

Building and Construction Industry Training Organisation

Carpentry Qualification Review Report

National Summary

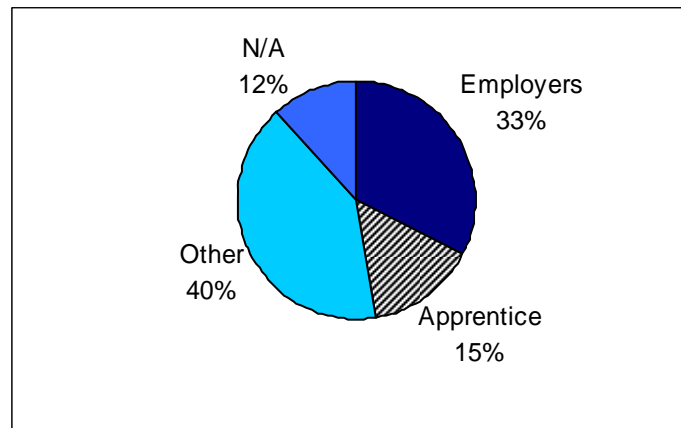


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Summary – Industry stakeholders and staff

- ◆ The industry stakeholder and staff Carpentry qualification review forums were held between 23 August and 27 September 2006.
- ◆ 456 industry stakeholders and staff attended the various industry stakeholder and staff forums, forming 81 groups.
- ◆ Of the total attendees, 75 were staff, 124 were employers, 57 were apprentices, and 156 were other stakeholders. 44 attendees did not note their title.



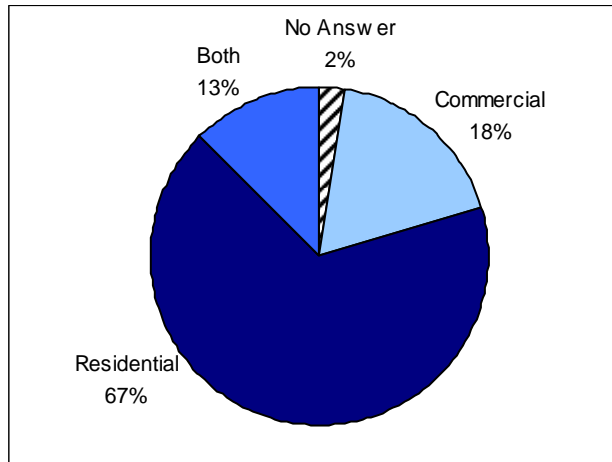
- ◆ 8% of companies¹ and 1% of apprentices listed on national BCITO database attended their respective industry stakeholder forum.
- ◆ 15% of companies and 1% of apprentices listed on national BCITO database made an initial expression of interest to attend their respective industry stakeholder forum.

¹ The BCITO database refers to anyone who is not an apprentice as a “company”.

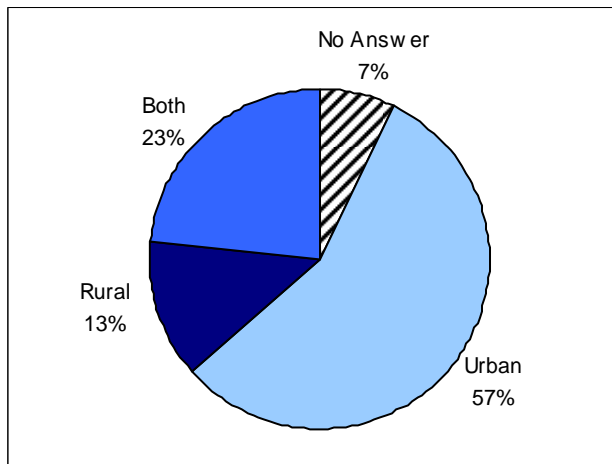
Employer Survey

The following section summarises all Employers surveyed, which was completed by 168 employers present at the industry stakeholder forums.

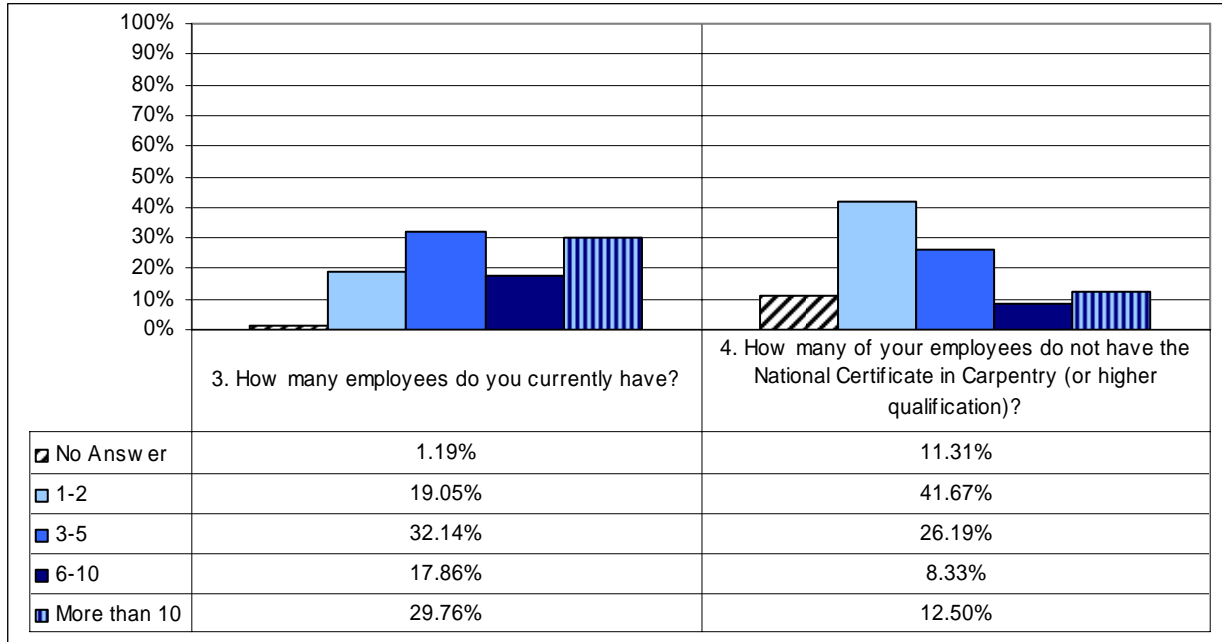
Question 1	Commercial	Residential	Both	No answer
Do you work mainly in commercial or residential construction?	30 (18%)	113 (67%)	21 (13%)	4 (2%)



