‘Women in Electricity’ Program

Final Summary & Insights Report

Collabaloop

Version: 1.2

Introduction

This report summarises data collected and provides insights as part of Collabaloop's partnership with Energy Skills Queensland (ESQ) in delivering the Women in Electricity program. (1)

The Women in Electricity initiative was designed to support 60 female electrical apprentices and their employers across Queensland.

While apprentice retention was a key motivation for the program, its broader aim was to equip both apprentices and employers with the tools, knowledge, and culture needed for long-term, sustainable workforce development.

Importantly, no participants withdrew from the program while noting only one apprentice left their employer, with all others (98%) continuing their training.

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(1) The intellectual property of the platform, content including those listed in Appendices and the derived data remain the property of Collabaloop Pty Ltd

1. Program Outline

Program Design & Delivery

Collabaloop developed and delivered a framework of apprentice engagement which included surveys and content to validate and boost resilience plus other key metrics across both apprentices and employers (see Appendix 3). The ESQ mentor had access to real-time data via an online admin portal.

Apprentices

- 11 tailored survey sets.
- 41 micro-content topics (see Appendix 1) with each topic including short videos and some even downloadable PDF summaries.
- All delivered via SMS pulse with link to our custom mobile-friendly web portal.
- Continued access to the full content library and incomplete surveys through their **personal dashboard.**

Employers

- Participated in 8 virtual and face-to-face peer roundtables (see Appendix 2) where the group shared learning, discussed challenges, and explored ways to improve apprentice experiences.
- Employer maturity survey.

Program Cadence

Collabaloop's platform issued **automated and regular "pulse" messages**:

- Mid-week Mastery: Weekly SMS pulses with new micro-content modules.
- Fortnightly Surveys: Customised surveys designed to capture real-time feedback.

Apprentice Measures

The program included key indicators of apprentice well-being and engagement, focusing on **resilience, motivation, and workplace safety** (Apprentice 3). Core measures included:

1. Subjective Task Value
2. Resilience
3. Hope Traits
4. Self-Esteem / Confidence
5. Personality Traits
6. Job Demands–Resources (Psychosocial Safety)

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Additional insights explored:

- Personal Growth
- Relationships
- Challenges
- Story Capture

Apprentice Demographic and Contextual Factors

Apprentices responded across some contextual factors that may impact apprenticeship outcomes for further correlation analysis not included in this report, including:

- Location
- LGBTIQ+
- Age and apprenticeship year
- Non-English-speaking background
- First Nations heritage
- Family birth order (eldest/non-eldest)
- Mental health history (stress, anxiety, depression)
- Distance to work
- Exposure to bullying (past 12 months)
- Permanent vs. temporary living address

Participation Summary

- 60 electrical apprentices in total expressed an interest to be involved.
- 42 consented through Collabaloop's platform (Fig 1).
- The remaining 18 were contacted directly by ESQ but did not respond.
- 57% of active apprentices from **Regional** areas outside of SEQ (Fig 2).

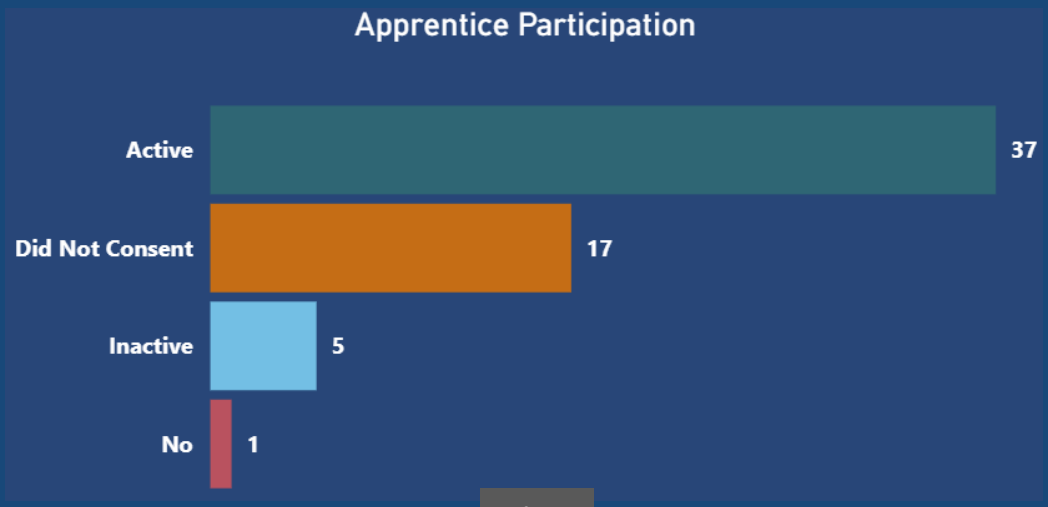

Fig 1

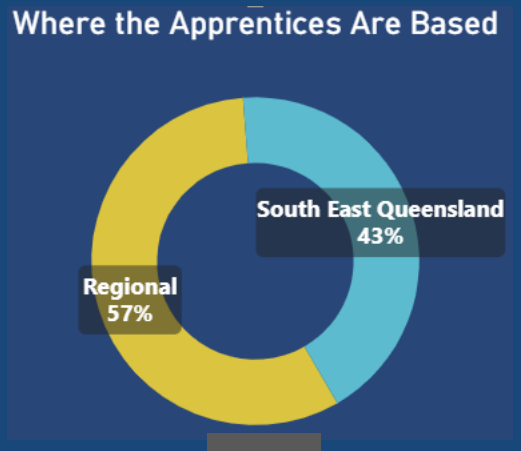

Fig 2

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2. Insights & Analysis

Overall Engagement

Engagement commenced **8 October 2024** and concluded **18 September 2025**, with participants increasing from an initial **4** to **37 active** (42 consented) apprentices.

- 423 surveys completed — averaging ~11 per active participant.
- Average survey completion time: 1.7 minutes.
- 387 videos completed — averaging 10 per active participant.

Engagement patterns indicate participants frequently accessed multiple modules after initial prompts (Fig 3).

