



Evaluating the effectiveness of Plumbing and Gas-fitting Pre- Trade Programmes in New Zealand

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The Reasons for this Research

- The decreasing numbers of suitable apprentices entering trade training,
- That Pre-trade programmes have been established for school leavers and others to be introduced to the trades,
- To explore the experiences, perceptions and opinions of the three pre-trade participant groups,
- To evaluate the activities and effectiveness of the three pre- trade programmes which were selected,
- To ascertain whether any improvements could be made to the existing pre-trade programmes.

The Three Research Questions



(1) What theoretical and practical knowledge do the pre-trade programmes provide to school leavers and others who plan to enter the plumbing and gasfitting trades?

(2). How effective is the pre-trade programme experience and what benefits accrue to school leavers and others preparing to integrate into the plumbing and gas-fitting trades?

(3). What could be done to improve the current pre-trade experience to better prepare trade entrants to be successful in their trade training?

The Literature Review

Revealed that the trade shortages occurring in New Zealand were reflected in Australia, America, Canada, Europe and parts of Asia.

Provided an overview of the pre-trade programmes being used overseas. No specific detail of how these programmes were run and what effect(s) they create was able to be found.

Ascertained the definition of Vocational Education and Training (VET) which has been accepted world-wide.

Ascertained the outline operations of the Australian, English and German pre-trade programmes.

Ascertained the specific details, the activities, and how each of the New Zealand pre-trade programmes operate.

Revealed the process by which people select a career or employment choice.

Revealed the pathways used to gain trade qualifications in New Zealand, Australia and Germany.

The Three Pre-Trade Programmes

The Auckland schools' based programme tests the literacy and numeracy levels of students to determine their employment opportunities and/or career pathways.

The Plumbing and Gasfitting phase of the Multiskills course at the Technical Institute lasts for four weeks during which practical and theory lessons are taught. A course report is provided at the end of the course.

The Industry based programme is run for the Industry Training Organisations (ITO) by the career advisors at the schools. They seek out firms who will take the student for work experience one day a week. No work report is given.

Research Methodology and Methods

A Qualitative Methodology was used.

A Case Study Evaluation method was employed.

To triangulate the data, questionnaires, single interviews and focus groups were used.

The data analysis was transcript based.

A long-table approach using a colour coding system was used to identify and link themes and categorise results.



The Programme Evaluation Criteria

- To profile students for their levels of literacy and numeracy to assess their suitability for the plumbing and gas-fitting trades,
- To provide a suitable choice of trades for work skills experience,
- To have a set programme of work skills experience for each trade,
- To record the work experience activities completed by students,
- Students should be exposed to trade tools, trade work, and trade culture during their pre-trade experience.
- Students should to be introduced to the trade work ethic during their pre-trade experience.
- The programmes should be widely available across New Zealand.
- The programme should provide a suitable number of new apprentices each year.

Findings

Programme

**Results out of the 8
criteria**

**School based
programme**


2

**Industry based
programme**

5

**Urban technical
institute
programme**

4



It shaped their expectations of the work and introduced them to trade tools and their uses.

The apprentice participants felt that the pre-trade programmes were valuable because;

Students can gather experience of trade environments, culture and behaviours.

It gave them confidence and confirmed that they had selected the right trade for their work career.

Having multiple trades available gives students the opportunity to choose the trade that offers the best career for them.

Students are placed with a potential employer which allows them to market themselves. The employer can assess the student as a potential apprentice.

The employers reported that apprentices who had pre-trade experience were generally better than those who did not. They observed that pre-trade apprentices were usually more motivated to learning and committed to excel at the trades than those who had not done pre-trade courses

The non pre-trade apprentices felt that it would have been beneficial to be exposed to the trade culture and the type and variety of work which they would be performing during their apprenticeship. They believed that this would have helped to shape their expectations of the work that they would be required to do and would have confirmed or negated their choice of career. They added that they would have felt more confident starting work.

The programme managers reported that families have the most influence on what employment their children take up but that their views are often clouded by their socio-economic group status. This can disadvantage school leavers. School career advisors still adhere to the historic paradigm regarding trade apprentices which is that if they have no job prospects then they have the option of 'taking on' a trade.

Conclusions

The pre-trade programmes have similar overall intent in that they high-light trade training.

Pre-trade programmes act as an early filter to trade entrants and allow them to select the trade that is best suited for them.

These programmes are important for the future sustainability of those successfully undertaking trade training in that potential apprentices are introduced and conditioned to the trades before they commence work in them.

Recommendations

- That a profile of the modern plumbing and gasfitting apprentice be created by the PGITO to guide career advisors.
- That a list of key trade activities be prepared by the PGITO to guide and inform the work experience employers.
- That a written report or portfolio of achievement to be developed by the PGITO and provided to all pre-trade students.