



Increasing completion of apprenticeships and traineeships using behaviourally informed messages

March 2021

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Executive Summary

More apprentices & trainees will complete their training if they are given 6 low-cost behaviourally informed SMS prompts.

The challenge

- Completion rates for apprenticeships and traineeships have been a persistent challenge in recent decades. In 2015, the New South Wales (NSW) Premier set a State Priority to increase apprenticeship and traineeship completion from 50% to 65%.
- The annual cost of non-completion to the state and federal governments had been estimated in 2011 to be \$91 million. The total cost of non-completion including productivity forgone plus budgetary impacts was \$348 million.
- Apprentices and trainees ('learners') spend much of their time in the workplace. Learners also deal with various state and federal agencies but often do not have awareness of where to get help for specific workplace and training issues. As a result, learners who are struggling with their qualification were rarely seeking help from NSW Government services.

What did we do?

- The NSW Behavioural Insights Unit worked with Training Services NSW (TSNSW) and the Centre for Education Statistics & Evaluation (CESE) in the Department of Education to help learners get timely support to complete their apprenticeships and traineeships.
- We sent behaviourally informed text messages to the learners. The messages were designed to encourage them to seek help when they needed it, and persevere during their apprenticeship or traineeship.
- From May to November 2019, **13,065 first year learners** were randomly assigned into three groups:
 - One third of learners were sent six SMS about how to build self-efficacy and get a **'fair go'** at work (e.g. seeking mentorship, finalising their training plan, and other workplace rights).
 - One-third of learners received six SMS about **incentives** (e.g. travel concessions, pay progression, and early completion).
 - *Both groups were sent a link to visit the Training Services NSW website for resources to help them persevere with their training, or they could get further help by calling or texting their local Regional Office.*
 - The other third of learners did not receive any SMS (the **control** group), however, they still had access to the same online resources and support from their local TSNSW Regional Office.

Does it work?

- The results of the trial were very positive. The Fair Go message was most effective in reducing 12-month dropout rates.
- The dropout rates for learners who received the Fair Go message was 2.8 percentage points lower than those who received no SMS (15.1% for treatment vs 17.9% for the control group). The Fair Go messages were also more effective than those who received messages about Incentives (who had 16.7% dropout rate).
- If we implement this behavioural intervention and send the Fair Go messages to all 13,100 first year learners around NSW, **an additional 370 learners will continue their training.**
- These six simple and effective SMS will retain an additional **1,850 qualified workers over the next five years alone.**
- The text messages also led to increased customer engagement, with 552 direct phone calls and 512 text messages from learners seeking support, plus almost 6,000 clicks to TSNSW online resources.

Why do the results matter?

- Our low-cost intervention led to \$2.0M avoided costs for NSW Government and a further \$1.1M avoided costs for business. For 2020-2025, the net present value is \$2.4M.
- Economic analysis shows the messages offer a **sevenfold return on investment**. This means that for every \$1 the NSW Government spent on supporting learners in this way, \$7 is returned in benefits, primarily of students progressing with their qualifications, as well as other benefits to businesses.
- Our trial shows that low cost, behaviourally informed text messages improve outcomes for young, vulnerable customers, many of whom governments struggle to engage with. This insight has broad application across the NSW Government.
- Several recommendations have been made in the report to support the implementation of this proven intervention to support learner completions.
 - Implement the behavioural messages to boost proactive self-help behaviour
 - Include personalised messages, and send timely messages throughout the training calendar, from April to November, on Wednesdays, from 11am to 12pm
 - Measure longer term impact of the interventions

What were the behavioural insights?

Our intervention was co-designed with TSNSW stakeholders and drew on several behavioural insights concepts.

- **Personalisation and messenger effect.** Our messages included the learners' first name, it specifically referenced their apprenticeship or traineeship (instead of a generic message about their 'qualification'), and it was signed off from their local Regional Manager (*personalisation*). Regional Managers are senior figures within TSNSW, which reinforced that the organisation was taking seriously the responsibility of supporting learners (*messenger effect*).
- **Salience.** Our messages had a clear call to action to visit a relevant TSNSW webpage, or call their local Regional Office if learners needed more specific help.
- **Timeliness.** Because learners from different trades work varying hours (from 5am to 5pm), we tested sending our texts during common break times, in the morning, lunchtime, and early afternoon. Each campaign was timed at pivotal points in the apprenticeship/traineeship journey. For example, when learners needed to complete key training documents.
- **Address information bias.** Learners are overwhelmed by too many documents at the time of enrolment, and cannot recall which government agency sent them helpful information about their services. Our SMS campaigns called attention to useful resources from TSNSW that learners may have overlooked, and which could help them at specific points in their first-year journey.
- **Change habits.** The current *default* for learners who have problems is to do nothing, suffer in silence, and eventually quit because they see no other option (*default bias*). Our messages sought to change the default by helping learners *develop new habits*. We established an early routine at the time of enrolment, sending behavioural texts every two months, to encourage learners to stay motivated to progress through their first year, and proactively seek help before problems got out of control.

Additionally, for each intervention group, we tested a different set of behavioural principles.

1. **Self-efficacy:** Our Fair Go messages encouraged learners to build up their capacity to better manage stressful situations, exercise their workplace rights, and persevere with their training (this principle had the best result in our test).
2. **Incentives:** Our Incentives messages appealed to both *intrinsic incentives* (self-improvement) and *extrinsic incentives* (financial and material rewards), to make staying in their training more attractive.