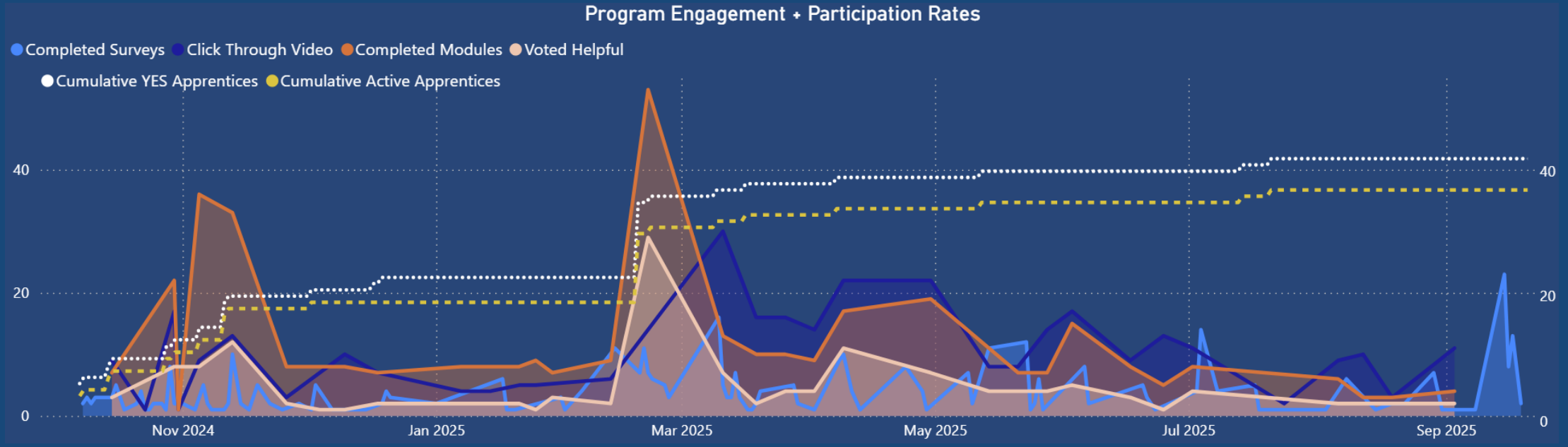

Fig 3

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Content Analysis

Key Insights:

- Content viewing evenly split between morning (9–11 am) and evening (4–8 pm), with Wednesday afternoons (pulse day) driving 25% of all views (Fig 4).
- 62 % of all content was consumed by those in regional areas (Fig 5)

Limitations:
Module-level data collection began only in **April 2025**, limiting early comparisons.

Top 5 Most Viewed Topics

1. Better Sleep
2. No Time to Work Out – Let's Fix That
3. Micromanagement
4. Gaslighting
5. Healthy Eating for Tradies

Voted Most Helpful Topics

- Confidence Overview
- Mindset
- Start Small, Start Tiny
- The Value of Curiosity
- Tips to Build a Growth Mindset
- What Are Crucial Conversations
- Your Ability to Change

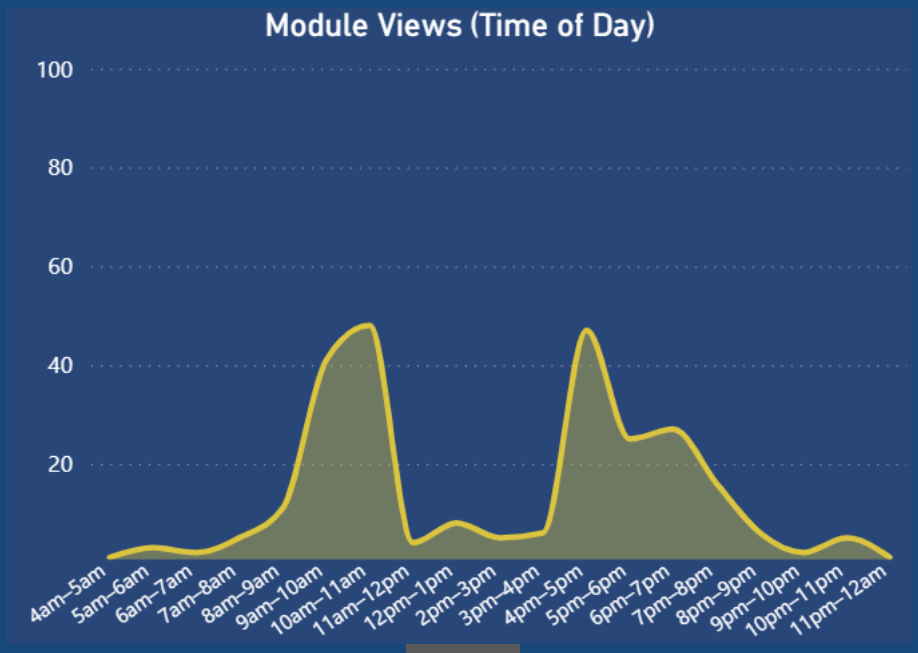

Fig 4

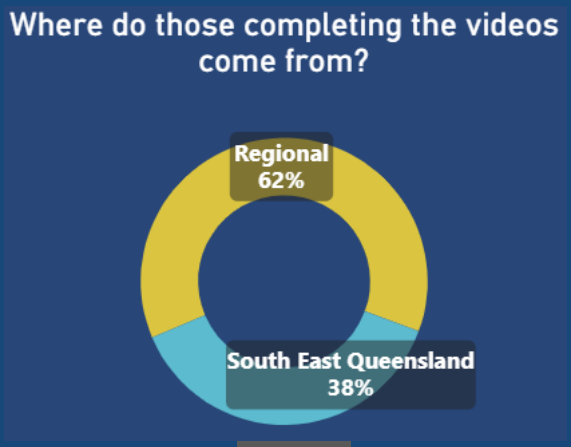

Fig 5

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Individual Metric Analysis

Cohort averages suggest participants resided largely within normal ranges across all metrics, (with Emotional Cost being a reversed measure i.e. low = positive result).

However, the large **range spread** in some measures highlights individual apprentices had varying outlooks within their apprenticeship environment, reinforcing the need for **individual-level intervention**.

Key Insights:

- **53%** of all surveys completed between 4–7 pm, mostly on Fridays (pulse day) (Fig 6).
- Resilience and Hope Traits appear to be more stable long-term indicators.
- Subjective Task Values (Intrinsic Motivation, Emotional Cost) and Self-Esteem / Confidence had the widest variability.

