


Using Analytics to Measure Employer Attitudes to Apprentices

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ACCI Membership

37 Member Organisations
(State / Territory and Industry Associations)
Representing 350,000 Employers,
in every State & Territory Capital,
and in 27 Regional Locations

Top 100 Companies

55,000 enterprises of 20-100 employees

Over 280,000 enterprises with less than 20 employees



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Apprenticeship Non-Completions

- Apprenticeship non-completions are a major concern for the Australian business community and are a significant drain on the national training effort.
- Some trades occupations have attrition rates as high as 60% for apprentices.
- The majority of those leaving an apprentice do so in the first 12 months
- Increasing completion rates will lead to better return on investment in training for employers and governments and increase the skills level of the Australian workforce.

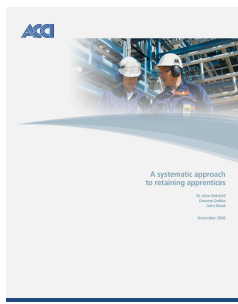


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Apprenticeship Non-Completions

ACCI Research Project - A Systematic Approach to Retaining Apprentices

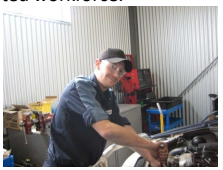



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Apprenticeship Non-Completions

A *Systematic Approach to Retaining Apprentices* focuses on employer perspectives to determine views, actions and attitudes of employers that have a positive impact on completion rates of apprenticeships ensuring that the Australian business community has access to a highly skilled and motivated workforce.

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Apprenticeship Non-Completions

The key findings of *A Systematic Approach to Retaining Apprentices* are structured around the following core concepts for retention as identified in the research:

- attracting the right person;
- recruiting and inducting good apprentices;
- making work and training meaningful;
- providing personal and professional support;
- providing effective training; and
- making full use of information and support services.

A *Systematic Approach to Retaining Apprentices* focuses on employer perspectives to determine views, actions and attitudes of employers that have a positive impact on completion rates of apprenticeships.



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Reengagement for Disengaged Apprentices

Worth Their Weight in Gold, Practical Strategies for engaging and retaining disengaged apprentices



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Reengagement for Disengaged Apprentices

The research captures six dimensions related to strategies for the re-engagement and retention of former apprentices. These dimensions are:

- 1.Re-engagement:** employer attitudes towards the hiring of disengaged apprentices
- 2.Attracting the disengaged:** the process of attracting disengaged apprentices back to their work and study
- 3.Suitability of the apprentice:** personal and professional skills that employers deem necessary for the successful completion of an apprenticeship
- 4.Apprentice management:** employers' skills to manage the apprentice
- 5.Support:** the personal and professional support provided by an organisation for their apprentices
- 6.Information:** employer awareness of government information designed to assist in the management of apprentices.




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Mature Aged and Existing Worker Apprentices

- **Pathways for engagement in employing mature aged people and existing workers as apprentices – an employer perspective (Working title)**
- **Current ACCI Research Project**
- The project entails an investigation of the views and opinions of employers with regard to increasing existing worker and mature aged apprenticeship pathways and to examine options that actively encourage engagement of mature aged people and existing workers in apprenticeships.
- Due for completion in June 2010




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The importance of research to outcomes

- These three ACCI projects are a credit to ACCI's strong commitment to research.
- The three projects are also a reminder of the value research can bring to
 - a core VET topic such as understanding employer attitudes
 - the critical issue of improving student/apprentice outcomes




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Overview of mixed methods approach

- In all three projects, we have used a pragmatist "mixed methods" approach.
- Creswell (2003) notes that, to derive knowledge about a problem, pragmatists use pluralistic approaches; that is, they deliberately draw from both quantitative and qualitative assumptions.




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Value of the quantitative analysis

In terms of mixed methods, in the first project, the analysis of the quantitative survey proved to be pivotal –

- in taking forward the finding from the literature that factors were not normally ranked or related
- in driving the preparation of questions for the interviews and the foci of the case studies



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The value of advanced quantitative analysis

- John Ward, the quantitative analyst in the team, analysed the data using a structural equation model (SEM)
- SEM is an example of analytics; and analytics is a sub-set, and at the higher end, of business intelligence – a set of technologies and processes that use data to understand and analyse business performance.



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The value of SEM and analytics in general

- In the 2008 ACCI research project the SEM was pivotal in identifying the specific elements of the systematic approach to attraction and retention.



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A business technique comes to education

Structural Equation Modelling (SEM) is often used in business research ...

... but very rarely in educational research



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The two parts to a SEM

SEM has two parts:

