

RESEARCH



VOCATIONAL SKILL COMPETITIONS: IMPROVING PRODUCTIVITY AND EXCELLENCE?

SUMMARY OF INITIAL FINDINGS

October 2023

ABOUT WORLDSKILLS NEW ZEALAND

Since 1986, WorldSkills NZ has been advocating excellence and achievement within vocational occupations. We are an independent, non-profit charitable trust and a proud member of WorldSkills International, a global movement of over 85 countries that work together to champion vocational skills.

New Zealand needs people working in vocational occupations, and vocational occupations have so much to offer New Zealanders. From the houses we live in, to the food we eat and to the services that keep New Zealand's economy moving, it is all made possible by skilled people.

OUR VISION

To be New Zealand's champion in the development of work skills excellence.

OUR MISSION

To raise the awareness and recognition of skilled occupations.

To show the importance of skills in economic growth and personal success.

OUR PURPOSE

To encourage, recognise, and reward skill excellence.

To raise the standards in vocational education.

To provide a benchmark for vocational training in New Zealand.

OUR FOCUS

Skills Promotion, Skills Competitions, Skills Development

BACKGROUND TO RESEARCH

International research confirms that practical vocational skill competitions provide many benefits to learners and Vocational Education and Training (VET). WorldSkills NZ believe there are also significant benefits to be gained in regard to productivity and excellence, in a broader context. Whilst international research in general is scarce regarding the benefits of vocational skill competitions, NZ literature is seemingly non-existent.

WorldSkills NZ has undertaken initial research to understand the value that vocational skill competitions provide to increasing worker productivity and excellence in a NZ context. Once identified, there is an opportunity to realise these benefits and create positive outcomes across all participants in the NZ skilled economy.

This report incorporates the first aspect of this research, where we have conducted an online survey with two member associations that run long standing practical skill competitions, Master Electricians and The Institute of Refrigeration Heating & Air Conditioning Engineers of New Zealand Inc. (IRHACE). Master Electricians hold the annual 'Challenge' Electrical Apprentice of the year competition, and IRHACE, 'The Wallie Askew Memorial Workskills Competition' for apprentices in the Heating, Ventilation, Air Conditioning and Refrigeration (HVAC&R) industry. Both competitions have been in existence for over 20 years.

The aim of the surveys is to test the following proposition:

Vocational skill competitions: improving productivity and excellence?

METHOD

WorldSkills NZ developed the surveys in conjunction with each association. Whilst the surveys ask the same questions, they are customised to align with each association's respective competition. IRHACE also took the opportunity to add an extra question into their survey. IRHACE and Master Electricians emailed the respective surveys to their members in July and August 2023. Responses were collected and collated via Survey Monkey.

The results of the two surveys are presented across two sections within this summary of findings report.

Section One

Many New Zealand industries run practical skill competitions and this research aims to understand the wider benefits of two skill competitions, from an employer's perspective. Employers, irrespective of their industry have the same requirements, where workers are required to combine their skills and knowledge to produce an output. This section presents the findings common to both industries.

Section Two

The Master Electricians Challenge and IRHACE's Wallie Askew Memorial Workskills competitions have different competitor eligibility criteria as well as being run and administered differently. To ensure the independent survey results can be analysed by each association this section provides the independent survey findings.

NEXT STEPS

Whilst this report presents the findings from the first stage of the research, this research is intended to be ongoing. The second stage is for those respondents who provided their details, to be interviewed by a research company to delve deeper on how participation in industry competitions result in increased productivity and a pursuit of excellence in the workplace.

The third and final stage in the research is likely to be widening the industry participation. Where competitions from other industries are included, so to build a more complete picture.

ACKNOWLEDGEMENTS

We would like to thank our survey partners IRHACE and Master Electricians for supporting this research.

SECTION ONE

The following responses and findings have been combined. In total there were 43 responses to the survey. Not all questions were compulsory, therefore various questions were skipped by respondents throughout the survey.