Background

Completion rates for apprenticeships and traineeships have been a persistent challenge in recent decades. In 2015, the New South Wales (NSW) Premier set a State Priority to increase apprenticeship and traineeship completion from 50% to 65%. The cost of non-completion to the state and federal governments had been estimated in 2011 to be \$91 million, and the total cost of non-completion including productivity forgone plus budgetary impacts was \$348 million.¹

In late 2015, we collaborated with Training Services NSW (TSNSW) to support employers with low apprenticeship and traineeship completion rates. In 2016, we conducted fieldwork, including interviews with 50 students, teachers, and stakeholders, as well as observations of customer service interactions between TSNSW Advisors, employers, and learners. We identified two key barriers to non-completion:

- 1. There is a significant disconnect between what learners study** at their registered training organisation (such as TAFE), **and their on-the-job learning** with their employers. In partnership with TAFE NSW, we addressed this in our ‘**Strengthening Connections**’ trial, which significantly increased class attendance using behavioural messages.²
- 2. There is a lack of employer support for learners who are struggling.** While some employers strongly support their learners, other employers lack the time, resources, or skills to effectively supervise and mentor learners, leading to demotivation and a drop in completions. Our ‘*Employer Support*’ trial addressed this finding.³

As we detail below, we went on to enhance and retest elements from the *Employer Support* intervention and successfully increased customer engagement. Twelve months later, we had significantly decreased the drop-out rate.

The challenge

Our fieldwork found that learners spend the majority of their time in the workplace, rather than studying. What happens in the workplace ‘makes or breaks’ a learner. This is consistent with other studies, which find employment issues (rather than study problems) lead to low completion,⁴ as well as unfair working conditions (low pay, repetitive work),⁵ poor communication of job expectations,⁶ plus inadequate on-the-job training support.⁷

In our fieldwork, employers with low completion rates tend to be reluctant to invest time and training for their learners, until the learners can prove that they will be valuable employees. The lack of employer support may lessen the opportunity for the learners to apply the skills that they have learnt at work. This has a negative impact on completions.

¹ Deloitte Access Economics, “The Cost of Apprenticeship Non-Completion in NSW” (Sydney, 2011).

² Behavioural Insights Unit, “Strengthening Connections: Increasing Apprenticeship Course Attendance Through Behavioural Interventions.”

³ Behavioural Insights Unit, “Behavioural Insights Unit Update Report 2020.”

⁴ Alice Bednarz, “Understanding the Non-Completion of Apprentices” (Adelaide: National Centre for Vocational Education Research (NCVER), 2014), <https://www.ncver.edu.au/publications/publications/all-publications/understanding-the-non-completion-of-apprentices#>.

⁵ Mary Dickie, Rod McDonald, and Fadil Pedic, “A Fair Deal: Apprentices and Their Employers in NSW: Integrated Research Report” (Sydney: BVET, 2011), <http://www.voced.edu.au/content/ngv%3A48917>.

⁶ Australian Industry Group, “A Guide to Managing the First 100 Days of an Apprenticeship.”

⁷ Kronos, “Motivating Millennials: Motivating Tomorrow’s Workforce, Today” (North Ryde, 2016), <https://www.kronos.com.au/resources/motivating-millennials-report?fs=200&at=g>; Australian Industry Group, “A Guide to Managing the First 100 Days of an Apprenticeship.”

Additionally, learners deal with many state and federal government agencies for different purposes, but they aren't clear on where to get help for specific issues. Increasing awareness of customer support services ('branding') was important to TSNSW.

From late 2017, we ran a randomised control trial focused on employers whose apprentices had low completion. This was defined as 42% or lower for apprentices, or five trainees or more cancelling in the past two years (apprenticeships typically go for three years; traineeships one to two years). TSNSW Training Advisors already deliver targeted outreach to vulnerable groups (such as learners under 18, Aboriginal people, and people with disability). All other learners can reach out for support from Training Advisors, but unfortunately, most learners do not make proactive contact. If they do, it's usually for mediation after problems have snowballed. For our project, Training Advisors extended direct outreach to employers with low completion.

In the *treatment group*, TSNSW Advisors, learners and their supervisors met face to face to set goals and discuss commitment to contractual obligations. Over the subsequent three-months, we sent fortnightly messages to employers and their learners to reinforce these aims, plus a follow up phone call after three months to check on progress. The *control group* did not set goals or receive these additional messages, but could still access support from TSNSW Advisors.

