT Training resources and an LT Facilitator Assessment tool for the Maritime sector.

4. Trial the LTCF, LT Training resources, and LT Facilitator assessment tool with participants by training between one hundred and fifty and two hundred maritime workers in a least fifteen in-person or facilitated online training sessions across the sector to be competent as LT Facilitators.

5. Assess the results of the trial to determine the competency of the facilitators and those that need further support.

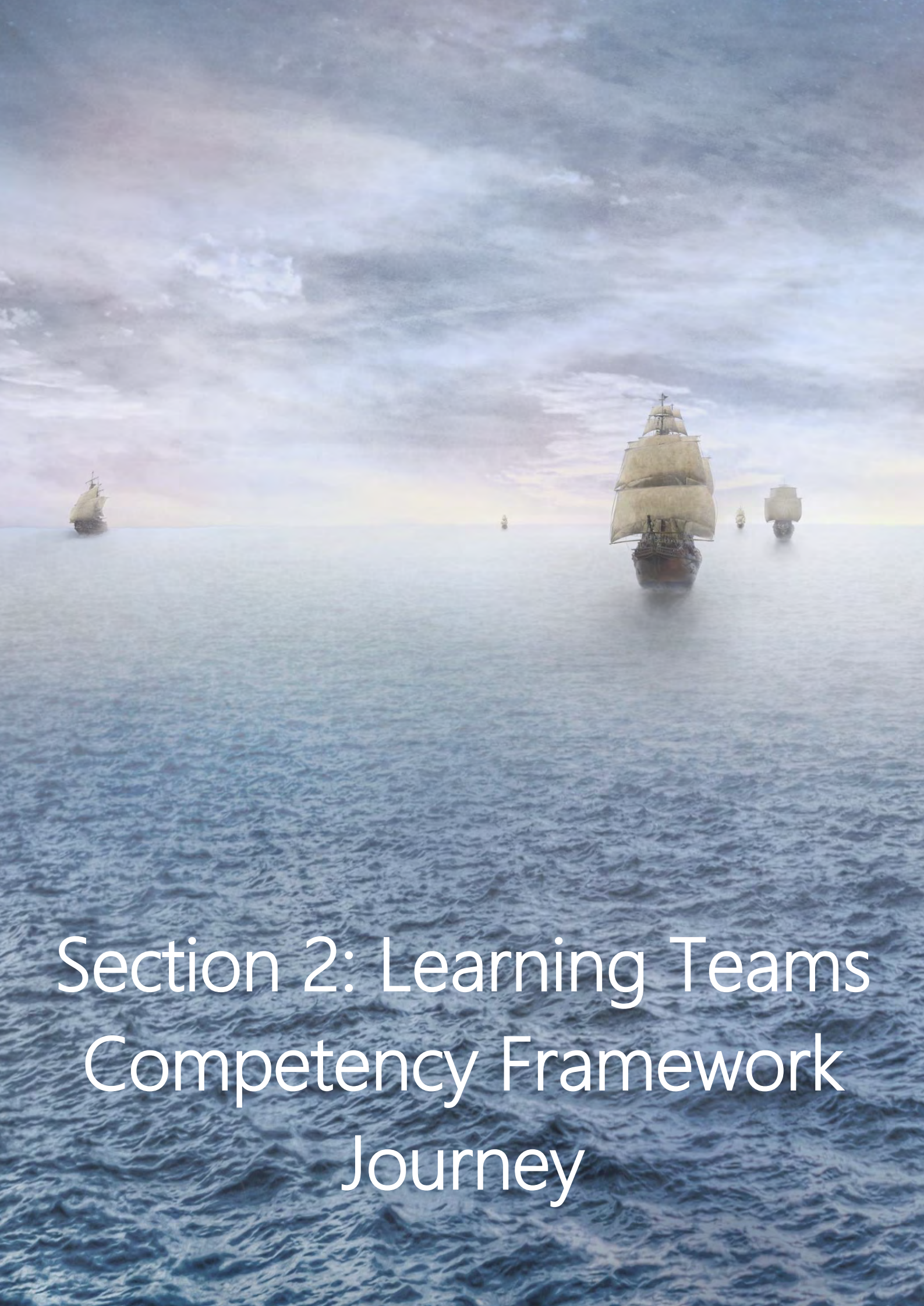
6. Develop a coaching facilitation guide, a reflection journal, and a self-assessment tool for those who are competent to coach and mentor other workers to become LT Facilitators.

7. Deliver a Mastery of Skill coaching and facilitation skills workshop to between sixty to eighty maritime workers who are assessed as competent in LTs in at least six in person or online facilitated training sessions.

8. Analyse the data collected from the Assessment tool used during the mastery of skills training to identify a pathway and means for those that need further support to maintain the application of mastery of the Learning Teams facilitation skills.

9. Write a case study on the learnings from (1) to (8) and provide to MNZ in advance to make comment, along with LTCF, and the training and assessment material and resources developed from (1) to (8) above.

10. Make the LTCF training and assessment material and resources publicly and freely available (in electronic format).



Section 2: Learning Teams Competency Framework Journey

The journey to a Learning Teams Competency Framework (LTCF)

Defining a competency framework

The project uses the following to define a competency framework. These were evolved over the project duration. They are:

- Competency is defined as the ability/skill/practice to do something well or efficiently.
- Facilitator is defined as someone who helps a person or organization do something more easily or find the answer to a problem, by discussing things and suggesting ways of doing things.
- A competency framework is the foundation for, and a key driver of effective delivery of certain skill and/or practices to add value to an organisation/company.
- A competency framework consists of a set of specific competencies that communicates/outlines what is expected of an '**operator**'. An operator could be an individual, team, or organisation.
- The Learning Teams competency framework (LTCF) is based on the application of adult learning principles, and a Learning Team is a practice which can uncover safety, quality and operational excellence.
- A Learning Team is based on a facilitated approach to worker engagement and supports the empowerment of people to own safety, quality and operational excellence.
- A Learning Team environment matters.
- The LTCF purpose is to assist in ensuring a consistent approach to human and organisational performance throughout an organisation eco-system, and for the Project order seeks to create an organisational change to enhance safety in the Maritime industry through operational learning.
- The LTCF environment is based on the application of principles of Safety II, Safety differently, Human Organisational Performance (HOP) which are collectively referred to as the New View of Safety.

Developing the LTCF – Journey overview

The original project team consisted of the authors of the book, The Practice Of Learning Teams[3], which was officially released in August 2020. The content introduced the concept of using Learning Teams to learn from a broader view of learning opportunities, or 'Learning Team Modes'.

The LTCF would introduce and leverage all three modes with emphasis on the two lesser-known modes, everyday work and management of change. The project also leaned heavily on the direction of Dr Todd Conklin and, in particular, his direction that learning is a deliberate improvement strategy.

Alongside the Learning Team competency, the framework introduced new view concepts such as safety as a capacity, failing safely, blue line WAD/black line WAI, critical risk steps and defence capacity. This is the language of the LTCF and the new view of safety.

To develop the Learning Teams Competency Framework (LTCF) for the project, we first focused on defining the critical mindsets requirements and understanding the soft skill competencies. These are necessary to create operational learning within organisations. These elements outline the foundation requirements to incorporating the framework into organisations.

Further, the project intentionally sought to understand the learning journey individuals would be required to take if tasked during the project to take the basic competency level to a "mastery level". That is;

1. What would that person be expected to possess?
2. What developed deeper knowledge and understanding beyond the fundamentals is required? And,
3. What would sustainable and integrated practice look like?

At a competent level the skills for facilitators are not seen as an attribute to a specific department or a specific job rather they are skills that can be used across an organisation in any role (frontline, supervisor, corporate function, executive) to create better work improvements through learning.

[3] The Practice of Learning Teams, ISBN: 9798665374321, Sutton, McCarthy and Robinson © Learning Teams Inc, 2020, Published August 2020.

CONCEPT 1: OPERATORS OF LEARNING COMPETENCE FOR THE LTCF

The LTCF intention was to deliver a sustainable practice and ongoing operational learning and improvement. What became clear during the project was the emphasis on the three distinctive organisational operators, that is, individuals, work groups/teams, and organisations. Our approach to the framework was based around knowledge that learning can and does occur at and across these three operator groups. The learning at these operator groups was supported as the project developed. Potentially, there is a fourth operator, the Regulator. The project was unable to engage with participants that may have been able to create in-depth learning on this operator.

INDIVIDUALS

Individuals at competent needed to understand the concept of Learning Teams to participate in and facilitate independent learning conversations or share operational intelligence at the ground level. At an individual mastery of skill level, this required being able to understand and see "what good looks like" and build mastery through application. We started with adult learning principles and scaffolded the skills in the workplace.

WORK GROUPS/TEAMS

For workgroups, the LTCF takes thinking frames and applies the skills to learn collectively in workplace settings.

ORGANISATIONS

Collaboration amongst functions to obtain targeted change and development to improve safety, quality, performance, and service delivery at a holistic organisation level. Being able to create operational learning environments with psychological safely and accept the need to learn and unlearn is driven at this level. Both the organisation and its leaders need to respond productively to learnings to integrate better work changes.

CONCEPT 2: WORK AS IMAGINED (WAI) VS WORK AS DONE (WAD)

"When planning work, an organisation often outlines what people should do in order for work to be successful (to produce the intended outcomes). The assumptions or expectations of what other people should do is called Work-as-Imagined, while that which people do is called Work-as-Done. The term 'imagined' is not used in an uncomplimentary or negative sense, but simply recognises that our descriptions of work will never completely correspond to the work as it takes place in practice – as it is actually done. Even when significant efforts are made to standardize work and working conditions in order to make work as regular and predictable as possible, there will be a number of differences, most of them small but some of them large."[4]

The concept of WAI and WAD is an important concept to introduce as it is crucial to the Maritime Project Order. A core component to Learning Teams, and therefore by default the LTCF, is the potential of looking at safety with a different lens. Using this lens allows learning from the place where traditional safety stops and where risk meets the worker.

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The Maritime Project Order aligns with a number of WorkSafe's Strategic Priorities, better PCBU collaboration, and Worker Engagement and Participation Activities (WEPR); and as aforementioned creating traction for BetterWork#NZ, which fundamentally is both leaders and workers thinking differently about how work is done, and by doing so, unlocking the true potential of their organisation to create the best workplace possible.

In a Boardroom magazine article[5] Phil Parkes, WorkSafe NZ CEO, was interviewed and expressed referred to the WAI vs WAD mindset change, and what is required. An excerpt from that article reinforced that the LTCF development was relevant not only to the Maritime sector but broader safety in New Zealand.

[4] Erik Hollnagel, Safety II in practice, pp 17-18.
[5] Published by the Institute of directors (IOD) – Focus closely (Autumn 2021).

WORKSAFE'S APPROACH IN 2021

One of his priorities for will be shifting WorkSafe's focus from **"what's happening on a particular site when we visit"** to getting directors and senior managers to think about how they plan work, Parkes says. *"One of the biggest challenges for New Zealand is we tend to treat health and safety as if it is something separate from everyday work.*

Work as imagined vs work as done

Parkes says the obligation for directors to undertake due diligence is key to understanding how health and safety legislation should work in practice. The regulator expects directors to take positive actions to understand risks and develop mitigation strategies.

For Parkes, positive action means more than simply having policies in place and receiving regular reports. The way work is represented in company policy documents, health and safety procedures and board reports does not always match what WorkSafe sees on the ground, he says, and this gap between intention and reality can lead to harm.

"The expectation from WorkSafe is that directors are checking for that gap. And if there is a gap, they will ask management to fix it." This requires a shift from thinking about health and safety as a compliance issue – and rigidly defining obligations as boxes to be ticked off – to applying a health and safety lens to all business activity, he says.

We talk about productivity, culture, business models… and then have a separate conversation about health and safety. Health and safety should be integral to every work conversation. This means thinking about it when we develop strategy, when we do business planning and when we develop new business models. At the moment I don't think that is where the country is at."

This will require a mindset change for some leaders, he says, from viewing health and safety obligations as compliance to seeing them as an opportunity to create positive cultural change and improve business operations. *"I'm confident that by changing their mindset to a value proposition rather than a liability not only will directors reduce the risk of action by WorkSafe, they will also improve the productivity of their organisations."*

Parkes stresses that this is not just an issue for boards. Management and workers also need to think about health and safety in a positive way. *"We don't want the worker to put his hard hat on because a director is coming to do a safety walk. They should because they don't want to get injured at work, because they have family responsibilities, because it is the right thing to do."*

CONCEPT 3: WHAT IS OPERATIONAL LEARNING?

The LTCF uses operational learning which directly taps into the gaps between WAI and WAD. Operational learning happens with workers in the workplace. It happens where work reaches the worker. And it tells the story of complexity in the workplace.

"Learning is a deliberate improvement strategy. Learn on purpose by tapping the people who do the work." – *Dr Todd Conklin, Safety Leadership Expert, Learning Teams creator and Author of four books in Human Organisational Performance.*

Figure 1: Dr Todd Conklin

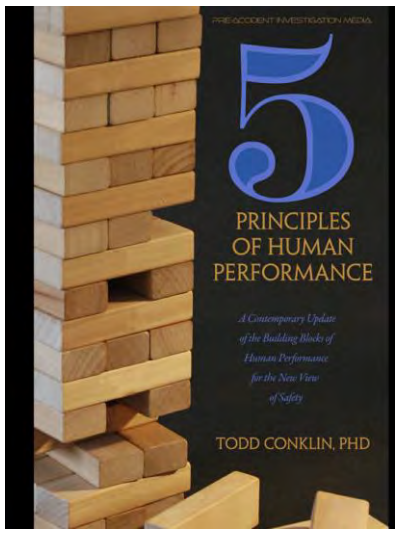
Operational learning features are:

1. Learning and improving is the purpose.
2. The subject matter experts already exist in your organisation, the workers, and by "tapping workers" to have them be part of both problem discovery and solution generation we can learn to create better work.
3. Knowledge from the small groups, both ad-hoc and formal in the organisation, are the teams that function to help you learn and understand what your organisation is doing well and where your organisation has the potential to improve.
4. This learning is not accidental or serendipitous it is deliberate.
5. When viewed with a lens of WAD and WAI there are many learning opportunities to be had as the adaption of work ebbs and flows in normal everyday work.

CONCEPT 4: SAFETY DIFFERENTLY (SD) AND HUMAN ORGANISATIONAL PERFORMANCE (HOP)

The MPO introduces a mindset which is atypical from mainstream safety. The LTCF utilised a number of philosophies from the new view disciplines[6] . The LTCF in the Project Order leaned heavily on human and organisational performance (HOP) as the five HOP principles and tools better lend themselves to applied practices in the workplace. HOP has its origins in nuclear power and is almost 30 years old. While some practitioners were implementing behaviour-based safety, another group of practitioners were forging ahead with incorporating understanding human error using science and testing its applications in one of the highest risk workplaces the world knows.

The forefathers of HOP have extensive experience across multiple industries, starting out in the nuclear industry, and naturally expanding into other high risk work areas such as utilities, oil and gas, construction. HOP has also been applied in retail and service industries. As such this project would like to reference the works and contributions to HOP of Dr Todd Conklin, Rob Fisher, and Tony Muschara. Their thinking, tools and books helped develop the LTCF. The MPO was fortunate enough to have involvement from two of the mentioned individuals, Dr Todd Conklin and Rob Fisher. The five principles of HOP as defined by Dr Todd Conklin in his book[7] are:



1. Human Error is normal
2. Blame fixes nothing
3. Learning and improving is vital
4. Context drives behaviour
5. How leadership responds matters

[6] To understand the development of what may be classified as the new view of safety, the reader is directed to Foundations of Safety Science: A Century of Understanding Accidents and Disasters, Sidney Dekker, ISBN: 978-1138481787, April 2019.
[7] The 5 Principles of Human Performance, Dr Todd Conklin, ISBN: 978-1794639140January 2019.

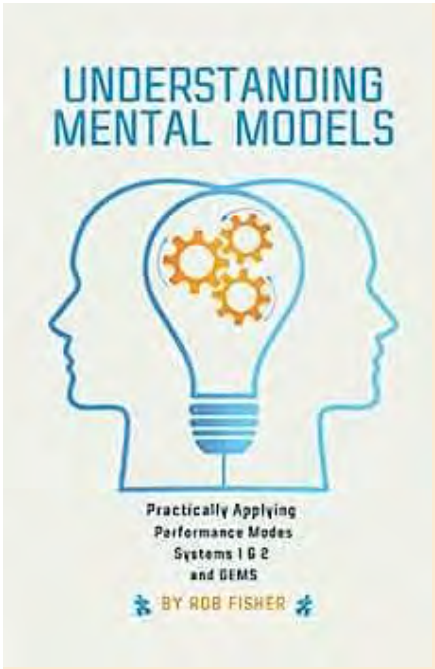


Figure 2: Left to Right - Gary Crook – Fullers360, Rob Fisher - Fisher Improvement Technology and Cameron Jamieson – Fullers360 Safety Team.

ROB FISHER VISIT TO THE MARITIME PROJECT ORDER PARTICIPANTS

During MPO implementation the LTCF participants had an opportunity to learn from Rob Fisher. Rob's book – Understanding Mental Models, provided the backdrop to introduce the three mental modes, postulated by Jens Rasmussen, skill-based, rule-based, and knowledge-based. Participants heard about his experience with taking organisations on a journey of learning about human error, its appearance in everyday work and is commonly treated in the workplace.

The work of both Dr. Conklin and Rob Fisher provided inspiration to many learning conversations and technical competency build that occurred in the applied learning opportunities during the project.

CONCEPT 5: WHAT EXACTLY IS A LEARNING TEAM?

Learning Teams are part of a way of looking at safety differently through a facilitated approach to worker engagement and supporting the empowerment of people to own health and safety.

Learning Teams seeks to identify the difference between "Work As Imagined" (WAI) and "Work As it is actually Done" (WAD) and to facilitate guided discussion of the difference between WAI and WAD to drive improvements in health and safety culture.

Learning Teams is notable because it encourages organisations to obtain and consider different perspectives and angles to define a problem in a group context. The different perspectives that emerge from a Learning Teams group demonstrate that no one person holds all the knowledge needed to solve complex problems. This is particularly so in a workplace safety context.

Learning Teams involves facilitated engagement (a facilitator) with workers to understand and then learn from the opportunities that are presented by;

1. Everyday successful and safe work (Everyday Learning Teams)
2. Events or incidents that could have or did harm workers (Event Learning Teams)
3. Management of change that could affect worker safety (MOC Learning Teams).

Learning Teams support both worker learning and organisation learning by allowing stakeholders (workers, contractors, health and safety representatives, unions, management, suppliers and officers) to better understand when, how, and why, people do things differently from following formal, written procedures.

By understanding what is necessary to make sure things go right, it is possible to focus on ensuring that factors which make things go right are present in the workplace every day. This process also helps to identify the gap between WAI and WAD.

Learning Teams can be more effective in involving workers in problem identification and solving than traditional methods of thinking about health and safety. Learning Teams give workers and contractors an opportunity to highlight the things they believe underpin positive outcomes at work. This includes factors that are not necessarily identified by traditional safety observations, auditing processes, safe systems of work, training or supervision.

The five principles of Learning Teams are:[8]

1. Understanding that Work as imagined (WAI) and Work as done (WAD) give context.
2. Groups outperform individuals in problem identification and problem solving.
3. Workers have the be best knowledge and understanding of the problem.
4. The more effort put into understanding the problem, the better the solution outcomes.
5. Group problem ID, solving and reflection (soak) time drives learning and improvement.

UNDERSTANDING THAT WORK AS IMAGINED (WAI) AND WORK AS DONE (WAD) GIVE CONTEXT

WAI refers to how the organisation believes safe work is performed and how it is then prescribed and documented through the various elements of the safety management systems such as policies, procedures, rules, information, safe systems of work, training, supervision and monitoring.

WAD refers to how something is actually done by the people who are exposed to the hazard or risk on a routine or non-routine basis. It is reflective of the changing and dynamic nature of how work is actually done, and how it takes place in an environment that is often not as imagined, with multiple shifting goals, variable and unpredictable demands, and variable resources (including varying levels of worker competency, dealing with other contractors, time pressures) within a system of constraints and incentives, which can all have unintended consequences. This gap or chasm between WAI and WAD is normal. The size of the gap or chasm is based on the level of worker engagement, participation and feedback on the change management of hazards and risks.

GROUPS OUTPERFORM INDIVIDUALS IN PROBLEM IDENTIFICATION AND PROBLEM SOLVING

Knowledge will always vary amongst a group of people in a Learning Team. That even the person with the most knowledge in the Learning Team cannot exceed the knowledge of the group. And that functional diversity, which is having people with different backgrounds and functional areas, allows broader or diverse knowledge to be observed and reflected on by the group. Even experience is a form of functional diversity, in that two people can have ten years of experience. One can actually have ten years of diverse experience, and one can have one year of experience repeated ten times.

[8] The Practice of Learning Teams, ISBN: 9798665374321, Sutton, McCarthy and Robinson © Learning Teams Inc, 2020, August 2020.

WORKERS HAVE THE BE BEST KNOWLEDGE AND UNDERSTANDING OF THE PROBLEM

Workers are the experts of their work. Their knowledge and understanding of WAD make them a vital partner in a Learning Team. These people are referred to as 'experts' to highlight that they possess the expertise and allow us to understand how people act as part of the system in the organisation, and then understand the system with the people. This moves people from being subjects of interventions and outputs of corrective actions to critical partners in all aspects of improving the work. People will do things that make sense to them at the time based on their goals, constraints and understanding of the situation they are exposed to.

THE MORE EFFORT PUT INTO UNDERSTANDING THE PROBLEM, THE BETTER THE SOLUTION OUTCOMES

The more effort we put into group problem identification and understanding, the better the problem-solving and the more learning and reflecting the group does. This builds what we call Critical Thinking and Reflection skills which are important to us when dealing with hazards and risks, and our perception of risk.

"If I had an hour to solve a problem, I'd spend 55 minutes thinking about the problem and five minutes thinking about solutions." – Albert Einstein

Einstein believed the quality of the solution you generate is in direct proportion to your ability to identify the problem you hope to solve. This quote illustrates an important point: before jumping right into solving a problem, we should step back and invest time and effort to improve our understanding of it.

GROUP PROBLEM ID, SOLVING AND REFLECTION (SOAK) TIME DRIVES LEARNING AND IMPROVEMENT

Reflection is the most important part of the Learning Team process, and whatever is not reflected on by the group and by an individual during the soak time is usually not retained and acted on. The only way to grow and improve is to take a good look at what's working and what's not working.