What is your main motivation for having your apprentices compete? [As an employer]

- Pressure test
- Experience
- Outside comfort zone
- Benchmarking / measurement of training
- Improving skill level of apprentice
- Shows we care for the apprentice(s)
- Build confidence
- Network
- Achievement
- Apprentices wanted to

As a direct result from competing in the Skill competition, did this increase the **skill level** (ie technical knowledge) of the apprentice(s)?

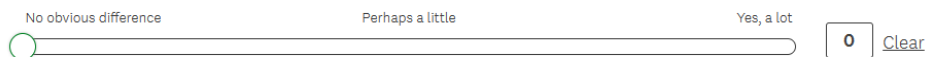
0 = No obvious difference, 50 = Perhaps a little difference, 100 = Yes, a lot of difference.
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Fifteen responses combined - Average score = 55, Median score = 53

As a direct result from competing in the Skill competition, did this increase the **work output** (i.e. quality) of the apprentice(s)?

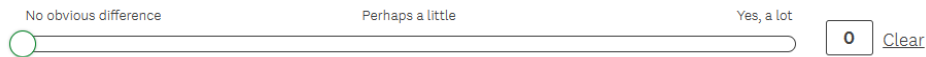
0 = No obvious difference, 50 = Perhaps a little difference, 100 = Yes, a lot of difference.
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Fifteen responses combined - Average score = 36, Median score = 50

As a direct result from competing in the Skill competition, did this improve the **productivity** (i.e. efficiency) of the apprentice(s)?

0 = No obvious difference, 50 = Perhaps a little difference, 100 = Yes, a lot of difference. (Start position of slider was 0)



Fifteen responses combined - Average score = 38, Median score = 50

Did competing in the Skill competition have any other outcome for the apprentice(s)?

Keywords/themes:

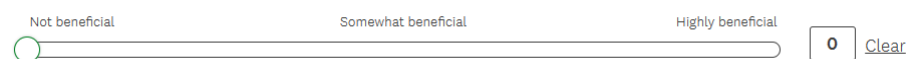
- Increase in Apprentice competitiveness within the business
- The competition was a catalyst for extra training
- Learning
- Measurement of skills
- Fear of failure by entering
- Improved confidence, communication skills and time management

Did your business use the Skill competition as an opportunity to provide/support extra training for your apprentice(s)?

The majority of all respondents used the competition as an opportunity to provide extra training (both before and after the competition).

Please rate the benefit to your business of having your apprentice(s) compete in skill competitions (irrespective of how your apprentice(s) placed).

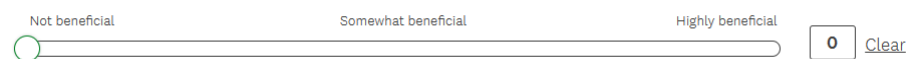
0 = Not beneficial, 50 = Somewhat beneficial, 100 = Highly beneficial. (Start position of slider was 0)




Fifteen responses combined - Average score = 67, Median score = 73

Please rate the benefit to the industry of having your apprentice(s) compete in skill competitions (irrespective of how your apprentice(s) placed).

0 = Not beneficial, 50 = Somewhat beneficial, 100 = Highly beneficial. (Start position of slider was 0)



Fifteen responses combined - Average score = 74, Median score = 76

What is the main reason for your score above?
Keywords/themes: <ul style="list-style-type: none"> • Apprentices challenging themselves is good for industry • No downside • Improving themselves • Increase in confidence of apprentices • Apprentices can be hesitant to put themselves out there
On a scale of 0-10 (with 0 being "no way" and 10 being "just try stopping me"), how likely are you to encourage electrical apprentices to enter the Challenge?
(Start position of slider was 0) 
Fifteen responses combined - Average score = 94, Median score = 100

SUMMARY

This survey provided insight from an employer's perspective, that skill competitions are valued by employers that have had apprentices compete.

Our goal with this research is to test the following research question:

"Can participation in industry skill competitions result in increased productivity and pursuit of excellence in the workplace?"

As the first step in the research, gains through competing have been confirmed across all three aspects: skill level, productivity, and work output in that order.

In addition, other key learnings are:

- Employers see skill competitions as a means to develop their employees
- Employers use skill competitions as a catalyst to provide extra training

The next step is for a research company to undertake interviews with the employers who have confirmed they would like to take part to go deeper to learn more of the value that skill competitions can provide in improving productivity and excellence.