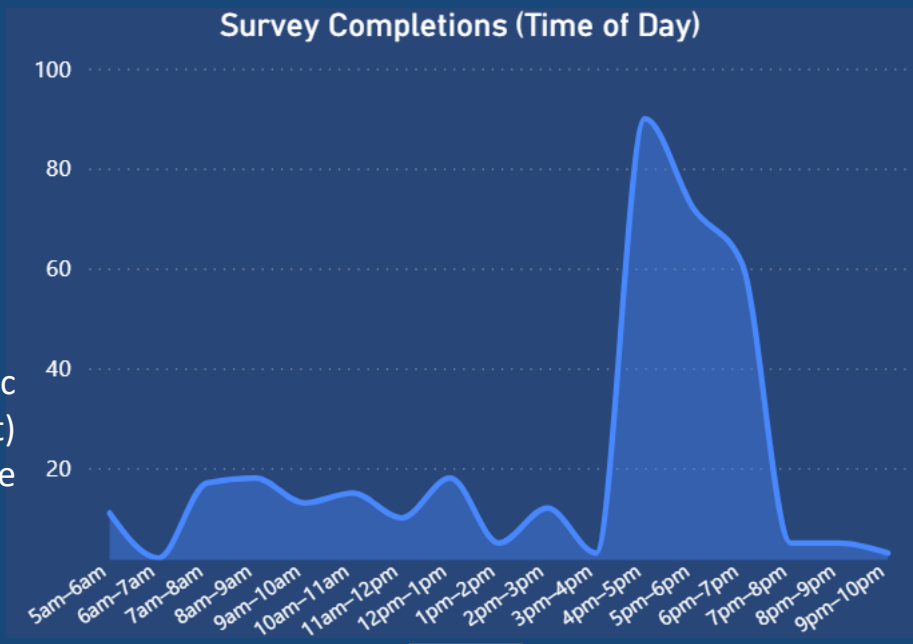

Fig 6

Resilience

- Overall cohort trend: slight improvement (Fig 7)
- 9 participants (42%) scored below the normal range — a signal for targeted support.

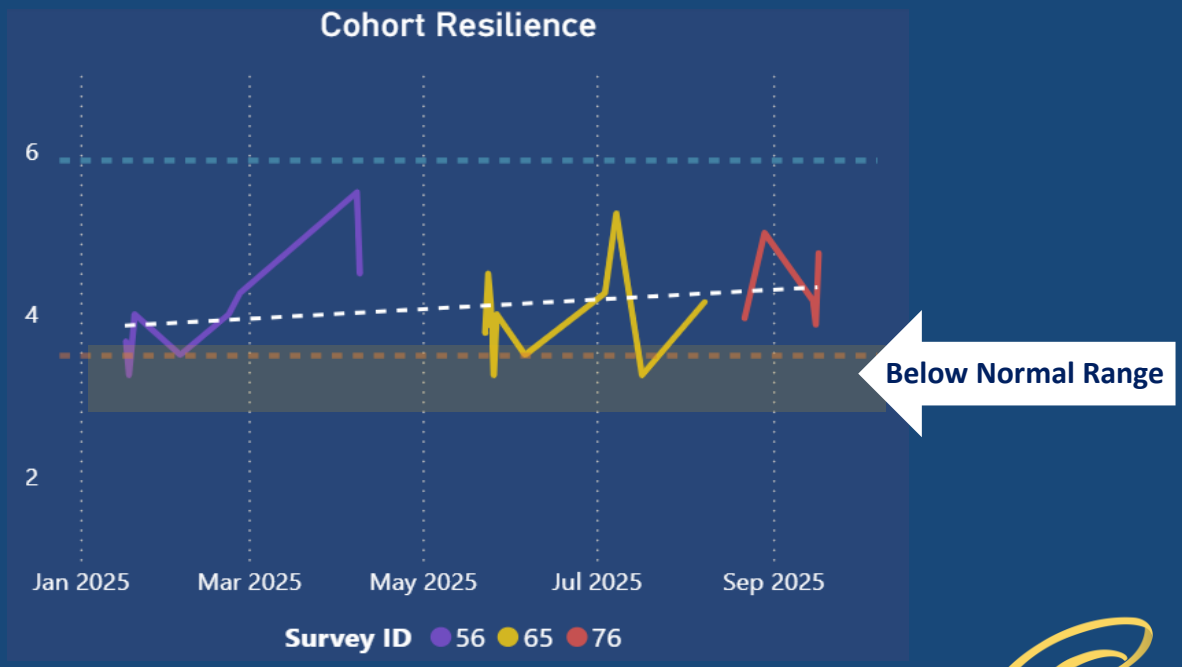

Fig 7

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Motivation and Confidence

- These metrics were highly responsive to immediate situational factors, showing broader short-term fluctuations which leads to the greater range on display (Fig 8).
- Future programs should aim to stabilise these measures through mentoring and structured growth feedback.