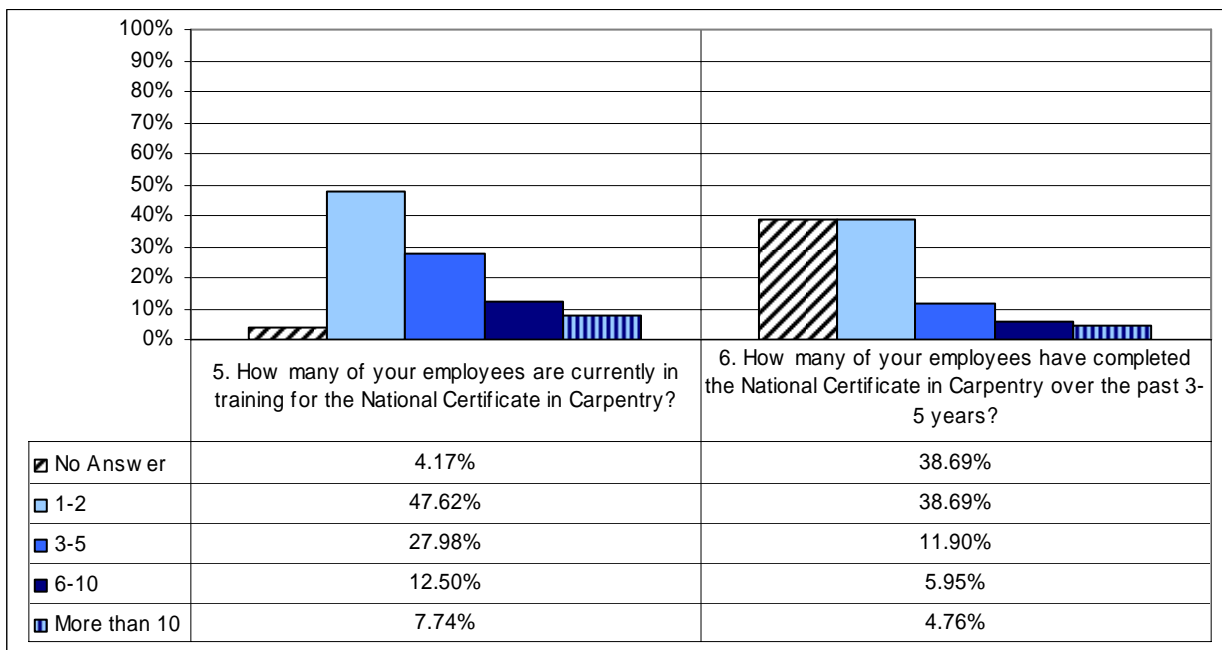
Question 2	Urban	Rural	Both	No answer
Do you work mainly in urban / rural areas?	95 (57%)	22 (13%)	39 (23%)	12 (7%)



Questions 3-4	1-2	3-5	6-10	> 10	No answer
How many employees do you currently have?	31 (19%)	54 (32%)	30 (18%)	50 (30%)	2 (1%)
How many of your employees do not have the National Certificate in Carpentry (or higher qualification)?	70 (42%)	44 (26%)	14 (8%)	21 (12%)	19 (11%)



Questions 5-6	1-2	3-5	6-10	> 10	No answer
How many of your employees are currently in training for the National Certificate in Carpentry?	80 (48%)	47 (28%)	21 (12%)	13 (8%)	7 (4%)
How many of your employees have completed the National Certificate in Carpentry over the past 3 – 5 years?	65 (39%)	20 (12%)	10 (6%)	8 (5%)	65 (39%)



Industry Stakeholder & Staff Responses

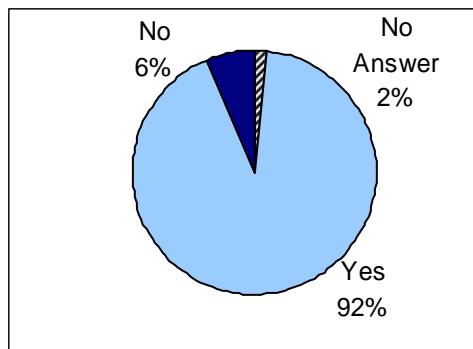
The following section summarises the industry stakeholder and staff responses which were provided at forums nation-wide.

Industry Change

1. Is there any such thing as a well-rounded carpenter? If yes, how would you describe them? If no, why?

Industry Stakeholders and Staff

419 (92%) participants answered 'yes' to the question of whether there is any such thing as a well rounded carpenter, while 29 (6%) answered no. 8 (2%) did not answer.



The descriptions of a well rounded carpenter included:

- ◆ Competent in all areas/multi-skilled and completes projects to a better than average industry standard [x24]
- ◆ Work experience including alterations and new, residential and commercial [x15]
- ◆ Ability to work unsupervised and run a project from plans to completion [x14]
- ◆ Good coordination, delegation, listening and communication skills [x11]
- ◆ Ability to demonstrate good organising/planning/problem solving skills [x10]
- ◆ Has all the skills and knowledge required to undertake and manage all facets of modern day construction [x10]
- ◆ Over the age of 40, had formal training and 10-20 years work experience [x10]
- ◆ Is commercially competent in both theory and practical [x7]
- ◆ Has a good knowledge of code, consents, regulatory, compliance requirements [x4]
- ◆ Administration skills and technical knowledge, systems and practices [x4]
- ◆ Mature, adaptable, open minded, disciplined, personable, good work attitude, logical thinking [x4]
- ◆ Has transferable skills and is able to train well rounded apprentices [x4]
- ◆ Adapt to changes and work out how to do a job they haven't done before [x4]
- ◆ Has developed skills to a point where they can run their own business or promoted to supervisory position [x3]
- ◆ Knows what to look, quality control of specialists and manage sub contractors [x2]
- ◆ Able to visualise a structure, quantity survey, kinaesthetic and hand skills
- ◆ Aware of own ability, reliable, holistic in outlook of the trade.

One group noted that the numbers of this type of person were likely to be decreasing. One group noted that 'group housing' apprentices may end up with a lower skill base due to specialisation.