SECTION TWO

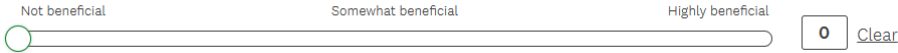


IRHACE - Wallie Askew Memorial Workskills

Summary / Analysis

This survey was emailed out to IRHACE members in July 2023. There were 25 respondents in total. Not all questions were compulsory, therefore various questions were skipped by respondents throughout the survey.

Question	
1	<p>Have you ever had an apprentice compete in the Wallie Askew Memorial Workskills Competition?</p> <p>14 had not / could not recall having an apprentice compete before, 11 had an apprentice(s) compete before</p>
2 For those that answered 'No' in Q1.	<p>Can you please indicate your reason(s) for not participating. (Tick all that apply.)</p> <p>10 responded: 40% don't have apprentices, 40% Other Other – not eligible, work of industrial refrigeration doesn't align to the competition</p>
3	<p>If you are a wholesaler or supplier to the HVAC&R industry does your company support the Wallie Askew Memorial Workskills Competition?</p> <p>Five responded, three support and two do not.</p>
4 For those that answered 'Yes' in Q1.	<p>How many apprentices from your business have competed in the Challenge over the years? (Approximate answer is fine.)</p> <p>Range from 1 – 20 plus apprentices.</p>
5	<p>What year(s) have your apprentices competed? (List all years - approximate is fine.)</p> <p>A wide range of years.</p>
6	<p>What is your main motivation for having your apprentices compete?</p> <p>Keywords:</p> <ul style="list-style-type: none">• Build confidence, experience, network, achievement, benchmark, apprentices wanted to

7	<p>Did competing in the Wallie Askew Memorial Workskills Competition increase the Skill Level (i.e. technical knowledge) of the apprentice(s)?</p> <p>0 = No obvious difference, 50 = Perhaps a little difference, 100 = Yes, a lot of difference. (Start position of slider was 0)</p> <p> <input type="range"/> No obvious difference Perhaps a little Yes, a lot <input type="text" value="0"/> Clear </p> <p>Six responses - Average score = 51, Median score = 48</p>
8	<p>Did competing in the Wallie Askew Memorial Workskills Competition increase the work output (i.e. quality) of the apprentice(s)?</p> <p>0 = No obvious difference, 50 = Perhaps a little difference, 100 = Yes, a lot of difference. (Start position of slider was 0)</p> <p> <input type="range"/> No obvious difference Perhaps a little Yes, a lot <input type="text" value="0"/> Clear </p> <p>Six responses - Average score = 28, Median score = 32</p>
9	<p>Did competing in Wallie Askew Memorial Workskills Competition improve the productivity (i.e. efficiency) of the apprentice(s).</p> <p>0 = No obvious difference, 50 = Perhaps a little difference, 100 = Yes, a lot of difference. (Start position of slider was 0)</p> <p> <input type="range"/> No obvious difference Perhaps a little Yes, a lot <input type="text" value="0"/> Clear </p> <p>Six responses - Average score = 28, Median score = 32</p>
10	<p>Did competing in the Wallie Askew Memorial Workskills Challenge have any other outcome for the apprentice(s)?</p> <p>Keywords/themes:</p> <ul style="list-style-type: none"> • Prizes and recognition • Improved confidence • Confirmed skill set • Feeling dejected and frustrated
11	<p>Did your business use the Wallie Askew Memorial Workskills Competition as an opportunity to provide or support extra training for your apprentice(s)?</p> <p>Two thirds used the competition as an opportunity both before and after to provide extra training. Two respondents did not provide any extra training.</p>