"We do not learn from experience; we learn from reflecting on experience." — John Dewey

The eight benefits of reflecting are:

1. It helps you learn from your mistakes
2. It gives you great ideas
3. It helps you help others
4. It makes you happier
5. It gives you better perspective
6. It helps you understand yourself better
7. It gives you a greater understanding of the world around you, rather than just acquiring facts
8. It empowers workers and helps them to see how they are a key part of the learning process

When we reflect upon the learning process, we are strengthening our own capacity to learn. Central to this is the principle of reflection called metacognition, where we are aware of, and can describe, our thinking in a way that allows us to "close the gap" between what we know and what we need to learn.

Reflective learners assimilate new learning; relate it to what they already know; adapt it for their own purposes; and translate thought into action. Over time, they develop their creativity; their ability to think critically about information and ideas; and their metacognitive ability (that is, their ability to think about their own thinking).

CONCEPT 6: LEARNING TEAM MODES

THE LEARNING TEAM PROCESS

There are seven phases in a Learning Team, they are:

- Phase 1—Determine need for Learning Team
- Phase 2—First session: Learning Mode only
- Phase 3—Provide "soak time"
- Phase 4—Second session: Start in Learning Mode
- Phase 5—Define current defences/Build new ones
- Phase 6—Tracking actions and criteria for closure
- Phase 7—Communicate with other applicable areas: "Tell the story and share success"

The methodology and approach are described in step-by-step detail in the resource's toolkit.

For safety, Learning Teams support three modes of application:

1. Event-based Learning Teams (alternative to an investigation)
2. Management of Change Learning Teams
3. Learning from everyday work with the 4Ds

EVENT-BASED LEARNING TEAMS

Event-based Learning Teams involves facilitated engagement with workers connected to the event and other stakeholders to understand and then learn from the opportunities that are presented.

In essence, learning after an event:

- Tells the story as each person saw the event
- Tells the story of complexity
- Tells the story of normal variability and coupling
- Tells the story of how work gets done
- Improves our understanding of processes and the system

Operational learning is not:

- An investigation
- Worried about collusion
- Searching for "one true story"
- Focused on the "one root cause"
- Looking for someone to blame
- Another committee

MANAGEMENT OF CHANGE/PERIODIC LEARNING TEAMS

Whilst event-based Learning Teams is a reactive approach to a change in the organization, Management of Change or Periodic Learning Teams is a proactive approach to change. Change management acts as a form of assurance and verification to ensure that organization changes do not negatively affect how risks and hazards are managed. Understanding what could go wrong will help organizations to plan their changes so that they retain control of negative impacts and prevent them from dealing with unnecessary troubles as they learn and improve.

There are four major change groups.

1. Changes in products, services or processes. Before organizations add new, or change existing products, services and processes, they need to ensure that they use their management of change process. This process would assess the risks of these changes and help control the risks. Some examples of these changes include changing workplace locations, re-organization of work, altering work condition, changing equipment or people required for the work.
2. Legal changes. If there are changes to the legal or other regulatory requirements that affect the organization's performance, then they need to make the necessary changes to their processes.
3. Hazard & risk knowledge. If there is new knowledge about an organization's hazards or risks, such as new research that changes what is known about a cleaning chemical being used, this new information needs to be assessed to see if improvements are needed.
4. Knowledge and technology developments. Learning about new information or technology that can change how the organization does business may require an assessment of how this changes processes, and the need to control the changes. For example, a new electronically controlled machine may become available that will remove some physical injury hazards associated with using the equipment.

LEARNING FROM EVERYDAY WORK WITH THE 4DS

The 4Ds are an easy way to initiate a front-line Learning Team. The 4Ds is a worker sensemaking tool, that rather than asking lots of questions (remembering you only get the answers to the questions that you ask), you ask worker to make sense of how they work in the system and the rubs and frictions that exist between WAI and WAD in normal everyday work.

The act of asking the questions led to greater engagement, better worker perceptions of leadership, and numerous opportunities to improve the organisational capacity for reliably successful work outcomes.

DUMB (SENSE-MAKING)

Sense-making is the process by which people give meaning to their collective experiences. It has been defined as "the ongoing retrospective development of plausible images that rationalize what people are doing" .

The word ‘dumb’ is certainly not the best in some circumstances, but it's very effective in initiating a conversation about things that make sense and things that don't. We know that after an adverse event determining why someone's actions made sense to them at the time is the most critical piece of information. Therefore, understanding why choices make sense to people at the time based on their cues and their interpretation of the circumstances is the most important preventative learning we can strive for.

Making proactive inquiries into how people make sense of things, and having them speak up about anything that doesn't quite make sense to them, is critical information for the leader and the entire crew. Also we don't want people bending over backward to make sense of things at work. Ideally we're lowering the threshold of what we want to hear about and what we want to talk about and demonstrating that we appreciate that the workforce’s interpretation of the work environment is the most important interpretation, the only one that really matters.

DANGEROUS (RISK)

Hazard perception is the ability of a person to detect potential hazards. Risk perception refers to people's subjective judgments about the likelihood of adverse occurrences. Risk perception is essential to discuss because it surfaces which hazards people care about and how they deal with them. It is an important precursor to operational performance, and experts recommend that leaders keep an open dialogue about risk alive.

Some industries are really hung up on work stoppages, to the point of holding numerous training sessions and workshops on managing and mitigating work refusals. I think this is a holdover from that old view of safety perspective that says our systems are well designed and complete, and people should do as they're told. This lowers the perceived threshold of risks worth talking about (i.e., worth a potential stoppage and accompanying fallout, formal and otherwise) and reduces the risk of retaliation for pausing work.

Another issue here is that leaders have been trained to think in terms of hazards and controls, or even multiple hazards and multiple controls stacking or accumulating throughout a task. But there isn't much consideration of how hazards can interact in the messiness of real work and exponentially increase risk.

Typical safety management approaches are not likely to catch this, but an open conversation about people's perception of danger may.

DIFFICULT (CHALLENGE)

When a work task is difficult, many will simply just ‘soldier on’ and ‘make do,’ possibly assuming that is just the nature of the task. But task difficulty can be an important sign that the task is being done incorrectly, or that something is amiss elsewhere in the system.

Leaders really benefit from creating an open dialogue about the difficulty of work. Sometimes it's just difficult, sometimes it's being done wrong, and sometimes that difficulty is a red flag, but you don't know if you don't ask, and you really want to lower the threshold on what your crew feels is worth talking about.

DIFFERENT (CHANGE)

A weak signal is the first indicator of a change or an emerging issue that may not appear significant, but which may become significant in the future. Weak signals can be identified as part of ‘scanning’ the operational environment, supplement trend analysis, and be used as a foundation for detecting emergent critical risk.

Change is interesting. We can create and achieve incredible things in business, but it's not the magnitude of the work that makes it interesting. The surprises and changes along the way demand our effort and attention. After all, if it wasn't for change, every schedule, budget, plan, and safe work procedure would be perfect, and ‘Work As Done’ might align more consistently with ‘Work As Imagined.’

The Learning Teams Competency Framework

The LTCF is a framework that establishes emergent learning by participants. Emergent learning uses a set of principles and practices that help people across a system think, learn, and adapt collaboratively to overcome complex challenges and create change. The approach allows for ongoing action where intentional and iterative learning takes place.

The LTCF approach that evolved considers the complexity and dynamic nature of the workplace, the framework evolved to consists of three foundational components:

- How we learn
- What we learn
- Environment to learn

Figure 3, shows the more detailed content of the framework after its development for mastery of skill participants.

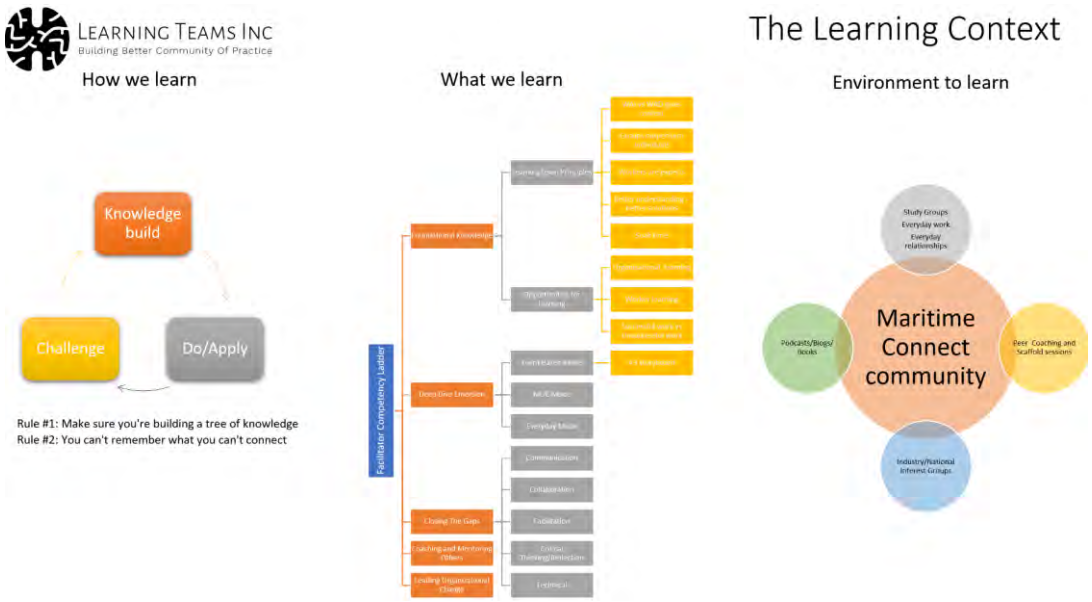


Figure 3: The Learning Context

LEARNING TEAMS COMPETENCY FRAMEWORK – HOW WE LEARN

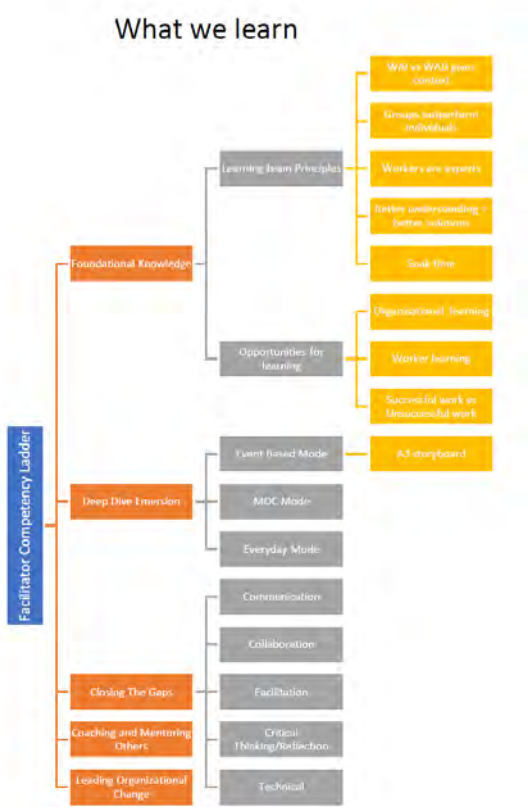
The fourth principle of HOP, "**Context drives behaviour**" and adult learning principles featured strongly in the development of the learning. We also saw that the learning principles applied not just the individuals, but also the team and organisation.

The development of the LTCF drove learning at all three levels. The project leaned heavily on the concepts of learning and unlearning from Edgar Schein (Humble inquiry) and whether operators would engage in a different paradigm.

LEARNING TEAMS COMPETENCY FRAMEWORK – WHAT WE LEARN

The new view has a number of different tools. The LTCF as outlined earlier relies on technical knowledge from HOP and on the premise of operational learning. The technical knowledge focuses on '**safety as a capacity vs safety as the absence of incidents of injuries**', or the BetterWork#/Safety Differently mindset.

Closing the gaps covers soft skills of engaging with people. However, the project showed this as essential skills. The ability to connect and create psychological safety in a group to facilitate learning was shown to be an absolute necessity.



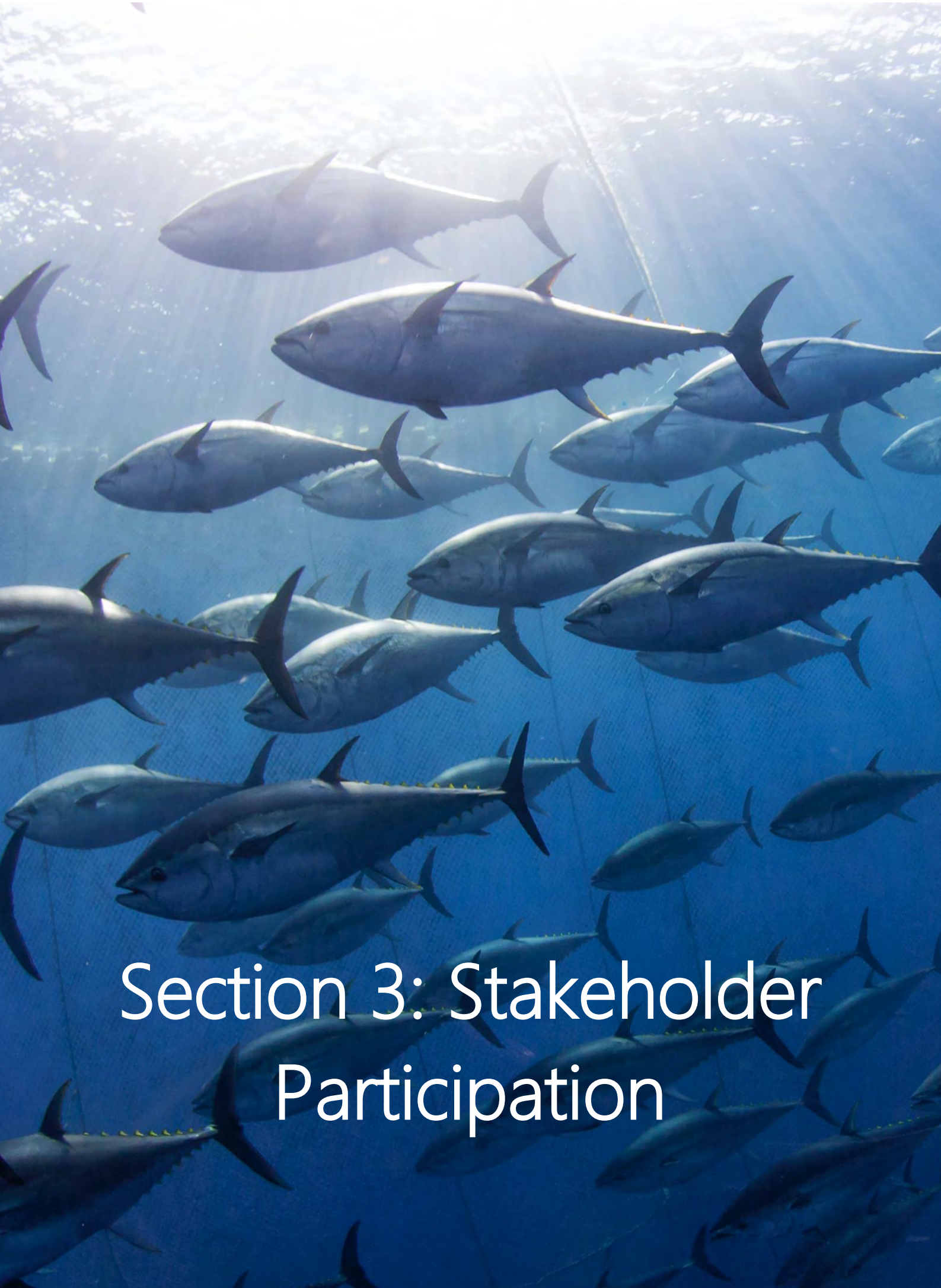
Two principles of HOP, "Context drives behaviour" and "How leadership responds matters" were seen strongly as factors for improvement. The LTCF needed to be in an environment which fosters and nurtured learning.

If the organisation was open to learning, that is, demonstrating curiosity and understanding, rather than rushing to fix and put in place actions the organic growth of the LTCF within the stakeholder group appeared to progress faster. The overall sponsor of the session and how they set the scene was important in a number of Learning Teams.

Summary

The Project order has a requirement for stakeholders to co-develop the LTCF which required an iterative and intentional process. The result being a framework with the capacity to meet individuals, teams, and organisations where they are in their learning journey.

The framework provides freedom within a frame and utilises both technical expertise and internal worker knowledge to harness operational learning opportunities. The journey of the project stakeholders provides the story of the complexity that exists in the maritime sector workplaces. These weak signal stories go mostly unnoticed daily and so does the opportunity to enhance safety by understanding what is going right. There is opportunity to add new tools that harness the potential for learning which the LTCF can introduce to evolve and add to current safety practices.



Section 3: Stakeholder Participation

Summary of stakeholder participation

During the MPO seven key stakeholders were engaged to develop the LTCF within their organisation. The length of participation and how much they applied the LTCF differed for each stakeholder depending on their needs, priorities, and time they could commit.

The background of the companies who were involved and spent time developing the framework in their organisations amounted to seven. Listed in alphabetical order they were:

1. Auckland Coastguard
2. Auckland Transport
3. Babcock International
4. Fullers 360
5. Marlborough Tours
6. Ports of Tauranga
7. Sealink

STAKEHOLDER 1: AUCKLAND COASTGUARD INCORPORATED

Auckland Coastguard Incorporated has a heritage that dates to 1935. It is the longest serving unit in Coastguard Northern Region as well as the largest unit in the country, with more than 150 volunteers dedicated to providing the boating public of Auckland with a swift and reliable search and rescue service. Coastguard Auckland exists to recruit, train and lead a team of volunteers to perform marine rescues to world's best practice.

STAKEHOLDER 2: AUCKLAND TRANSPORT

Auckland Transport (AT) is a Controlled Organisation (CCO) of Auckland Council. AT is committed to finding, implementing, and supporting transport and roading solutions that make this a better place to live, work and play in. Established on 1 November 2010 because of the formation of the Auckland Super City. Auckland transport delivers all transport functions and operations for the city have come under one organisation: bringing together the transport expertise and functions of eight local and regional councils and the Auckland Regional Transport Authority (ARTA).

Auckland Transport is responsible for the day-to-day activities that keep Auckland's transport systems moving. These include planning and funding of public transport, promoting alternative ways to get around and operating the local roading network. AT is the lead PCBU for the ferry services in Auckland and engages the services of Ferry operators.





STAKEHOLDER 3: BABCOCK INTERNATIONAL

Babcock is an international defence company operating in our countries United Kingdom, Australia, New Zealand, Canada, France, and South Africa, with exports to additional markets with potential to become focus countries.

Our Purpose, to create a safe and secure world, together, defines our strategy. We support and enhance our customers' defence capabilities and critical assets through a range of product and service solutions. We meet our customers' requirements of value for money, increased availability, modernisation, and flexibility.

Babcock operations Devonport Naval base

STAKEHOLDER 4: FULLERS 360

Fullers360 was born of a love for the Hauraki Gulf. In 1981, a Hauraki Gulf sailing trip inspired the Hudson family to start the Fullers Ferry Company. Thirty-five years downwind, our network unifies the entire Gulf.

Ferrying six million people every year. Bringing together friends and whanau. Getting commuters to work and visitors to play. Transporting food, freight, and special cargo -- like kiwi, tuatara and wētāpunga - between the mainland and the islands of this awesome place.

STAKEHOLDER 5: MARLBOROUGH TOURS

Marlborough Tour Company is the largest and longest-running touring company in the top of New Zealand's South Island. The company offers quality experiences that showcase the very best of Marlborough, including cruises, wine and food-based tours, bespoke group experiences, lodge accommodation, transfers, coach transport and private charters.

With an extensive fleet of vehicles and vessels, Marlborough Tour Company's team of experienced guides and crew prides itself on delivering truly authentic Marlborough hospitality.

STAKEHOLDER 6: PORT OF TAURANGA

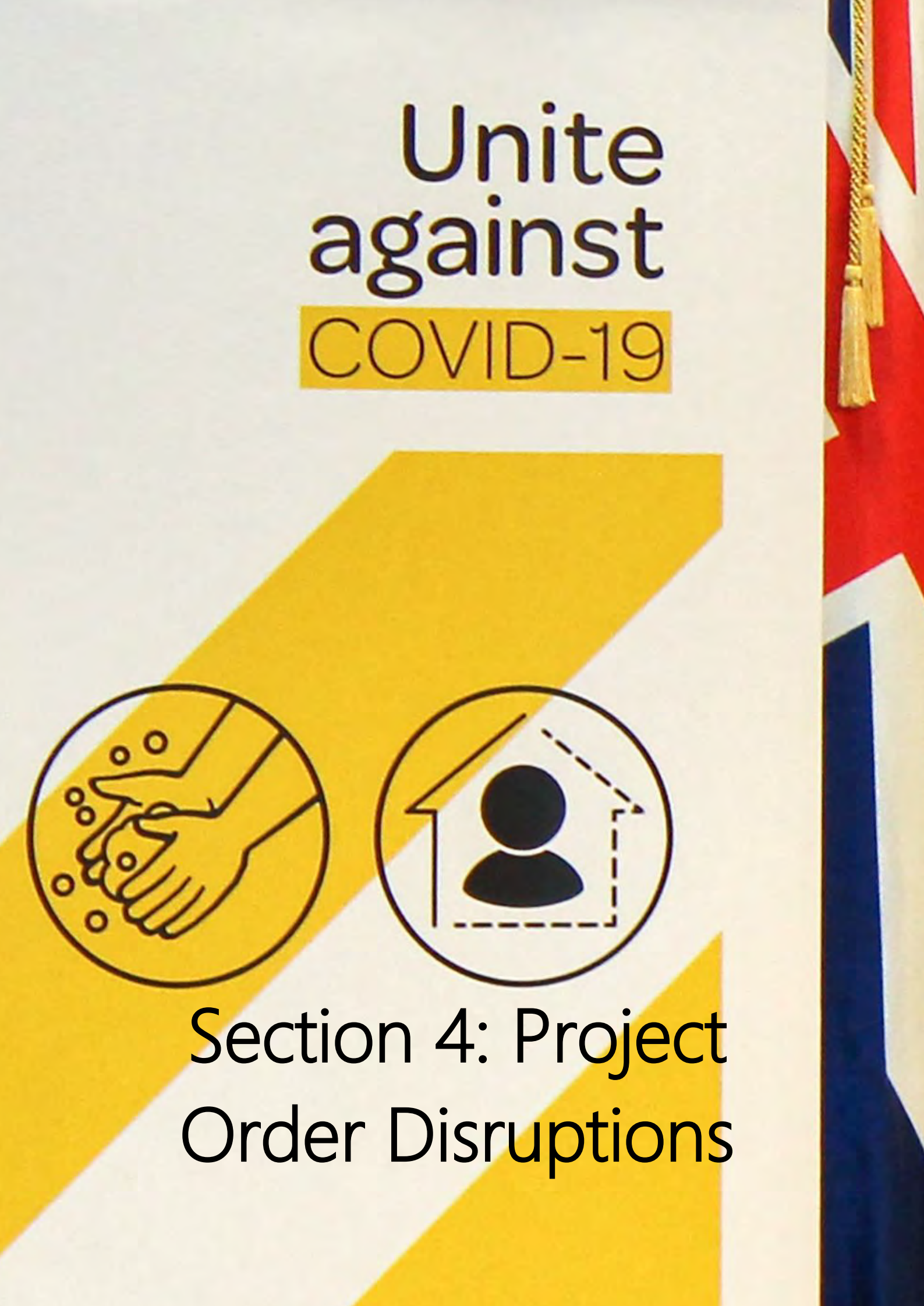
An international freight gateway for the country's imports and exports, and the only New Zealand port able to accommodate the largest container vessels to visit here. Port of Tauranga handles a third of all New Zealand cargo, nearly 40% of New Zealand exports and nearly half of all shipping containers.