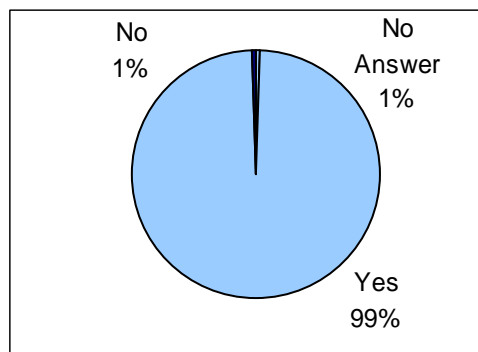
Reasons given for answering 'no' included:

- ◆ Because of specialisation (i.e. pre-hung doors, pre-framed walls/roof) [x5]
- ◆ Younger generation will specialise more - less desire/need for wider skill set [x5]
- ◆ Training is more specific/not getting enough time and variety in training [x2]
- ◆ Because of the emergence of kitset housing and pre-framing [x2]
- ◆ Industry has become specialised - everything is being done to a time and price [x2]
- ◆ Because of the constant changes and too many variables in industry (i.e. specialising in certain areas: framing, GIB, etc)
- ◆ Current National Certificate requires greater emphasis on TA/Stat compliance requirements
- ◆ Limited to licensing skills requires more than just qualifications.

2. Has the industry changed in the past 40 or so years? If yes, how?

Industry Stakeholders and Staff

450 (99%) participants answered 'yes' to the question of whether the industry has changed in the past 40 or so years, while 3 (1%) answered 'no'. 3 (1%) did not answer.



Reasons given for answering 'yes' included:

- ◆ Variations of building systems and changes in technology [x32]
- ◆ Government regulations, compliance and documentation [x26]
- ◆ New materials and methods and products [x24]
- ◆ Specialisation of roles, tasks and equipment to match new materials [x24]
- ◆ Increased use of modular, pre-fabricated, pre-cut, pre-nailed [x21]
- ◆ Trade broken into sub trades, greater use of sub-contractors [x15]
- ◆ Industry requirements, equipment, mechanisation and tools [x14]
- ◆ Increased complexity in design, engineering and construction process [x14]
- ◆ Less time to do things and more pressure [x14]
- ◆ Employment status of apprentices has changed from time-based to competency-based training [x9]
- ◆ OSH requirements and Health & Safety [x13]
- ◆ Faster rate of change and construction process - time vs. money economics [x11]
- ◆ New legislation and standards e.g. HSE, Building, RM & ER Acts, NZS 3604 [x11]
- ◆ Greater public and customer expectations [x8]

- ◆ Economic and labour market pressures, and increased wage costs [x7]
- ◆ Business technology and systems (i.e. computers, email etc) [x5]
- ◆ Project management requirement as opposed to doing the work yourself [x4]
- ◆ More semi-skilled labour, carpenters hand skills disappearing [x4]
- ◆ Changes of manufacturer's specification, proprietary claddings, quality vs. leaky buildings [x4]
- ◆ Average house size has increased with greater detail in plans and different styles of housing [x3]
- ◆ Higher standard of literacy and numeracy requirements [x3]
- ◆ Different learning processes for apprentices and wider range of training options [x2]
- ◆ Move away from quality to quantity (i.e. group home builders) re increased profits, different work ethics, attitudes and liabilities
- ◆ Builder used to control outright site management, less labours on site and builder has to do more menial tasks.

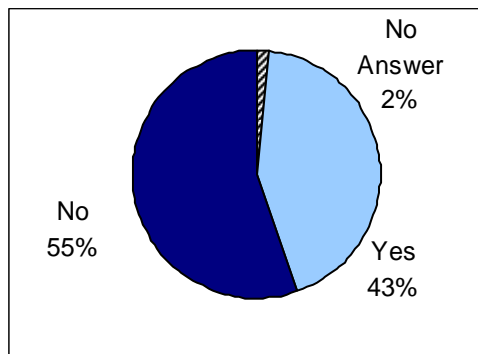
Reason given for answering 'no' included:

- ◆ Trades people today are not well rounded.

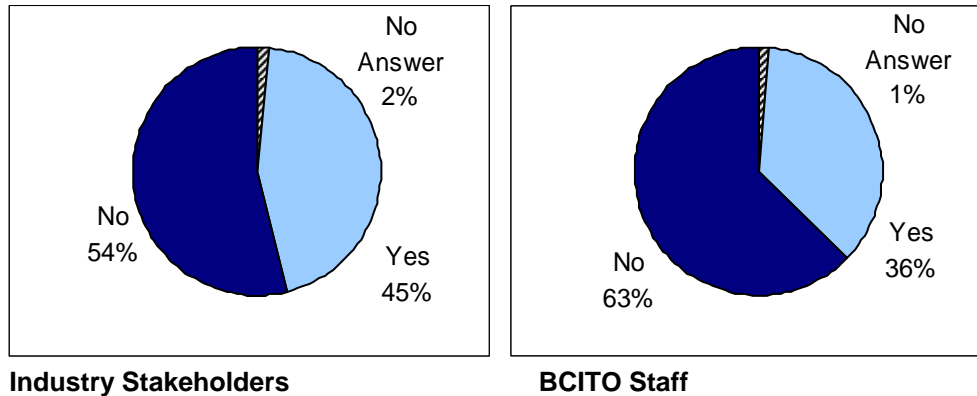
3. Can apprentice Carpenters still rely on learning the traditional skills that were present in the industry 40 years ago? Are these skills important and still a necessity in the industry? If yes, why? If no, why not?

Industry Stakeholders and Staff

197 (43%) participants answered 'yes' to the question of whether apprentice carpenters can still rely on learning traditional skills, while 252 (55%) answered 'no'. 7 (2%) did not answer.



In comparison, more industry stakeholders (45%) than staff (36%) answered 'yes' to this question. Contrasting the 14 regions, 5 regions (Auckland North & West, Napier, Christchurch, Nelson and Invercargill) answered predominantly 'yes', 8 regions (Auckland South, Hamilton, Palmerston North, Wellington, Tauranga, Queenstown, Whangarei and New Plymouth) answered primarily 'no', and 1 region, Dunedin had equal 'yes' and 'no' responses.