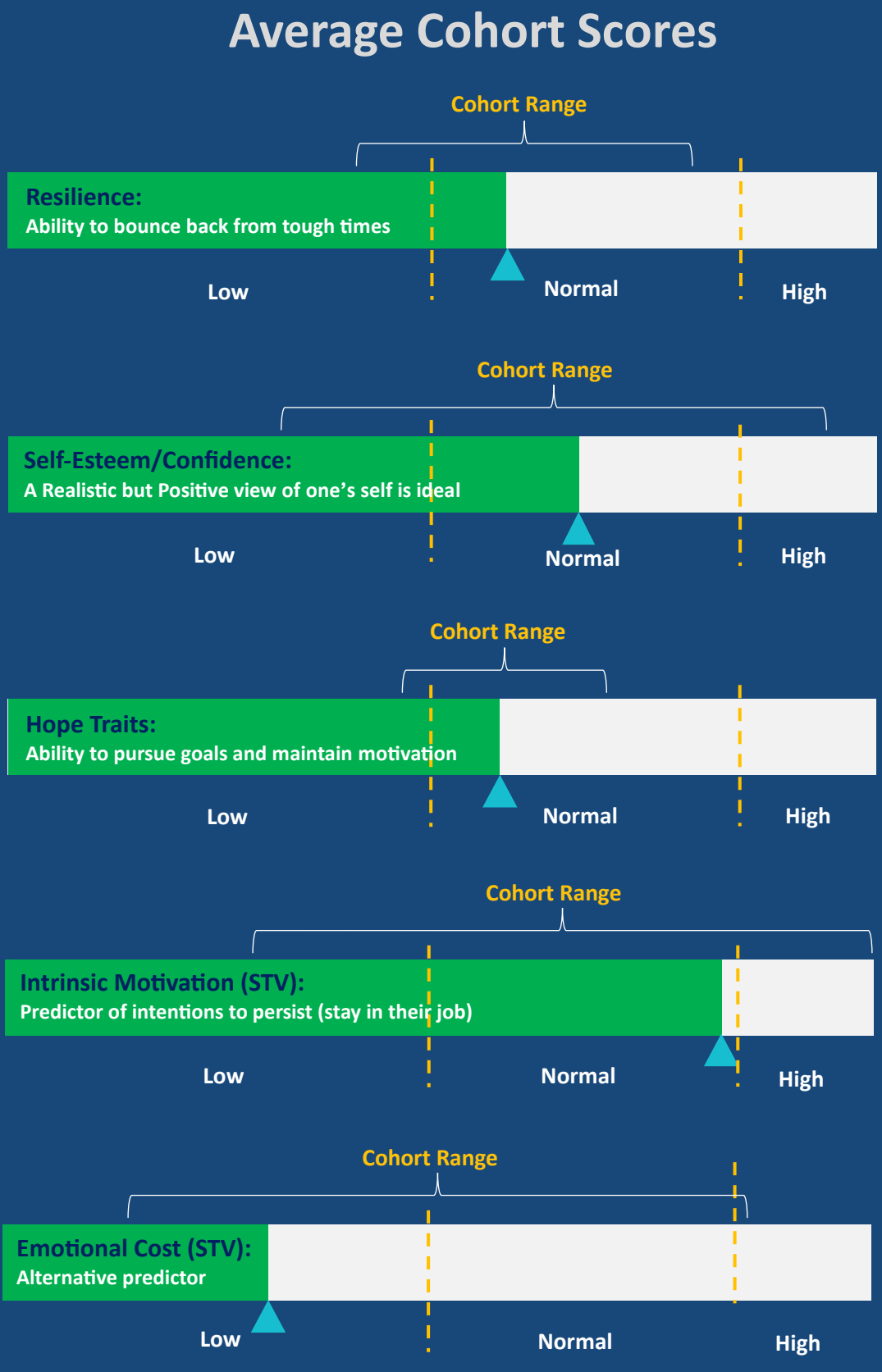

Fig 8

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Psychosocial Safety Metrics

Using modified **Job Demands–Resources (JD-R) scales**, we measured psychosocial risk factors (Fig 10) with 20 tailored questions.

Desirable outcomes:

- Job Demands: “Never” (low stress exposure)
- Job Resources: “Always” (strong support, autonomy, communication)

Key Insights

- Overall workplaces were within acceptable standards, but again, variation at the individual level points to risk pockets.
- Correlation (r = 0.66) between Job Demands and Job Resources meaning that when people are strained, they are less likely to feel supported in the workplace. (Fig 9)

Lowest-Scoring Areas

- **Job Control (Autonomy)**: Understandably low in apprenticeships. Through our employer roundtables we were able to discuss how they offer opportunities for controlled decision-making to build ownership and skill while also communicating and managing any expectations with apprentices.
- **Role Conflict:** Highlights communication gaps, where messages given may not be fully understood. Leading practice is supervisors should verify understanding, not just issue instructions.