The Port provides customers with highly effective supply chains through investment in regional feeder ports, inland freight hubs, cargo handling expertise and logistics services. The Port's facilities in Tauranga include the country's largest and fastest-growing container terminal, extensive bulk cargo wharves and storage facilities, and bunker berths.

STAKEHOLDER 7: SEALINK

SeaLink is Auckland's drive on link to Waiheke and Great Barrier Islands. Their ferries provide the convenience of a drive on, drive off service. The Waiheke services operate every day of the year, departing daily from Half Moon Bay, East Auckland and Wynyard Quarter, Auckland City.

The Great Barrier services operate all year round with up to six sailings a week during the summer season and three sailings a week during the winter season. Ferry services leave Wynyard Quarter, Auckland City and return from Tryphena.



Section 4: Project Order Disruptions

Context of delivery years – or life with alert levels and traffic lights!

The arrival of COVID-19 meant the Project would require several adaptions and pivots from the date the Maritime Project order was granted in mid-June 2020, and an extension of one year granted by the Auckland District Court. See the appendix for COVID-19 timeline journey in New Zealand.

"We can't get anyone together, internal changes at Fullers, priority just shifted, so it's just everyone needs to try to keep their jobs. So that's where we ended up. We had COVID-19 to contend with around the mandated restrictions. And then there was Learning Teams [MPO]. Because the business had to operate it's just that management of change as to what was priority" – Case study interviewee.

Delays and inconsistent progress

The first delay occurred between when the project was first proposed (December 2019) to its official granting (June 2020). This meant initial stakeholders who committed before the formal court granting had lengthy gaps before they contacted again. The final decision was delayed by approximately 2 months and the first 6-week lockdown and alert levels occurred in this period.

"There was an initial flurry of activity, and quite a few organisations interested. But COVID-19 happens, and there was some stop and start" - Case study interviewee.

"And then at one stage, we had hundreds of people committed to the program, and yeah, then it all kind of fell away. The period between getting them interested and doing something was just too long" - Case study interviewee.

This was then followed by several lockdowns where project continuity was disrupted due to the uncertainty for businesses during this time. One case study participant summed it up as "there was no appetite to have something that was not business as usual in a ***non-business as usual world***". An application for time extension was submitted post the COVID-19 lockdown of August – December 2021, which had severely impacted progress of any practical and continuous roll out of the LTCF. The extension was granted in June 2022.

Organisation survival and the great resignation

Like a lot of NZ businesses, the maritime industry suffered during the pandemic. Owners and Boards of key stakeholders, who initially signed up, went from wanting to be involved and innovative to ***survival mode***. COVID-19 forced organisations to adapt quickly regular operations and for most initial project order participants this was not the time to opt into another challenge that would introduce more change.

"Unfortunately, the Board didn't have the appetite for participation in the project. They'd been in the wider marine industry for decades and were used to a perceived adversarial relationship with the regulator. There was no desire or support or move beyond industry minimum standards, blame and punish was familiar territory, was what they knew, and had no intention to innovate in the operational safety space. This coupled with Covid 19 'survival mode' resulted in a missed opportunity and disappointment from operational teams." - Case study interviewee.

*"We had [company] involved as well. During the recruitment process, the business said absolutely, but within a few weeks it became apparent that the CEO and Board relationship had deteriorated to an irreparable point, and they left the business. There was no replacement; the MD stepped in and brought narrow **black-line thinking**." - Case study interviewee.*

Hybrid working and social distancing.

"For the first couple of months. I was remote, I think only came into the office twice over a two to three months period. So that made it even more difficult trying to get there. And then there were very limited sorts of access around people across the business. So that was that made it doubly hard to get my head around the role" – Case Study interviewee.

Ongoing adaptation of the project to organisation needs was also felt when social distancing for workplaces came into effect. Almost all organisations across New Zealand, including our Maritime businesses, introduced working from home technology and were forced to deal with closures to business, unless they were essential services. Movement across the country virtually ceased and was slow to come back until the vaccine was rolled out in 2021. Workplaces implemented minimised interactions in workplaces by forming separations between teams and scheduling alternate days in and out of offices.

"One of our biggest problems that we faced was getting people in a room. And, and then also the numbers required because we were basically operating on a skeleton crew, we had a lot of issues around COVID-19. We had to be cautious around bringing people together out of different work groups, because the potential for the isolation issues if anybody got COVID-19. We had no problems with the level of illness and such, it was mainly to do with the mandated isolations that were causing disruption to the to the services being a public transport business and essential service, we had to be very smart around how we operated. So that put a massive sort of hold on what we were doing." – Case study interviewee.

Vaccination requirements and face-to-face training.

Face-to-face training was no longer allowed, except at Levels 1 and 2, and then unvaccinated people were unable to attend training. Social distancing requirements of 2 metres made in-person training for the project mostly untenable for key stakeholders until mid-2022. The ability to travel inter-regionally was impacted several times from June 2020 to January 2022. Even post January 2022 isolation requirements, if a household member contracted COVID-19, meant households could be locked down for several weeks.

"We couldn't even bring Learning Teams into the office to facilitate, we had run a test Learning Teams online but we felt it didn't hit the mark. We were still working on a COVID-19 testing policy for employees returning to the office let alone bringing in externals. And then people didn't want to come back to the office either. It was a battle to get the training done but we got there" – Case study interviewee.

Section 5: Project Delivery and Findings

Delivery and Findings

The MPO was an innovation project to help provide learning for the Maritime sector. As introduced in Section 1 and 2, at its core the project seeks to redefine safety and offer up new practices and mindsets to support operational learning to improve safety.

To reinforce the operational learning journey, we have deliberately presented the delivery of the project and its findings (split by deliverables) in a form that tells the contextual story of the Maritime Project Order.

For each requirement a learning approach is used providing the reader a perspective using the lens we asked participants to use. This was our everyday work. What was initially planned as WAI (Work as Imagined) for 24 months, like all work, experienced the complexity of the environmental conditions in the system. WAD (Work as Done) increased to 36 months.

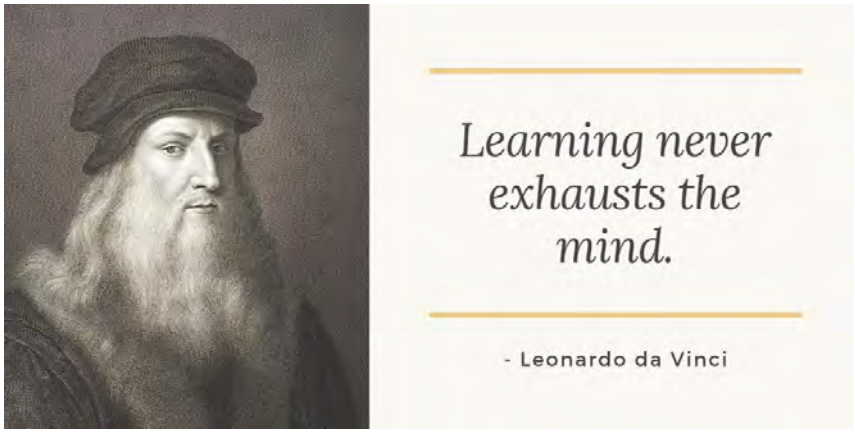
The write-up follows an operational learning approach and incorporates many concepts of the LTCF (refer Section 2). Each of the MPO requirements has a contextual story about the Project from the WAI and WAD lens. The three areas presented for each are:

1. Work As thought/planned/Imagined (WAI) – and the overall approach to deliver the requirement.

2. Work as happened/reported/disclosed/Done (WAD).

3. What was learned (reflecting and sense-making) showing the opportunity of everyday work.

Thank you to all participants who spent time being involved in the Maritime Project Order, and special thanks to the conduits and sponsors within each participating stakeholder. It has not been an easy time to innovate and learn and we hope, as stewards of your stories, they are presented with respect and care (tiakitanga). We have enjoyed sharing in your progress and look forward to hearing more about your continued journeys.



Requirement One: A diverse range of Maritime Industry stakeholders (MIS)

Invite a diverse range of Maritime Industry stakeholders (MIS) to participate in the development of Learning Teams competency framework (LTCF).

WHAT WAS PLANNED? (WAI)

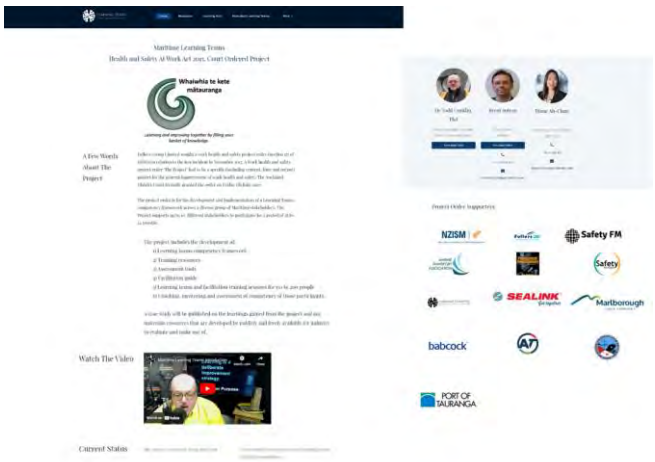
A large amount of stakeholder engagement occurred during the construction of the Project Order. So, the formality of finalising the stakeholders to come on board was planned to be done through a website and formal engagements (e.g., presentations)

Key stakeholder contacts, from the regulator down to small businesses, were already aware of Fullers intention to provide an opportunity to be involved in an innovative safety project. The detail of next steps through formal sessions just needed to be put in place.

This initial stakeholder group had been receiving a regular communication update since February 2020. Its purpose to keep stakeholders up to date with the progress of the Project order since the project form was agreed in principle in December 2019.

WORK THAT HAPPENED/REPORTED/DISCLOSED (WORK AS DONE)

From June 2020 to end of August 2020, activities took place to engage interested participants. This was done through a variety of channels and by the end of the deadline there were 23 companies who registered interest.



A website with information, tools and resources was launched for the project duration, and this provided interested participants the facility to register interest in the project.

Once formally granted by the court on 5th of June 2020, the project communicated with stakeholders who had expressed interest prior to COVID-19. The communication noted the project now required formal commitment.

Outlined also were the requirements planned for the project participants, which were[9]:

1. Formal registration of your interest to participate
2. Development of a project charter for the participation organisations to consent to, covering roles, responsibilities, privacy, data, disclosure etc
3. Individual consent agreements for the facilitators regarding privacy, disclosure and code of conduct
4. Baseline survey of current organisational culture (as seen by workers and leaders) plus subsequent repeats to establish progression
5. The number of people you want to participate as Facilitators and the different roles they represent, such as Management, Health and Safety Operations, Health and Safety Representative, Union and Non-Union workforce
6. Your preference for the Learning Team Cohorts (minimum of two) you want to participate in, i.e.;
    a. Event Learning Teams
    b. Periodic Learning Teams for Management of Change
    c. Everyday Learning Teams
7. Ability to provide internet based devices (such as a smart phone, tablet, computer etc) to your participants during the project for data capture, support and communication.

It was at this point that COVID-19 impacts was recognised with the same project communication (see below) acknowledging the impact and potential effect.

STAKEHOLDER EXPRESSIONS OF INTEREST - POST COVID-19

Several organisations expressed interest in being involved in the project prior to COVID-19. We acknowledge the events of recent months may have had an impact on your ability to commit to participating in the project. We would very much like to see you all involved and ask that you reconfirm your interest in the project. In due course we'll be seeking formal commitment.

The project met the requirements with twenty-three initial stakeholder expressions of interest being registered on through the website. From this group, fourteen stakeholders were contacted, this was further reduced to ten for the purposes of the project.

[9] Key stakeholder Update – June 2020

WHAT WAS LEARNED? (REFLECTING AND SENSEMAKING)

The focus shift of the stakeholder group was keenly felt when the project finally became official. The change to Alert levels in August 2020 signalled for the Project that COVID-19 had far from run its course. While the project met its requirements under this deliverable, the ongoing participation was not guaranteed due to COVID-19.

At the same time, it was apparent that face-to-face interactions were going to become difficult and the ability for organisations to commit formally was also in threat. This would mean new ways of working needed to be found and the project was entering into a period of increasing uncertainty.

The project used publications in professional skipper to keep up interest, share learnings and communicate progress at the same time. Fullers published articles from September 2020 to August 2021, until turnover of internal key project positions occurred. A new Health and Safety Manager started in December 2021.

Project Story – A Tale of Organisational Amnesia

In the white paper learning from everyday work, Brent Robinson outlined a tale of organizational amnesia. He started with posing a question.

We have to ask a question: Do organisations have a memory? Or is the memory based on the workers' memories that belong to that organisation.

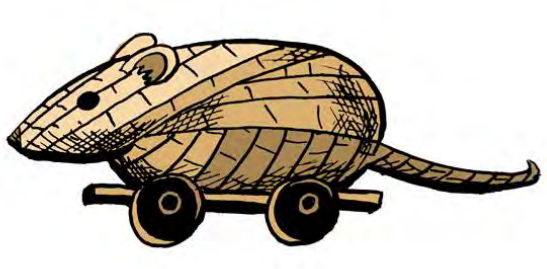
When workers leave or move, do those memories and organisational stories dissipate? We quite often talk about organizational knowledge and organisational learning but what do these things really mean, does it really happen and how can we improve and help organisations remember?

Interestingly the MPO experienced knowledge management and amnesia issues with all its key stakeholders. Here are three pertinent stories. (The first two organisations were involved for the entire 36-month project.)

1. In organisation one, the main conduit team had 100% turnover. This team was the key corporate function sponsor. Operational sponsors also had significant executive level turnover leaving the project not well understood at exec level. The organisation found that it needed to focus on core priorities and the key sponsor roles required several months to understand their roles and key responsibilities.
2. The second organisation had multiple team restructures at the operational and corporate function levels. The project was forgotten twice, and re-engagement was needed both times. The project sponsorship switched from operational representation to corporate function, but both re-engaged contacts left the organisation. Eventually, after re-engaging again, the organisation had ownership from both operational and corporate areas. The corporate function tasked with changing mindsets across the business and the operational area working to improve the delivery of its core operations service.
3. The third organisation was engaged through the corporate function and introduced to an operational area. A process to have the Project team onsite to learn about a particular function and develop a tool was undertaken as the operational team wanted to trial a LTCF tool about everyday work. The team were engaged and started to utilise the tool. After two months the operations supervisor left the business and the use of the tool ground to a halt. The corporate function team re-introduced the project to a new operational supervisor who was keen to continue the tool, but other priorities took precedence. A few months later the corporate function team was restructured resulting in the key sponsor for the project leaving meaning the project lost the ability to function in the organisation.

The first two organisations have, and continue to integrate the LTCF into tangible attributes of the working environment. Changes to business processes, leadership walks, board safety reporting, and safety information management systems are ongoing to create a new norm.

Our observation is amnesia was very much alive and a constant in our stakeholders. These project stories suggest reliance on one method or sponsor to effect change has organisational amnesia risk. In the two cases where "full amnesia" did not eventuate, the concept and value were spread and not contained in one area. One concept of the LTCF is operational learning can happen at all levels through small improvements. Extrapolating this thinking, a "Trojan Mouse" or "100 Small Things" approach to make changes in the environment to understand permanent change could have merit.



Requirement Two: Engage with at least six of those MIS.

Engage with at least six of those MIS to develop the LTCF for the Maritime sector.

WHAT WAS PLANNED? (WAI)

The project planned to complete a series of presentations to the 10 stakeholders who were contacted to explore in-depth what would be required of them as participants.

This would start in Auckland as many participants were interconnected and Auckland based, having connections via a lead PCBU. Following these presentations, participants would be formally onboarded and would work together as a stakeholder group to develop LTCF for the sector.

The preference on the different types of "modes" would help define the participation agenda on a programme of work ranging across the different Learning Team modes. Understanding the challenges of the participants would also help inform the development of the LTCF.

WORK THAT HAPPENED/REPORTED/DISCLOSED (WORK AS DONE)

COVID-19 throws its first spanner.

The first presentation was 4th August 2020 with four organisations (multiple Person Conducting a Business or Undertaking's (PCBU)) and a maritime regulator, whose operations overlapped. In mid-August 2020, Auckland was placed into level 3 with the rest of New Zealand going to Level 2 which derailed further progress.

Post lockdown, the project continued to raise awareness of the project and presented at LegalSafe (20 October 2020) and NZ Maritime Transport association seminar – Annual seminar (11 November 2020) however organisations were less responsive, citing that it was difficult to fully commit to the project. Operations were being impacted due to alert level restrictions, and businesses were now taking a cautious approach to face-to-face interactions with employees.

Adapting is required.

From August 2020 – December 2021, the project was forced into the uncertainty of operating within a COVID-19 alert level framework. Constant stops and starts from project participants were experienced. The project continued to engage with key stakeholders, but formal group onboarding required change. The project could not get commitment of enough organisations at one time to put the envisioned "stakeholder group" in place. Rather the project needed to evolve and take opportunities to work with individual organisations as "partners". This would mean the project delivery team would become the "conduit glue" to develop the framework at the organisation's pace and share those learnings in the tools with other participants.

The interaction focus moved to keeping key stakeholders up to date with progress on development of the tools and having conversations about the application of tools, their safety needs and using a 'better work' mindset.

An example of the impact of COVID-19 – an extract to progress on developing the framework.

"Fullers have approximately 30 personnel across marine operations and management committed to project. The project delivery team had recently been on board our vessels engaging with our teams about the project. The purpose of the engagement was to understand the nuance of the maritime sector so the appropriate language can be incorporated into the training resources."

This comment was from September 2021 update. By December 21 the key individuals supporting the project within Fullers had moved on, and Fullers itself had to focus into upskilling and dealing with day-to-day priorities. The project team continued its work with other participants. Tool delivery also needed to evolve. The ability to deliver initial training face-to-face was no longer a viable option, organisations would not send or were not able to send employees to a physical location as the risk to business operations was simply too high.

The project delivery team needed to work with each participant to determine what would work for them and how it could work. Overall, provisions for limited face-to -face training (under COVID-19 delta variant) were implemented, including the creation of a community portal for the project allowing participants to connect for updates, coaching and mentoring sessions, and weekly updates from other activities. Online technology was explored and introduced including LMS options, virtual training, Miro board facilitation, providing tools via online mediums (e.g., 4Ds, STEP, Routine work) to support micro team learning and try-storming.

Towards the end of 2021 when COVID-19 delta variant forced Auckland into a lockdown that lasted almost 4 months, it was clear an extension would be required. During this lockdown, two participants developed tools with the project team completely in a virtual environment. The return of a face-to-face options occurred in early 2022 under the traffic light system.

Stop and go, restructures and resignations

Although engagements were targeted from August 2020 through to end of 2021, the drawn-out nature of delivery constraints, meant that key contacts were lost. Across New Zealand there was significant employee movement, organisational restructuring and for the MPO, some individual participants knowledgeable in the project were lost.

This organisational amnesia meant re-engagements and new engagements were needed. By project end, of the seven participants on the project, most key individuals were new employees to their organisation. Out of the seven stakeholders:

- 2 required re-engagement;
- 2 participants left the Maritime Project early due to key contacts leaving or being dis-established.
- 3 participants that came onboard were new engagements post February 2022.

The new normal – when will the light go green?

By January 2022 the new traffic light system moved the COVID-19 response to managing rather than preventing the disease. This meant the project could make good headway into rolling out consistant implementation. While still be hesitant to come together as multi-organisations the project team was able to start progressing onsite with participants. The project continued to implement changes in relation to the training and support of Vaccinated an Unvaccinated participants in accordance with Tertiary Education Commission guidelines exploring the use of Talent LMS.

Working to develop the LTCF

The implementation of the project moved to focus on the development in real-time with the participants. Going back to adult learning principles we challenged ourselves using Ebbinghaus' theory of recall and moved away from further developing pure knowledge transfer content. We instead utilised existing materials such as podcasts, books, readings, and speakers to share their stories. The project was able to run sessions with Josh Bryant, Mitchell services and Rob Fisher, Fisher Improvement technologies. Instead, our intent focused on participatory and experiential learning to introduce, support, and develop the LTCF within the context of the organisation environment.

WHAT WAS LEARNED? (REFLECTING AND SENSEMAKING)

New ways of working had to be found. How the project was originally intended to be delivered was chalk and cheese to the way the project had to be delivered.

Although this disrupted the project the pause has led to new developments and more flexibility with trying the new tools. It led to using a technique known as micro-experimentation or what we coined 'The Trojan Mouse'. This subtle approach to change is well aligned with HOP and Better work.

The freedom to change and use the Learning Teams competency framework how each participant wanted to use the tools was also well received. Rather than a large stakeholder group making the decision to develop framework as a large group. Each organisation was able to tailor and choose the tools and implementation approach that worked for its own priorities and work at the pace that they chose.

Project Story – The Flavour Was Not Vanilla but The Experience Was Consistent

The basis of the LTCF is about the mindset of the new view of safety, that is, Safety is not about the absence of incidents and injuries, safety is a capacity. And behind that there is story of complexity. The framework made this complexity transparent in work time and time again. One similar theme was that participants would note that they found out information they never knew, but also that this information always existed. In other words, the weak signals could not be heard and that LTCF was able to attune the individual, team or organisation into listening/seeing differently.

Out of the seven participants, not one story is the same. The approach to developing the LTCF and how it has been utilised was different, varied and adaptive. Some have chosen, a fast pace, some have chosen a slower pace approach. Others had a disrupted. Some have used this to jump into a challenging operational issue and others have wanted to introduce a mindset change, create or change practice, or to understand a new risk.