12	<p>Please rate the benefit to your business of having your apprentice(s) compete in skill competitions (irrespective of how your apprentice(s) placed).</p> <p>0 = Not beneficial, 50 = Somewhat beneficial, 100 = Highly beneficial. (Start position of slider was 0)</p>  <p>Six responses - Average score = 74, Median score = 74</p>
13	<p>Please rate the benefit to the industry of having your apprentice(s) compete in skill competitions (irrespective of how your apprentice(s) placed).</p> <p>0 = Not beneficial, 50 = Somewhat beneficial, 100 = Highly beneficial. (Start position of slider was 0)</p>  <p>Six responses - Average score = 70, Median score = 76</p>
14	<p>On a scale of 0-10 (with 0 being "no way" and 10 being "just try stopping me"), how likely are you to encourage electrical apprentices to enter the Challenge? (Start position of slider was 0)</p>  <p>Six responses - Average score = 100, Median score = 100</p>
15	<p>What is the main reason for your score?</p> <p>Keywords/themes:</p> <ul style="list-style-type: none"> • Exposure to competition is important • Benefits in competing • Competition is healthy • Recognition • Increase in confidence of apprentices • Benchmarking
16	<p>Have you ever competed in the Wallie Askew Memorial Workskills Competition?</p> <p>Five out of fourteen respondents for this question had completed in the Wallie Askew Memorial Workskills Competition</p>

17	<p>Please enter any other thoughts or comments that may be helpful to us.</p> <p>Keywords/themes:</p> <ul style="list-style-type: none"> • More apprentices competition in the South Island • Cost to employers in getting apprentices to non local competitions • Fantastic competition • Conditions of entry are discriminatory • Competition results are reflective of state of training • Apprentices apprehensive about entering • Competition should be more inclusive to consider industrial refrigeration
18	<p>Would you be willing to take part in a phone interview with a research company to give more insight to our research? If yes, please supply your contact details.</p> <p>Seven out of twenty-five respondents provided their details to be contacted by a research company to provide more insight.</p>

Email as sent out to IRHACE Members in July/August 2023

WorldSkills New Zealand, in conjunction with IRHACE are undertaking research into the value of participation in practical skill competitions.

It is easy to see how practical skill competitions can benefit the competitor and their employer should a competitor do well at a national or international competition. However, we consider there are many benefits to be gained from competitions at a preliminary or regional level.

Our goal with this research is to answer the following research question:

"Can participation in industry skill competitions result in increased productivity and pursuit of excellence in the workplace?"

We really appreciate if you can take a few minutes to complete this survey. The responses you provide will be invaluable in helping us to better understand the value that skill competitions provide. Similar surveys will also be carried out across multiple trade industries where skill competitions are run. Once collated, all responses will form part of a report which will be made available.


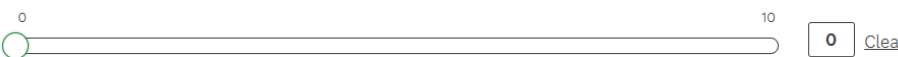
Master Electricians - Challenge

Summary / Analysis

The survey was emailed out to all contractor members as part of July ME newsletter. There were 18 respondents across 17 electrical contracting businesses.

Question	
1	<p>Have you ever had an apprentice compete in the Master Electricians Apprentice Challenge (or previously, the ECANZ Challenge)?</p> <p>10 had not / could not recall having an apprentice compete before, 8 had an apprentice(s) compete before</p>
2 For those that answered 'No' in Q1.	<p>Can you please indicate your reason(s) for not participating. (Tick all that apply.)</p> <p>40% too busy, 30% Apprentices didn't want to, 30% Other Other – where the employer either didn't know about it or register in time.</p>
3 For those that answered 'Yes' in Q1.	<p>How many apprentices from your business have competed in the Challenge over the years? (Approximate answer is fine.)</p> <p>Range from 2 – 100 apprentices. No 'one' responses. The majority of respondent businesses have entered 8 or more apprentices over the years.</p>
4	<p>What year(s) have your apprentices competed? (List all years - approximate is fine.)</p> <p>A wide range of years.</p>
5	<p>What is your main motivation for having your apprentices compete?</p> <p>Keywords:</p> <ul style="list-style-type: none"> • Pressure test • Experience • Outside comfort zone • Benchmarking / measurement of training • Improving skill level of apprentice • Shows we care for the apprentice(s)
6	<p>As a direct result from competing at a Challenge competition, did this increase the skill level (ie technical knowledge) of the apprentice(s)?</p> <p>0 = No obvious difference, 50 = Perhaps a little difference, 100 = Yes, a lot of difference. (Start position of slider was 0)</p> <p> <input type="range" value="0"/> No obvious difference Perhaps a little Yes, a lot 0 Clear </p> <p>Nine responses - Average score = 59, Median score = 65</p>

