The ultimate goal of training is to contribute to the execution of strategic initiatives. But how do you do this? This case study looks at how an extensive leadership program at an open cast mine in New Zealand is contributing to strategic execution by applying the Kirkpatrick Model to create and demonstrate value.

Located on the stunning West Coast of the South Island, the Stockton mine is New Zealand’s largest open-cast coal mine; a 24/7 operation employing over 700 people, with 80 in leadership and specialist roles.

**Step 1: Start with the end in mind – identifying organisational results**

To enable maximum value to be created and demonstrated we asked three questions:

1. What is the business need?
2. What are the expectations of stakeholders?
3. What are the results that the business is looking to achieve?

Stockton had a need to achieve its business result of profitability by efficient mining practices and the fundamental requirements to provide a safe place of work and sustain a continued right to mine. It needed to lift the capability of its supervisors/superintendents, particularly in their leadership of people. This need was underpinned by several cost and non-cost Key Performance Indicators (KPIs) and was viewed as a critical leadership program.

However answering the question “What are the expectations of stakeholders?” proved more difficult. We were conscious that we needed a robust answer that would allow us to create and demonstrate value. This meant talking initially with the management team, not about training, but in their language, about business KPIs, operational performance and what they wanted to see happening around the site. To get clarity, we kept coming back to the question “What does success look like?” Determining the success factors was a critical point as it allowed us to start to build a business partnership with trust and credibility as cornerstones. The most common description used by the managers for success was that they wanted supervisors to be “professional in their work”, but what does being professional mean? We uncovered this later in Step 2: Determine critical behaviours.

Achievement of KPIs was raised at this meeting, particularly around health and safety, operational efficiency, environmental performance and employment engagement. Success of these KPIs was aligned to the outcomes of the program: KPIs were the leading indicators of success of the program (Leading indicators are relatively short-term measurements and observations suggesting that we are on track to create a positive impact on business results).

<table>
<thead>
<tr>
<th>Kirkpatrick Level 4 Results</th>
<th>Kirkpatrick Level 4 Leading indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability by efficient mining practices</td>
<td>Providing a safe place of work KPI: FY 2013: Reduce All Injury Frequency Rate by X% (this is a safety measure)</td>
</tr>
<tr>
<td></td>
<td>KPI: FY 2013: X million tonne of coal on train at or under budget cost (this is a productivity measure)</td>
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</table>

In having the answers to the three key questions at the start of the initiative, we had clear expectations for the leadership program, the result it had to impact and the leading indicators that said “we are on our way”. So when we came to evaluate the programme, we knew at the beginning what represented Kirkpatrick Level 4 – Results.

**Step 2: Determine critical behaviours**

If Stockton was to achieve its KPIs, what would be the critical behaviours amongst supervisors that would deliver these? Critical behaviors are the few, key behaviours that the primary group, in this case the supervisors, would have to consistently perform.

Stockton had performance competencies – 17 in fact, each with 6 behavioural indicators – that’s 108 behaviours! Whilst these competencies were integrated into performance reviews, supervisors...
The program was designed to develop the competencies and KPIs as a guide, held a workshop with the management team asking the question: "Which critical behaviours from participants will drive business results?" We referred back to that initial meeting with managers where they said they wanted supervisors to be ‘professional’. It wasn’t easy, but at the end of a full day, the team had unpacked ‘professional’ and identified the required critical behaviours. This gave us the ability during and at the end of the program to evaluate Kirkpatrick Level 3 – Behaviour.

Here are examples of the critical behaviours linked to the required results:

<table>
<thead>
<tr>
<th>Kirkpatrick Level 4 Leading indicators</th>
<th>Kirkpatrick Level 3 Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing a safe place of work</td>
<td>Supervisors actively participate and encourage others to work to agreed site standards, procedures and training.</td>
</tr>
<tr>
<td>KPI: FY 2013: Reduce all injury frequency rate by X%</td>
<td>Supervisors actively participate in setting, agreeing and communicating all plans, and focus development of people and systems to enable achievement of them.</td>
</tr>
<tr>
<td>KPI: FY 2013: X million tonne coal on train at or under budget cost</td>
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</tr>
</tbody>
</table>

**Step 3: Design the solution package**

With Level 4 – Results and Level 3 – Behaviours identified, we examined current supervisor behaviour compared to the identified critical behaviours, and the gap that needed to be closed. The general manager and human resources manager played active roles in this process.