Along with the different applications, each participant followed different paths of learning opportunities and improvements. During the project the participants have tackled big changes, such as challenging traditional safety metrics, outcomes from investigations, removal of investigations, psychosocial risks – aggression (internal/external), bullying, communication issues, operational planning, PCBU overlapping duties, and learning from everyday work.

When interviewed the participants reflected on a shared a journey of operational learning. Repeatedly, application of the LTCF was able to create environments for workers, team and organisations to learn from their everyday work and make improvements. For some organisations these have culminated into a significant change and for others are still making progress and challenges for learning exist.

One of the biggest learnings was how the LTCF and its tools could be readily applied. The principles of Learning Teams and ensuring these are well understood were key. New discussions also took place to provide guidance, such as concepts of conversation and social change, an absolute beginner mindset, curiosity through better questions, and empathy were discussed with all participants.

A good deal of time was also spent on the importance of, and how to develop psychological safety. Our case study interviews, showed the extent at which and the positioning of psychological safety to create the environment for operational Learning Teams continued beyond the original facilitated sessions.

Requirement Three: Develop resources and assessment tool

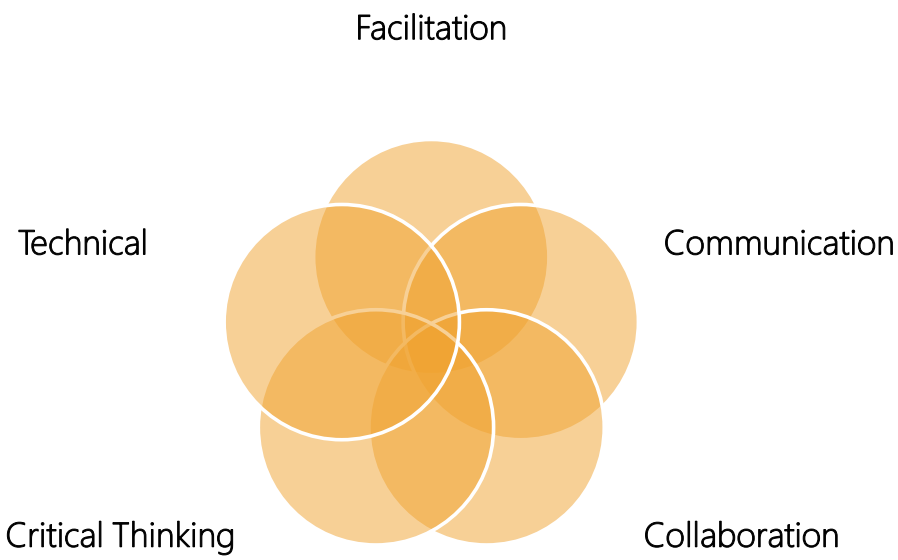
Develop LT Training resources and a LT Facilitator Assessment tool for Maritime sector.

WHAT WAS PLANNED? (WAI)

Training resources would be developed in line with the three modes outlined in the book The Practice of Learning Teams, the original basis was based on a traditional classroom knowledge share approach as the new view is substantially from what you learn in a more traditional safety oriented course.

One of the key elements is the focus on the soft skills required for a 'facilitator.'

These have been identified in the book The Practice of Learning Teams are:



These would be the focus of a survey tool which would help the individual assess themselves as various stages.

Adult learning principles would be applied, and the training content would be about developing the skills with others across the maritime industry.

WORK THAT HAPPENED/REPORTED/DISCLOSED (WORK AS DONE)

A more typical training course was started to be put together by the team. It was based on understanding the needs of the participants, and the project delivery team visited several worksites of formally onboarded participants. This would allow the team to tailor the required content to the context found in the Maritime industry.

The project delivery team is subject matter experts in the application of Learning Teams. For the project order, the required content would be tailored, and case studies applicable to the teams would be created to explore, trial, and test the skills of the individuals that would be developed as facilitators. This had been completed with 100% of the framework, the training resources close to completion, and the assessment tool completely by the first group of 30 individuals who would attend. Conversion to online medium was also in place given developments of COVID-19 around the world and the lockdown in August. This work was completed during the uncertainty experienced from August 2020 to August 2021. As covered in the Requirement 2 section, participants were uncertain about participation requirements and were less open to "training" especially if the learning was unable to be implemented.

As the targeted engagement conversations progressed, the project could not deliver in large groups. The conversations with the stakeholders showed that the need was for resources to train should be easily deployed in a real-life setting. The realisation was that the facilitator training should introduce new practices in real-time, incorporate a scaffolding process, and be emergent in nature.

This meant that the LTCF came to life in a practical setting where the tools and practice of being a Learning Team facilitator are acquired through participation, doing and reflection. This pause time allowed the team delivering the project to reframe and innovate on how to remove the one and done approach.

The following resources were developed or adapted during the project. These resources are collectively known as the "sustainable practice toolkit'.

- Field guide to Learning Teams
- Training modules that can be delivered face to face or online.
- A3 Storyboard – template tools
- Journey planners and documentation through Miro
- Operational learning journal for Learning Teams
- Assessment of competency/need analysis
- Establishment of peer coaching methodology
- Facilitator learning ladder – learning journey guides/pocket guides
- Online session guides
- Use of a support hub
- Everyday work tools – 4Ds, Routine work, STKY, STEP

WHAT WAS LEARNED? (REFLECTING AND SENSEMAKING)

In the book, The Practice of Learning Teams, author Glynis McCarthy refers to "the fish analogy" by Alistair Rylatt. This talks of the polluted pond and how typical training means the fish gets taken out of the pond receives care and treatment and then is returned to a polluted pond.

The pause and not being able to deliver training via traditional methods meant the team looked at the essence of what a Learning Team is, and how could we build and scaffold learning through mastery participants doing in their own context rather than simulated options.

We realised that we were not pushing the envelope.

Our approach that a Learning Team allows individuals, a team, and an organisation to learn was not being fully realised. We reflected that our thinking on the delivery and training of the LTCF had fallen into the traditional way of transferring knowledge. That only the topic would be new. We returned to the original definitions that the LTCF was predicated on and found the new approach would achieve what was required. COVID-19 forced conversations that would not have otherwise taken place and required the SMEs to look at using different perspectives.

Our aim became to create a facilitator training approach to scaffold the framework using emergent learning and allow competency development at the individual, worker, and organisation level.

The result is the Learning Teams competency framework is a set of sustainable practices that can be applied in the context which the organisation chooses. The understanding and building of competency occur when the participants can see, experience, and reflect on the new skills they see being used.

There was also another factor that started to appear as tools were developed.

The concept of learning from work when nothing has happened is hard for people to comprehend and needs to be bridged.

Traditional safety involves identifying a problem from known events. Most organisations in New Zealand and the Maritime sector relies on systems that use the Heinreich triangle philosophy to identify the areas where an organisation can 'fix a problem' to get safety gains. We found the conversation of replacing a typical event investigation with a Learning Team was palatable BUT the step of Learning Teams for everyday work or management of change was a chasm in participant thinking. The problem presenting itself was the application of new LTCF skills couldn't be applied until an unwanted event arose unless we found a way to scaffold learning. We then created two learning rules for the LTCF which were used to meet Requirement four.

Rule 1. Make sure you're building a tree of knowledge.

Rule 2. You can't remember what you can't connect.

Project Story – Thinking Differently Leads to New Opportunities

"At the very beginning of the Learning Team, when we had a representative from each [PCBU] silence, literally silence, no one would talk to us, no one will do anything. And then actually, [the Lead PCBU business sponsor], jumped in and said "You know, I know that [company] would previously have come in heavy handed. But literally, we're here, now, we are just trying to learn and help each other." And, and then boom, everyone started talking. So, you just have got to set the scene. And that's a positive story. Because the old framework was blame. So, and the fact that, that this [business unit] wanted to use Learning Teams. And I also got support from [compliance function]. So, I said, let's do this. And they were like, Yeah, okay, let's do it. So that's quite positive for to really compliance thinking areas to jump on board and do it. We've also done a violence, threats, and aggression one with them as well, and with our own internal areas on the same topic. We've[H&S] previously talked about the shift [from blame], but they are not accountable to the H&S team. They are accountable to the [business unit] team. So, it required this team[business unit] to step in and say this." - Case study interviewee

"So, one example. We started hearing that crew becoming concerned about walking from the car park, or back again, from work, you know, I too am. So, we got approached by a female staff member who is working lone and remote at midnight. She felt comfortable enough to come and approach me and say, hey, I'm not feeling safe. So, it's one of those, we can actually do something about this really quickly. And so, within the space of the day, we swapped out that role that role to a security guard. And now the security guard that accompanies crew when they finish over to the over to the parking, just to give that added sort of comfort around their safety because there's we've had a massive homeless problem down here.

From that we also engaged quite heavily with [PCBU 1] and which also led to engagement with [PCBU 2]. Because the transitional areas used by [PCBU 1] are controlled by [PCBU 2]. There were some conversations with [PCBU 3] and with the police as well, and the contracting [downstream PCBU]. They got involved as well, too, and they increased their patrols. [PCBU 3] were involved talking to the homeless guys, and yeah, so there's almost a wraparound service to address it. And that came from a single conversation with a worker." – Case study interviewee.

Requirement Four: Trial the LTCF, resources and assessment tool

Trial the LTCF, LT Training resources, and LT Facilitator assessment tool with participants by training between one hundred and fifty and two hundred maritime workers in at least fifteen in-person or facilitated online training sessions across the sector to be competent as LT Facilitators.

WHAT WAS PLANNED? (WAI)

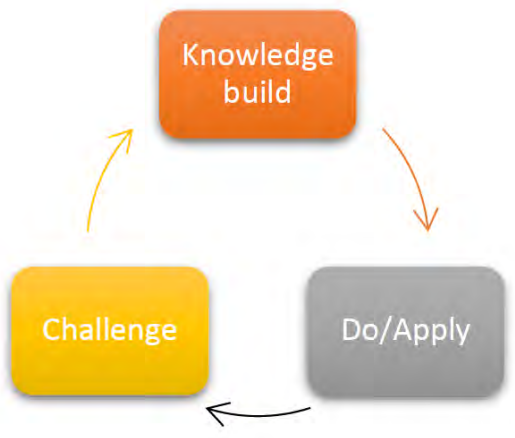
A face-to-face delivery would be developed that would introduce the skills required to facilitate a Learning Team. The course would cover what a Learning Team is, understand what soft skills need to be developed and assess where the individual started from, and track their development using a learning journal. An online survey-based tool would be used to assess competency as a facilitator at various points in time.

Each session would have up to 14-15 participants to reach the numbers required to become competent, and they would apply the learning in opportunities provided by their organisations.

WORK THAT HAPPENED/REPORTED/DISCLOSED (WORK AS DONE)

As outlined in Requirement Three above, the ability to deliver training was impeded. The online modules were developed, but generally, the online modules typically fall victim to Ebbinghaus' theory of recall. The project would meet the target of training people on the principles, but the challenge was to develop competency with the Learning Teams competency framework.

The concept of Learning Team modes of everyday work and management of change would mean that learning would stop, and while the LTCF had sustainable practice tools, they were in danger of not being used. The approach agreed upon with the key participants involved at the time was to move fully to an experiential learning process, facilitate Learning Teams, and help the individuals learn in real-time.



This helped inform and solidify our LTCF – How we learn, which was introduced in Section 2.

The training resources (tools for sustainable practice) meant there were different ways to help people develop competency. Some would be more explicit in knowledge transfer (i.e., modular or Learning Team discussion on the principles in a full Learning Team) or more subtle such as a VEEP conversation where the reflection comes after by exploring how WAD looks compared to WAI on completion of work against the four VEEP values of Vessel, Environment, Equipment, People and Passengers.

The project roll-out of resources and training amounted to 45 sessions, with total attendance of 393 maritime workers. Further the sustainable practices mastery of skill course adds a further 6 sessions. This does not include sessions run by participants without project team input. At least four participants of the project are implementing the LTCF tools into their systems. In one case, a participant who has remained a part of our mastery of skill group has continued to take these tools and skills and applied them to their new organisation.

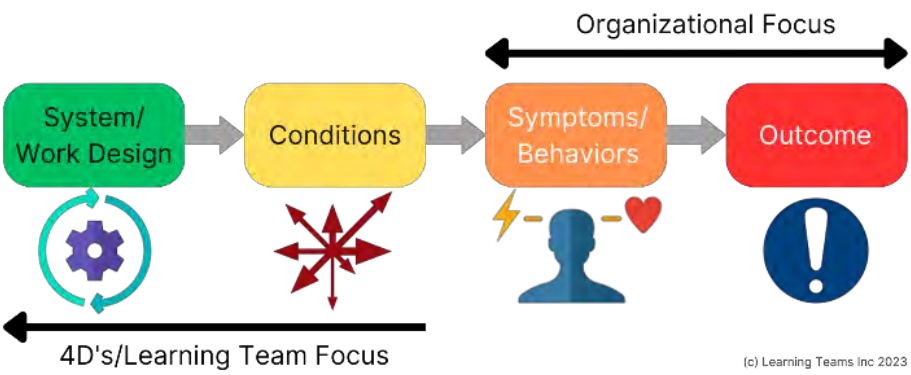
WHAT WAS LEARNED? (REFLECTING AND SENSEMAKING)

The MPO experienced tools/resources organic spread once the concepts start to be understood. That is, when learning at individual and team level start to resonate, then adapting and innovative ideas on where to next started to appear in participants. If an organisation was open to continual operational learning, sharing, and improvement the tools were easily adapted to help an organisation with the transition to learning and improving.

Organic learning and innovation happen when allowed.

The LCTF lends itself strongly to helping demonstrate in "real time" the redefined definition of safety. Specifically, transparency using an everyday Learning Team or tools shows how safety is created on the frontline and how the constraints (system/work design/conditions) put that safety at risk. The participants were able to see that the "symptoms" or traditional outcome measures of safety (e.g., incidents and injuries) were very different from the concept of safety being created in everyday work.

The LCTF can help translate "safety as a capacity and everyday work".



I think what it's done is it's the culture has both embraced it, but it's reinforced some fundamental changes in the culture of our business as we go through. So, for example, alongside this, we've spent [on this cultural initiative]. So, it's a way of thinking, and it's quite an open way of thinking that the business is embracing, it's the same with all the work we've been doing recently around things [inclusive initiative]. We're just starting to get into some deeper support around [diversity topic], which completely rolls back into what we're doing. And none of that probably would have accelerated in the same way, it has also influenced a much broader way of thinking. That broader engagement, both a cultural lens, and an individual lens. But we are building resilience, both with our people and into our system that we probably didn't know that we needed." – Case study interviewee C

"We created a new form in our software system that staff can access through the reporting app based on the STEP everyday work tool. The narrative provides the themes and sentiment we've managed to gather after analysing. The narrative is then discussed with the leadership and shared back through the safety committee and operational teams." – Case study interviewee D.

Requirement Five: Assess the results of the trial

Assess the results of the trial to determine the competency of the facilitators and those that need further support.

WHAT WAS PLANNED? (WAI)

At regular intervals the participants would complete the facilitator assessment after completing the initial course on upskilling to be a Learning Teams facilitator. This would provide guidance into what skills could be better focused on to improve the competency.

WORK THAT HAPPENED/REPORTED/DISCLOSED (WORK AS DONE)

Given the change to delivering competency and the applied learning, formal assessment had to become more evaluative and based on what the participant teams wanted to learn about and undertook. Our approach switched to become more focused about the modes of Learning Teams and helping people on the journey. This allowed us to identify learning gaps and help create knowledge alongside participants as they learned to become facilitators and familiar with the framework.

We were also able to add extra knowledge transfer as the participants progressed to mastery of the competency. Examples of this are:

- Incorporating the 4Ds when it was understood that "learning from everyday work needed easy tools" to make the weak signals more transparent. This was applied to enhance several of the tools.
- Rob Fisher, Fisher Improvement Technologies, to share the importance of performance error modes and error traps and the history of the application of these types of "better work" tools.
- Josh Mitchell, Mitchell services to share his company's journey to new view of safety and approach to critical risk and controls using the HOP tools, Learning Teams and the 4Ds.

Figure 4: Left to Right: Greg Matten – Babcock, Diane Ah-Chan- LearningTeams Inc., Josh Bryant- Mitchell Services, Jarron Urlic – Babcock and Brent Robinson – Learning Teams Inc.

WHAT WAS LEARNED? (REFLECTING AND SENSEMAKING)

People don't know what they don't know.

By embracing a non-linear and complex approach the project was able to continue to add and adapt the sustainable practice tools as the competency of developed. We were able to see the needs and adapt to work with them to further develop their LTCF and progress.

Data must have soul.

A quantitative assessment metric cannot provide context. Data itself has no meaning and the context is what counts. If progress is vectoring in the right direction, you can add to, and scaffold the learning process more easily for individuals. If it stops, or lags, you can understand the context of why and help overcome the stall by providing coaching or resources required.

Integration is a logical next step.

The different tools resonated with participants and at some point, the LTCF continued to grow beyond project facilitated sessions. Individuals at all organisational levels became facilitators, applying both the language and tools. From here we have seen further sustainable practice tools being developed internally. It is acknowledged however that change will take time and pace depends on the appetite of the organisation. Post project we are seeing participants embracing, discussing and coaching change.

Project Story – Learning on Every Level – Individual Learning

"You know, it's so obvious now. But I think it's just because it's been entrenched, this is how you do it. And this is the lag, the leading [indicators] environment that we work in, this is what's happened, we need to make sure it doesn't happen again. But to get on that ground level and have those conversations and see it in a different way has been, it's been a massive shift for me."

"It's not just the light bulb moment, it's the chandelier moment. There's been a lot of light bulbs go off. To see that [worker] engagement, and having those weak signals come through, as opposed to reacting to an incident is the way to go. Absolutely, you get it before it happens, within the safety 1.0 we look for safety observations and near miss, while with the weak signals approach to Learning Teams in the 4Ds it's going even a step further back from that is identifying this sort of stuff before it goes too far, to become a safety observation or near miss."

Project Story – Learning on Every Level – Team/Workgroup Learning

"That specific team was totally disconnected, totally disenfranchised. With caution, they still in a position where they need a lot more support to ensure the work, they are doing is not affected by other work parties, or other organisations. The restorative element, before the Learning Teams approach, before embarking and starting that, the conversations with them, they were not able to engage with us as an H&S function. In the first instance, that has totally been restored. And so, what we are seeing is that team just from the performance in safety is 100%, turned around from being one of the most disengaged teams in the organization to I would say the best performing at a moment in other words they are exemplar to other teams in how we operate, how we interact with others, how we raise concerns.

There is a lot more willingness to participate, so much so, [before] we couldn't get a team to participate at all in our Health Safety Committee meetings, and all they didn't want to volunteer, didn't want to be part of this, until [this] and then one day and so we want to be part of this and they are possibly the most vocal now in the Health Safety Committee in terms of, sharing of stories, sharing of what's happening out there. So, I think that can be seen as a real success from all of this."

Project Story – Learning on Every Level – Organisational Learning

One key stakeholder has embraced the Learning Team as a replacement for its investigations along with a new ethic of safety being about people and conversation. They found the organisation has been positive about the trials, and the Learning Teams are being rolled out across the organisation. This has included talking about the new approach in companywide All Hands event and having operational owners who participated in a Learning Team share the experience. They are now seeing the natural progression from event learning to everyday work learning and a focus on the things that go well.

"We've convinced the team, and we've convinced the organisation. We get asked to do them [Learning Teams], and everyone likes them when we do them. The problem is, and it shouldn't be a problem, the time to do them, but yes, we do them instead of investigations. We do a full Learning Team, that's when it's a critical [risk] or high [potential], but because at [company] we don't generally hit anything that high [potential]. So, we've learned now that what we are going to do is concentrate on more positive things or trying to understand a problem. So [person] had an idea that we will go do a Learning Team with the main stakeholders and say, we've got a resource here, and this is our role, how are we going to work together to work out a positive outcome. It has changed the organisation's view, obviously still some people we need to get along, but we've got to get along, but we've got more on the journey than not. And I'm not really worried about the nots" – Case study interviewee.

During the project one organisation came to understand the mindset is about people and caring and connection. They can articulate why it aligns to the values, and why a Learning Team vs investigation.

"So, more people are hearing about it now, and what we talk about, you know if we talk about values, we should be talking about people. Well investigating someone isn't about people. It's the words you use and the context you use it. I always say there is a place for compliance but it's not when we are dealing with people. It maybe that they don't understand but we haven't had any push back [on not doing investigations] at all" – Case study interviewee.

"It's now in the Board led safety committee and we've changed our system. And we go on about safety as a conversation, so it's literally ensuring that people leaders talk to their teams, not grill them, it's a conversation." – Case study interviewee.

Project Story – Learning on Every Level – Organisational Learning

Change is hard for organisations.

Pace of change differed across the organisations. In some cases, the stealth mode or Trojan mouse worked incredibly well and in others it made it harder. Time limitations were also a factor as the mindset shift was not even considered prior to starting, whereas other areas of the business were embracing the need for change.

"Just by demonstrating willingness to hear. It was at the right step in the right direction, but what makes it difficult is the inability of [organization] to work with that information. In other words, when it goes beyond the health and safety team, there's a struggle of what are we doing with this? And that is where it almost falls flat. Where the change isn't as significant to dramatic as you would like to see in a short period of time. What I'm saying is organizational learning is going to take a lot longer than team learning. Team learning has been created and role players, supporting those teams are aware of it, but a bigger organizational machine isn't there yet to support it. So, for organization like ours to have that fundamental shift takes a lot longer than this project would have allowed. Purely because of time purely of capacity to undertake the Learning Teams and also secondly to implement the gains. And that, is the important, that is, so we can have really good discussions, really good plans but to get at it across the line to get that into the business is really, really hard and takes a long time.

And then from organizational changes, we are looking at the much larger project to ensure that this happens across all operations. And all vessels with all work teams, not only limited to [this] team. Now that in itself is going to be possibly a year of work to get that fully. Developed going through the change process and implemented into the system.

So, I think what I really want to say I think this does need to come out, is that so there's no quick fix for anything. Time needs to be allowed for any initiative including a learning team and learning teams isn't something that we do now, we fix, and we go away. No, this isn't something that we can only do in a program here. We actually need for it really to take hold and be effective, it needs to be implemented across all of the organization, but it's also nothing new. What it really is, is the willingness to understand and learn so we're not doing anything but what we need to do as organization is, we need to be prepared to be curious. To be humble. And to listen and learn and to do that, there must be a fundamental shift from the way that we are doing investigations. And that it's not intended to find quick fixes. But that it is intended to find long-lasting and long-term organizational changes."- Case study interviewee.

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Change is hard for organisations, continued.

