Australian Council for Educational Research (ACER)

From the SelectedWorks of Dr Justin Brown

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The returns on investing in LLN in the workplace

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The Returns on Investing in LLN in the Workplace

NALLNAC 2014

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Michael Taylor, Australian Industry Group
Overview

1. Project Background
2. Employer Commitment
3. Quantitative Data
4. Importance of Productivity
5. National Foundation Skills Strategy
6. Project Overview
7. Return on Investment
Background

- International research
- Ai Group research
- Employer surveys
Adult Literacy and Life Skills Survey

Literacy: prose 46%

Literacy: document 47%

Numeracy: 53%

Problem Solving: 70%
PIAAC and the Workforce

Employed
- Literacy: 39% below level 3
- Numeracy: 59% below level 3

Not in labour force
- Literacy: 69% below level 3
- Numeracy: 73% below level 3
Proportion at literacy Level 3 or above by industry—2011–12
Proportion at literacy Level 3 or above by occupation—2011–12
Findings of Skilling the Existing Workforce Project - 2008

**Strategies**

- Workforce Skills Development Advisory Network
- Workforce Skills Development Fund
- National Workforce Literacy Strategy
- Build Training Provider Capability
- Build Enterprise Skilling Capability
- Flexible Demand and Outcomes Based Funding

**Outcome**

Increased workforce skills levels
Impact on Business - 2012

- Highly affected
- Moderately affected
- Slightly affected
- Not affected
- Unsure

Percentage of companies
Impact on Business - 2013

- Poor completion of workplace documents or reports: 21.1
- Time wasting: 17.7
- Material wastage: 11.5
- Recruitment difficulties: 8.3
- Financial miscalculations: 6.8
- Ineffective work teams: 6.7
- Not applicable: 6.6
- Staff unable/unwilling to take on new work: 6.4
- Non-compliance: 6.3
- Staff lack confidence: 5.2
Importance of employer commitment

“Learning programs initiated by and within workplaces are the ones that survive long-term.”

“Skills for Life” UK study

“Employer commitment is essential to stability and sustainability of workplace literacy and essential skills training efforts.”

Alison Wolf (2008): Adult Basic Skills and Workplace Learning Project
Barriers to commitment

- Lack of awareness of literacy – productivity link
- Limited time, resources and personnel
- Management attitudes
- Absence of champions
- Complexity of the training landscape
- Confidentiality concerns
Why have employers not invested?

- Cost
- Willingness to pay for literacy training – public good so government responsibility
- Business benefits of training – little ROI data
- Different benefits sought for lower skilled employees
- Achieving employee buy-in
**Employer Readiness**

- Unaware and unfavourable: 32%
- Unaware and favourable: 46%
- Aware: 10%
- Invested: 12%

NZ Centre for Workplace Literacy Development
Derived from Canadian research: “Measures of Success”
An Integrated Approach

Outcomes
- quantitative
- qualitative

Focus
- employer benefits
- employee benefits

Duration
- immediate
- long-term
New Zealand example

- Employee skill level improved an average of 14% over a 15 month period.
- Labour productivity in assembly labour productivity improved 11.5%.
- Absenteeism dropped by almost 9%.
- Errors reduced by 6.3%.
- Team leaders gained the confidence to freely discuss team production issues with managers and their team.
- There was a marked increase in employee willingness to challenge and share ideas.
- Employees took more ownership of their work learning how to resolve problems themselves.
- Employee confidence extended beyond the workplace to their personal lives.

Workbase website
A Productivity Agenda

- An increase of 1% in a country’s literacy scores (relative to international average) is associated with a 1.5% rise in GDP per capita and a 2.5% rise in labour productivity (OECD)

- Improvement in LLN skills from Level 1 to level 3 would increase labour force participation (women 15% and men 5%) and hourly wage rates by 25% for women and 30% for men (Productivity Commission)

- Literacy skill levels are positively associated with income for full-time male and female employees (NCVER)
National Foundation Skills Strategy

A key component is raising awareness.

Government priority to:

- provide more information to employers
- support employers and encourage them to implement initiatives
- establish and maintain partnerships with peak bodies
Workplaces identified as a key component of the strategy

ACSF will be used as standard framework for measuring foundation skills
Addresses component 4 of National Strategy:

“building the capacity of the education and training workforces to deliver Foundation skills”

$1.5 million project managed by TAFE SA

- scoping National Foundation Skills Professional Standards Framework
- Foundation Skills Champions Network
- Professional Development Workshops
Project Aims

- Develop Return on Investment instruments
- Apply to selected WELL projects
- Use ACSF as benchmark measurement for participants
- Develop an Employers Guide to the ACSF
- Evaluate and report on outcomes especially ROI
Project Steps

- Develop ROI
- Select WELL Programs
- Employer Commitment
- Develop and Trial ACSF Employer Guide
- WELL Program Delivery
- Evaluation & Reporting
- 6 Month Follow-up
- Outcomes Dissemination
ACSF Employers Guide

- Interest shown in the ACSF by employers in previous Ai Group literacy project
- Important role in the National Foundation Skills Strategy
- Need to raise the awareness of employers
- Utilise the Framework to develop employee LLN skills profiles
Employer Tools

Tools

- Identifying levels of difficulty
- Analysing job requirements
- Gathering insights from employees
- Talking with training providers
THE RETURN ON TRAINING INVESTMENT PROJECT
Context

- Purpose is to develop a model of data collection and reporting which can assist with measuring returns to workplace LLN training

- Work with a convenience sample of employers and RTOs to consider new types of data collection, interpretation & analysis and presentation of results via case studies

- Build on, and make a contribution to, the existing knowledge base (e.g. NZ, Canada, Aus etc)
Some previous project findings …

- Saving supervision time (3 hours per week)
- Improved completion of time sheets (saved 5 hours per fortnight)
- Reduced time to set production machines (10 – 15% quicker)
- Less time wasted on understanding job requirements
- Reduction in scrap yields (2.3% - 4.5%)

Source: AI Group
What is meant by ROI (or ROTI)?