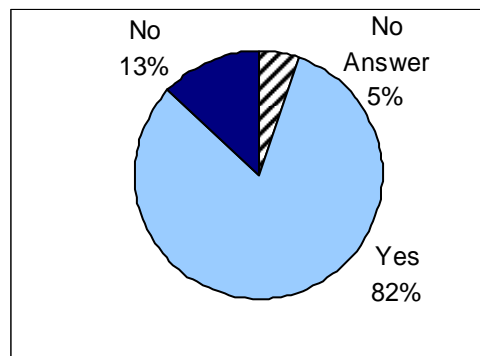
Reasons given for answering 'yes' included:

- ◆ They are slightly different but basic skills and concepts are still the same [x10]
- ◆ There are carpenters around with those skills and the industry still needs them [x4]
- ◆ Skills have changed in line with new products and are still being learnt [x3]
- ◆ If apprentice is taught at a tertiary institute and by an older carpenter [x2]
- ◆ More generalist skills needed, some of those skills have been lost over time as there was no one to teach them [x2]
- ◆ Not all jobs are pre-fabricated, important to learn and try everything – but not necessarily become proficient. [x2]

Reasons given for answering 'no' included:

- ◆ Number of jobs being subcontracted / prefabricated (specialist has those skills) [x9]
- ◆ Carpenters traditional core skill set has changed and tasks have been redefined [x9]
- ◆ The younger carpenters and trainers of today not having the skills themselves – missing generation [x8]
- ◆ Building faster, time and money pressures, cost driven mentality [x8]
- ◆ Technology has changed, materials and products have improved [x4]
- ◆ Greater client expectations, more pressure and penalties imposed [x3]
- ◆ Tools have evolved setting new trends (i.e. throwaway disposable tools) [x2]
- ◆ Industry is changing fast and the need to learn some skills has diminished [x2]
- ◆ Changes in building code and minimal requirement for some old skills
- ◆ Day classes not sufficient to learn skills.

372 (82%) participants answered 'yes' to the question of whether these skills were still necessary, while 60 (13%) answered 'no'. 24 (5%) did not answer.



Reasons given for answering 'yes' included:

- ◆ There are a few obsolete practices but most basic skills are still important, some old skills and methods haven't changed (i.e. hanging doors etc) [x10]
- ◆ Carpenters who learnt specialist skills are still using those skills today for renovation or restoration work [x8]
- ◆ In a slow building market the all-round builder has greater chance of survival and achieve salary expectations [x6]
- ◆ Buildings still need to be built plumb, level, and accurate [x4]
- ◆ Still need a solid skill base, learning the basics makes good tradesmen [x4]
- ◆ Need some background on why things were done a certain way [x4]
- ◆ Risk when technology breaks down and old skills required to maintain standards [x3]
- ◆ Able to build a house from start to finish [x3]
- ◆ Kinaesthetic and problem solving skill needs have not changed [x2]
- ◆ Expectation qualified trades people have a broad range of skills and knowledge [x2]
- ◆ Principle techniques need to be embedded to retain skills and integrity of industry [x2]
- ◆ Need knowledge and understanding of these skills at least over and above practical ability for QA of project and continuity
- ◆ Necessity to learn speed and quality and safety on site
- ◆ Essential if carpenter is to perform the role of supervisor on site
- ◆ Not enough supplier information/ knowledge so builder needs these skills.

Reasons given for answering 'no' included:

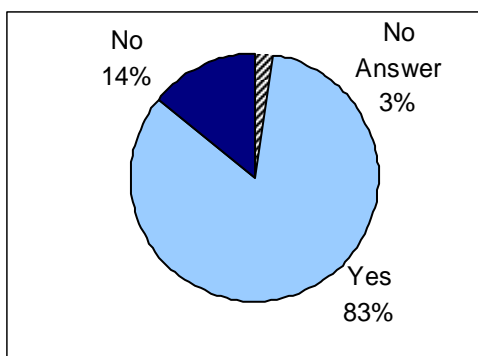
- ◆ These skills are important but not all are a necessity because of new technology [x5]
- ◆ Methods have changed with new materials [x4]
- ◆ Jobs being subcontracted out or prefabricated (the specialist brings those skills) [x3]
- ◆ Economics dictate to build quicker and faster [x2]
- ◆ Newer products require more precise specialist installation (i.e. claddings) [x2]
- ◆ A person can still be a successful carpenter without all the traditional skills. [x2]

The Composition of the Qualification

1. Is the present composition of the qualification still meeting the needs of the industry? If yes, why? If no, why not?

Industry Stakeholders and Staff

379 (83%) participants answered 'yes' to the question of whether the qualification still meets the needs of industry, while 65 (14%) answered 'no'. 12 (3%) did not answer.



Reasons given for answering 'yes' included:

- ◆ Good all-round package, covers wide range and all basic requirements [x19]
- ◆ Qualification is comprehensive, fills in unit gaps and employers knowledge [x9]
- ◆ Skills taught in BCITO book relevant to building [x6]
- ◆ Meeting the needs, new methods and regulations that need to be adopted [x4]
- ◆ Meeting the standards in general terms but job experience most important [x4]
- ◆ Not totally academic, depends on how it is taught and type of work [x4]
- ◆ Apprentices experience all aspects of the trade - residential and commercial [x3]
- ◆ Practical and theory reinforces and covers most aspects of carpentry [x3]
- ◆ If the unit standards are completed they are then competent carpenters [x3]
- ◆ Up to the individual employers to offer full training and teach right skills [x3]
- ◆ Frame work and headings are good, content and elements need reviewing [x2]
- ◆ Provides flexibility and practical knowledge and ability to specialise [x2]
- ◆ Possibly different qualification for commercial areas [x2]
- ◆ Possibly too much in it. Some things would only be used in advanced trade areas
- ◆ On job training is easier to relate to knowledge learnt - still relies on the individual
- ◆ Yes – becoming more difficult as industry becomes more specialised.