Only at this stage did we start planning the overall solution, which was far more comprehensive than a series of learning interventions. We also knew that much of the workshop learning would be lost if we did not have required drivers in place. These are processes and systems that monitor, reinforce, encourage and reward the performance of the critical behaviours on the job. This begged the question, “What will the leaders of participants do before, during and after the learning event to support their participant?”

Last, but not least in our consideration, was that the core group of 65 supervisors had a wide variety of backgrounds and qualifications, yet a consistent preference for being in the mine, not the classroom. How were we going to build trust and credibility with these people? We decided to kick off with a two-day workshop on self-awareness and personal values. Confidence and commitment are two key elements of Kirkpatrick Level 2 – Learning.

**Step 4: Reaction and Learning**

After the first workshop, we worked with participants for one day every two months. To support Stockton in implementing its business plan, we had to get an efficient gauge that learning was happening, and that what we were teaching was relevant and engaging.

**Evaluation methods, tools and techniques:**

**Kirkpatrick Levels 1 and 2**

We adopted a combined or ‘hybrid’ approach to Level 1 – Reaction and Level 2 – Learning, because these often happen at the same time. This included ‘pulse checks’ and ‘pull up a chair’ discussions (simple in-workshop checks of formative learning and engagement) to evaluate reaction and attitude, and often formative and summative tests to check knowledge. We used the typical evaluation ‘smile’ sheet, but focused it on a few learner-centric questions, and most importantly, asked about participants’ confidence and commitment to apply what they’d learnt back on the job. Our evidence relating to reaction and learning was debriefed with the general manager and human resource manager after each module.

**Step 5: Drive critical behaviours**

We knew that leaders had to monitor that the learning was being used back on the job and that they were monitoring, reinforcing, encouraging and rewarding its use. Leaders were busy, and asking them to do this could be yet another task they had to complete – and one that could easily have been neglected if the process was onerous. This was make or break in terms of the program having an impact. Moreover, it was the area where we had least control.

We addressed this using a number of drivers which were a combination of site systems and processes (such as Field Notes1, Safe Work Observations2 and the Performance Competence and Development process) and program initiatives (such as an Action Planning Diary3). Here is an example of the drivers:

<table>
<thead>
<tr>
<th>Kirkpatrick Level 3 Behaviour</th>
<th>Drivers of Critical Behaviours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisors actively participate and encourage others to work to agreed site standards, procedures and training.</td>
<td>Monitor: Managers observe Safe Work Observations (SWO) taking place/review documentation of completed SWOs. Encourage: Safe work observations and follow up discussion.</td>
</tr>
<tr>
<td>Supervisors actively participate in setting, agreeing and communicating all plans and focus development of people and systems to enable achievement of them.</td>
<td>Monitor: Manager observes Field Note discussions taking place. Encourage: Coaching/review of completed Field Notes discussions with manager.</td>
</tr>
</tbody>
</table>
Participants gained the confidence and commitment to interact with their colleagues better by understanding their different personalities.

Evaluation methods, tools and techniques: Kirkpatrick Level 3

Level 3 has been the most challenging level for us to evaluate because it’s happening 24/7 on site. The following tools have helped:

- We developed a 360-degree survey to measure and evaluate targeted frontline skills and behaviours across the site; we measured this at the start of the program and then annually.
- This year we introduced a 360-degree tool to measure leadership practices for 65 leaders. We issued 390 questionnaires, 98.5% were completed. Whilst we provided respondents with context and purpose for the survey, the response rate alone told us that everyone on site was taking leadership seriously.
- We have gathered emails, made diary notes of what we are being told, and captured on video the comments of stakeholders. These have proven to be powerful and compelling evidence of development and behavioural change.