7	<p>As a direct result from competing at a Challenge competition, did this increase the work output (i.e. quality) of the apprentice(s)?</p> <p>0 = No obvious difference, 50 = Perhaps a little difference, 100 = Yes, a lot of difference. (Start position of slider was 0)</p> <p> <input type="range"/> No obvious difference Perhaps a little Yes, a lot <input type="text" value="0"/> Clear </p> <p>Nine responses - Average score = 41, Median score = 51</p>
8	<p>As a direct result from competing at a Challenge competition, did this improve the productivity (i.e. efficiency) of the apprentice(s)?</p> <p>0 = No obvious difference, 50 = Perhaps a little difference, 100 = Yes, a lot of difference. (Start position of slider was 0)</p> <p> <input type="range"/> No obvious difference Perhaps a little Yes, a lot <input type="text" value="0"/> Clear </p> <p>Nine responses - Average score = 45, Median score = 56</p>
9	<p>Did competing in the Challenge competition have any other outcome for the apprentice(s)?</p> <p>Keywords/themes:</p> <ul style="list-style-type: none"> • Increase in apprentice competitiveness within the business • The competition was a catalyst for the extra training • Learning • Measurement of skills • Fear of failure by entering • Improved confidence, communication skills and time management
10	<p>Did your business use the Challenge competition as an opportunity to provide/support extra training for your apprentice(s)?</p> <p>50% used the competition as an opportunity both before and after to provide extra training. Only one respondent did not provide any training at all.</p>
11	<p>Please rate the benefit to your business of having your apprentice(s) compete in skill competitions (irrespective of how your apprentice(s) placed).</p> <p>0 = Not beneficial, 50 = Somewhat beneficial, 100 = Highly beneficial. (Start position of slider was 0)</p> <p> <input type="range"/> Not beneficial Somewhat beneficial Highly beneficial <input type="text" value="0"/> Clear </p> <p>Nine responses - Average score = 62, Median score = 71</p>

12	<p>Please rate the benefit to the industry of having your apprentice(s) compete in skill competitions (irrespective of how your apprentice(s) placed).</p> <p>0 = Not beneficial, 50 = Somewhat beneficial, 100 = Highly beneficial. (Start position of slider was 0)</p>  <p>Nine responses - Average score = 77, Median score = 78</p>
13	<p>On a scale of 0-10 (with 0 being "no way" and 10 being "just try stopping me"), how likely are you to encourage electrical apprentices to enter the Challenge? (Start position of slider was 0)</p>  <p>Nine responses - Average score = 90, Median score = 100</p>
14	<p>What is the main reason for your score for question 12?</p> <p>Keywords/themes:</p> <ul style="list-style-type: none"> • Apprentices challenging themselves is good for industry • No downside • Improving themselves • Increase in confidence of apprentices • Apprentices can be hesitant to put themselves out there
15	<p>Have you ever competed in the Challenge competition?</p> <p>Three of sixteen respondents for this question had competed in the Challenge</p>
16	<p>Please enter any other thoughts or comments that may be helpful to us.</p> <p>Keywords/themes:</p> <ul style="list-style-type: none"> • See industry best practice • More encouragement to employers • Focused competition organiser • Industry values the Challenge • Consider categories of competition
17	<p>Would you be willing to take part in a phone interview with a research company to give more insight to our research? If yes, please supply your contact details.</p> <p>Twelve out of eighteen respondents provided their details to be contacted by a research company to provide more insight.</p>

Email as sent out to Master Electricians Members in August 2023



**Welcome to the August 2023 issue of
Current Matters - Master Electricians
official newsletter**



Industry Advocacy

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The responses you provide will be invaluable in helping us to better understand the value that skill competitions provide. Similar surveys will also be carried out across multiple trade industries where skill competitions are run. Once collated, all responses will form part of a report which will be made available.

[Complete the survey here.](#)



WorldSkills New Zealand

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