"I've felt we've been doing this together with our health and safety team. That area has had structure changes, but key people that know the process are still there. I have assurances from [exec] leadership that the Learning Teams methodology, which I think is really important, and really useful in having and creating change, that this way of doing business is being retained. So, I think it's been a really positive journey, but I also recognise that we have to make sure, the key people, myself and other operational managers , who have used Learning Teams for other issues, that this way of doing business is retained. It does take time, so we'll have to build outcomes from Learning Teams into every day, and work. Lots of opportunities, that we can work with other PCBUs that will contribute to everyone' learning of how we work together. There is a need, if you are not exposed to a Learning Team, and someone else was there, then it's the responsibility of those who attended to share that information. And as the recipient, has it been understood?. There is all of that too, some of the key insights that were shared in our Learning Teams, because there is so much overlap, were able to be taken into long term plans, and the aim is to work with our downstream PCBUs in terms of those plans. We can really demonstrate our value, and worth, having our team, that support, and working with people in operations, and you know, having better conversations with PCBUs is only a positive from my point of view. " – Case study interviewee

Multiple - PCBUs collaboration and learning

One of the stakeholders sponsored a multi-PCBU Learning Team as part of the Project order. One of the stakeholders sponsored a multi-PCBU Learning Team as part of the Project order. Many companies operate in a shared space with complex interlinked HSW responsibilities. Reflection by participants is shared below.

"Our frustration over many years, with different entities, for a long time, as you're a [downstream PCBU] you just need to deal with that stuff. Safety is your responsibility; customers are your responsibility. So, with [company] that is a complete flip in terms of how that relationship and that interaction now works." – Case study interviewee

"Big organisation, lots of silos, budget driven, it's just what it is, and actually being able to find a wedge in there to actually change thinking around, you know, this is a joint responsibility. This is not departmentalised, or contractor responsibility – what a change" – Case study interviewee.

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Multiple- PCBUs collaboration and learning, continued.

"After the first multi-PCBU Learning Team on the return of an additional activity, I had this additional information. The PCBUs were all concerned about what the return would mean. Could see there were gaps in how we manage safety in this shared work area. Along with the re-introduction of this activity which hadn't been seen since pre-covid. There was a disconnect in our own organisation, so that complicated things too. Internal organisation changes opened opportunity for better interaction directly with the downstream PCBUs and my team. What transpired? we realised there were certain things we needed to focus on to improve safety in this area. And that lead to the further Learning Teams topics combined with learnings from the first. We recognised through the process we hadn't been talking to our downstream PCBUs about consequences or knock on impacts of the having this factor reintroduced into the system. So, one improvement was leading ongoing debrief sessions as lead PCBU, through this ongoing learning process we saw disconnects between all PCBUs in processes that impacted each other and what needed a joint approach in SOPs. This forum meant we could gain agreement amongst the PCBUs, additionally we could share joint experiences that could be feedback to skippers creating transparency on the why the changes are needed jointly. Further external and internal relationships were also formed through the process. Transparency of key activities meant an updated regulation for the shared space for another external PCBU was jointly achieved and clarification of process, interactions and communications were agreed. That's another improvement we've had. Now this PCBU and the Regulator joined the table to discuss. It started the management of change on items. We had frank conversations. Improvements were made to schedules, it went well. At the last session, we got so many compliments from the group. Feedback emphasised how effective the sessions were, how they were transparent, how they opened the lines of communication and how we're all working together on optimal outcomes for operations and customers. So, they want this become the norm, and start prior to the that activity recommencing so we can plan how we will all work together that when it's time for these activities to re-activate everyone wants to work together again. I think that's really amazing, just in terms of that alone." " – Case study interviewee.

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Multiple- PCBUs collaboration and learning, continued.

"We organised a visit to another harbour user, we learned about the [quantum] we are dealing with on any given day. Compared to their operations, it's a phenomenal difference, and with the movements our work includes the other issues of use of space, breakdowns and maintenance. We've solved issues as we've gone along due to learning process. We've learned so much that we didn't know through this process and we need to keep using this. I have been actively sharing this information and am seeing the learnings being used in key parts of our future strategic planning" – Case study interviewee.

"We used the event Learning Team mode; it was set up as am investigation but on the spur of the moment. I reframed it and said "Look we're not here to investigate, we are here to learn. Let's see, let's use this as a learning opportunity". And then the team explained in very technical detail what would be the impact to the operation. And should the [other PCBU] create change, that impacts our team, and how that increases the risk of the [operation] itself. and that was only a really, small [action] that was being undertaken, and they didn't realise it 100% effected the way the team worked, and it makes what they were doing very risky." – Case study interviewee

Requirement Six: Develop a coaching facilitation guide, a journal, and a self-assessment tool

Develop a coaching facilitation guide, a reflection journal, and a self-assessment tool for those who are competent to coach and mentor other workers to become LT Facilitators

WHAT WAS PLANNED? (WAI)

Production of three artifacts as required as outlined in the requirement. The reflection journal would be based on adult education and the GROW coaching model. The facilitator self-assessment tool was created using previous learnings from the creator, practitioners, and researchers[10] on the value of the "soft skills" for a Learning Team. The content for the coaching facilitation guide would evolve from the course feedback and ongoing check-ins with those who had been trained.

WORK THAT HAPPENED/REPORTED/DISCLOSED (WORK AS DONE)

The reflection journal and the facilitator self-assessment tool were developed from a starting point of accepted academic and practical knowledge, being.

- The reflection journal is based on adult learning principles and the GROW model of coaching. These have been well researched academically.
- The facilitator self-assessment for the soft skills of facilitation, communication, collaboration, critical thinking, and technical skills are essential as outlined in the The Practice of Learning Teams book.

A singular resource, the operational learning journal for Learning Teams was produced. This resource incorporates in one place all three artifacts in one place. The application of the tool for the project was predominantly to be done in a linear fashion. The arrival of COVID-19 however meant that not all participants would be exposed to the Learning Teams competency framework at the same time.

At the same time two strong themes around the mastery requirements were emerging from the project as we were working on the 'competent' level requirement:

1. The technical understanding of Learning Teams and what principles on which the approach was found on are not well understood. The concepts of group learning, understanding vs fixing, and the HOP principles were not commonplace in the participants.
2. The complexity of learning at different levels, i.e. the progress of the individual, teams and organisation was emerging as important to the integration of the Learning Teams competency framework.

From this learning we developed the "Roadmap to Success" pathway which would be used in Mastery of skill coaching and facilitation, which would replace the workshop approach for Requirement Seven.

Addressing the gap in the technical understanding, two further self-assessment tools were produced and added to the facilitator assessment tool, to increase understanding technical knowledge of the new view of safety.

To help facilitate learning at each of the three levels, there was targeted adaptation incorporated into the tools being used, such as:

- The 3Ls (Listen, Learn and Lead)
- How are you doing safety – To People, For People or With People
- The 4Ds to learn from everyday work
- Mapping how can a Learning Team can be used for investigations, refocusing on the dynamic nature of risk.

WHAT WAS LEARNED? (REFLECTING AND SENSEMAKING)

Along with the two emergent learnings mentioned above which were:

1. The technical understanding of Learning Teams, and what principles on which the approach was founded on, are not well understood. These concepts of group learning, understanding vs fixing, and the HOP principles were not commonplace in language or actions of the participants.

Language around the new view is prevalent but understanding what this looks like and feels like in the workplace is not well understood by safety practitioners. A safe environment , time and the space to understand current traditions and practices is required[10].

2. The complexity of learning at different levels, i.e. the progress of the individual, teams and organisation was emerging as important to the integration of the Learning Teams competency framework.

To harness, self-improving teams, 100 small things rather than a big bang implementation approach can create a space for "challenge" conversations to occur. If the organisation is willing to create the time and space to learn.

[10] Creators, practitioners, and researchers – Dr. Todd Conklin is credited as the creator of Learning Teams while he was working for Los Alamos National laboratory. Bob Edwards and Andrea Baker are among the first practitioners who defined and taught Learning Teams. Brent Sutton, Brent Robinson and Glynis McCarthy are the researchers who used an emergent approach and preformed a Learning Team on Learning Teams to write the book. The Practice of Learning Teams.

We noticed the emergence of a third, being:

3. The dynamic nature of risk was not being addressed by current systems and thought about within organisations.

Curiosity about what happens when the organisation 'hands over' the residual risk to the worker has been lost, due to a belief the system is safe. Current Worker engagement, participation and representation (WEPR) practice does not often ask, and listen, to workers about how risk ebbs and flows in everyday work.

Project Story – Building A Tree of Knowledge

Below are two learning reflection stories showing how they have linked and built up knowledge against their lived experiences thereby starting to make sense of the journey in their lived experience context.

Story One:

"Everything I've done has been very rigid in the way we investigate or do things (fire service, military, enforcement background) and same with transitioning back into the H&S space when coming back from overseas. It's always been very much an adversarial type of structure, root cause, investigations, taking statements, one on one interviews and then coming up with outcomes, so to be opened up to Learning Teams has been quite significant for me, and it has given me a massive shift on how I look at things now. It's been a massive success, and really changed my approach.

So, over the past weeks we have run 6 workshops with approx. 50 crew, totalling over 100 hours of time on the back of 4Ds being introduced to our crew. There are about 17/18 vessels, with other multiple PCBUs and contractors, plus private motor vessels that wander in, so all working in the same very restricted, controlled, and narrow area. We've very much been on the track of we set the policy, we set the procedure and guidelines of how we achieve safety and then we dictate to our crew, because we "know it all" of course. And then to say hey we do need to listen to our crew, because our crew don't come to work wanting to be hurt, and they manage risk, hazards, and their own wellbeing safely as they find it in their everyday ordinary work and so to go to them and say "how are you staying safe? Tell us about your story" has been a big change for me having to listen and not react to what they are telling us as it flies in the face of how we determined work as imagined vs work as done, and I've had to be pulled back and reminded, hey listen, and I've done that.

And even the psychological safety piece. I had a conversation with a skipper about working at heights, harnesses and how we actually do that vs how we should be doing it in my mind. I had to bite my tongue a few times because they were very animated, very forceful in their conversations. I think it's because of going down that track, it's their frustrations of past dealings of not being listened too, or not seeing that we've listened and that we aren't coming up solutions that actually fit how they do the work. So that was quite confronting, just listening and not reacting.

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Story One Continued:

We had a range in our workshops from entry crew to skippers and in some we had management and leadership. It was a case of ensuring they didn't overtake or dominate. One session that stood out was we had a very strong-minded deckhand, who dominated from the moment we started, acted out, then left and came back as we didn't pander to that. I saw the psychological safety start to play out with each person giving their story, add to the story, as they felt they were in an environment where they could. That was a game changer for me. Noticed already as I'm on the vessels every day the conversation is lifting, and we are getting more feedback even this morning, young crew who haven't been in the job very long are coming up and starting to talk and say a little bit more because of the approachability of it. They are being listened to and they can see that.

At a manager level, in a conversation, they said to me "oh we need to do a Learning Team on this particular subject so we are going to go grab some crew and we are going organise this, sit in a room and thrash this out and actually see what the story is, and why we are in the situation we are" so it's already started to project into the business at various levels which is encouraging. A session we had with the exec team, for couple of people in the exec it was literally a jaw dropping moment when they realised as an organisation we are not listening. Even some of the exec not in the operational side, for example marketing have said we can use this and the 4Ds in our part of the business. So, the thinking is there, it's not going to be immediate, it's going to take time, but I'm encouraged by the fact at all levels of the business we are approaching this in this way.

As a business we are talking about how we continue, broaden exposure and how we build into our crew, and their rosters, to have this conversations and our H&S committee meetings. We are 30% down on crew so it's difficult to find the time but there is a good thought process that it will be in there because we need it. The feedback, information, the nuggets coming out to the surface that we would never have heard before because in the past all we have been doing is looking at our incidents reported and talking around those rather than the one step further back. How are we not getting hurt, and then reverse engineering our procedures and guidance, policy and process. To build it on the stories we get from crew to give them support, which is supposed to be what we are meant to be doing as a support office to enhance and get to a point so when, not if something happens, they get to be able to fail safely. Highlighted with man overboard, the work arounds that crew are doing to work the way we ask, but as an organisation the vessels aren't set up for them to actually do that correctly and give them more confidence that its safe environment to do this because every vessel is different. So, they must improvise, adapt overcome. And the organisation isn't going to put up roadblocks so they can do what they need to do safely to recover someone out of the water. All in all, it's been a massive paradigm shift for me, but I can absolutely see the benefit to it in going forward." – Participant learning reflection.

Story One Two:

"I've worked in H&S in a few different industries, and always something didn't sit right with me, I had this almost disheartening feeling that you were constantly going in circles and chasing your tail. And everyone would talk about this proactive safety but there would never ever be that. Basically, it always just going around in circle. You would be saying this person didn't conform to this rule and it would happen again a few months later down the track. What I've always thought to do this better is to do some sort of engagement, the more you can engage people the more you can have positive outcomes, and no one has put forth a great platform for doing that, but with this Learning Teams concept I finally feel this is a great platform for that. The narrative that you get from those Learning Teams is so deep and there is so much information there, it's just night and day when I compare that to the traditional way we learn about things and gather information though our H&S reporting system which generally the only things that are being reported is when something has already happened and your learnings from that is so small in comparison to just learning about what they do every day, how they are adapting to situations, all the factors behind that, there's just so much breadth of information there.

One of the interesting things for me and I suppose challenge for the business is around SOPs and procedures and how can the business cope with the change from we find these gaps and we say we'll just write a new SOP. What happens over time is you get this constantly growing amount of documentation you expect people to know and know word for word. So, it's about how can we drill down and understand what the process is and how do people have to vary from that.

One of the other things we've been realising is that a lot of the procedures we have set up in the first place have just been us sitting in a room, saying oh yeah, this makes sense to us but it's that whole work as imagined vs work as done. Now we are thinking about how we can give this back to the people that are doing the work, that are encountering those risk and hazards every day. And how do we give that back to them and get them involved in the process of coming up the rules, so we can have more effective ones and not just continue to add to this growing pile that people won't be able to get track of because there is so many." – Participant learning reflection.

Requirement Seven: Deliver a Mastery of Skill coaching and facilitation skills workshop.

Deliver a Mastery of Skill coaching and facilitation skills workshop to between sixty to eighty maritime workers who are assessed as competent in LTs in at least six in person or online facilitated training sessions.

WHAT WAS PLANNED? (WAI)

That from the original group of 150-200 individuals trained to become competent the group would be involved in an advanced one and done training and coaching workshop.

WORK THAT HAPPENED/REPORTED/DISCLOSED (WORK AS DONE)

Following on from our learnings from insights from Requirements Four- Six, we applied the same approach used in Requirement Three to develop and deliver a mastery of skill coaching and facilitation programme. Rather than a one and done approach, an in-depth scaffolding learning pathway was built around the scaffolding of learning from emerging, competent and mastery. The learning principles applied were:

- Adult learning principles – Knowles
- The forgetting curve – Ebbinghaus
- Kolb's learning model – Kolb and Honey & Mumford
- Unlearning and learning – Schein

The mastery of skill programme consisted of the artifacts listed below. The programme was self-driven rather than linear. We were aware it would be more challenging for participants. However, given adults choose when and what to learn and the limited control over the learning environment, the Project accepted this limitation.

1. Roadmap to success programme
    a. Participant onboarding guide
    b. Learner journey guides and resources
    c. Scaffold sessions/reflection session
    d. Peer to peer coaching
    e. Connect platform access
2. Operational Learning journal for Learning Teams (built for Requirement six)
3. Baseline assessments
    a. Learning Teams principles baseline assessment
    b. Learning modes baseline assessment
    c. Facilitator baseline assessment (built for Requirement three)

COHORT ONE:

The first programme consisted of 37 participants from multiple organisations. Overall, if the individual was able to practically apply the tools at work, the better the success on the mastery of skill programme.

- Each of the Project formal participants was invited to select a group of individuals who were keen to develop at Mastery level.
- One participant wanted to go beyond this and made it mandatory for the whole team to do this as part of the "ways of work" of the team. At this stage the project had been working with this participant on and off for the duration of the project.
- The peer-to-peer coaching worked only in a few instances. Feedback was that people couldn't find the time if they saw this as an addition to work.
- The attrition rate of the programme was 46% due to turnover, stakeholders withdrawing participants and restructures.
- Those who worked closely to the project and utilised the tools had the most success, this was more experiential and one on one coaching based rather than peer coaching or self-driven.
- There was still confusion about applying the HOP mindset in a system which still constrained the team in traditional safety. This was observed when the project team joined peer-peer to coaching. Although the knowledge was in the learner journey guides, the participants were not able to find or link the information to what was required.
- It was harder to apply the skills in everyday work if the "Trojan mouse" was not adopted in your organisation.

COHORT TWO:

The second cohort consisted of 28 staff whose company had already established Event Learning Teams independently and wanted to start incorporating learning from everyday work. They were also keen to further integrate the Learning Team process into their operations.

The team had two sessions as a group before the organisation decided to make the group smaller so as not to interfere with operations. They also realised the mindset change and the requirement to change some of the traditional system artefacts was required, such as the reliance of the business to perform a root cause investigation for a high- potential event. A refined approach was taken, and the mastery course would be delivered to those who would become SMEs to ensure the integration. All the second cohort were invited to the ongoing scaffolding sessions of Cohort one.

WHAT WAS LEARNED? (REFLECTING AND SENSEMAKING)

For one organisation six out of ten participants embraced the self-learning journey. Even though it was endorsed as a team practice, the observation was some people did not come on the journey. There was belief in its value and some relevance embraced, but feedback was they are more used to hard outcomes (fixes/corrective actions), and so the Learning Team isn't about these types of outcomes, and this is hard to reconcile. Others were quick to embrace the programme, alongside this learning, independent learning outside of the program occurred. Resources were used the way participants wanted too versus in a linear fashion. This supports the adult learning pedagogy knowledge. Feedback showed the ongoing scaffolding sessions were well received but finding the time or effort to work through and engage with the learner journey guides was difficult.

Adult learning requires a mindset shift at the individual level. As adults we choose what and when we learn.

The one-on-one coaching sessions with those working with their businesses were more successful. It gave the individual the chance to question what they put into practice and challenge themselves. If the organisation was less open to learning this did hinder progress. That is, organisational systems and process had to make a place for a new way of thinking in the system or the change did not resonant with learners. It was easier to take the path of least resistance.

If the individual cannot see the value for any reason and the process requires extra effort outside of the current paradigm, then the process to engage and learn did not take place.

The roadmap programme took this into account with Schein's work of unlearning and learning[11]. and our experience and observation is without the right environment, which is mostly set and constrained by the organisation, there is no requirement to have to learn. That is, survival anxiety was never stronger than learning anxiety.

When new learning must displace some old habits, two anxieties come into play.

1. Survival anxiety - realisation that unless we learn the new behaviour, we will be at a disadvantage (metaphorically threatened by extinction).
2. Learning anxiety - often accompanies any unlearning and is the primary source of resistance to change.

If learning anxiety is stronger than survival anxiety, we resist change and avoid learning.[12]

[11] Humble inquiry, Edgar Schien
[12] Humble inquiry, Edgar Schien

"I think it's probably too fluid, it wasn't structured enough at times. Especially when it's an add onto your work, it needs to be more structured and probably more accountable. Yeah, I think the platform [connect] used was too different, our team couldn't get on to that platform easily [because of tech issues], and when all the events sit in there, and that doesn't marry up [with your systems] and so if it's not in your face all the time, it falls, it falls out and isn't visible. There's different mindsets in the teams, there was why should I go that little bit extra, do a little bit extra, it's about your willingness to self-learn and grow, isn't it and if you're not if there's no if they don't see any benefit to them, or no financial benefit to them, there's no why would I can generally just sit here do my you know? Why am I going to do anything else? And then you got the other side that are so hungry for something new. And to learn from and say something different.

I think we're going to get that everywhere; you're going to have some go on that journey, some not, and some sitting in the middle. But if we've got more in the middle and on the other side, and the negative side still small, I think you just have to, we just have to accept that. And it's not for everyone. But the practice in this team is this, so this is what we do. I mean, I didn't participate as I should have done. We were just all over the show. But I knew the concept, the framework, and I was concentrating on going for it [internally]." – Case study interviewee.

"But I thought it was great, because it wasn't [so structured], there were people in the team, like your [person], for example, organic, there you go. Perfect. But for whatever reason, they didn't really latch on to it. But I don't know that that's part of that culture at [company] where it's suggesting, for some of them, perhaps they thought it is thought of it as an extra task. Something else on top of my normal workday, these guys are now getting us to do these learning teams. I think the biggest thing with the team, and this is really quite sad, but they need to be spoon fed, they absolutely need to be someone holding their hand. They need weekly comms, or even more, in some cases, they need to be micromanaged in this sort of space to get them to, to get them to be engaged. And to get it over the line. [Person], for example, owns it, she grabs it, she owns it and runs with it, she sees the weaknesses, like some people maybe not engaging as much. So, she's the one that will prompt them. So, if we had more [person], the world would be a better place, obviously. But her professionalism. You know, she's an outlier. Within the team. She's very, very structured, she's thirsty to achieve, and something new. Whereas the others, I think so more as a novelty sort of a thing that might have appealed to them and the fact that when, when it was put to them, and you know, this is a fairly organic process, you know, you don't need an as such a specific qualification. But the thing is you needed, you know, there's that work that needs to go with it. Amazed, I'm amazed at the lack of questions some people have never asked me, you know, about learning during a Learning Team. " – Case study interviewee.

Requirement Eight: Analyse the data collected from the Assessment tool

Analyse the data collected from the Assessment tool used during the mastery of skills training to identify a pathway and means for those that need further support to maintain the application of mastery of the Learning Teams facilitation skills.

WHAT WAS PLANNED? (WAI)

The data from the three assessments would be used for point in time reference for the participants of the master of skills training to help individuals self- reflect, use in peer coaching, and inform the overall scaffolding session approach.

WORK THAT HAPPENED/REPORTED/DISCLOSED (WORK AS DONE)

The roadmap to success cohort was designed to share learnings across the different participant stakeholders. The project group understood that the approach was heavily dependent on participants motivation, however the project needed to rely on the stakeholders to roll out the mastery level training as they saw appropriate.

A generic program was designed to take the 37 participants on a group journey with several different resources that were non-mandatory. The approach was that individuals can build their own learning journey and were required to own that learning journey.

After the first initial attendance to the launch, not all participants completed the three baseline assessments. Even though leaders were used to distribute and support the message to participants. Regular follow up occurred to engage the participants of cohort one in the self-learning journeys, and the peer-to-peer coaching during the project.