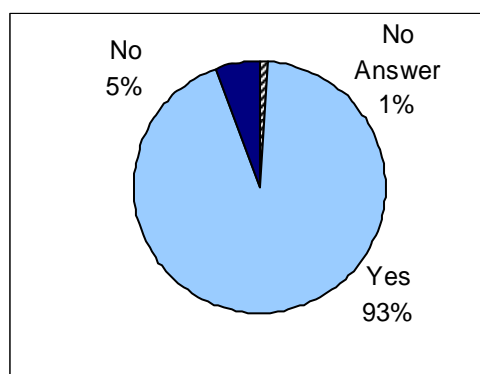
Reasons given for answering 'no' included:

- ◆ Composition needs to be updated more regularly to meet code requirements [x4]
- ◆ Should be up to speed with the latest products and technology [x5]
- ◆ Does not meet the needs of civil construction (i.e. no theory for pre-cast 12041) [x4]
- ◆ Some practical units aren't achievable – older skills no longer used [x4]
- ◆ Lacking some hands on, mix of optional and practical needs reviewing [x3]
- ◆ Delete some of the repetition/duplication some units irrelevant [x2]
- ◆ Needs supervision, peer interaction, varied mentor and scope of ideas [x2]
- ◆ Depends on attitude and how the person is doing on the job [x2]
- ◆ Need development of a specific civil, commercial, residential qualification [x2]
- ◆ Recording is too time consuming [x2]
- ◆ Need to review range of tasks (shorten or extend) [x2]
- ◆ Increased differentiation between residential, commercial and civil construction [x2]
- ◆ Low repetition of practical units due to vast range of techniques carried out by employers [x2]
- ◆ Need to move people between employers to get broad exposure and learn skills [x2]
- ◆ It is too academic, less emphasis on calculations more emphasis on practical [x2]
- ◆ Lack of theory retention, need end of year exam/s
- ◆ Not meeting needs of large, one-off concrete/steel/glass construction
- ◆ Many optional units should be compulsory as they are required to build a basic house
- ◆ Room for specialisation (e.g. ground works).

2. Is the current qualification achievable by the majority of those who wish to work in the industry as qualified Carpenters? If yes, why? If no, why not?

Industry Stakeholders and Staff

426 (93%) participants answered 'yes' to the question of whether the qualification is achievable by the majority, while 25 (6%) answered 'no'. 5 (1%) did not answer.



Reasons given for answering 'yes' included:

- ◆ Yes – if they have the right attitude/motivation/common sense [x7]
- ◆ Because it is structured towards apprentices who are engaged with employers doing the most common type of residential construction [x6]
- ◆ Because of supervision and guidance and BCITO moderating process [x5]
- ◆ The flexibility in the qualification and optional unit standards [x5]
- ◆ Majority still covering work set out by industry and unit standards [x5]
- ◆ Units are easy as the answer is available Not “rocket science” [x5]
- ◆ Progressive learning, evidence of apprentices completing the qualification [x4]
- ◆ Dependant on employer’s intent and ability to afford the experiences and opportunities to the trainee, either in house or outsourced to sub contractors [x4]
- ◆ Because it’s on site, driven by apprentice motivation [x4]
- ◆ Yes – if they can read and write and have basic comprehension [x4]
- ◆ Dependant on personal skills, aptitude, training, type of work [x4]
- ◆ The ability for apprentices to transfer to other employers to pick up skills required to complete [x2]
- ◆ Given time achievable by apprentice moving between multiple employers [x3]
- ◆ Not time bound, apprentices have the ability to move between employers
- ◆ Yes but there is a difference between commercial and residential that needs to be recognised.

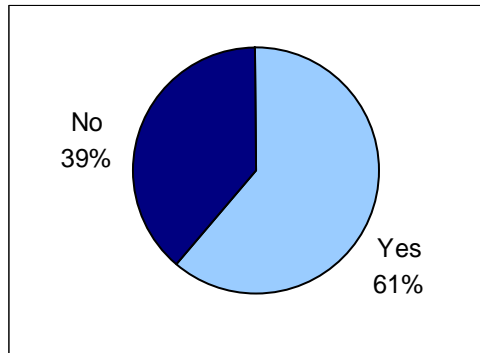
Reasons given for answering 'no' included:

- ◆ Depends on the work, employer and ability of trainer [x5]
- ◆ Commercial and civil have large challenges to provide opportunity to trainee’s to achieve all units required [x4]
- ◆ Industry fragmentation - apprentices who work for employers who subcontract parts of the process out are unable to complete the requirements [x4]
- ◆ Mathematical aspects and some practical units are difficult [x2]
- ◆ Sometimes not within the scope of an individual employer [x2]
- ◆ Some apprentices have a lack of numeracy and literacy skills [x2]
- ◆ Qualification too broad / block courses should be compulsory
- ◆ Terminology needs better explaining (i.e. more diagrams)
- ◆ Personal training more reliable to achieve best result
- ◆ Many aspects not taught/practiced in a civil engineering company
- ◆ Smaller renovation companies don’t do foundations and roofs etc.

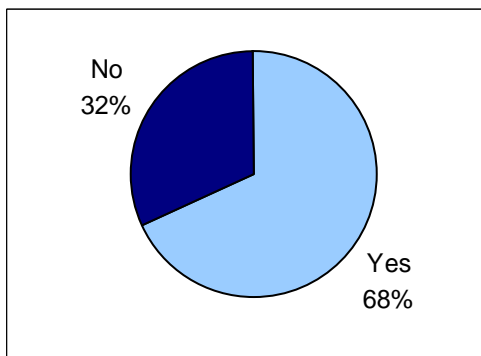
3. Given your experience, are apprentices' literacy and numeracy skills sufficient to achieve the unit standards in the qualification? If no, should the qualification include components to assist with this? If yes, why? If no, why not?

Industry Stakeholders and Staff

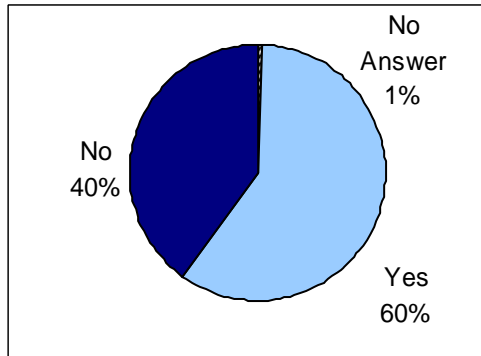
278 (61%) participants answered 'yes' to the question of whether the literacy and numeracy skills of apprentices were sufficient, while 176 (39%) answered 'no'. 2 (0.4%) did not answer.



In comparison, more staff (68%) than industry stakeholders (60%) answered 'yes' to this question. Contrasting the 14 regions, 9 regions (Auckland North & West, Auckland South, Hamilton, Tauranga, New Plymouth, Palmerston North, Wellington, Christchurch, and Dunedin) answered predominantly 'yes', 2 regions (Whangarei and Queenstown) answered primarily 'no', and 3 regions, Napier, Nelson and Invercargill had equal 'yes' and 'no' responses.