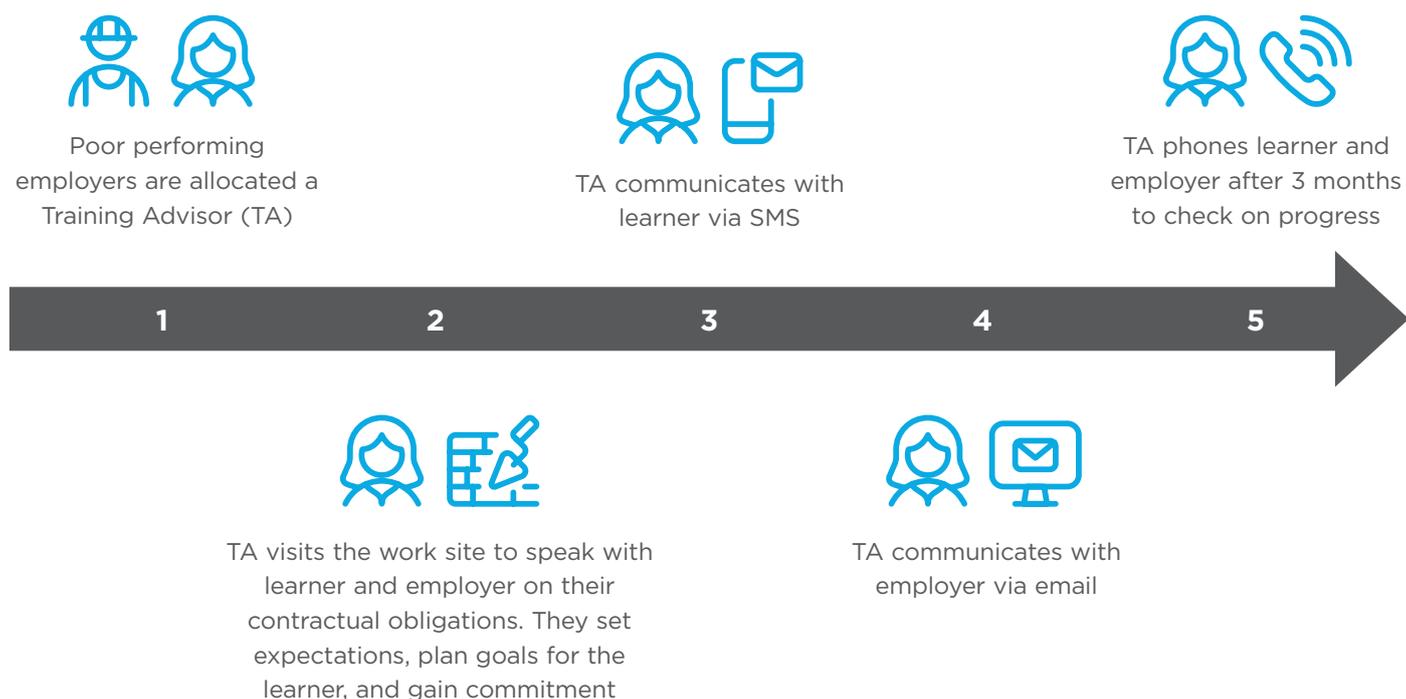


Figure 1 Intervention delivered to Treatment group in original 'Employer Support' trial

In 2018, we followed up on completions for both treatment and control twelve months after our intervention. In our *2020 Behavioural Insights Unit Update Report (Chapter 4.3)*, we reported that we found no statistically significant results from our trial. Learners (apprentices and trainees) who received treatment were no more likely to stay in their contracts than the control group. However, our trial illuminated many important findings, including:

1. Our methods revealed a lag in cancellation records (or non-completion). Most learners who drop out do not reach out for help, and many do not formally notify TSNSW that they've cancelled their employer contract. Our trial identified numerous ways to improve customer service through enhanced data collection and technology.
2. Around 20% of learners who quit their first contract will keep studying. Our trial suggests that timely support earlier in the student journey could help these learners find help sooner.

Further research identified that learners who are most likely to quit will so do in their first year.⁸ In our trial, first year learners were 12 percentage points less likely to complete compared to second and subsequent years. Our intervention included learners from first to third year. We started the intervention in November, which was potentially too late. It is likely that learners who most needed support had already quit; a fact we could not have identified without our trial tracking their outcomes. Additionally, our *Strengthening Connections* trial showed that behaviourally informed text messages sent in the first semester had increased class attendance. We therefore hypothesised that it would be more advantageous to **target first year learners** to receive behaviourally informed support in **their first 12 months**. This hypothesis guided the design of a new project.



⁸ Training Services NSW, "Dataset Held by Training Services NSW" (Sydney: Training Services NSW, 2014); T. (Tom) Karmel and David. Roberts, "The Role of 'Culture' in Apprenticeship Completions" (Adelaide: National Centre for Vocational Education Research, 2012), <https://www.ncver.edu.au/research-and-statistics/publications/all-publications/the-role-of-culture-in-apprenticeship-completions>; Bednarz, "Understanding the Non-Completion of Apprentices."

What we did

In 2019, we retested one aspect of our original trial – behaviourally informed messages – using the lessons from that first trial. We tested if delivering the intervention earlier, with a focus on the first 12 months of a first-year contract, would improve outcomes:

- 1. In the short term:** more learners seeking help instead of dropping out (higher self-help engagement)
- 2. In the long-term:** more learners persevering with their qualifications (higher non-dropout rate)⁹

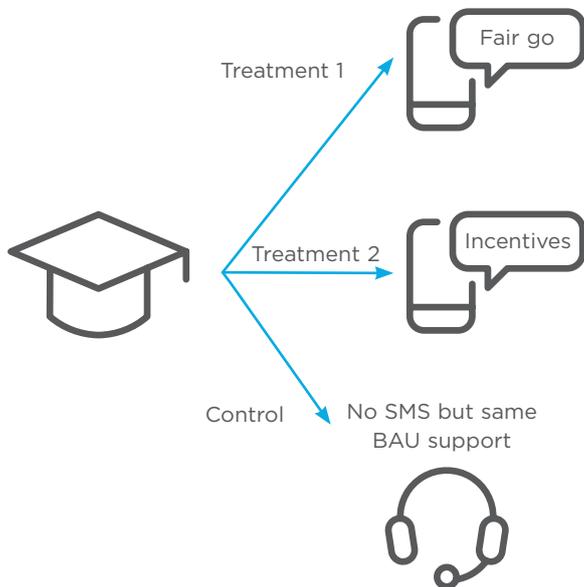
Our sample included all first-year learners from across NSW who started first year from 1 January to 31 March 2019 (N=13,065). They were randomised into one of three conditions: two treatment groups received SMS messages from 1 May to 28 November 2019.¹⁰ Each treatment group received a separate set of behaviourally informed messages. Each SMS had an URL link to an existing online resource on the TSNSW website, plus an ongoing reminder to call their local office for support if they needed help. The two message themes of ‘Fair Go’ and ‘Incentives’ were chosen by TSNSW Executives and Regional Managers, because these have the highest strategic importance to their customers (learners).

- 1. Treatment Group 1, Fair Go:** 4,288 learners received six SMS about a ‘Fair go.’ This included: a right to professional development at work, their Training Plan (learning goals), how to stay on-track with study and work, tutorial support, their workplace right to safe working hours, and encouragement to reach out for help on issues that may impact first year completion.
- 2. Treatment Group 2, Incentives:** 4,223 learners received six SMS about Incentives. These messages included: how to apply for travel concessions and other entitlements, where to get financial help, information on yearly salary increase, the importance of working safety as well as the impact of workplace injuries on pay and completions, and how to access early completion plus associated benefits.
- 3. Control:** 4,554 learners received business-as-usual. That is, they did not receive any SMS, but they still have access to the same support and resources as the treatment groups (they can visit the website resources any time, or call their local office for help).

⁹ Non-dropout rate is used as an interim measure for completion because the average apprenticeship can take three to four years to complete, while a traineeship can take one to two years to complete.