While scaffold sessions continued to have good interaction and participation, the learning from the mastery course reflects that if the conversations to link the training to real world execution does not occur (bridging) then the individual did not or could not engage in further development.

Overtime, pathway training and assessment became based on a coaching model, where participants actively discussed with the project team coaches what they would try, what challenged them and what they were learning.

WHAT WAS LEARNED? (REFLECTING AND SENSEMAKING)

Adult learning principles and context were important. If individuals saw the value and were engaged, then the effort into learning more was obvious. Where an individual was able to see more "aha" moments through challenge and conversation they were more successful.

Adults choose when and where. When they are engaged in learning they will actively seek out the opportunity to learn.

Coaching was seen as valuable to the participants who made progress, but our peer-to-peer coaching sessions did not hit the mark. Our reflection is the principles of the GROW model were not well enough embedded and when participants were still trying to scaffold their knowledge to make sense of the new mindset the skill, the peer to peer coaching skills could not be developed either.

Coaching needs to be structured around the rules of how we learn. We are building tree of knowledge; you can't remember what you can't connect.

On hearing there is a different mindset

"My experience was I started probably the shift when I was with another [company] with [course with person], about that mindset, psychological safety really. And for me, being really fascinated with human factors and human behaviour, which, ironically, was introduced through ICAM. Strangely enough, because that's the first time they you know, for me, as a safety practitioner, I got to use my skill as my way of talking and communicating to people rather than being that stone, cold, hard. I became an investigator. So, I saw the benefits of ICAM. But it just, it was companies that I'd worked for, like the [company] and definitely [company] using ICAM for the learnings, but not looking outside of the model. So, they [employees] see you putting in, those horrible, horrible reports, with thirty odd pages and whatnot, and the interview notes and all that which nobody really needs. But with the shift to the learning teams, for me, the light bulb went off, because I think my skill is being able to communicate and tease out to people what they need. It was just golden. " – Case study interviewee

On the change, timing and learning

"It was just timing like, fully engaged and we had the opportunity to push reset because we will be redoing the Safety Management System (SMS). So, with that, the timing for it to be injected into that SMS and remove that bloody root cause analysis that was perfect, perfect for me. And I guess you being an enabler and let me loose with Brent, you know, and said, hey, we're going to do this Learning Team thing, but we know that you're an old hand with the ICAM and there's got to be some sort of cross over there. So, you are allowing me to say, look, I hopefully don't ever have to use PEEPO in my Learning Teams. But if I do have to, it's there. So little things like that to be able to customize the learning teams to suit for me really and [company] and those options. But once I got the 4Ds, and I did probably my second learning teams with the 4DS, yeah, gosh, just again, huge shift huge". – Case study interviewee

On evolving and creating your own way

"Brent and I are very different. He's, you know, very organic, which is perfect, because you need those thinkers, that high wired high frequencies sort of thinking, is that looseness you know, and, and as we do, I look at that, and I look at other people doing the Learning Teams. And I thought, that's great, but for me, I know the audience [at company] so I thought, that's cool. But our people are visual. So, I was kind of taking my own learnings from Brent, you know, like, you gave us the framework and pretty much the narrative, like just talk, just talk, tease it out of them. Don't, don't overthink things, encourage those rabbit holes, but watch that time. So, I took from the key bullets to make it work. But not the Brent method. Because I am not Brent. So, I needed a bit of structure. One of the other things which I learned was, must have a scribe, you know that importance of having that second person in the room to be able to do justice to the to the room to the audience to the participants, you know, and then engagement, that engagement, you must answer because you must be engaged.

So, the Learning Teams with the rabbit holes and able to encourage them and acknowledge them, you know, just gold just genuine gold. Like we've gone back I have had a Learning Team which triggered another Learning Team, because we knew we couldn't do justice to the people in the room. There were different people from different teams, but same, you know, violence rates and aggression. But to do it justice, your head to stop and go no, hang on. We're going outside of those guardrails. But that's okay, but not for this. Not for this time, because we've only got an hour, 90 minutes. So just encouraging and seeing the engagement from people as opposed to being stuck in a room with me furiously writing notes, you know, looking at them stone cold, not giving them any reactions, nothing.

So, the complete polar opposite of presentation skills. So, hands down Learning Teams in safety is a conversation. You know if they're comfortable enough, which I clicked on to very early. If that room is engaged and they're comfortable to talk, you're off, you're away and it doesn't take a [me] or a [another facilitator]. It just needs someone to be patient. Analyse the room know who you're talking to. And, you know, one of my favourite courses that I did many years ago when I was project managing was effective communication, you know? And that sets so nicely with Learning Teams because you can work out what have you got in the room, you got squares, you got your circles, your triangles, their balance, so you know, where to steer them with the questions". – Case study interviewee

On the team journey

"You can look at it two ways, look at it glass half full, like I do, and go ahead, I'm going to get something out of this, this is going to change me for the way I think of things, you know, forever, like even losing that language of investigations? And then hearing the team talk and you go, ah, we don't talk about investigations, you know, there's no blame, no blame. Me and [colleague], were in a meeting the other day, team meeting, and they were talking about blame and punish about getting people to do certain things. I could see [colleague] changing colour. And she's just staring at me. She was staring at me and I just sort of went "over to you" and she said "you know, we're not about blame and punish, you know, it's got to be a conversation. Yeah. To get people on board, you need to talk to them. But if you're gonna blame and punish them, they'll just retreat, they'll pull back in a way." So, it's landed, but other [individuals], I think they default back to that safety one, because of here I go, I've got a prescribed way of doing it. It's just, you know, this is what the process is. I'm going to do it. We're gonna ask them some questions, but it's no, no, no. You know, to get the value out of it. Get them in a room, the right number in a room and let them talk. But the others? I don't know. I think it's safety [one]. they're stuck, they're just stuck." – Case study interviewee

On the Learning team competency framework

"I just think how long we have waited for something, a tool that can flush out good stuff, you know, like, we recognise we were there, but we're not doing as good as we could. And then you've got the Learning Teams tool, which is perfect, because then you can go all right, and it's not all doom and gloom. It's not all over. It's not the end of the world. But what we know is we have got to learn, we've got to improve and how we're going to do that we need to talk first off, so rather than a meetings that go nowhere, and then no action items coming out, which is very typical of [company], unfortunately, bit of a talk fest, you'd go Nah, that's not good enough, we want to do learning teams, then we're going to come out with a solid A3, and someone's going to have some actions and some time [frames]. So, in a way, weird as it sounds, using leaning teams to formalize. But sort of sounds like, I don't know, an oxymoron to do it in a structured way, to say, in this case, we're going to do with the Learning Teams because its organic". – Case study interviewee

On the Mastery of skills course

"I've used the scaffolding session for me, as you know, people person, I like stories. We all like stories. And I'm nosy. I'm nosy. I like to hear what other people are doing and seeing if there's any patterns or seeing if I'm an outlier, or is that what everyone else is on board with? The guides? Yeah, obviously, I've read the guides, good but as had the book. I've gone back to the guides to self-check to do a sanity check to say, Is it really this easy? To be honest? Is it this easy? Or am I missing something? I'm not I've got it. I never got a group session with the [peer cohort]. And I don't know, one of them was in Australia for a while and what not about. And I think it was just timing like [company A pulled out]. [Company B] they had made changes as well with this. So, there were changes in several orgs, you know, which kind of crippled us for that, which was a bit disappointing, because I like to cross pollinate, and to talk with those other [peers]. And we've got one theme and, you know, in common, so was the perfect avenue. And we just didn't get there from for our team[cohort] for whatever reason. – Case study interviewee

On next steps and progress

The Learning Teams, I've got a report on that each month for the board, which I do, you know, number of, number for Learning Teams, this is where we're at. So that's definitely not going away. It can't go away now. It is embedded." – Case study interviewee

"The A3's is uploaded into [HSIMS system]. And then the actions obviously are generated from that. And then we can push that out through [HSIMS system]" – Case study interviewee

"I think we need a champion; we need someone to be in their face constantly in their face to say, right, we started this back here for the maritime [project order]. Okay, that's done. It's done is done. But we cannot lose that, we can't lose those the value of the Learning Teams, we've got to keep pushing. "– Case study interviewee

Requirement Nine: Write a case study

Write a case study on the learnings from (1) to (8) and provide to MNZ in advance to make comment, along with LTCF, and the training and assessment material and resources developed from (1) to (8) above.

- A draft of the case study (this document) was provided to Maritime NZ on 26 July 2023
- Learnings from the project are outlined in Section 6: Key Learnings from the Maritime Project Order

Requirement Ten: Make training, assessment material and resources available

Make the LTCF training and assessment material and resources publicly and freely available (in electronic format).

The link for the resources from the project is: https://hoptool.com/44xhmJI

This link will remain valid until August 2025.

- Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
- NonCommercial — You may not use the material for commercial purposes.
- NoDerivatives — If you remix, transform, or build upon the material, you may not distribute the modified material.

Section 6: Project Learnings

Introduction

MNZ suggested the MPO has the potential add to learnings for New Zealand on five factors.

1. Go beyond compliance with the HSWA;
2. Have a meaningful connection to the conduct for which the defendant is to be sentenced;
3. Do not propose things which already exist;
4. Require engagement from workers; and
5. Require something above and beyond existing health and safety obligations.

We believe the learnings went beyond these boundaries.

The wide range of applications during the project

The capturing of data and learnings during the project has showed the versatility of the LTCF to understand opportunities for operational learning in the Maritime sector. A collection of these is outlined for contextual reference:

- Worker engagement and participation for vehicle and passenger marshallers in learning from everyday work when things don't make sense, situations are different, difficult or dangerous (as an alternative to reporting and recording).
- Fortnightly engagements with workers engaged in high-risk operations to evaluate effectiveness of controls for changing environments.
- Engaging with workers on learnings from customer violence, threat and aggression events.
- Engaging with multiple PCBUs on how to better communicate, cooperate and collaborate on H&S matters with the return of cruise ship tourism.
- Changing accident investigations into an adverse event Learning Team approach which starts with an everyday normal work approach and utilises a ‘blame-free’ system perspective.
- Changing the ICAM accident investigation model to a humanised approach using Learning Teams, with ICAM Root Cause Analysis.
- Adaption and adoption of an A3 storyboard rather than an accident investigation report, so learnings from events can be communicated between organisations and potential similarities can be identified in other parts of the organisation on a "single sheet of paper".

- Use of Learning Teams and the principles of kaupapa Maori to shift from a model of consultation to an approach of co-constructing.
- Use of Learning Teams in safety-by-design.
- Building a safety governance "curiosity" approach to risk appetite, based on four performance pillars that explore:
    - How the safety system is supporting people in successful everyday work.
    - How the safety system performed in the face of unwanted and/or unexpected event(s) in relation to prevention, response, and recovery of that event.
    - How the safety system is supporting organisational change.
- Unpack and understand psychosocial risk factors in line with 45003 and international best practice guides.
- Inter-PCBU discussions to understand and learn together to create safety as work occurs.
- Provide transparency to every day “rubs” and understand using the 4Ds framework how and when workers are making do at crew level for entire organisation.
- Providing transparency to how system artefacts such as meeting or planning processes are operating to improve or impede operational excellence.
- Creating psychological safety for PCBU discussions to work out how to collaborate, consult and co-ordinate.
- Creating a channel for worker voice to share stories, raise concerns and contribute solutions.
- Upskilling identified competent facilitators in a mastery of skill programme
- Upskilling organisational leaders and mastery participants in how learning from everyday work can be used in creating transparency for dynamic risk, critical risk, and error traps.

Key Learnings

1. Investigations vs Event Learning.
2. Learning from everyday work – a true untapped resource and a difficult journey.
3. How learning from everyday work provide insights into psychosocial work design.
4. Dynamic risk – utilising everyday work shows the brittleness of safe systems of work.
5. Validation that learning at three levels (worker/workgroup/organisation) is important – observable changes can be seen.
6. Curiosity, empathy and reflection – three essential skills for leadership.

Learning #1: Investigations vs Event Learning

INVESTIGATION APPROACH

We have observed that the system, methodology, model, or approach to managing unwanted events forms a bias which drives the intent and outcome of the investigation. In our observation, a root cause analyse/investigative approach places the worker at the centre of the process and then moves out to the system to find the 'root cause'. This focus on the individual adds to the emotional toll which workers report when participating in this type of investigation. When we think about Work-As-Imagined versus Work-As-Done, the classic investigative approach believes that WAI must be right, and therefore that the gap between WAI and WAD is a variation, a non-conformance, a latent failure, or some other variation of human error. This means that we are looking down at the worker through the system lens and placing the worker into a deficit equation.

LEARNING TEAM APPROACH

With the Learning Team approach, the system was placed at the centre of the process. Work-As-Imagined is not accepted as being the right or only way. The discussion was not about what went wrong or what went right. We found that by undertaking a facilitated engagement with workers (and other stakeholders) connected to the event/situation/problem, we were able to see:

- The story as each person saw the event, or their knowledge of a situation or problem.
- The story of normal everyday work and how workers are operating in complex and variable environments.
- The value of improvements (or simply making more sense and giving more visibility of our understanding of current processes).
- The groups enjoyed this approach because it wasn't an investigation. They weren't worried about collusion, they felt the organisation wasn't trying to search for the "one true story", and the focus wasn't on the "one root cause".
- Finally, and most importantly, they felt the organisation wasn't looking for someone to blame.

PSYCHOLOGICAL SAFETY

We also found the importance of establishing psychological safety for the Learning Team – not as a culture, but as an engagement approach for the facilitator to communicate, share and speak with others. Through this organic approach we identified the following key attributes to support psychological safety for participants in Learning Teams. They are:

1. Be listened to.
2. Be respected.
3. Be able to raise issues.
4. Feel free to share ideas.
5. Be acknowledged.
6. Be encouraged to participate.
7. Be able to challenge views constructively.
8. Be recognised as competent.

COMPARISONS

When comparing the two approaches, there was consistency in the fact that Learning Teams generated more learning and improvements compared to the corrective actions arising from a traditional investigation. In Learning Teams, improvements to the system were significantly greater in number than people issues. Improvements were also more sustainable, because the workers felt they were part of the solution and not the problem. Lastly, workers enjoyed being part of Learning Teams and wanted further opportunities to participate and to explore other problems and issues they face. When have you ever heard a worker say, "I can't wait to be involved in the next incident investigation"?

UNDERSTANDING VS FIXING

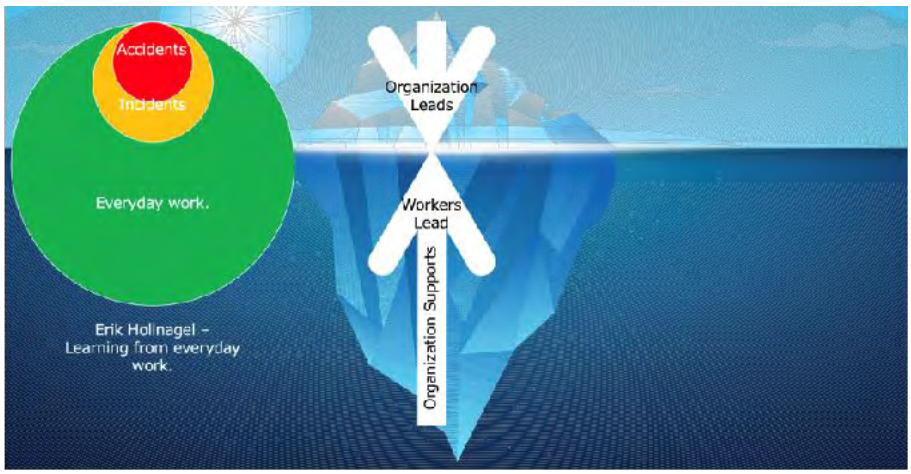
In the work done, we can say that in the absence of "fixing" (the goal of traditional investigations) we simply have the opportunity to "better understand". This process of better understanding allows workers to self-improve in how they work within the constraints and the capacity of the system. At the same time, it is hoped that 'the system' can become more resilient. These two outcomes are what we call learning from everyday work.

Learning #2: Learning from everyday work – an untapped resource and a slow journey

The LTCF used three different modes of learning. Stakeholders were surprised at "nuggets" they never would have considered that came from learning from everyday work and spending time understanding weak signals. These lead to the biggest 'aha' moments and learning opportunities. But for participants to get to this place was a slow journey of unlearning and learning.

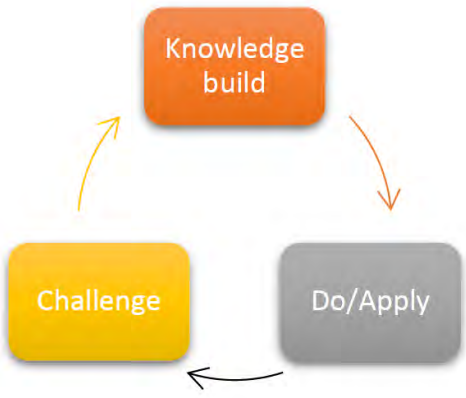
PARADIGM SHIFT

The mindset shift for safety practitioners and organisations is 180-degree shift. The reflections provided by the case study participant showed that it was easy and comfortable to stay in the "what went wrong" state. The event-learning mode allowed for a partial mindset shift, showing the ease of which HOP principles made sense as a transition to the new view but there were struggles with accepting workers being the solution not the problem, and understanding what "what happening when nothing is happening" actually looked like.



EXPERIENTIAL TOOLS TO SUPPORT LEARNING

The scaffolding process was employed to help shift mindsets, we found conversations covering learning from everyday work with mastery participants were ongoing conversations throughout the project. The need for a coach to help reflect on the Learning Team process and outputs was important. Along with utilising Learning Teams, increased application of the 4Ds critical thinking framework created increased visibility to better understand where workers needed to make do, adapt and deal with priority conflicts (constraints of the system). The simplicity of the 4Ds and its ability to highlight system constraints allowed all participants a practical process to use the "How we learn" component of the LTCF and scaffold concepts.



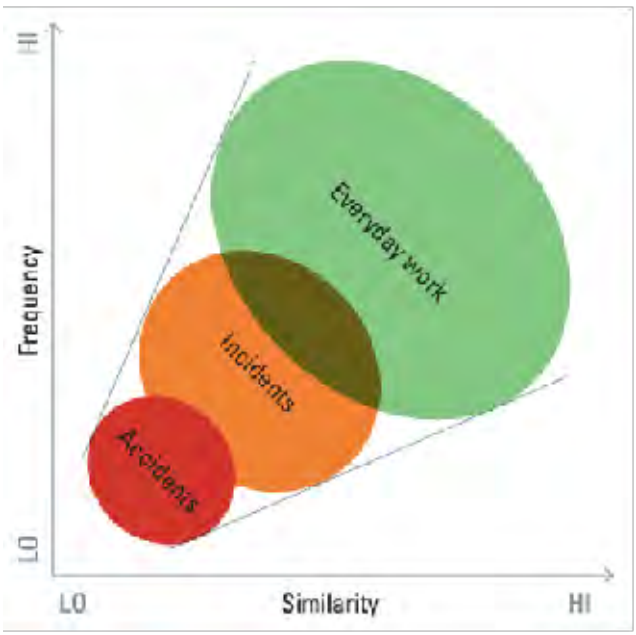
Make sure you're building a tree of knowledge
You can't remember what you can't connect

WHAT'S HAPPENING WHEN NOTHING IS HAPPENING?

Prior to the introduction of the 4Ds we introduced the term, weak signals or learning to see the elusive obvious, to help participants understand what to look for in everyday work. During this introduction period we found the current system (tip of the iceberg) continually obscured participants focus, which kept getting forced back to listen to the strong signals presented through audits, compliance pressure, internal hierarchical requirements, and bias towards control by leaders yet to see value in doing safety differently. By far the strongest way to create visibility was through experiential learning to weak signals.

OPERATIONAL LEARNING IMPROVES SAFETY, PRODUCTIVITY, AND QUALITY

The plethora of information that can be seen once learning from everyday work becomes established was eye-opening for stakeholders. Case study participants commented that they couldn't go back to learning from the small data set based on accidents and injuries. What also became transparent was the ability to see the brittleness in the system, the tightly coupled factors and work as done. This transparency to weak signals exposed long hidden operational issues and identified the flow of risk in a number of different context and scenarios exposing how dynamic risk affects workers safety, productivity and quality.



Learning #3: How learning from everyday work provide insights into psychosocial work design.

CREATING CONTEXT INTO THE INTANGIBLE STATE

The project found that psycho-social risk factors using everyday work mode Learning Teams can provide transparency into the factors that impact mental health and wellbeing. Without a doubt this harm has been constantly present since new technology entered our workplaces and its interaction with people started to shift work towards a greater level of knowledge-based skills, increasing the demand and pace on workers cognitive resources and capacity. This also created new social structures which have become more and more important and complex in the delivery of work.

Some participants specifically used the tools to understand symptomatic observations they were experiencing. We also observed using Learning Teams in everyday work mode and the 4Ds tool that psychological impacts, positive and negative, were present in any form of work. Another finding was that COVID-19 has changed the world of work, there is a strong mindset shift that could be summarised as '**life used to fit around work but now work fits around life'.** This new paradigm featured strongly with regard to fairness, between front-line and office-based staff, and latter having more quality of life, and secondly, office-based staff perception around organisation directives that workplace attendance is again being required.

WHY EVERYDAY WORK IS SO POWERFUL FOR PSYCHOSOCIAL RISK UNDERSTANDING?

Traditional safe system tools and processes are not designed with the capacity to learn from everyday work. Because psychological harm is not acute, catastrophic, or of a physical nature, this harm does not trigger the deep dive safety investigations or concerns within the typical safety reactionary frame of reference, nor does this harm appear readily as the cause of any lagging indicator at the Board room table.

Learning Teams into this area quickly highlighted how everyday work priorities were creating rubs. It exposed conflicting priorities between all manner of scenarios, such as, individuals and individuals, teams and teams, individuals and teams, and PCBUs and PCBUs, and pinpointed work conditions that impacted physical, cognitive, or social states. This allowed project stakeholders to see the very tangible lived experiences generated by Work-as-Done. When we accept that people have limited capacity (physically, cognitively, and socially) and you use the lens of safety is the presence of capacity, then it's easier to apply the hierarchy of controls to the work. Not removing the risk but enhancing the design of the work to manage the impact of this dynamic risk.

In summary, understanding what the "psychosocial risk" looks like, how it ebbs and flows and how it affects "this person, on this task, at this time" using an everyday work lens exposes the subtleties of workplace uncertainty, interpersonal relationships, and unrelenting VUCA.