- 1. Factor Analysis**
- 2. Structural Model**



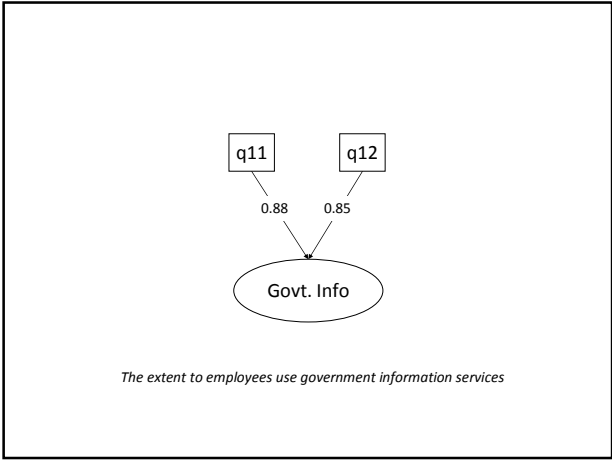
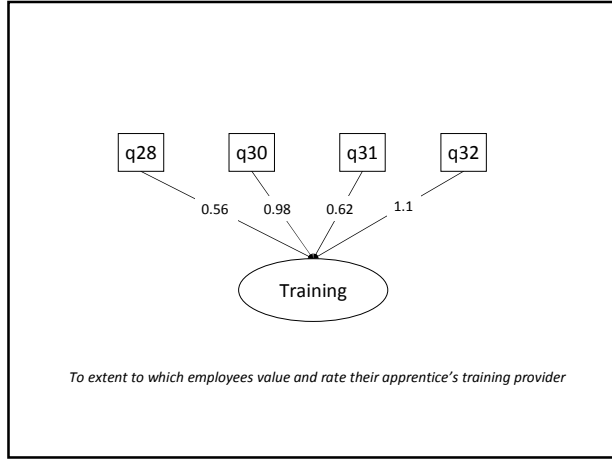
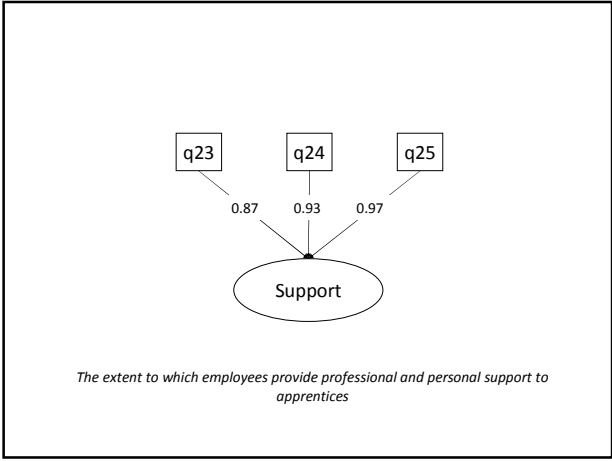
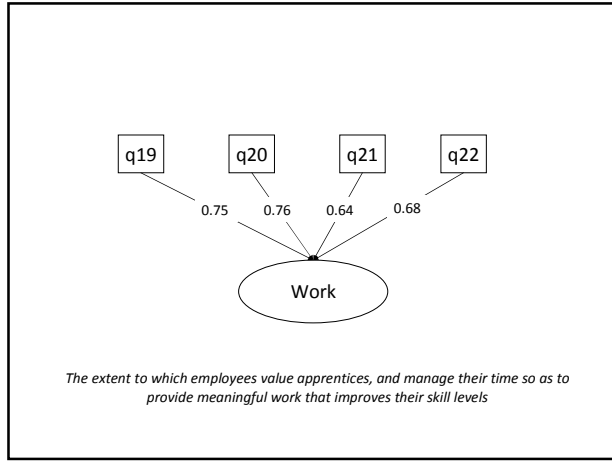
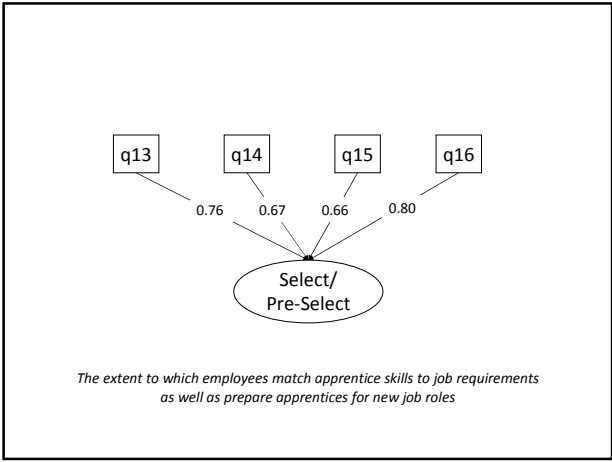
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FACTOR ANALYSIS

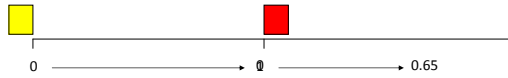
Factor Analysis

Factor analysis revealed the existence of five dimensions of employer attitude towards attraction and retention

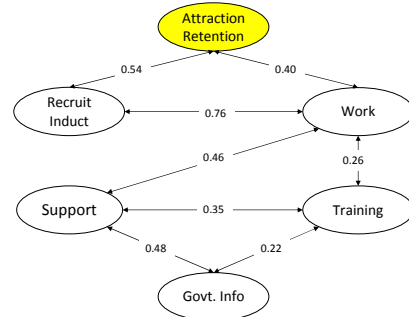


STRUCTURAL MODEL

Measuring Impact



SEM of Apprentice Attraction and Retention



The value of analytics to educational research

SEM is a sophisticated statistical technique from the field of business analytics.

In business, **analytics** means “the extensive use of data, statistical and quantitative analysis, explanatory and predictive models, and fact-based management to drive decisions and actions” (Davenport and Harris 2007).



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The value of analytics to educational research

➤ When used as part of a mixed methods approach... analytics potentially can provide new insights to long-standing and crucial issues in VET such as

- employers' attitudes to apprentices
- or how to improve student outcomes



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Thank You

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