¹⁰ Note that the first message was scheduled for April, as first year enrolments peak from January to the end of March. However, our April campaign was delayed due to the sudden call for the state election in 2018. During this time, public communications are prohibited, and we were unable to SMS learners as planned. We recommend that future messages begin in early April.

Trial design



Sample SMS



Figure 2 Trial design and sample behavioural message

Behavioural principles of our messages

Messages were co-designed with TSNSW (see Table 1). Our intervention was co-designed with TSNSW stakeholders and drew on several behavioural insights concepts.

- **Personalisation and messenger effect.** People respond more favourably when a message is tailored to them (*personalisation*). Our messages included the learners' first name, it specifically referenced their apprenticeship or traineeship (instead of a generic message about their 'qualification'), and it was signed off from their local Regional Manager. Regional Managers are senior figures within TSNSW, which reinforced that the organisation was taking seriously the responsibility of supporting learners (*messenger effect*).
- **Salience.** People's ability to act on messages is affected by the way in which information is presented.¹¹ People are more likely to act on clear, novel, and attractive communication. Our SMS had a clear call to action to visit a relevant TSNSW webpage, or call their local Regional Office if they needed more specific help.

¹¹ A Tversky and D Kahneman, "Judgment under Uncertainty: Heuristics and Biases.," Science (New York, N.Y.) 185, no. 4157 (1974): 1127, <https://doi.org/10.1126/science.185.4157.1124>.

- **Timeliness.** One of our previous trials,¹² and other research,¹³ shows that timely behavioural text messages can improve student attendance. We sought to test whether timely SMS could also stop learners from dropping out. People are more likely to take action when they receive a SMS at a time where the message can be actioned immediately. Learners from different trades work varying hours, from 5am to 5pm. We tested sending our texts at times when learners commonly take breaks: morning tea (9am, 10am and 11am), lunchtime (12pm), and afternoon tea (3pm). Each campaign was timed at key points in the apprenticeship/traineeship journey. For example, when learners needed to complete key training documents (e.g. Training Plan) or finalise their travel concessions.
- **Address information bias.** When people receive too much information, they have trouble identifying what is relevant and useful, and so they delay taking action.¹⁴ As part of enrolment, new learners are sent an abundance of information from multiple organisations, including legal and admin documents, multiple contracts (from their training organisation and their employer, and other induction letters. It can be overwhelming to sort what messages are important now versus later, and to recall this information at optimum times. Our fieldwork from our previous trial shows the learners don't distinguish between different government agencies, they don't remember which agency sent them what information. Our SMS campaigns called attention to useful resources from TSNSW that learners may have overlooked, and which could help them at specific points in their first-year journey.
- **Change habits.** Our previous trial shows around 20% of learners who enrol in January will have cancelled their contracts by November.¹⁵ They don't bother informing TSNSW because the *default* for learners who have problems is to do nothing, suffering in silence, and eventually quitting because they see no other options (*default bias*). Other research shows that embedding a stronger training culture within the first 100 days of an apprenticeship can improve retention.¹⁶ We tested messages to *change the default* and *develop new habits*. Our text messages drew on our previous trial results, which focused on providing early intervention to help learners understand their rights and setting expectations for their training. We reached students early at the time of commencement, and established a routine of texts every two months, to encourage learners to stay motivated to progress through their first year, and proactively seek help before problems got out of control.

Additionally, for each intervention group, we tested a different set of behavioural principles.

1. **Self-efficacy (Fair Go):** Our SMS messages prompted learners to reach out for help if they were at risk of cancelling due to immediate issues at work. We also encouraged learners to plan with links to practical tips and resources so they could better manage stressful situations during their training (*planning fallacy*). The 6 Fair Go messages told learners to:
 - i. expect to learn new skills and receive mentorship at work (*self-efficacy*)

¹² Behavioural Insights Unit, "Strengthening Connections: Increasing Apprenticeship Course Attendance Through Behavioural Interventions" (Sydney, 2019).

¹³ Sarah Miller et al., "Texting Parents Evaluation Report and Executive Summary" (London, 2016), www.educationendowmentfoundation.org.uk; Bibi Groot et al., "I Get by with a Little Help From My Friends: Two Field Experiments on Social Support and Attendance in Further Education Colleges in the UK" (London, 2017), http://38r8om2xjhh125mw24492dir.wpengine.netdna-cdn.com/wp-content/uploads/2017/04/Study-Supporter-WP_April-2017.pdf; Simon M. Burgess, Robert Metcalfe, and Sally Sadoff, "Understanding the Response to Financial and Non-Financial Incentives in Education: Field Experimental Evidence Using High-Stakes Assessments," 2016, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2861069; William H. Jaynes, "The Relationship Between Parental Involvement and Urban Secondary School Student Academic Achievement," *Urban Education* 42, no. 1 (2007): 82-110, <https://doi.org/10.1177/0042085906293818>.

¹⁴ Jonathan Baron, *Thinking and Deciding* (New York: Cambridge University Press, 2008).

¹⁵ Behavioural Insights Unit, "Behavioural Insights Unit Update Report 2020" (Sydney, 2020), 22-26, https://www.dpc.nsw.gov.au/assets/dpc-nsw-gov-au/files/Behavioural-Insights-Unit/files/2020-BIU-Report_2.pdf.

¹⁶ Australian Industry Group, "A Guide to Managing the First 100 Days of an Apprenticeship" (North Sydney, 2007), http://www.aigroupapprentices.com.au/wp-content/uploads/6128_Reduc_non_c_rates_webfinal.pdf.

- ii. complete their skills plan, due by May (*timeliness*)
- iii. reflect on their progression and act before they go off track (*planning fallacy*)
- iv. keep building their responsibilities and skills, with the help of their teachers, additional tutors, and their workplace supervisors (*gain framing, goal setting*)
- v. stick to their training contract hours, so as not to impact their wellbeing and success (*loss framing*)
- vi. celebrate their hard work, and explore options to complete first year (*reciprocity*).