MANAGING PSYCHOSOCIAL RISK USING THE HIERARCHY OF CONTROLS

ISO 45003 was published in 2021 and reinforced safety and well-being are explicitly connected. The ISO lays out a framework to start a conversation about identifying the types of psychosocial risks in workplaces. We now know that using the same approach to physical risks works for psycho-social risks, and an example of the hierarchy of control as it applies to health and wellbeing is presented in Figure 5.

Figure 5 Adapted from NIOSH [20160]. Fundamentals of total worker health approaches: essential elements for advancing worker safety, health, and well-being. By Lee MP, Hudson H, Richards R, Chang CC, Chosewood LC, Schill AL, on behalf of the NIOSH Office for Total worker health

So where are we now with psychosocial controls, and how did we get there? Like some of the critical risk controls in industrial safety the controls for psychosocial harm are well down in the least effective part of the hierarchy. A recent pictorial representation (Figure 6) of current state helps demonstrate this.

Figure 6: Source : Jason van Schie, FlourishDX

Mental health and wellbeing has not been the traditional focus of the safety practitioner whose priority lies in managing high risk work and physical harm. Design of the work responsibilities, and social relationships are not found in your typical industrial safety technical expertise. The management and control of such factors are associated more in the realm of the Human Resources function. When wellbeing did come to forefront, Human Resoruces typically approached symptomatic issues with solutions such as a wellbeing programme, or EAP to pick up the pieces of traumatic situations and events. These practitioners are not familiar with the hierarchy of control and the linkages between work design, human factors and technology. We found during the project that silos still exist between safety and HR, and where the responsibility of psychosocial risks sit even if they reside in the same corporate function. Couple that with the issue of what psyschosocial risks are, and when and how they present.

It may be time to understand everyday work between the Safety and HR functions and how it can be evolved to incorporate these project learnings.

Learning #4: Dynamic risk – utilising everyday work shows the brittleness of safe systems of work.

During the project the terms of "critical risk" and "dynamic risk" were often used as interchangeably language, yet they actually mean something entirely different.

A Critical Risk is where the object/hazard can cause an unwanted event, and the impact of that event exceeds the organisation's risk appetite (for example, life-changing events and fatalities) where as a Dynamic Risk is where the presence of the hazard, "the hazardous situation," is constantly changing throughout the work day, and the potential impact of that event exceeds the risk appetite of the organization.

And Dynamic Risks are challenging in their own right because of their complex nature and constant variability or presence. Dynamic Risks can't be controlled or managed using conventional "cause and effect" techniques. Simply put they are complex by nature and safe systems of work, such as rules don't work. An example of this in economics and finance is when a dynamic risk is brought on by sudden and unpredictable changes in the economy. The cost of living and inflation issues within our current economy exemplifies this as an example, through changes in pricing, income and interest rates, these changes can bring about sudden personal and business financial losses to those affected. The factors that influence the risk are many, varied and can change overtime and we are able to exert little or no control until the risk is present or the consequence plays out.

The Kea Incident itself was a classic example, where no actually root cause was identified in the investigation, but a series of casual factors were identified in an attempt to try and make sense using a linear model (such as an investigation, timeline etc) to understand the complex and dynamic environment the skipper, crew, vessel and passengers were operating in at the time of the event.

CONTROLLING VERSUS CARING

We observed during the project that controlling was the common approach by organisations, leaders, and managers when they regulate safety activities with frontline workers by means of rules. They believe that through these activities they can align or position workers' behaviours with interventions, and directly influence workers understanding of the organisation's wants and desires and the regulatory framework that they must operate in.

We found that workers observe this process through language like deviation, not following golden or life-saving rules, human error, distraction, unsafe acts, complacency, and other negative lens languages that were directed at them and labeled as something, to keep them safe or to meet the acts, regulations, or compliance activities of the "maritime regulator".

In February 2023, Rob Fisher[13] visited New Zealand and presented to some of the Maritime Project Stakeholders in an event hosted by Mike Horne, CEO of Fullers 360. Rob Fisher was talking about all things HOP and organisational learning, and he said something quite compelling to the group. Are we:

Doing Safety to People Doing Safety for People, or Doing Safety with People

We explored that human error is normal and a natural part of being human. Human error is not a problem until it occurs in synch with the hazard when energy can be released, and harm can occur.

Human performance is the greatest source of variation in any operation, and the uncertainty in this performance cannot be eliminated. Therefore, work involves risk being present under the conditions of uncertainty. And this is highlighted further when trying to understand Dynamic Risk.

If you look at the work of Professor James Reason, he stated: "The human error problem can be viewed in two ways: the person approach and the system approach. Each has its model of error causation, and each model gives rise to quite different philosophies of error management."

Business and safety leaders get to choose which lens they apply to human error. They can choose:

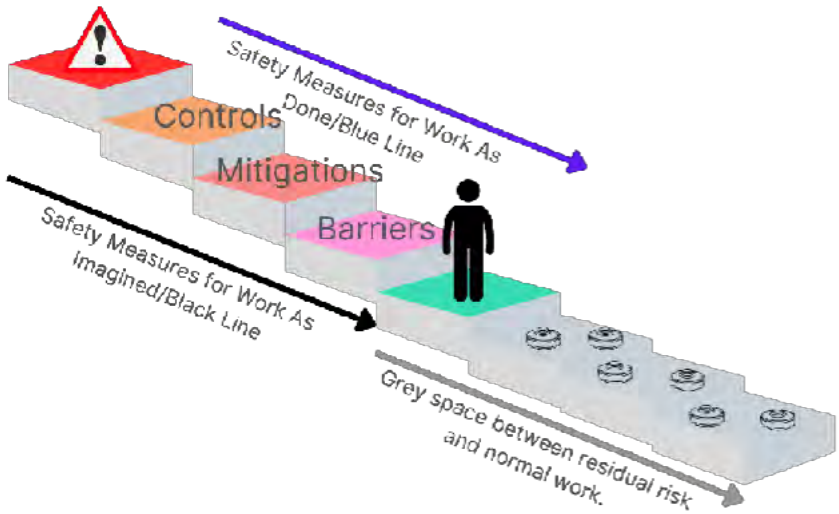
- A deficit approach to people. This approach focuses on the unsafe acts—errors and procedural violations—of people at the sharp end. It views these unsafe acts as arising from human forgetfulness, inattention, poor motivation, carelessness, negligence, and recklessness. And the associated "corrective actions" are directed mainly at reducing unwanted variability in human behavior.

- A deficit approach to the system. This approach concentrates on the conditions under which individuals work and tries to build a better system with defenses, mitigations, and controls to avert errors or mitigate effects. Errors are seen as consequences rather than causes. System improvements assume that we can't fix people through blame and punishment, but we can change the conditions under which humans work by learning from normal and successful everyday work. And if an event occurs, the vital issue is not who blundered but how and why the controls failed.

We concluded that we should be "Doing Safety to Hazards" and "Doing Safety with People."

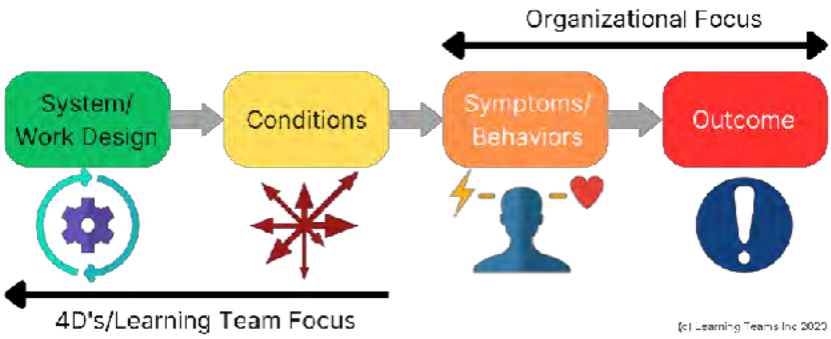
[13] Rob Fisher is President of Fisher Improvement Technologies and the author of the book Understanding Mental Models: Practically Applying Performance Modes, Systems 1&2, and GEMS, ISBN: 979-8840842461, July 2020.

Doing safety to hazards is about pure control (we need to control the release of energy from the hazard), Doing safety with people was about caring not control. In dynamic risk, there is a "grey space" that exists between the residual risk (all the controls and systems the organization has put in place) and normal everyday work that is undertaking in a dynamic and changing environment.



Most of our current safety approaches of audits, observations, checklists, work instructions etc. are focused on the known part of safety. The grey space of the unknown and where uncertainty lurks for frontline workers is often "managed" and not controlled with such things as rules, reporting and stop work authorities which are simply transferring the risk to the frontline for "workers to sort and make do".

This notion of how workers are having to "make do" every day is not one that can be seen easily with current approaches. During the project we found that using Learning Teams and the 4Ds to understand dynamic risk and normal work, gave visibility to the conditions that are present not only in the work being managed by controls but also in the grey space between residual risk and normal work. Project stakeholders began to understand that the traditional organization focus on looking at behaviours and outcomes made it difficult to address the deeper systemic issues. It was seeing the conditions through the lens of the worker "people that face the risk" that made the "brittleness of the system" visible and allowed them to make change to the system and/or work design that can a direct effect on the symptom and behaviours, or simply better understood it and begin the journey of improvement.



This reshaped the organization's views from a "find-and-fix" strategy of safety, to a "listen-understand-learn-improve" approach with learning from everyday work using the 4Ds as those core principles.

Learning #5: Validation that learning at three levels (worker/workgroup/organisation) is important – observable changes can be seen.

From this project we found that learning from the three modes of Learning Teams (normal work, events or management of change) takes place at an individual, work team and organisational levels. We also found that what workers learn and improve on versus what the organization learns and improves on can be very different. These three levels of learning are shown in the diagram below which we have called Circles of Learning.

Circles of Learning

WORKER LEARNING AND IMPROVING

We found that individual learning happens all the time, but is unintentional, meaning that learning happened because of a success or failure of the work without any reflective practice as to "how and why". And learning happens intentionally in a Learning Team or 4Ds conversation because the context of work through storytelling of various people and stakeholder groups creates a relationship of the "what, how and why" and gives space to reflect and take onboard new or changing information.

WORK TEAM LEARNING AND IMPROVING

At the work team level, learning happens when the work team reflects on the variability of the work as a group by evaluating and reflecting on the phases of work, such as Work As Planned – Pre-Start Work – Work As It Evolves and Work As Done, followed by reflecting on where we "Make Do".

ORGANIZATIONAL LEARNING AND IMPROVING

Learning at the organisational level is generalised by learning from the feedback of the Work Teams rather than gaining from the learning of the actual experiences of the Work Team that occurs with a Learning Team.

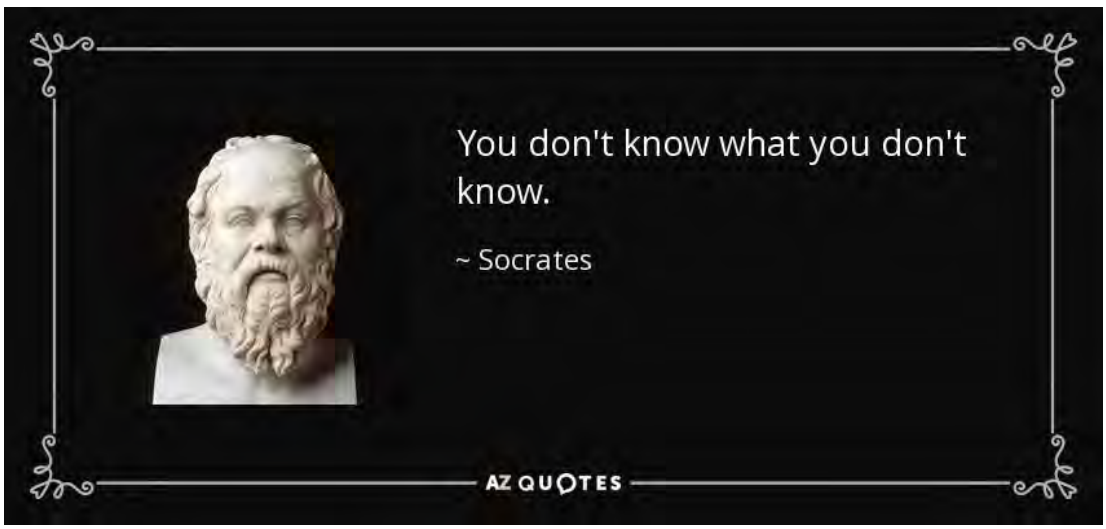
We also observed a phenomenon regarding the retention of organisational learning, which we have labelled as "Organisational Amnesia", which is used to describe a situation in which the organisation loses its memory of how work is really performed and why, because it doesn't exist in the more formal systems that the organisation can refer back to. This is amplified when the knowledge and experience of team leaders, supervisors and managers leave the organisation. It is important to understand that at each circle, learning takes place in a different manner. And through the process of group learning we observed that even in the absence of any system improvements that workers and work teams could self-improve and build or improve on their current knowledge, competency, and capability.

You could physically see those "lightbulb" moments when people move from being:

Unconsciously Incompetent "I don't know what I don't know", to

Consciously Incompetent "I know now that I don't know", to

Consciously Competent "I now know what I know".



Learning #6: Curiosity, Empathy and Reflection – three essential skills for leadership.

ESSENTIAL SKILLS VS SOFT SKILLS

The project began by focusing on building the ability in Maritime workers to facilitate 'operational learning' through a Learning Teams framework. 'Soft skills' as being core to the LTCF success as opposed to 'technical skills' of a job. These skills which combine to become competent to create engagement and interaction with people to build the trust, openness, and confidence for an individual, a team and organisationally came through strongly as a foundation requirement for the LTCF.

It's now time to call these out as essential skills, not soft skills. Current literature supports embracing interpersonal abilities of leaders as a foundational building block. [1] Dr Todd Conklin in his Pre-Accident investigations podcast sums this up well, "These skills aren't soft, these skills are difficult and nuanced and take experience and practice, these skills are vital and essential. They create an organisation that is reliable, meaningful, and effective". It's time to acknowledge that safety is about understanding where people are meet work risk, and therefore organisations have to rely on its leaders ability to build trust, openness, and confidence comes with crucial essential skills. Organisations must own that they set the scene through leaders, and working with others is more an art than science. And art takes hard work.

WHY CURIOSITY, EMPATHY, AND REFLECTION

In order to acquire new knowledge, we must be curious. Without a drive for curiosity, we cannot challenge our own perspectives and you stifle the ability to improve. The project observed this lack of curiosity as a start point for many leaders[2], if leaders can't be curious, it simply stops learning and improving, and prevents connecting with others as there is no need to engage. This lack of curiosity is not about the individual leaders not caring, our observation was that this was potentially a learned behaviour supported a wider system.

Leaders in modern organisations are overtly or covertly 'told' they have the role they have because they have the answers. Our workplaces support two assumptions, that authority equates to expertise, and secondly, the higher one goes in a hierarchy, the greater the expertise. This mentality has its roots in Taylor's principles of scientific management, the world appoints people to roles because they are subject matter experts on what it takes to achieve or have shown talent for that specific area of knowledge or ability. This also makes it difficult for people in these roles to be vulnerable and be willing to rely on others to help fill in knowledge gaps or allow the space to be open to new knowledge. HR practices around rewards and performance management generally don't build space for turning upsets into setups.

Organisations generally measure what you didn't achieve, apply some type of penalty, generally financial or status driven, and drive behaviour to the find and fix mentality. These systems are about controlling the risk of uncertainty for an organisation through perfection.

There is uncertainty in any new idea or innovation, organisations, and the individuals in them want predictability. Curiosity to allow for learning and improving starts a process that may be inherently uncomfortable and threatening for an individuals and organisation. If a leader does not have the essential skill of curiosity, they cannot learn.

The next essential skill for leaders is empathy, once you open yourself to curiosity, you need the skills to open your mind to seeing different perspectives. The LTCF is designed to be inclusive, generating transparency and understanding through a group medium. This means there is group problem identification, problem solving and reflection. Without empathy, a leader can quickly disregard both the process and outputs that are generated by the workgroup. This leads to what we would call a parent child approach to the workgroup where the information produced by the team is not considered valid. Being able to both understand and acknowledge others' perceptions as valid and reasonable through applying empathy is vital.

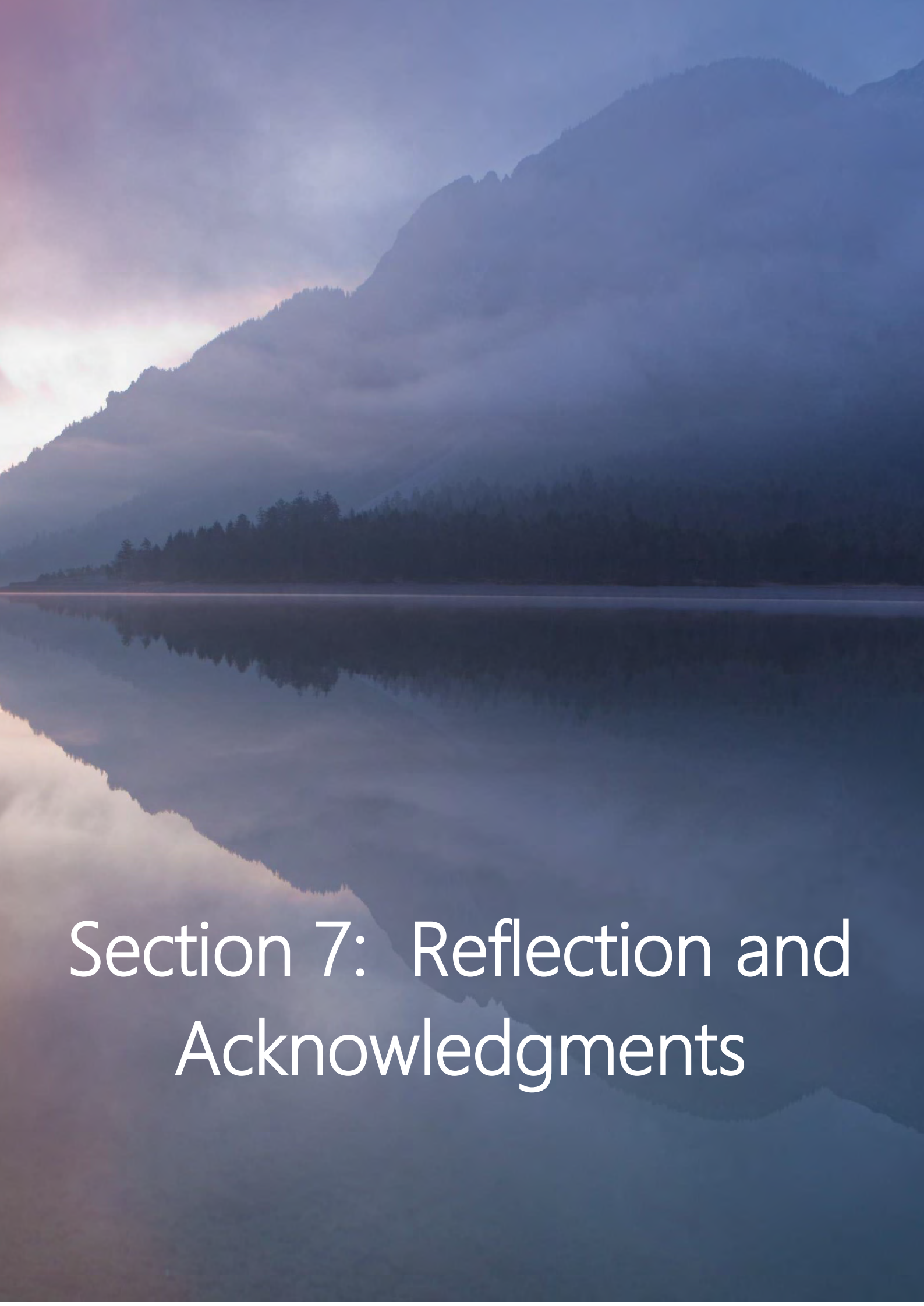
Finally, reflection, this is a learned process that requires time and practice. It is an active process, and this is where change takes place. The ability for leaders to holistically reflect on how the system operates by being open to a possibility more exists, and then understanding others and how they are impacted allows for a leader to experience a change their reality and allows for sense making as the new learning takes place.

To help these develop these essential skills in leaders experientially, the project created the Listen, learn and lead framework.

These are not the only essential skills that will be required but they are three that we observed as crucial for an organisation to be able to move forward to adopt the LTCF.

Notes:

1. *A selection of books are noted: Humble Leadership, Edgar Schein, Peter Schein, Teaming, Amy C Edmonson, The Fearless organisation, Amy C Edmonson, The relationship factor in Safety Leadership, Rosa Antonia Carillo*
2. *We refer to leaders in this context as either subject matter experts or have direct reports or have authority over planning*



Section 7: Reflection and Acknowledgments

Reflections for future learning

This case study supports that a deliberate approach to operational learning can help to evolve safety for organisations in New Zealand. The traditional data and mindset used for safety are flat lining in their results. It is time to look to embrace different options available rather than continue to invest in working in the same way we always have. There are opportunities for organisations to be courageous and start to learn more from this project and others locally and internationally. Our reflections on opportunities beyond the project involve the value of continuing the BetterWork#NZ conversations and exploration of initiatives in three areas.

BUILDING COMMUNITY

As part of our own commitment to "Pay-It-Forward" and to build a better community of safety practice, we took the opportunity to engage the wider safety community when delivering the project around the country. This engagement fostered curiosity and encouraged innovation of safety to a wider audience, by sharing our learnings and have open conversations about the value of understanding why things go right and the barriers of the new view. Continued opportunities should be found to share, improve understanding and facilitate conversation.

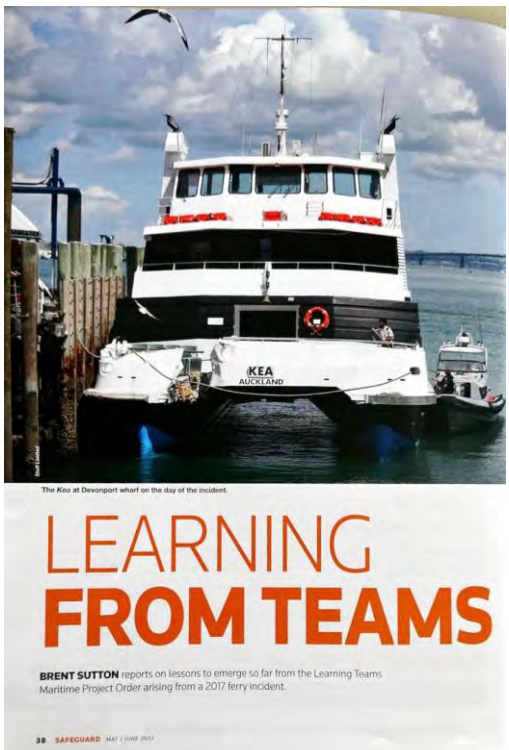


Figure 8: Support of Safeguard magazine (Peter Bateman) as an avenue to share learnings during the delivery of the project order.