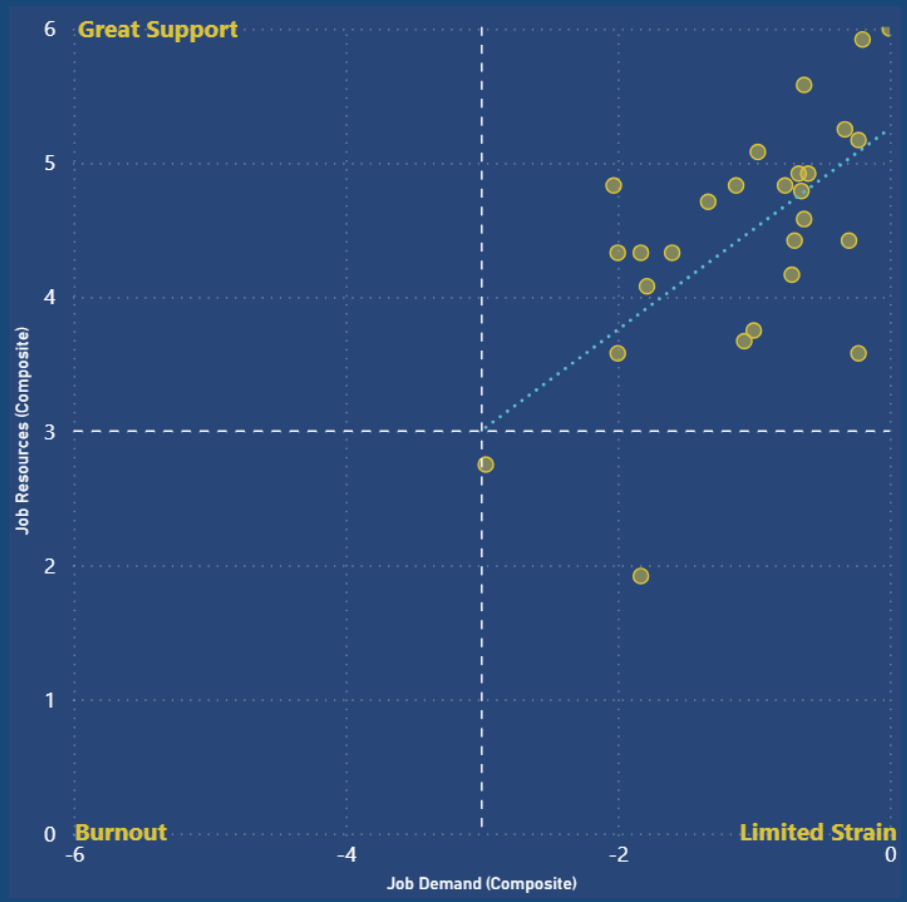

Fig 9

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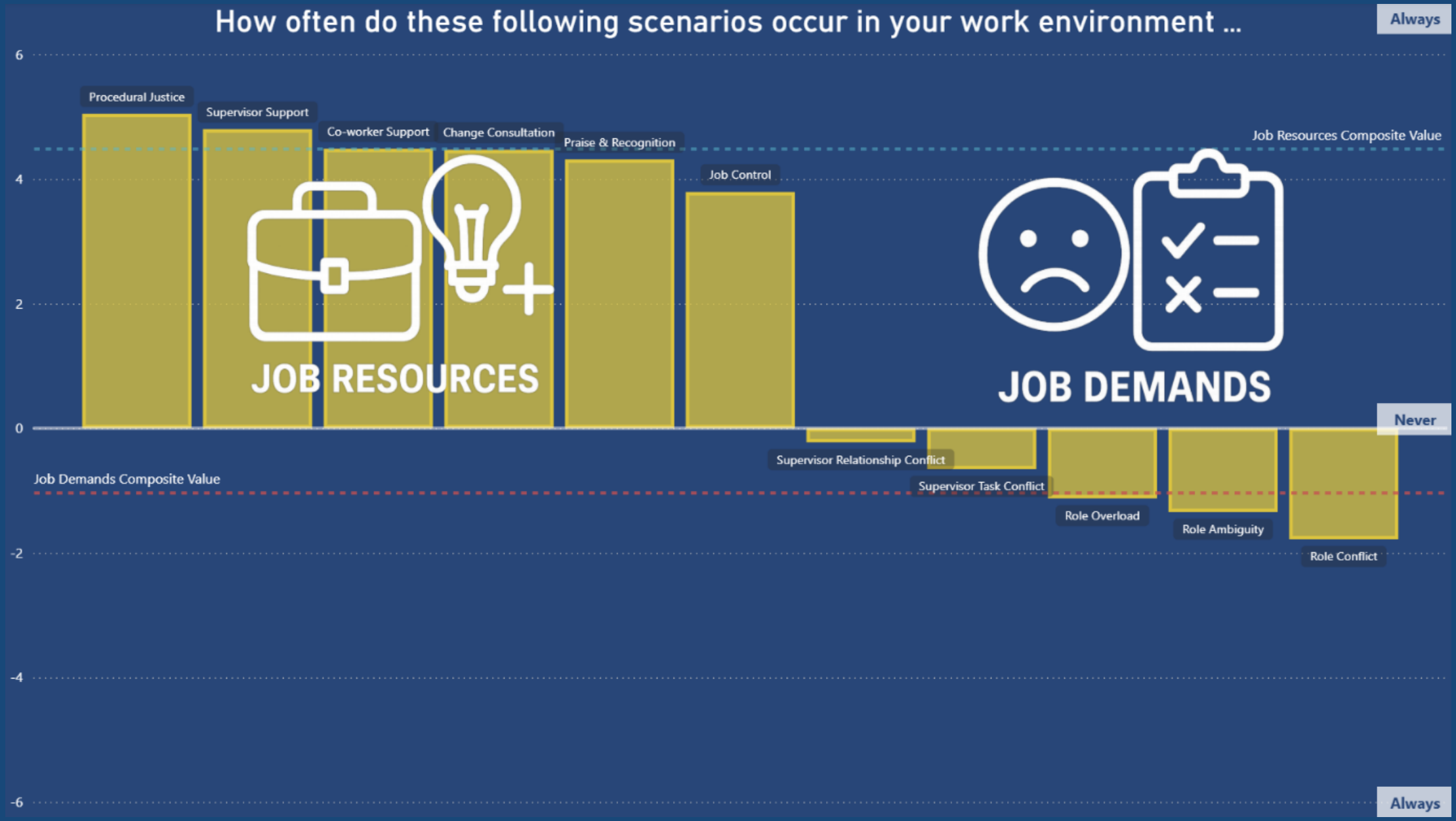

Fig 10

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Employer Surveys

Employer surveys responses represented **10,536 employees** across all businesses with some further details:

- Average **female participation**: 4.55% overall (7.75% average across firms)
- Highest **female participation**: ~16%
- **Balanced mix** of small, medium, and large employers (Fig 11).

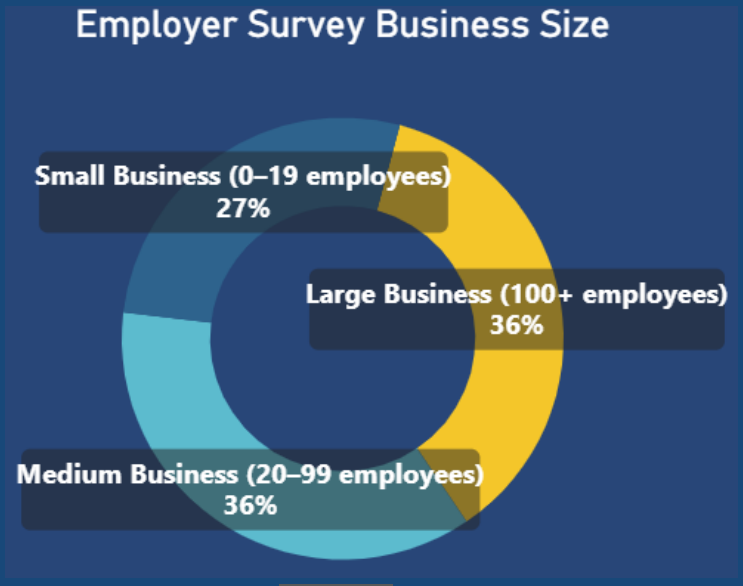

Fig 11

Key Insights

The following key insights as related to employers with female apprentices:

- **Support Needs:** Industry-wide promotion of resources; guidance on reinforcing behaviour standards.
- **Challenges in Recruitment:** Low application volume due to limited awareness or perception of trade careers.
- **How The Overcome Barriers:** Inclusive job ads; proactive communication; challenging cultural stereotypes.
- **Implemented Support Practices:** Regular mentoring, check-ins, and cohort-based networking.
- **Additional Suggestions:** Creation of a female apprentice job board and continued cross-industry collaboration.

Some employers expressed mixed views regarding gender-specific framing, which highlights a lack of understanding in the nuance of “equality vs equity” and underscores the need for ongoing and wider engagement and education on inclusive practices.

Story Analysis

A unique addition to our data collection was a story-based reflection. Apprentices shared real experiences that affected them over the past month.

Each story included contextual data driven by the storytellers themselves (e.g., sentiment and frequency), enabling pattern recognition and targeted interventions.

This approach drew on Vector Theory of Change, using story data to identify adjacent possibilities and providing realistic next steps toward long-term cultural change.

Across narratives, **co-worker relationships** (Fig 12) and **learning experiences** (Fig 13) were the strongest influences both Positive and Negative on apprentice well-being. Noting there was nearly as many Positive stories shared by the cohort as Negative ones.

Co-workers are the most common main actor for both Positive and Negative stories

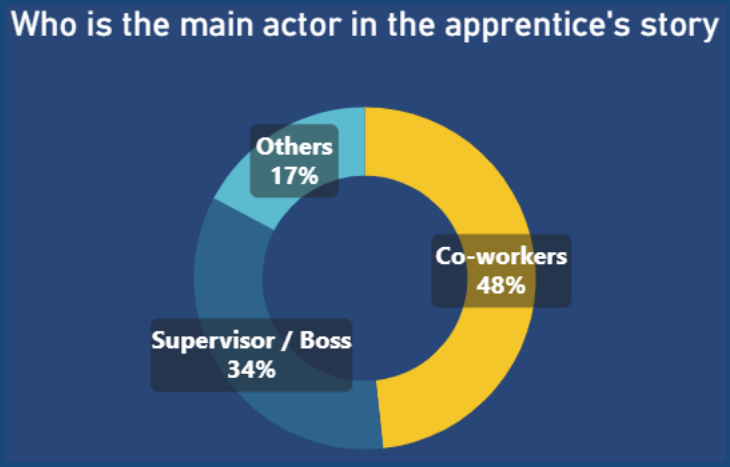

Fig 12

What is the main theme of the Negative stories?