2. Incentives: When people struggle, they will focus on smaller rewards they can get sooner (e.g. quitting their apprenticeship for another job that doesn't require additional study), and they will forgo long-term opportunities (gaining a qualification in a few years, which will lead to a higher paying career in the long run) (*hyperbolic discounting*). We appealed to both *intrinsic* and *extrinsic* incentives, to encourage learners to stay in their contracts.

Intrinsic incentives are nonmonetary rewards that appeal to self-improvement. This can be effective in lifting attendance and enrolment.¹⁷ Our messages were informed by TSNSW student surveys on what students seek assistance about and reasons given for contract cancellations. **Extrinsic incentives** can improve educational performance when linked to financial and material goals. Our Incentives messages highlighted financial subsidies, scholarships, and bonuses available to learners. We also prompted learners to consider the costs and benefits of progressing with their qualification. The Incentives messages told learners to:

- i. take advantage of travel concessions and other entitlements (*extrinsic incentive*)
- ii. succeed in training with available financial help (*intrinsic incentive*)
- iii. stay focused on progression, which leads to annual salary increases (*hyperbolic discounting*)
- iv. keep building on responsibilities and skills, as they may be eligible for penalty rates and other allowances (*gain framing, goal setting*)
- v. work safely to enable success, financial benefits and promotion, and to seek early help when injured so they're not left behind (*loss framing*)
- vi. celebrate their hard work, and the potential for early completion, which leads to higher pay or promotion (*reciprocity, gain framing*).

¹⁷ Uri Gneezy, Stephan Meier, and Pedro Rey-Biel, "When and Why Incentives (Don't) Work to Modify Behavior," *Journal of Economic Perspectives* 25, no. 4 (2011): 206, <https://doi.org/10.1257/jep.25.4.191>.

Measuring behavioural change

Our **primary outcome measure** was to **increase completions** of learners.

- CESE tracked non-dropout rates 12 months after the first message was sent.

We also measured **engagement**. For each campaign, the project team tested:

- Which treatment condition led to higher engagement for each SMS campaign, including:
 - Clicks on URL links
 - Volume of direct calls to local offices, and their customer service outcomes
 - SMS responses from learners asking for further help (assigned to local training centres to address)
 - Opt-out rates from learners who no longer wanted to receive our messages
- Which SMS times impacted engagement. All SMS were sent on Wednesday (an optimal day for TSNSW operations), and we tested different times in the day known to have high impact¹⁸
- Which behavioural principles led to higher engagement



¹⁸ Text Marketer, "The Best Time to Send Retail SMS Marketing Messages," Text Marketer, 2017, <https://www.textmarketer.co.uk/blog/2017/09/mobile-marketing-infographics/the-best-time-to-send-retail-sms-marketing-messages/>; SimpleTexting, "Best Time to Send a Text Blast or SMS Message," SimpleTexting, 2019, <https://simpletexting.com/the-best-times-to-schedule-a-text-message-campaign/>; Burst SMS, "When Is the Perfect Time to Send an SMS?," Burst SMS, 2016, <https://blog.burstsms.com.au/sms-marketing/2016/1/12/when-is-the-perfect-time-to-send-an-sms>; MessageMedia, "SMS Integration Sees Improved Communication with Students," MessageMedia, 2018, <https://www.messagemedia.com/au/case-studies/sms-integration-sees-improved-communication-with-students/>.

Table 1: How we used behavioural insights to increase completions using behavioural SMS

Behavioural Barrier 	Behavioural solution embedded in our intervention
<p>It's hard to find help</p> <p>Learners register at different times throughout the year. Some groups are less likely to complete than others</p>	<p>Make it easy to target support</p> <ul style="list-style-type: none"> ✓ Use data to target messages: TSNSW reviewed enrolment data to identify how many students commence in first year, peak times of registration, and key groups with low completion. We used these data to plan the schedule of SMS
<p>Learners receive a lot of written and online information when they first commence. As a result, they are overwhelmed, and don't know what to pay attention to (<i>information bias</i>)</p>	<ul style="list-style-type: none"> ✓ Map the customer journey: We workshopped with TSNSW key information learners needed to action at specific points in time. TSNSW identified the top six strategic themes the organisation already focuses on in their communications. They then voted on the top 2 strategic themes we tested: 'fair go,' and 'incentives'
<p>Communications are not optimised for mobile </p> <p>Our audit of TSNSW shows that 7 regions already send learners ad hoc SMS about admin matters (appointments and quality assurance surveys). SMS currently create additional admin 'noise,' and impact of messages are not measured (<i>friction costs</i>)</p>	<p>Make it attractive to action SMS</p> <ul style="list-style-type: none"> ✓ Track call to action: TSNSW used a SMS platform to manage the SMS campaigns. They corrected outdated contact details on TSNSW systems. They used an URL link management software to anonymously track clicks to TSNSW webpages ✓ Track outcomes of support provided: TSNSW established a repository so Regional Offices could track resolutions from phone calls and SMS
<p>There's a wealth of resources targeting learners. However, learners who are overcome by problems have low mental energy and time to identify what would help them most (<i>scarcity mindset</i>). Webpages are not always optimised for mobile, which deters use</p>	<ul style="list-style-type: none"> ✓ Simplify messages: TSNSW Regional managers co-designed two sets of SMS message campaigns (6 SMS for each theme). This includes practical tips addressing the biggest behavioural issues learners and TSNSW experts have already identified lead to cancellations ✓ Optimise for mobile: We improved webpages (e.g. so info matched our SMS call to action) and ensured pages were mobile accessible
<p>Learners who struggle lack social support </p> <p>Learners don't always know what help is available to navigate training and workplace issues. Problems fester until learners decide to quit (<i>status quo bias</i>)</p> <p>When things are tough, learners lose track of long-term benefits of completion (<i>hyperbolic discounting</i>)</p>	<p>Use social influence</p> <ul style="list-style-type: none"> ✓ Personalise messages: Build trust by including the learner's name and sign-off from their local Regional Manager in messages, so learners feel they can reach out to TSNSW for support (<i>personalisation</i>) ✓ Build up capability: Give tips that build learners' confidence to seek help and persevere to completion (<i>self-efficacy</i> in Fair Go messages) ✓ Motivate learners: Inspire learners to complete with prompts about a mix of short-term and long-term rewards (<i>incentivisation</i> in Incentives messages)
<p>Limited time to seek help </p> <p>Learners are busy juggling work and study, which makes it hard to prioritise getting help</p>	<p>Make messages timely</p> <ul style="list-style-type: none"> ✓ Leverage moments of change: SMS messages highlighted key outcomes in the training calendar (April, May, June, September, October, November (<i>fresh start effect</i>)). E.g. travel concessions and Training Plan in May