Figure 7: Community session with members of the Marlborough Health and Safety Forum with Brent Sutton and Brent Robinson during following project order delivery with Alistair Thomson at Marlborough Tours. Forum member Amy Richards receiving a signed copy of the book "The Practice of Learning Teams" to thank her for co-ordinating the event.

ORGANISATION INTEGRATION AND SUSTAINABILITY

Several case study participants spoke of mindset change to operational learning being observed at different levels within the organisation. Alongside this observation, many stakeholder participants expressed regret that the project is ending just as the processes to embed the learnings gain traction. The project flow and consistency was impacted by several stop/starts from Covid and turnover. This has, without doubt delayed momentum and organisation capacity for adoption of new ideas and restricted longitudinal data collection. What this means is although participants view this as significant positive change, sustainability cannot be guaranteed.

The project is winding down at a point where integration changes to system technologies and artifacts are moving from being trialled to becoming routine or established ways of working. In other words, some participants are starting to create "space" in routine ways of working to integrate the tools. For example, three mastery participants have actively begun incorporating LTCF concepts and tools into their respective health and safety management software and system. Positively, they have confirmed that continuation to evolve their systems past the project has commitment by senior leadership.

While the project introduced further options to mastery participants, the management of change was required to be considered with pace having to meet each organisations' change tolerance level. Our reflection is there are natural scaffolding opportunities, like reframing the investigations vs adverse events learning approach, there are vast opportunities to reframe traditional reporting systems and governance, assurance verification. There is also exploring how current risk approaches need to be evolved to better understand dynamic risk, critical controls, and psychosocial risks. That is, we are yet to even scratch the surface on the potential of how better work can enhance normal work, for every worker, every day.

SOCIO-POLITICAL CONSTRAINT

The new view of safety draws heavily on complexity theory and systems thinking. Russell Ackoff, a system thinking had six key insights[14], the first three are:

1. Improving the performance of the parts of a system taken separately will not necessarily improve the performance of the whole; in fact, it may harm the whole.
2. Problems are not disciplinary in nature but are holistic.
3. The best things that can be done to a problem is not solve it but dissolve it.

A further two were based on analysis of social systems, in particular health care and education systems and how complexity of wider society impacts such systems. Maritime is an industry based strongly in a regulated system.

[14] A lifetime of systems thinking, Ackoff. The Systems Thinker, 1999

While the system has the over-arching H&S regulator WorkSafeNZ the Maritime industry has a further complexity with the MNZ regulator, which has further regulation and rules set by MNZ and the broader maritime industry.

In a review of the Pike River disaster, Lamm and Lips-Wiersma[15] also raised the consideration of the socio-political context which lent weight to shaping behaviours and its subtleness of silencing stakeholders. One of the HOP principles is "context drives behaviour" and as aforementioned the Maritime industry has a significant context within which all seven of our Project stakeholders operate. There is merit beyond this project and potentially into the wider regulatory Health and Safety environment to understand what is, and how the landscape for organisations is shaped.

Specifically, using complexity/systems theory to explore the potential attractors[16] that can be offered to an evolving organisation endeavouring to adopt a new view approach. Without a doubt, regulators are working to ensure positive change, however change can be exceeding slow. Today's good practice might be tomorrow's legislation but until this occurs where do the pioneers and early settlers of the new view find themselves when the foundations between the two concepts (traditional and Betterwork#) are so different.

It is exciting to see the innovation bent the New Zealand regulator WorkSafeNZ has taken to encourage organisations to understand the benefits of the new view, but what can else is required of WorksafeNZ, MNZ, CAA and Waka Kotahi to help their own journey for operational learning?

OPTIONS TO ENGAGE TO HAVE BETTER WORK CONVERSATIONS

1. Contact the WorkSafeNZ innovation and partnerships team
2. Join up to the Community of Safety Innovation
3. Have your organisation join the Business leaders health and safety forum
4. Visit the Maritime Project Order website and check out the LTCF project tools and resources

[15] A disaster waiting to happen: Silently silencing stakeholders at the Pike River Coal mine. Lamm & Lips-Wiersma. Journal of Industrial Relations, 2018

[16] Symbologies, technologies and identities: Critical junctures theory and the multi-layered nation-state. Liu, Onar and Woodward. International journal of intercultural relations, 2014

Project team core members and contributors

We would like to acknowledge and thank the core team members and contributors to this project order. In alphabetical order (surname) they are:

Diane Ah-Chan is an Associate with Learning Teams Inc and is an experienced human resources, safety, and risk management practitioner with a masters in industrial and organisational psychology (Hons). With extensive experience in corporate governance and strategy, organisational change management, project management and strategic implementation, she is passionate about evolving and innovating in health and safety. She resides in Auckland, New Zealand.

Josh Bryant is the General Manager - People, Risk and Sustainability for Mitchell Services, a public listed Australian-based drilling company with over 800 employees who work across Australia, serving multiple clients in the surface and underground mining and exploration industries. With a background in science and technical management, he is known for his sharing of ideas and methods, particularly where he and his team have stumbled and had success, and in building community. He resides in Brisbane, Australia.

Todd Conklin holds a Ph.D. in organizational behaviour. He speaks all over the world to executives, groups and work teams who are interested in better understanding the relationship between the workers in the field and the organization's systems, processes, and programs. Conklin's best-selling book, Pre-Accident Investigations: An introduction to Organizational Safety is a best-selling book on safety. Conklin lives in New Mexico, USA and thinks that Human Performance is the most meaningful work he has ever had the opportunity to live and teach.

Rob Fisher spent almost ten years in the US Navy before working at the South Texas Nuclear Project for twelve years. During this time he worked in Operations, Radiation Protection, Chemistry, & Environmental and led the Human Performance Improvement initiative and the Procedure Programme. Rob is a sought-after mentor, coach, author, and trainer, and is routinely invited to speak at international and regional conferences on safety, Performance Improvement, Incident Analysis, and procedures. He resides in North Carolina, USA.

Jeff Lyth is a well-regarded innovator in workplace safety leadership. He helps organisations evolve how they manage safety by guiding their exploration and integration of the 'new view' of safety principles and helping them break through the performance plateaus associated with conventional views of health and safety and the owner of www.safetydifferently.com and resides in North Vancouver, British Columbia, Canada.

Glynis McCarthy is an Adult Educator and Safety Practitioner. The purpose and principles of Learning Teams resonate with her Adult Learning beliefs and the inherent opportunity for enhanced worker learning and supporting a positive learning culture. She resides in Northland, New Zealand.

Brent Robinson is an operational excellence advocate and has worked across operations, sales and product development functions in North America, Australia and New Zealand. Brent is the co-author of the best-selling book The Practice of Learning Teams. Brent lives in Melbourne, Australia, and has a passion for quality and safety that has driven his belief that the convergence of the two will drive better outcomes for any organisation.

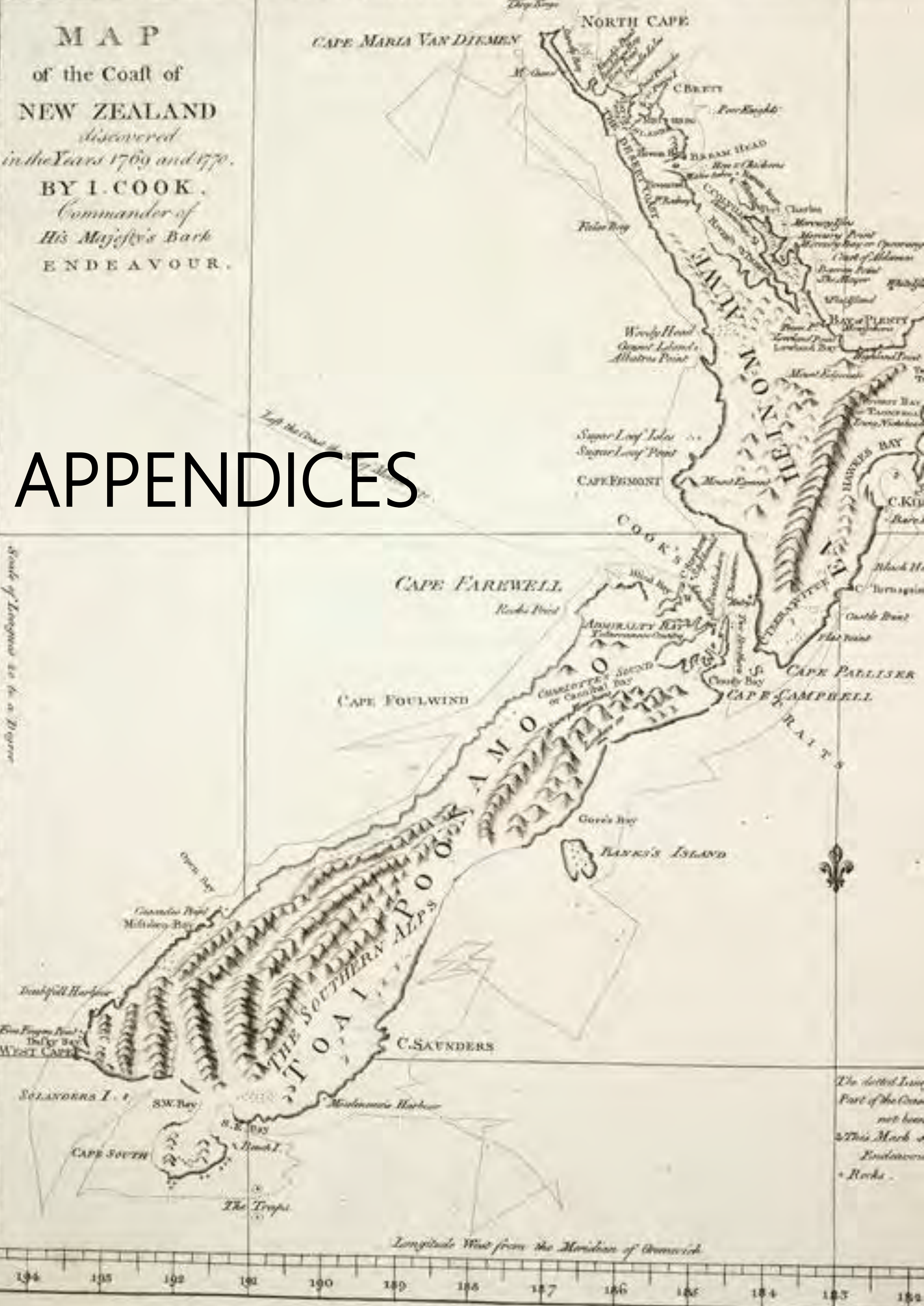
Jodie Shelley is an Executive Coach, focused on leadership development. Her twenty-year corporate career culminated in her last role as Chief People Officer of 2degrees. Now the founder of Humancode, she is able to focus solely on coaching and leadership development. Jodie is an accredited ICC Coach and has held her LSI coaching accreditation for over a decade. She resides in Auckland, New Zealand.

Brent Sutton is well regarded as a safety coach and for taking organisations on a learning journey to understand how people are seen as the solution, how to engage people and use their skills so that worker participation becomes a normal way of doing safety with people. Brent is the co-author of the best-selling books on Learning Teams, Learning From Everyday Work and host of the podcast show "The Practice of Learning Teams". He resides in Auckland, New Zealand.

Alistair Thomson is a seasoned health and safety practitioner and has held roles in safety at the regulatory level and with commercial ferry operators. Alistair was the Senior Health and Safety Lead at Fullers360 at the time of the event, and was instrumental in managing the regulatory response and in the development of the Project Order with Learning Teams Inc. Alistair is working in the horticure sector and has taken the core principles and learnings from this case study into his new field of work.

And a big thank you to all the workers, crew members, supervisors, skippers, safety practitioners, managers, leaders and board members who participated in this project and for sharing your stories, learnings and experiences.

APPENDICES


MAP
of the Coast of
NEW ZEALAND
discovered
in the Years 1769 and 1770.
BY I. COOK.
Commander of
His Majesty's Bark
ENDEAVOUR.
NORTH CAPE
CAPE MARIA VAN DIEMEN
C. BRETT
Poor Knights
BREAM HEAD
Mercury Bay
Bay of PLENTY
Woody Head
Albatross Point
Sugar Loaf Isles
Sugar Loaf Point
CAPE EGMONT
Mount Egmont
HAWKES BAY
C. KID
Black Head
Castle Point
Flat Point
CAPE PALLISER
CAPE CAMPBELL
COOK'S
STRAITS
CAPE FAREWELL
Rocks Point
ADMIRALTY BAY
CHARLOTTE SOUND
CAPE FOULWIND
Gore's Bay
BANKS'S ISLAND
THE SOUTHERN ALPS
TOAI POONAMOO
EAHEINOMAUWE
C. SAUNDERS
Mistaken Bay
WEST CAPE
SOLANDERS I.
S.W. Bay
S.E. Bay
CAPE SOUTH
The Traps
Rocks
Longitude West from the Meridian of Greenwich
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Appendix 1: Timeline of key events – Alert system

Date	COVID-19 Response
28 February 2020	First COVID19-19 case reported in New Zealand.
14 March 2020	The Government announces anyone entering New Zealand must self-isolate for 14 days, except those arriving from the Pacific.
19 March 2020	All indoor gatherings of more than 100 people are to be cancelled. Borders close to all but New Zealand citizens and permanent residents.
21 March 2020	The Government introduces the 4-tiered Alert Level system to help combat COVID-19. The Prime Minister announces that New Zealand is at Alert Level 2.
23 March 2020	At 1:30pm the Prime Minister announces New Zealand has moved to Alert Level 3, effective immediately. In 48 hours, New Zealand will move to Alert Level 4.
25 March 2020	At 11:59pm, New Zealand moves to Alert Level 4, and the entire nation goes into self-isolation. A State of National Emergency is declared at 12:21pm.
29 March 2020	New Zealand reports its first COVID-19-related death.
31 March 2020	The State of National Emergency is extended at 9:27am. Further extensions are made at: 9:25am on 2 April 2020 12:21pm on 8 April 2020 12:21pm on 15 April 2020 12:21pm on 22 April 2020 12:21pm on 29 April 2020 12:21pm on 5 May 2020.
20 April 2020	The Prime Minister announces New Zealand will remain at Alert Level 4 for an additional 5 days. New Zealand will remain at Alert Level 3 for 2 weeks, before the status is reviewed.
27 April 2020	New Zealand moves to Alert Level 3 at 11:59pm.
4 May 2020	No new cases of COVID-19 are reported in New Zealand.
11 May 2020	The Prime Minister outlines the plan to move to Alert Level 2.
13 May 2020	New Zealand moves to Alert Level 2 at 11:59pm. The State of National Emergency expires at 12:21pm.
8 June 2020	The Ministry of Health reports that there are no more active cases of COVID-19 in New Zealand. At 11:59pm, New Zealand moves to Alert Level 1.
11 August 2020	4 new cases of COVID-19 are recorded in the community.
12 August 2020	At 12 noon, Auckland region moves to Alert Level 3. The rest of New Zealand moves to Alert Level 2.
14 August 2020	The Prime Minister announces that Auckland will remain at Alert Level 3 and the rest of New Zealand will remain at Alert Level 2 for 12 more days.
30 August 2020	Auckland moves to Alert Level 2 at 11:59pm, with extra restrictions on travel and gatherings. The rest of New Zealand remains at Alert Level 2.
21 September 2020	All regions except Auckland move to Alert Level 1 at 11:59pm.
23 September 2020	Auckland moves to Alert Level 2 without extra restrictions on travel and gatherings at 11:59pm.
7 October 2020	Auckland moves to Alert Level 1 at 11:59pm. All of New Zealand is now at Alert Level 1.
14 February 2021	3 new cases of COVID-19 are recorded in the community. Auckland moves to Alert Level 3 at 11:59pm. The rest of New Zealand moves to Alert Level 2.

17 February 2021	Auckland moves to Alert Level 2 at 11:59pm. The rest of New Zealand moves to Alert Level 1.
22 February 2021	Auckland moves to Alert Level 1 at 11:59pm. All of New Zealand is now at Alert Level 1.
28 February 2021	Auckland moves to Alert Level 3 at 6am. The rest of New Zealand move to Alert Level 2.
7 March 2021	Auckland moves to Alert Level 2 at 6am. The rest of New Zealand moves to Alert Level 1.
12 March 2021	Auckland moves to Alert Level 1 at midday. All of New Zealand is now at Alert Level 1.
23 June 2021	Wellington moves to Alert Level 2 at 11:59pm. The rest of New Zealand remains at Alert Level 1.
29 June 2021	Wellington moves to Alert Level 1 at 11:59pm. All of New Zealand is now at Alert Level 1.
17 August 2021	All of New Zealand moves to Alert Level 4 at 11:59pm.
31 August 2021	All of New Zealand south of Auckland moves to Alert Level 3 at 11:59pm. Auckland and Northland remain at Alert Level 4.
2 September 2021	Northland moves to Alert Level 3 at 11:59pm. All of New Zealand (except Auckland) is now at Alert Level 3. Auckland remains at Alert Level 4.
7 September 2021	New Zealand (except Auckland) moves to Alert Level 2 at 11:59pm. Auckland remains at Alert Level 4.
21 September 2021	Auckland and Upper Hauraki move to Alert Level 3 at 11:59pm. The rest of New Zealand remains at Alert Level 2.
25 September 2021	Upper Hauraki moves to Alert Level 2 at 11:59pm. Auckland remains at Alert Level 3. The rest of New Zealand remains at Alert Level 2.
3 October 2021	Raglan, Te Kauwhata, Huntly, Ngāruawāhia, Hamilton City and some surrounding areas move to Alert Level 3 for 5 days from 11:59pm. Auckland remains at Alert Level 3. The rest of New Zealand remains at Alert Level 2.
5 October 2021	Alert Level 3 restrictions in Auckland are eased from 11:59pm. Raglan, Te Kauwhata, Huntly, Ngāruawāhia, Hamilton City and some surrounding areas remain at Alert Level 3. The rest of New Zealand remains at Alert Level 2.
7 October 2021	Waikato Alert Level 3 boundary is extended from 11:59pm to include Waitomo District, including Te Kuiti, Waipa District and Ōtorohanga District. Auckland remains at Alert Level 3 with some restrictions eased. The rest of New Zealand remains at Alert Level 2.
8 October 2021	Northland moves to Alert Level 3 at 11:59pm. Auckland and parts of Waikato remain at Alert Level 3. The rest of New Zealand remains at Alert Level 2.
19 October 2021	Northland moves to Alert Level 2 at 11:59pm. Auckland and parts of Waikato remain at Alert Level 3. The rest of New Zealand remains at Alert Level 2.
27 October 2021	The parts of Waikato at Alert Level 3 move to Step 1 of Alert Level 3. Auckland remains at Step 1 of Alert Level 3. The rest of New Zealand remains at Alert Level 2.
2 November 2021	Upper Northland moves to Alert Level 3. The parts of Waikato at Alert Level 3 Step 1 move to Alert Level 3 Step 2 from 11:59pm.

	Auckland remains at Step 1 of Alert Level 3. The rest of New Zealand remains at Alert Level 2.
9 November 2021	Auckland moves to Alert Level 3 Step 2 at 11:59pm. Upper Northland remains at Alert Level 3. Parts of Waikato remain at Alert Level 3 Step 1. The rest of New Zealand remains at Alert Level 2.
11 November 2021	Upper Northland moves to Alert Level 2. Auckland and parts of Waikato remain at Alert Level 3 Step 2. The rest of New Zealand remains at Alert Level 2.
16 November 2021	Parts of Waikato move to Alert Level 2. Auckland remains at Alert Level 3 Step 2. The rest of New Zealand remains at Alert Level 2.
2 December 2021	All of New Zealand moved to the COVID-19 Protection Framework, also known as the traffic lights, at 11:59pm on 2 December 2021.
2 December 2021	Northland, Auckland, Taupo, Rotorua Lakes, Kawerau, Whakatane, Ōpōtiki, Gisborne, Wairoa, Rangitikei, Whanganui, and Ruapehu districts move to Red. The rest of the North Island, and the South Island, move to Orange.
14 December 2021	Auckland boundary lifts at 11:59pm. People travelling out of Auckland need to be vaccinated or have proof of a negative test.
16 December 2021	First confirmed Omicron border case. The international traveller tests positive soon after arriving on 10 December. Genome sequencing then detects Omicron.
30 December 2021	Auckland, Taupo, Rotorua Lakes, Kawerau, Whakatane, Ōpōtiki, Gisborne, Wairoa, Rangitikei, Whanganui, and Ruapehu districts move to Orange at 11:59pm. Northland remains at Red.
17 January 2022	Auckland boundary-crossing rules end. People travelling out of Auckland no longer need proof of vaccination or a negative test.
20 January 2022	Northland moves to Orange at 11:59pm.
23 January 2022	First confirmed Omicron community cases. All New Zealand moves to Red at 11:59pm.
26 January 2022	The Government introduces Omicron phases, with different approaches to testing and isolation as case numbers grow. Phase 1: Focus on stamping out small outbreaks, with PCR testing and 14-day isolation period for COVID-19 cases. Phase 2: Focus on slowing the spread and protecting those most at risk of getting seriously ill. Contact tracing switches to online self-assessments, isolation period drops to 10 days. Phase 3: Focus on safely managing COVID-19 at home, with self-testing kits of rapid antigen tests (RATs) and isolation only for people who test positive and their Household Contacts.
3 February 2022	Face mask rules change for Red at 11:59pm.
10 February 2022	Close Contact exemption scheme begins for workers in key sectors.
16 February 2022	All New Zealand moves to Phase 2 of the Omicron response at 11:59pm.
24 February 2022	All New Zealand moves to Phase 3 of the Omicron response at 11:59pm.
11 March 2022	Isolation period drops from 10 to 7 days at 11:59pm.
25 March 2022	Changes to traffic light settings at 11:59pm include: Indoor gathering limits at red increase from 100 to 200 people. No more limits on numbers at outdoor gatherings in any traffic light setting. Contact tracing and record-keeping requirements end for businesses and other organisations.

4 April 2022	Vaccine passes are no longer needed in any traffic setting from 11:59pm. Most vaccine mandates end for government workers. All New Zealand remains at Red.
13 April 2022	All New Zealand moves to Orange at 11:59pm.
2 July 2022	Vaccine mandates end for border and corrections workers.
7 July 2022	Vaccine mandates end for some workers in the Defence Force, Fire and Emergency, and Police.
12 September 2022	The COVID-19 Protection Framework (traffic lights) ends at 11:59pm.

LEARNING TEAMS INC

Building Better Community Of Practice

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