“This supervisors who are not changing are the ones who are now standing out” – Operations Superintendent, January 2013

Here is an email from Mark Taylor:

Mark attended a workshop on Leading a Zero Harm Culture. A key part of the workshop is training participants on how to undertake a Safe Work Observation (SWO). SWOs are a key safety leadership tool at Stockton. The next day he emailed the facilitator, Mark Harris. Here are excerpts:

Just a little feedback following yesterday’s training session. I found it to be very informative and it gave me the confidence and direction to conduct a SWO the way they should be done, particularly in the area around the delivery of the interaction and its purpose.

Today I took a colleague with me and we conducted a SWO on a task that previously I wouldn’t have considered, due to being unfamiliar with the task, a tip head dozer operator pushing out a dump. The ensuing discussion (he kindly climbed down and talked to us) was very positive, highlighted safety considerations for both the operator and us, as surveyors on foot in his work area, and we all gained a bit of knowledge in our respective jobs.

Thanks, Mark Taylor

Clear evidence of Kirkpatrick Level 1, Level 2 and Level 3 and aligned to the Level 4 Leading indicators of reducing All Injury Frequency Rate and Providing a safe place to work.

Step 6: Evaluation against business results – return on expectations (ROE)

Being a mission critical program required us to demonstrate value at each of the four levels. By doing so, we could express return on stakeholder expectations and provide a supporting compelling chain of evidence.

Here is an example of the chain of evidence for profitability by efficient mining practices.

<table>
<thead>
<tr>
<th>Chain of evidence</th>
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</thead>
<tbody>
<tr>
<td><strong>Level 1</strong></td>
</tr>
<tr>
<td><strong>Level 2</strong></td>
</tr>
<tr>
<td><strong>Required drivers</strong></td>
</tr>
<tr>
<td><strong>Level 3</strong></td>
</tr>
<tr>
<td><strong>Level 4</strong></td>
</tr>
<tr>
<td><strong>Results</strong></td>
</tr>
</tbody>
</table>

The dynamic nature of the program and the economic environment encouraged us to monitor and adjust as we saw how learning was being applied on the job, and what the leading indicators were telling us. This included changing the focus of the learning program to emphasise cost control and value adding training such as decision-making and problem solving. We also worked with specific teams to solve their unique issues such as conflict resolution and business planning.
Evaluation methods, tools and techniques:
Kirkpatrick Level 4
Because we had started with the end in mind we knew what we were evaluating the program against. We were able to borrow metrics that already existed – e.g. KPIs, to demonstrate the value of the program. Employee engagement and 360 results and short-term KPI measurements were useful leading indicators to show that we were on track to impact the highest organisational goals.

What was achieved?
Stockton credits the leadership program as a significant contributor to execution and achievement of its Business Result and its KPIs. As Michael Harrison, the general manager said, “Everything we have achieved on site can be attributed to the work we have done to develop our supervisors. It’s what’s driven the change, directed the change and made the change sustainable”. Participants credit the program with providing personal insight into and improvement of their own leadership behaviour, creating more collaboration, and fostering results-focused relationships.

Lessons learnt
• Creating and demonstrating training effectiveness means understanding expectations, building a program to deliver on those expectations, having drivers in place to monitor and support on the job application and providing a compelling chain of evidence to demonstrate a return on expectations.
• Critical to the program’s success is partnering with people at different levels in the business. Gaining trust and credibility with business leaders means talking about performance rather than learning. With participants, it means relating to them and their operating environment –warts and all!
• Fundamental is connecting to the heads and hearts of stakeholders, managers and participants.

Endnotes
1 Continued Right to Mine means complying with health and safety legislation and standards and resource consents relating to environmental sustainability
2 Brinkerhoff, Robert. 2006 Telling Training’s Story, Berrett-Koehler Publishers, USA
3 Field Notes are a site system for providing feedback to a team member in order to encourage and develop performance
4 Safe Work Observations are an Interaction process that encourages safe work through observation and follow up discussion
5 Action Planning Diary which gave clear direction to the participant and their manager as to what they each needed to do before, during and after any workshop
6 Taken from a Hybrid Level 1/Level 2 Evaluation sheet
7 Taken from Mark’s story
8 Taken from a Hybrid Level 1/Level 2 Evaluation sheet
9 Observation from a Stockton manager

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The Kirkpatrick Model was created by Dr Donald L. Kirkpatrick. Please visit kirkpatrickpartners.com for more information.
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