Fig 13

Most common Negative stories shared related to the Learning Journey i.e. stress of doing well in TAFE & retaining information

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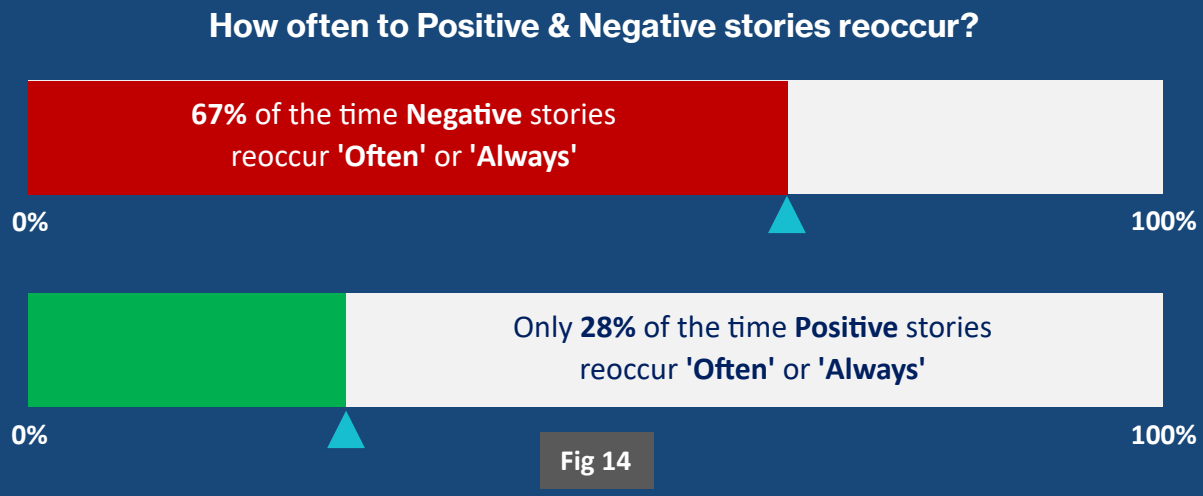

Fig 14

Positive stories occur less frequently highlighting opportunities for more recognition

To reinforce the benefit of a story-based data, over the course of other several separate surveys (compared to a singular story capture set), similar insights were found to corroborate that:

1. **Co-workers** had the biggest impact on an apprentice when surveyed (Fig 15).
2. The **Learning Journey** (Fig 16) and **Mastering** their trade (Fig 17) is always top of an apprentice's mind. However, when we consider how we manage wrap-around support we should not lose focus on all other factors such as those in Fig 16.