What we found

1. Messages about getting a Fair Go significantly reduced the drop-out rate

We conducted analysis of the dropout rates 12 months after the first message was sent. We tested:

- Whether students were still studying, regardless if they had changed their contracts (e.g. transferred to a different employer, or a different qualification) (**primary analysis**)
- Whether students were still studying in the same contract as when the trial first started (i.e. they stayed with the same employer and same qualification) (**secondary analysis**)

First, looking at whether students were still studying (whether on their first or subsequent contract), we found that our behavioural SMS (regardless of which version learners received) significantly reduced the drop-out rate by 2 percentage points (ppt) in comparison to learners who did not receive a SMS.

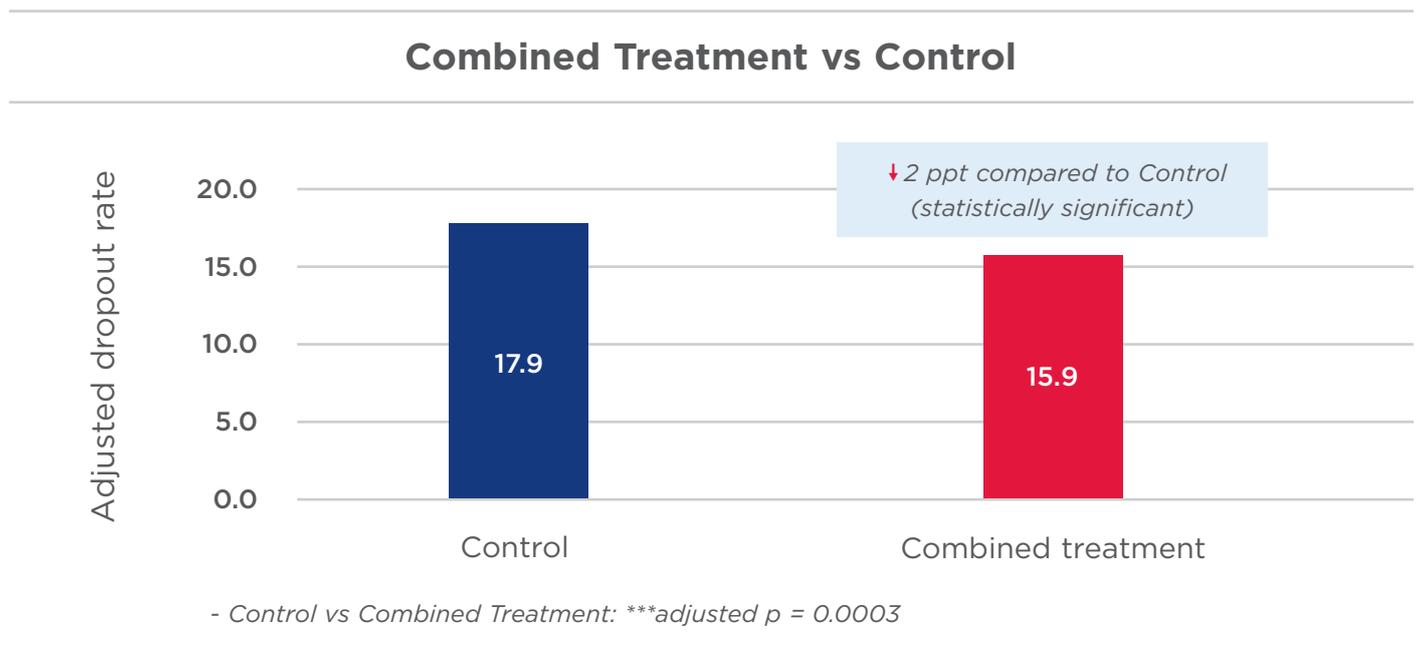


Figure 3 Learners still studying in their first or subsequent contracts

When we tested effectiveness of the two messages, the Fair Go message significantly reduced the dropout rate by 2.8 ppt in comparison to the Control group (who did not receive any SMS), and by 1.6 ppt compared to the Incentives group. The Incentives message reduced the dropout rate by 1.2 ppt in comparison to the Control group, but this was not statistically significant.