BCITO Staff



Industry Stakeholders

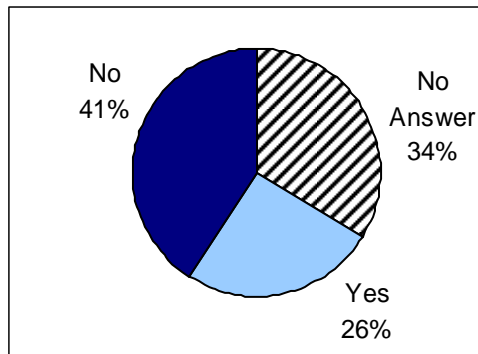
Reasons given for answering 'yes' included:

- ◆ Majority have sufficient skills to complete the qualification [x7]
- ◆ Most apprentices complete maths with help and support [x5]
- ◆ Yes - depending on schooling, background and work experience [x4]
- ◆ Yes with the assistance of TAs, employers and Polytechnics once identified [x3]
- ◆ Employers will not recruit people without a basic education [x3]
- ◆ Even guys who struggle still manage to achieve the qualification
- ◆ Knowledge needs to be more industry related / best builders often bad at paperwork
- ◆ Understanding and completing Trigonometry is a problem.

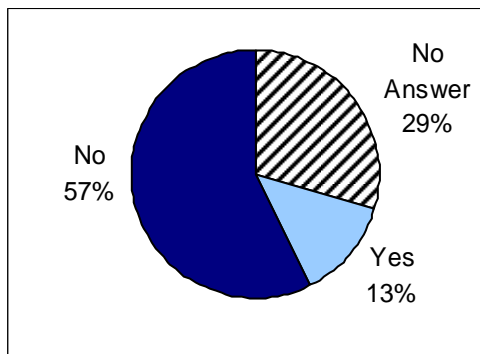
Reasons given for answering 'no' included:

- ◆ Education levels have dropped and some skills are insufficient [x8]
- ◆ 10-30% of younger apprentices struggle in this area [x5]
- ◆ Many apprentices lack basic skills and need help with self paced learning [x5]
- ◆ Non-English speakers, overseas students struggling with literacy [x3]
- ◆ Students are not always able to comprehend the work, need a procedure for assisting [x3]
- ◆ Many get lost in compliance codes, plans and theory [x2]
- ◆ Paper trail requirements now greater than 5 years ago - puts more workload on the supervisor [x2]
- ◆ Some questions can be difficult to interpret – wording needs to be more clear [x2]
- ◆ Many Maori in the north have numeracy and literacy problems but get no assistance
- ◆ Recommend entry criteria to match literacy requirements of modern day industry (e.g. compliance requirements).

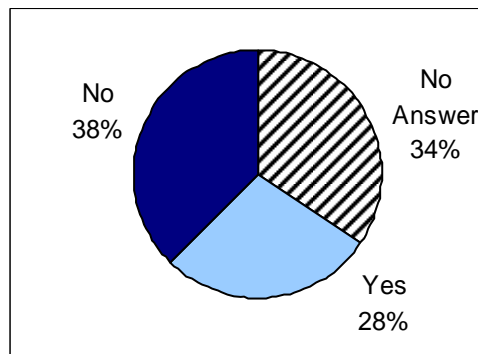
117 (26%) participants answered 'yes' to the question of whether the qualification should include components to assist with this, while 181 (41%) answered 'no'. 158 (34%) did not answer.²



In comparison, more staff (57%) than industry stakeholders (38%) answered 'no' to this question. Contrasting the 14 regions, 2 regions (Napier and Queenstown) answered predominantly 'yes', 10 regions (Whangarei, Auckland South, Hamilton, Tauranga, New Plymouth, Palmerston North, Wellington, Nelson, Christchurch and Invercargill) answered primarily 'no', and 2 regions (Auckland North & West and Dunedin) had equal 'yes' and 'no' responses.



BCITO Staff



Industry Stakeholders

² The majority of industry stakeholders (or staff) who answered 'yes' to the first part of this question still decided to answer the second part of the question. Numbers and percentages are therefore based on total numbers of industry stakeholders (or staff) for both parts of the question and not only those who answered 'no' to the first part.

Reasons given for answering 'yes' included:

- ◆ These skills are essential and need to be included [x3]
- ◆ Simplification of paper work and terminology [x3]
- ◆ A real problem in comprehension - need a minimum entry level [x3]
- ◆ BCITO to provide support to apprentices with training from competent person [x3]
- ◆ Some units may need some catch up from school levels [x3]
- ◆ Will prepare apprentice for expectations and benefit through apprenticeship
- ◆ Written requirements of management help with literacy and numeracy [x2]
- ◆ Aids to help in these areas employers do not have time [x2]
- ◆ External agency offering distance learning. [x2]

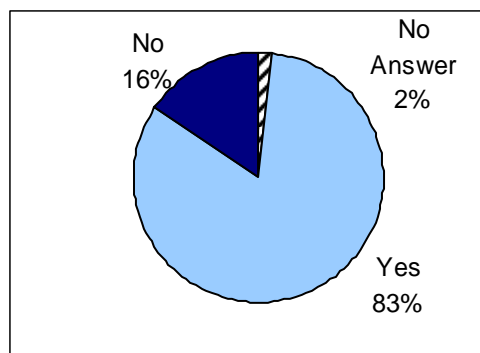
Reasons given for answering 'no' included:

- ◆ This should be the role of the school system [x14]
- ◆ Up skill assistance separate to and outside the qualification [x5]
- ◆ These skills should be a prerequisite not up to the employer to teach [x4]
- ◆ Up to the apprentice to develop these skills and go to night school [x3]
- ◆ Set minimum level as NCEA Level 1 [x3]
- ◆ It's too late if they haven't learnt basic's prior – lost time learning on the job [x2]
- ◆ Pre-test for a minimum education level prior to entry into the industry [x2]
- ◆ Apprentices do not want to relearn basic education skills [x2]
- ◆ Don't lower the standard of the qualification [x2]
- ◆ View school qualifications - disclosure of any disabilities
- ◆ Try to upgrade the whole industry.

4. Are there any unit standards or components within the current qualification that have become difficult to achieve? If yes, what are these unit standards or components?

Industry Stakeholders and Staff

377 (83%) participants answered 'yes' to the question of whether there were any unit standards or components that had become difficult to achieve, while 71 (16%) answered 'no'. 8 (2%) did not answer.