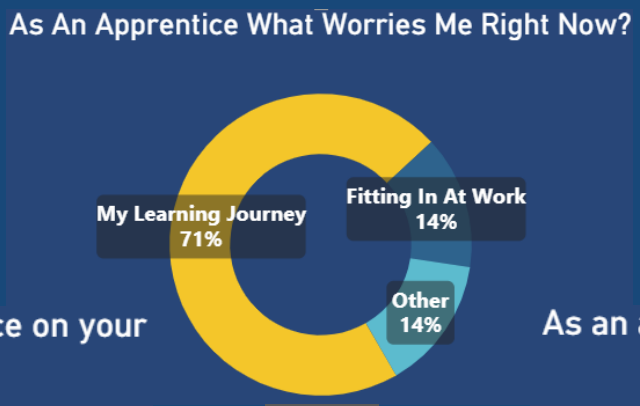

Fig 16

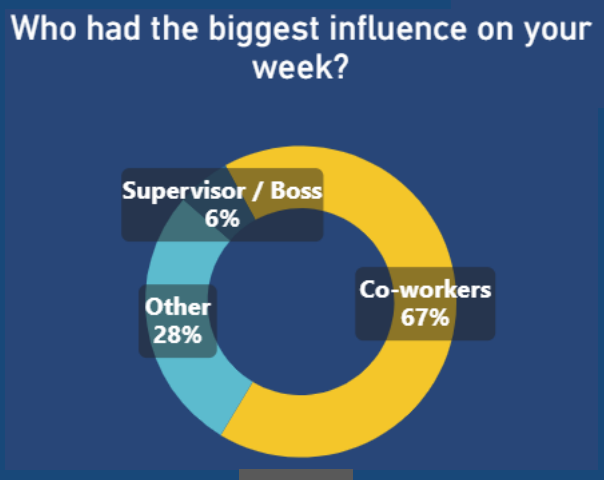

Fig 15

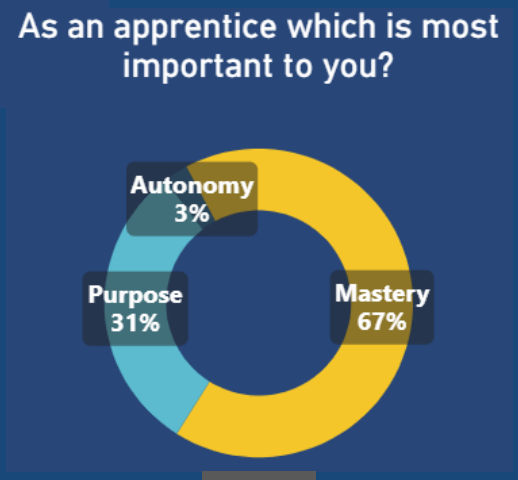

Fig 17

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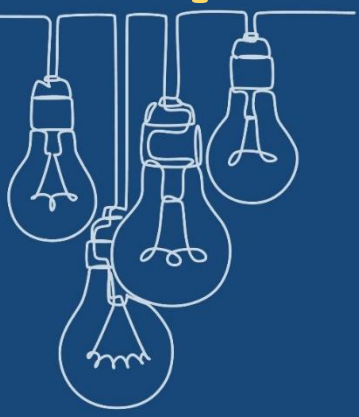
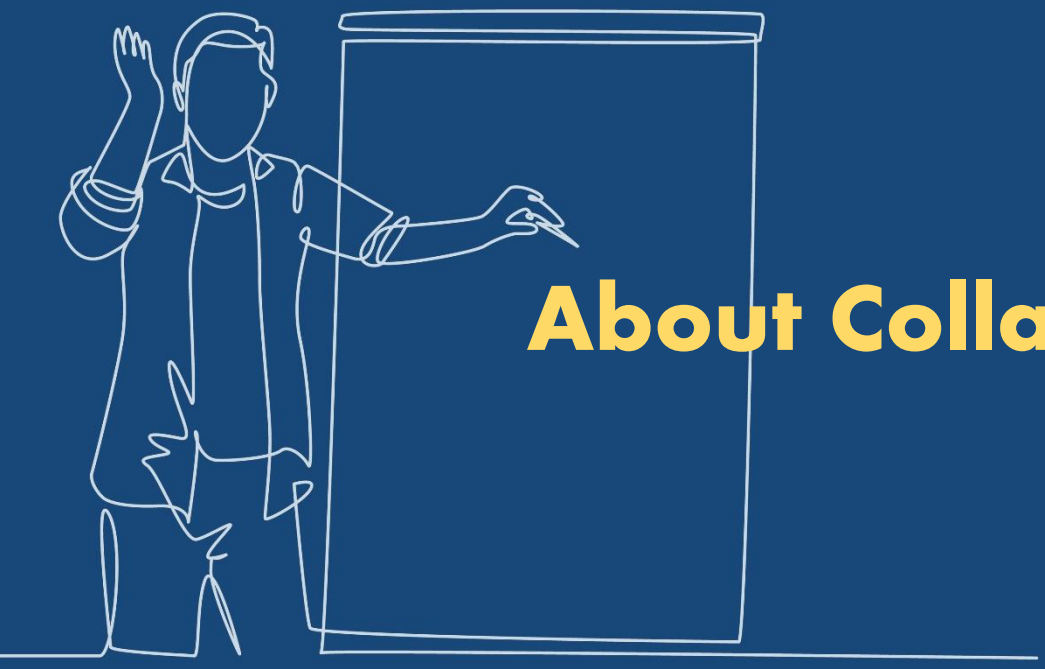
3. Conclusion & Next Steps



The Women in Electricity program successfully demonstrated that **structured micro-learning, continuous feedback, and story-based insights** can meaningfully support apprentice development and retention.

Key Takeaways

- **Strong participation** and retention especially with regional groups actively engaged with content, with no known apprentice dropouts.
- **Increased cohort resilience** score over the duration of the program.
- Rich qualitative insights reveal key motivators and challenges for apprentices:
    - **Co-workers are central** to both positive and negative story experiences.
    - The **Learning Journey** is always top of an apprentice's mind. The common negative theme involves pressures around TAFE and difficulty retaining learning material. Employers should communicate more with their apprentices about their learning journey so they can offer and provide tailored assistance as required.
    - **Positive experiences are not reinforced frequently enough**.
- Metrics gathered provide a **baseline for future tracking**. Resilience and Hope are stable long-term indicators, while Self-Esteem and Subjective Task Value reflect short-term sentiment.
- **Employer capability gap** with some discomfort from the gender-specific framing highlights the need for stronger understanding of equity vs equality.
- **Ongoing employer support** is needed to improve inclusive recruitment and strengthen behavioural standards on site.
- **Targeted apprentice support** with many apprentices showing metric fluctuations, underscoring the need for individualised pathways for those at risk.



About Collabaloop

Collabaloop is a Queensland-based social enterprise formed in 2021. Collabaloop's purpose is to collaborate with organisations to support, retain and connect the workforce within blue collar industries.

Construction environments are unique workforces and social systems in themselves that require a focus on the same grounding principles of managing successfully within any complex environment.

Collabaloop specialises and has experiences in understanding what makes positive workplace environments, using a combination of guided face to face learning, technology pushed content plus the capture of real-time human data and signals to overlay within any given decision-making framework.

Collabaloop's co-founder Mikael Heinonen has 30 years construction industry experience with an extensive senior leadership track record within teams who successfully delivered major complex projects from inception to completion. He has also been part of special teams troubleshooting major problem projects. Mikael graduated with distinction from QUT with an Executive MBA (Complex Program Leadership and Strategic Procurement Concentration).

Each workplace or project is different so let us collaborate with you to maximise the value on your major project or program of works.

Social Traders CERTIFIED SOCIAL ENTERPRISE

Business for good

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Appendix 1 – Apprentice Content Library

1	Confidence Overview	Explore and understand how confidence fluctuates, and how to protect it for personal growth and success.
2	5 easy tips to boost your confidence	Practical tips to boost your self-confidence through celebrating achievements, recognizing strengths, setting and achieving goals, engaging in positive self-talk, and staying active.
3	The Value In Curiosity	Explore the importance of curiosity in accelerating growth and innovation for apprentices.
4	How To Get Good At Asking Questions	Learn practical tips for asking effective questions to enhance your understanding and improve task completion.
5	Curiosity - Boost in 5 Easy Steps	Learn how to boost your curiosity with these 5 practical tips
6	Feedback - What Is It And Why Is It Important	Learn the importance of accepting feedback and how it can help build self-awareness and a mindset for continuous learning.
7	Tips For Getting Better At Receiving Feedback	A simple guide on how to effectively handle feedback, from immediate reactions to long-term application.
8	Mindset	Focusing on what you can control, embracing a growth mindset, and letting go of what you can't control will help reduce stress and lead to personal growth.
9	Tips To Build A Growth Mindset	Learn to build a growth mindset with these 3 tips
10	Focus On What You Can Control	Focus on what you can control, let go of what you can't, and build resilience to navigate life's chaos effectively.
11	Things You Can & Can't Control	Focusing on what you can control and letting go of what you can't, can help you build resilience and reduce stress.
12	About Imposter Syndrome	Imposter Syndrome is the pervasive feeling of inadequacy despite evident success, often driven by deep-rooted self-doubt and the need to challenge one's inner critic to break negative cycles and embrace deserved achievements.
13	Imposter Syndrome - How To Tackle It	To combat Imposter Syndrome, acknowledge it, challenge your underlying beliefs, and adopt practices like accepting compliments, facing fears, asking for help, and embracing a growth mindset.
14	Mastering Active Listening	Mastering the five skills to active listening can make you the go-to person for clear and effective conversations.
15	What Are Crucial Conversations	Mastering active listening and handling crucial conversations with calm and control can significantly improve communication and relationships at work.
16	Habits What Are They	Habits are formed by a cycle of cues, routines, and rewards, and by making small, positive changes, you can transform your daily actions into powerful routines
17	Start Small Start Tiny	Choose and commit to one meaningful habit to improve your life significantly in 2025, starting now
18	What Is Your Ability To Change	Discover why changing habits sometimes feels so hard
19	Tips To Make Habits Tiny	Discover these tips to simplify and make your habits tiny to combat fear and procrastination
20	How To Build Habits	Learn how to effectively form and reinforce habits using prompts, celebrations, and practice
21	Creating a Pool of Shared Meaning	In construction, strong teamwork thrives on open communication and a Pool of Shared Meaning, leading to better decisions and collaboration.
22	Start With Heart	Master your crucial conversations by starting with heart, staying grounded, and choosing understanding over winning because real dialogue begins with you.
23	Learn to Look	Crucial Conversations: Spot the Danger, Keep It Safe, Keep Talking.
24	Make It Safe	Learn how to handle tough conversations smoothly by ensuring safety, rebuilding trust, and finding common ground.
25	Master My Stories	Master your emotions by mastering your story because the way you interpret events shapes the way you play the game of life.