Fair Go and Incentive vs Control

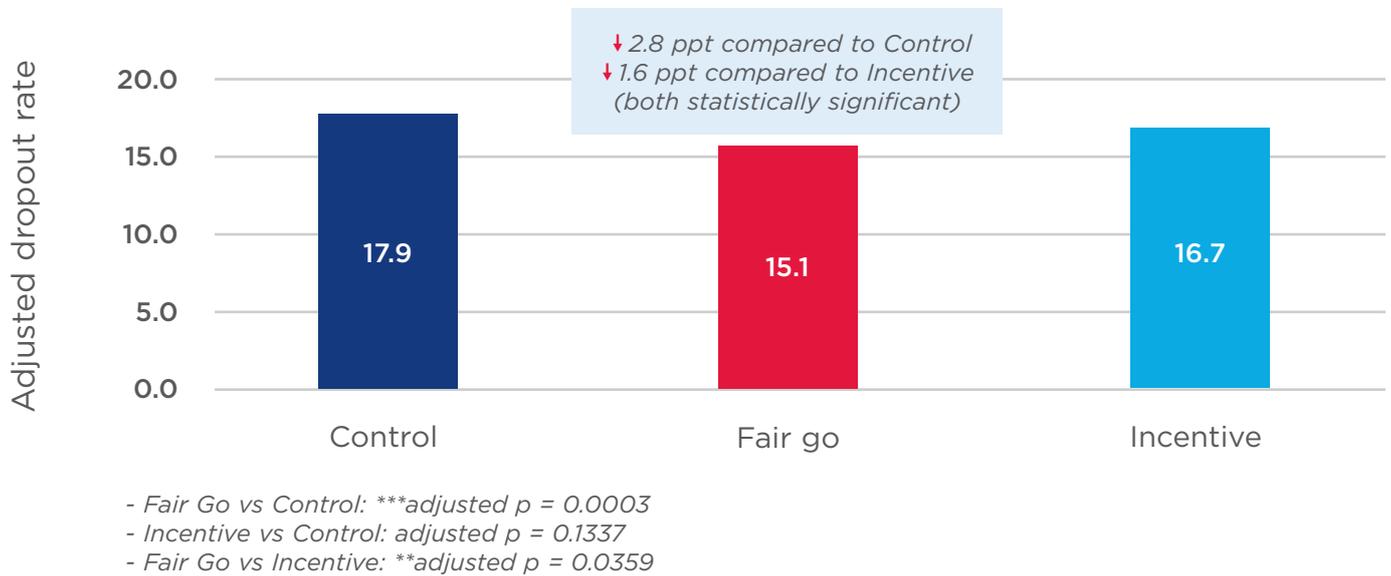


Figure 4 Learners still studying in first or subsequent contracts, Fair Go and Incentives SMS vs Control

Secondary analysis of the initial contract shows that learners who received our SMS were 2.3 ppt more likely to still be studying, in comparison to those who did not receive our SMS. To put it another way, more learners stayed in the same contract that they started in first year when they received our behavioural messages.

Combined Treatment vs Control

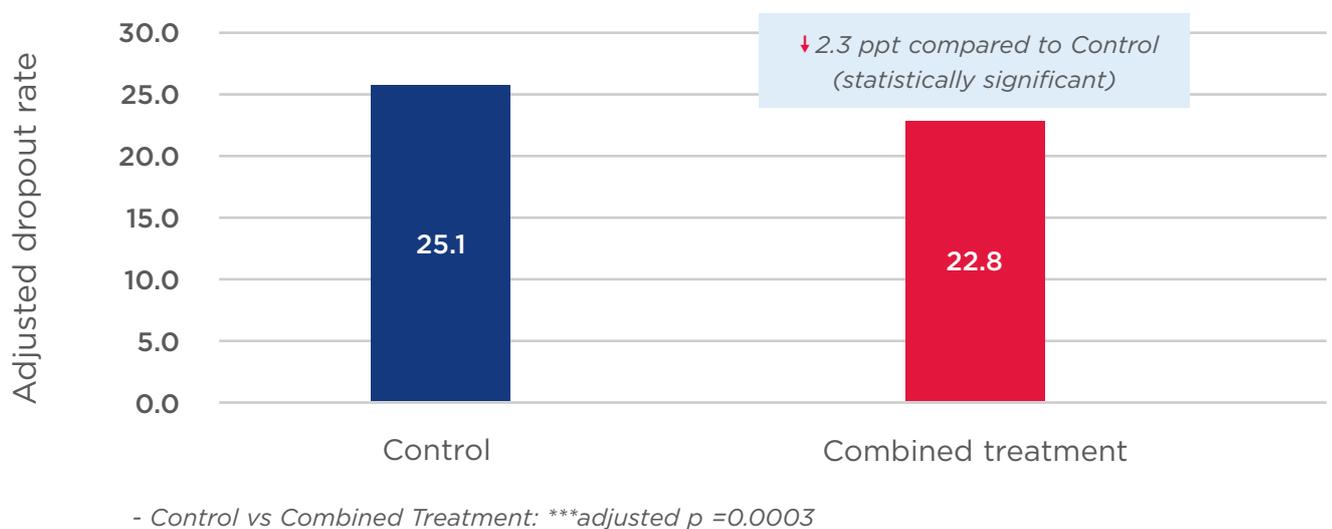


Figure 5 Learners still studying in their initial contract, Combined Treatment vs Control

Finally, our Fair Go SMS significantly reduced the dropout rate by 3.0 ppt compared to the control group. It also decreased the dropout rate by 1.4 ppt when compared to the incentive group, but this is not statistically significant. The Incentives SMS reduced the dropout rate by 1.6 ppt, but this is not statistically significant.