- Originates from the financing and accounting field to calculate the bottom-line contribution of training

- ROI indicates the extent by which the benefits (outputs) of training exceed the costs (inputs)

\[
ROI (\%) = \frac{(Benefit - Cost)}{Cost} \times 100
\]

- A result >100% indicates a net benefit (after accounting for the costs of running it)
Previous research – ROIs calculated (to any type of training) in Australia

<table>
<thead>
<tr>
<th>case study organisation</th>
<th>industry</th>
<th>employment</th>
<th>positive impact of training on</th>
<th>estimated ROI %</th>
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<tr>
<td>Australia–New Zealand</td>
<td>transportation</td>
<td>300</td>
<td>goal setting, time management</td>
<td>323</td>
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<td>Direct Line (ANZDL)</td>
<td>– freight</td>
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<td>Franklins</td>
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<td>costs of induction</td>
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<td>safety and WorkCover premiums</td>
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<td>Kodak Australasia</td>
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<td>productivity</td>
<td>256</td>
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<td>Mission Australia</td>
<td>charity</td>
<td>2,200</td>
<td>staff turnover</td>
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<td>QR (Queensland Rail)</td>
<td>transportation</td>
<td>14,800</td>
<td>fuel usage, time and train handling</td>
<td>30</td>
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<tr>
<td>Target Australia</td>
<td>retail</td>
<td>23,000</td>
<td>sales and staff turnover</td>
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</tbody>
</table>

Previous research – what are the main challenges for measurement?

- the impracticality or impossibility of controlling for all variables
- difficulties in isolating the benefits of training and quantifying all costs and benefits
- difficulties in designing experimental studies involving control groups
- efforts to apply quantitative approaches, such as ROI, in contexts which are unrealistic and impractical
- differences in expectations about what can be measured
- problems of timing and resources, including the prospect of benefits accruing after the evaluation period
- data access and collection issues, including sample selection, access to data (e.g. confidential records and costs of collecting data)
- the lack of practical, standardised approaches for evaluating ROTI

Source: Smith, A. (editor), 2001, *Return on investment in training research readings*, NCVER
Canadian research

Measures of Success (2009 - 2013)

• Funded through Office of Literacy and Essential Skills, Human Resources and Skills Development, Canada
• 18 employers – 226 employees

Three research questions:

1. What are the long-term outcomes of workplace LES (Essential Skills Training) initiatives in Manitoba and Nova Scotia on the participants, workplaces and companies (longer-time defined as 6 months)?

2. What is a valid and reliable model for evaluating longer-term outcomes of workplace LES initiatives? What are the appropriate measures to be used?

3. What are effective and efficient ways to provide workplace LES initiatives to maximize long-term outcomes?

• Non-financial and financial individual outcomes & tangible and less tangible business outcomes

Canadian research

Productivity

1. Over the last six months (since the training began), do you think that productivity (completing tasks quickly and completely) among employees has...?

| Increased | Decreased | Neither increased nor decreased | Don’t Know | N/A for firm |

IF RESPONDENT INDICATED THAT A CHANGE OCCURRED:

2. Do you have an updated report that shows this change? If yes, would you be willing to share it with us?

3. Do you think the change would have happened if the training hadn’t taken place?

| Very unlikely | Unlikely | Not sure | Likely | Very Likely |

IF RESPONDENT SAID VERY UNLIKELY OR UNLIKELY:

4. Can you be specific about how you think the training made a difference?

THE CURRENT STUDY
Background

• Evaluation of WELL found “challenges arose due to an absence of certain data, and also a common view of certain concepts such as “needs being met”, “employability”, or “productivity” and how these should be measured.”

• “Employee productivity was measured by looking at how employers and RTOs perceived employees had improved in the following areas:
  – increased productivity;
  – improved work quality;
  – increased autonomy;
  – reduced absenteeism; and
  – improved communication skills.”
Framework and design

- Instruments now being trialled in workplaces offering WELL training

- Convenience sample - working with a broad range of industries, training programs and locations e.g. Manufacturers, construction firms, aged care providers and utilities

- Drawing (where possible) on information already available / minimising the burden on employers

- Generic ROI instruments are specifically tailored to meet the needs of the employer
Data collection

- Identification of a target group involved in WELL training (and possibly control group, historical/trend data)

- Collect data at three points in 2013 and 2014
  1. Prior to, or soon after, the commencement of training
  2. Directly after completion of training
  3. 6 months after the completion of training (same as Canadian study)

- Workplace contact works with internal colleagues in HR, Finance, Operations to assemble the required information

- Interviews with employers and RTOs
Where to next?

- Finalise case study reports
- Reporting findings later in 2014
- Aim is to develop and refine these resources for wider dissemination
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