26	State My Path	Learn how to speak your truth with honesty and respect by using the STATE method to stay calm, share facts, and keep conversations safe, open, and productive.
27	Explore Others Paths	Learn how to defuse tense conversations and rebuild connection by exploring others' paths with curiosity and care.
28	Better Sleep	Prioritize your health and recharge fully with these simple tips for a better sleep routine!
29	Morning Routine	Boost your day and wellbeing with these simple morning routine tips!
30	No time to work out Let's fix that	No time to work out? Discover simple ways to fit exercise into your busy schedule
31	Healthy Eating for Tradies	Simple tips to stay energised and healthy on site with prepping, better meals, and proper hydration.
32	Tradie Burnout	Feeling burnt out on the tools? It's not weakness it's a sign to set boundaries, speak up, and take care of yourself.
33	Maximise Your Nutrition As A Tradie	Tips on how to how to maximise healthy eating as a tradie
34	Easy Eats for Tradies on the Go	Simple ideas to ensure you fuel your body right
35	Gaslighting	Gaslighting in construction is real, manipulative, and more common than you think learn the signs, protect your mental health, and take your power back.
36	Stepping Up as a First-Time Leader	Stepping up as a first-time leader on site? Here's how to back yourself, build trust, and lead with confidence even when it's tough.
37	Micro Management	Feeling micromanaged? Build trust, clarify expectations, and show you're ready for more independence.
38	Budgeting	Learn how to take control of your money with a simple budget that actually works for you.
39	Memory Improvement Hacks	Struggling to retain information. Boost your recall with these memory hacks to smash those exams and nail on-site skills.
40	Customer Service - Upfront Expectations	A fast, on-site playbook for tradies to keep jobs smooth: set rules, use C-O-P to handle quick extras and lock in clear safety and privacy boundaries no surprises, just good work.
41	Customer Service - When Things Go Wrong	A 2-minute guide showing apprentices how to calm customers, fix mistakes fast, and use simple frameworks (3R and L.A.T.E.R.) to keep jobs on track.

Appendix 2 – Employer Roundtable Topics

1	Thinking Differently	Building strong, trust-based relationships and embracing different perspectives can help employers better support and grow their female apprentices while gaining a competitive edge.
2	Psychosocial Safety	Understanding psychosocial safety and balancing job demands with resources—particularly by improving job control, communication, and clear expectations—can enhance motivation, wellbeing, and retention among apprentices.
3	Psychological Safety	Fostering psychological safety—through trust, respect, inclusion, and open communication—can empower apprentices (especially women) to speak up, learn, and thrive in environments free from fear, bias, and microaggressions.
4	Leading with questions	Leading with curiosity—by asking better questions, listening deeply, and creating psychological safety—builds trust, understanding, and engagement across teams while empowering others to think, learn, and grow.
5	Crucial Conversations	Mastering crucial conversations—building self-awareness, creating psychological safety, and balancing honesty with respect—so teams can replace defensiveness with dialogue and turn high-stakes moments into opportunities for trust and shared understanding.
6	Self-care & awareness	Self-awareness, emotional regulation, and intentional recovery practices—like reframing stress, setting boundaries, and embracing antifragility—help leaders stay grounded, improve wellbeing, and show up at their best for themselves and their teams.
7	Coaching Approach	Effective coaching—grounded in psychological safety, self-determination, and tailored learning approaches like scaffolding and inquiry—helps apprentices grow in confidence, competence, and motivation by focusing on how leaders make them feel, not just what they say or do.
8	Communication through generations	Generational differences, digital communication, and misread messages can divide teams—and how empathy, curiosity, and adapting our communication styles can bridge the gap to build stronger, more connected workplaces.

Appendix 3 – Apprentices Metrics

1	Subjective Task Value	STVs are the most proximal predictors of intentions to persist in a given task (or stay in their job), in turn, motivations are shaped by features of their context. Source: *Powers, T. E. (2020). Motivated apprentices: The value of workplace and trade school. Journal of education and work, 33(1), 81-97.*
2	Resilience	Brief Resilience Scale at quarterly intervals to assist in identifying any longitudinal changes. Resilience focuses on "bouncing back" from tough or demanding events.
3	Hope Traits	Hope trait measure at quarterly intervals to assist in identifying any longitudinal changes. Hope focuses on the ability to cognitively assess our abilities to pursue goals and our ability to maintain motivation, particularly when "the going gets tough." Source: *Lopez, S. J., Ciarlelli, R., Coffman, L., Stone, M., & Wyatt, L. (2000). Diagnosing for strengths: on measuring hope building blocks. In C. R. Snyder (Ed.), Handbook of hope: theory, measures, and applications (pp. 57–85). San Diego: Academic Press.*
4	Self-Esteem/ Self- Confidence	Rosenberg Self Esteem Scale at quarterly intervals to assist in identifying any longitudinal changes Self-esteem at high and low levels can be damaging, so it is important to strike a balance in the middle. A realistic but positive view of the self is often ideal.
5	Personality Traits	Big 5 personality to identify traits and pair to relevant content plus identify links to research backed outcomes such as susceptibility to bullying, resilience, motivation / accountability
6	Job Resources – Demands (Psychosocial Safety)	Workplace environment measure linked to psychosocial safety utilising a modified version of Job Resources Demand Theory. While Resources have a great effect on buffering interest declines, Demands are more important in elevating anxiety etc – ice dual process required
7	Personal Growth	What knowledge or skills did the apprentice gain recently and what is mor important to them between Autonomy, Mastery & Purpose
8	Relationships	Who had the biggest influence on the apprentice's week and why
9	Challenges	What worries the apprentice right now
10	Story-based Insight	Apprentices were asked to share experiences from the past month that had a meaningful impact on them. Each story included context about how often similar experiences occur, who was the main actor, and whether the story was positive or negative. By analysing these stories for recurring patterns, we can identify both challenges and successes. Using a vector theory of change approach, these insights help guide action — asking, "How do we create more of the positive experiences, and fewer of the negative ones?"