Unit standards or components nominated as being difficult to achieve included:

- ◆ 13001 Calculations - could supply a DVD to assist with these [x17]
- ◆ 18730 Roof framing - due to pre-fab roofs [x13]
- ◆ 13054 Cladding – many builders use brick veneer [x12]
- ◆ 13013 Roof framing – apprentice must display competency [x11]
- ◆ 13049 Wall framing – Limited due to specialisation, elements outsourced [x10]
- ◆ 13035 Plans and specs [x10]
- ◆ 13014 Alt roofing [x9]
- ◆ 13056 Metal roofs [x8]
- ◆ 13053 Scaffolding [x5]
- ◆ 18732 Erect trusses [x5]
- ◆ 13051 Alt roofing [x5]
- ◆ 6155 Suspended ceilings [x5]
- ◆ 13045 Formwork [x4]
- ◆ 13005 Levelling [x4]
- ◆ 18729 Insulation [x4]
- ◆ 13012 Wall framing [x4]
- ◆ 13040 Preliminary - employers not affording opportunity [x3]
- ◆ 18729 Insulation - largely done by sub contractors [x3]
- ◆ 13025 Stairs & Ramps [x3]
- ◆ 13058 Linings [x3]
- ◆ 13034 Pre-fab beams [x3]
- ◆ 13019 Roof cover [x2]
- ◆ 13041 Set out [x2]
- ◆ 13044 Foundations [x2]
- ◆ 13055 Interior & Ext joinery [x2]
- ◆ 13037 Hand tools – hand tools in a commercial situation [x2]
- ◆ 13043 Slab [x2]
- ◆ 13062 Retaining wall [x2]
- ◆ 13063 Masonry & paving [x2]
- ◆ 13029 High framework [x2]
- ◆ 13047 Concrete [x2]
- ◆ 13010 Concrete
- ◆ 13008 Formwork
- ◆ 13029 High Formwork
- ◆ 12028 Pre-cast concrete
- ◆ 4346 Interior partitions
- ◆ 4347 Specialist Partitions
- ◆ 13004 Set out
- ◆ 13042 Levels
- ◆ 13006 Slab on ground
- ◆ 13052 Subcontractors
- ◆ 18731 Sound installation
- ◆ 13011 Floor framing
- ◆ 13024 Pole frame
- ◆ 13002 Timber
- ◆ 13023 Hardware
- ◆ 13026 Retaining walls
- ◆ 12041 Erect pre-cast concrete

- ◆ 18729 Insulation
- ◆ 13060 Pole frame platform
- ◆ 12997 Safety – lower level and spilt into 2 parts
- ◆ Housing vs. commercial [x2]
- ◆ Theory easy to achieve, however hard to achieve practical
- ◆ Data sheets relating to product help to achieve
- ◆ Changing requirements (e.g. pre-cut, pre-nail) don't allow knowledge of standards
- ◆ Relative to type of work being done
- ◆ Industry trends are affecting work achieved
- ◆ Stairs and ramps – difficult to get practical experience.

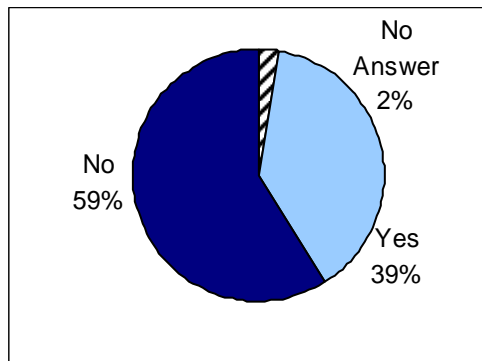
Participants listed the following ways that ensure apprentices achieve these unit standards or components:

- ◆ Job share / alternative employment. Swapping apprentices between employers to widen options of performing/ completing tasks [x28]
- ◆ Block courses/night classes - make them compulsory [x9]
- ◆ Send apprentices to sub contractors, more one on one when possible [x4]
- ◆ Spend additional time to facilitate learning and discussions with apprentice [x3]
- ◆ BCITO site training provides practical experience [x3]
- ◆ Use student services – learning support etc [x3]
- ◆ Moderation of training assessment process [x3]
- ◆ BCITO needs to proof read the learning material, correct the answers [x2]
- ◆ Self appraisal sheet to monitor progress, be honest with trainees [x2]
- ◆ Only ensure achievement of unit if compulsory and signed off [x2]
- ◆ Read unit standard. If too difficult, ask assessor or another carpenter [x2]
- ◆ Transferable skills / simulate training [x2]
- ◆ Move apprentices to a site where these areas of construction are happening
- ◆ Incentives, right school options and assessor guidance from BCITO [x2]
- ◆ Train the trainer to manage this within the training framework from outset
- ◆ G & H training and from specifications.

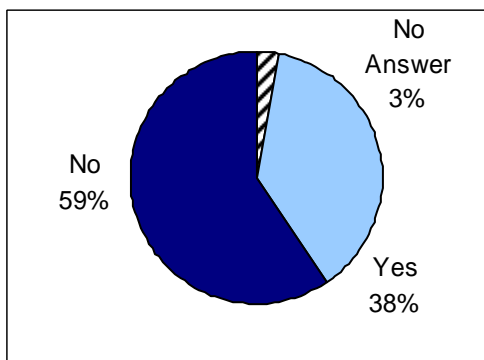
5. Should there be more of a stair-casing approach taken to the qualification whereby there are basic, intermediate and advanced components recognising the skills of “hammer hands”, “kitset builders”, and “full-blown Carpenters”? If yes, why? If no, why not?

Industry Stakeholders and Staff

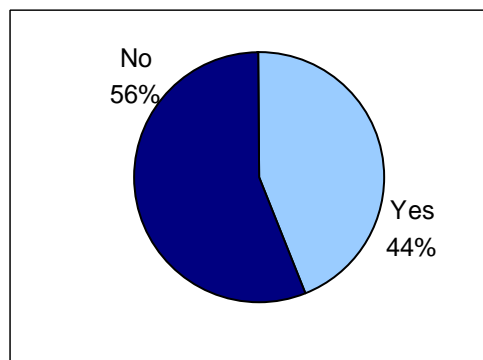
177 (39%) participants answered ‘yes’ to the question of whether there should be a stair-casing approach taken, while 268 (59%) answered ‘no’. 11 (2%) did not answer.