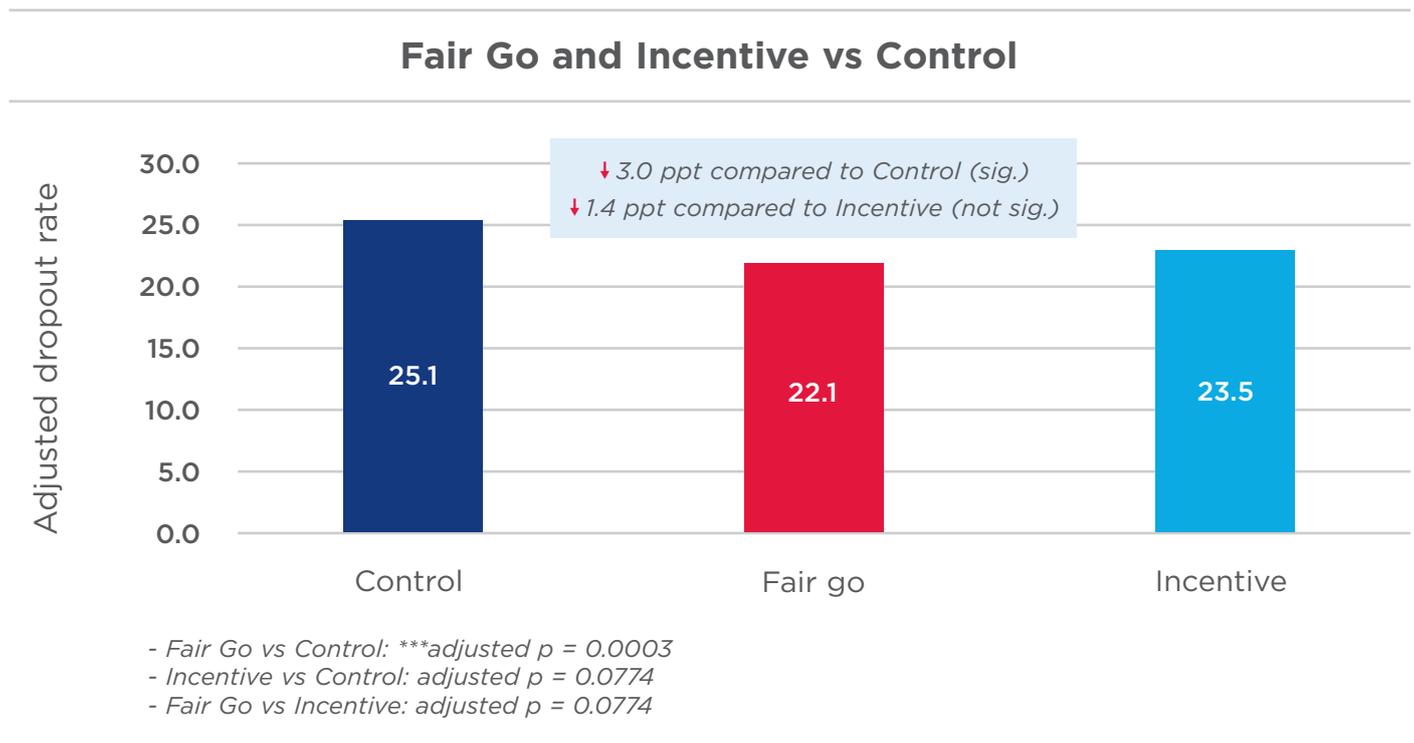


Figure 6 Learners still studying in their initial contract, Fair Go and Incentives SMS vs Control

2. Messages about getting a Fair Go led to high engagement

The Fair Go message led to the highest engagement (number of calls and text messages)

Prior to our trial, learners rarely call for support. The few who do have reached crisis point and their employer contract is at risk of termination. During our trial, **552 learners proactively called their local office for help**, usually within minutes of receiving our SMS. They would otherwise not have sought support, with issues snowballing, and potentially dropped out. The Fair Go message about the 'Training Plan' led to highest volume of calls to local centres. In addition to the specific content of our SMS, our intervention also prompted conversations on workplace rights, mental health, and more (see below).



"Issues regarding study location and impact on mental health. Spoke with learner and will arrange for a Training Advisor to do a site visit to clarify issues." (Parramatta)

"Learner wanted to know what a training plan was and soon realised that he has received his. [He] wanted to know more information about Bert Evans and how to apply for it. Emailed learner information and the weblink to the portal and our website. Also updated his number on IVETS [TSNSW enrolment system] as the current number was his wife's number." (Western NSW)

Additionally, **over 500 learners responded to our SMS via text**, seeking follow-up support. The Fair Go message about 'whether people are on track' led to highest volume of inbound texts. Messages with the highest click rates generated relatively fewer texts back, possibly because action was more straight-forward (e.g. you either qualify for financial help or don't). Inbound messages fell into two categories: seeking help (customer service) or thanking the Regional Manager for reaching out (building the customer relationship).

"I was sacked due to lack of work, apparently but when I ask for a separation certificate it states "unsuitable for work"

"Hey mate, appreciate the check-ups. All good here 🙌"



Incentives messages generated more clicks from the SMS than the Fair Go messages

There were almost **6,000 clicks from the SMS** to the TSNSW website. More learners clicked on Incentives messages than Fair Go. Short-term rewards such as obtaining a travel concession and early completion had higher clicks than longer-term incentives such as workplace safety. Messages sent mid-morning to lunchtime led to higher clicks (10am-12pm) than afternoon and early morning.

The opt-out rate for the six campaigns was lower than the national average

Australia has a national opt-out rate of 3.8% per SMS campaign. Every SMS we sent had a reminder that learners could reply 'Stop' to opt-out of our messages. For all 6 campaigns, the opt-out rate was less than 2%. Collectively only 907 people opt-out of messages over the year. The first and third Fair Go SMS had the highest opt-outs, but these messages also generated the highest clicks on links, phone calls and inbound messages.

Return on investment

Our economic analysis of our trial includes the total set up costs of our scale-up as part of Year 1 (2020) and calculates projected costs and benefits to 2050.

The total cost of the scale-up was \$271,062, largely for personnel. Ongoing annual costs for subsequent years is just \$18,500 for the SMS platform (cost of sending the messages). The total benefits from 2020 to 2025 is \$3.1M.

Avoided costs for NSW Government is \$2.0M and avoided costs for business is \$1.1M.

Our trial's **return on investment score is 6.8**. From 2020-2025, the net present value is \$2.4M.

This means that for every \$1 the NSW Government spent on this scale-up, they **get back almost seven times in benefits**, primarily of students progressing with their qualifications, as well as other benefits to businesses.



Recommendation

Integrate the six Fair Go messages as business-as-usual for all first year learners across NSW:

- Emphasise behavioural principles to boost proactive self-help behaviour, such as self-efficacy, social support, reciprocity and planning ahead
- Include personalised messages with a salient call to action. That is: visit key TSNSW online resources, and contact their local Regional Office for targeted support
- Send the behavioural messages, from April to November, on Wednesdays, from 11am to 12pm. Focus on timely reminders of key deadlines that could support progression (e.g. Training Plans)
- Run analysis of 24-month non-dropout rates to measure longer term impact of the interventions