In comparison, more industry stakeholders (59%) than staff (56%) answered ‘no’ to this question. Contrasting the 14 regions, 1 region (Auckland North & West) answered predominantly ‘yes’, 11 regions (Whangarei, Auckland South, Tauranga, New Plymouth, Palmerston North, Napier, Wellington, Nelson, Christchurch, Queenstown and Dunedin) answered primarily ‘no’, and 2 regions (Hamilton and Invercargill) had equal ‘yes’ and ‘no’ responses.



Industry Stakeholders



BCITO Staff

Reasons given for answering 'yes' included:

- ◆ Progressive learning/small steps - make qualification more achievable [x10]
- ◆ People have different skill levels, those who want to stay at a lower level are able to do so (still have qualification) [x6]
- ◆ Hammer hands and kitset builders/reflects industry needs [x4]
- ◆ Entry level allows something to aim for incentive/recognition/retention [x4]
- ◆ Help to achieve as apprentices go through the course at different levels [x4]
- ◆ Need for accommodation of sub trades and transparency of knowledge [x4]
- ◆ Greater skills would get recognised (money and type of work) [x3]
- ◆ Allows employer to get good indications of experience and skill levels [x3]
- ◆ Staircase of qualifications need to be aligned to licence criteria and classes [x3]
- ◆ Kitset builders could then do more specialised recognised work [x3]
- ◆ Would help ensure well rounded apprentices and tradesmen [x2]
- ◆ National certificate needs to be at a level for the employee carpenter [x3]
- ◆ Allows for flexibility for employer and employee
- ◆ Allows high achievers to progress further
- ◆ Commercial builders (i.e. boxing hands, steel fixers etc)
- ◆ Leading hand supervisor needs to be aimed at licence level
- ◆ Adopt the Australian way: 1 – Non-bearing (Maintenance, renovations and repairs), 2 – Load bearing (Houses), 3 – Commercial.

Reasons given for answering 'no' included:

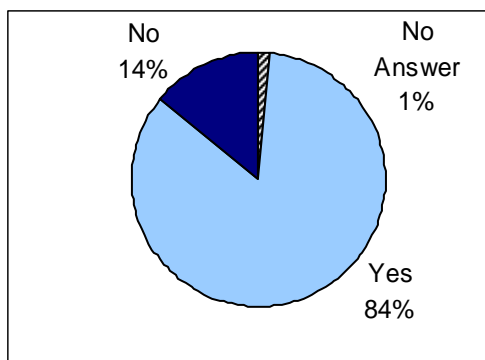
- ◆ Waters down the qualification – easy enough to achieve level 2 already [x10]
- ◆ Would fragment and segregate the industry – not practical, one qualification should cover all criteria [x8]
- ◆ Dumbing down trade qualification and value of carpenter [x9]
- ◆ Would be too confusing, already compartmentalised enough [x3]
- ◆ Would weaken ability to earn good income from qualified carpenters [x3]
- ◆ Would end up with multi sub trades and quality would fall [x3]
- ◆ Create “cowboys” who attempt work they are not competent with [x3]
- ◆ Should only be one distinction: carpenter vs. hammer hand/labourer [x2]
- ◆ Current learning is stair-casing and streamlined programme [x2]
- ◆ Need to ensure well rounded apprentices – some people learn more slowly [x2]
- ◆ Overall responsibility would fall on the licensed carpenter to ensure different areas are of high quality [x2]
- ◆ Create “elitist” class based system [x2]
- ◆ This would encourage people to leave training when they get sick of it/take the easy way out, leaving a bunch of unqualified builders [x2]
- ◆ Hammer hands wanting to do theory should sign up for an apprenticeship [x2]
- ◆ Allows others to work without the NCC qualification [x2]
- ◆ Because it wouldn't be monitored/can't be policed [x2]
- ◆ Depth of knowledge for building not great enough to be broken into 3 tiered system
- ◆ Could affect regulations and generate too much paperwork
- ◆ Questions around where the boundaries are between each type
- ◆ National Certificate in Carpentry should remain for full blown Carpenters
- ◆ Strands maybe more appropriate (i.e. supermarket approach)
- ◆ Would create negative public perception
- ◆ Enterprise packaging – construct parcels to suits industry needs.

The Content of the Qualification

1. Is there a good-enough balance between Theory and Practical unit standards in the current qualification? If yes, why? If no, why not?

Industry Stakeholders and Staff

385 (84%) participants answered 'yes' to the question of whether there is a good enough balance between theory and practical unit standards, while 65 (14%) answered 'no'. 6 (1%) did not answer.



Reasons given for answering 'yes' included:

- ◆ Theory relates to and compliments the practical, for each practical unit there is a theory unit to underpin and reinforce the knowledge [x18]
- ◆ Theory and practical components designed to be integrated in employment [x12]
- ◆ Good balance basic grounding/covers the necessary skills [x12]
- ◆ Bulk of the learning is on site at own pace and helps gain work ethic's [x3]
- ◆ Focus is on the most important aspects of units [x2]
- ◆ Sufficient to complete training to standards required [x2]
- ◆ Yes for residential / needs more commercial theory content
- ◆ Raises the standard, emphasis thoroughness and is reflected in current outcomes.

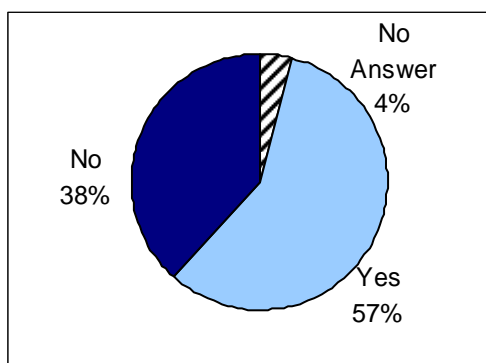
Reasons given for answering 'no' included:

- ◆ Need to review weighting, theory should match - needs more practical [x7]
- ◆ Some optional Practical sections need theory units as some are hard to achieve (i.e. 12028 and 12041) [x6]
- ◆ Need more integration between theory and practice such as linking units [x4]
- ◆ Theory needs to be done before the practical [x3]
- ◆ Training courses should be compulsory – the theory needs to be taught [x2]
- ◆ Should be less theory and more practical like in Australia [x2]
- ◆ Training standard of apprentices and carpenters has dropped [x2]
- ◆ Theory needs more clarifications and simplicity
- ◆ Record of work books drawn out, especially hand tool section
- ◆ Some pitched (cut) roofing theory isn't extensive
- ◆ Laborious for employers who have to mark the theory
- ◆ Need more proving use of theory and practical to assessor.

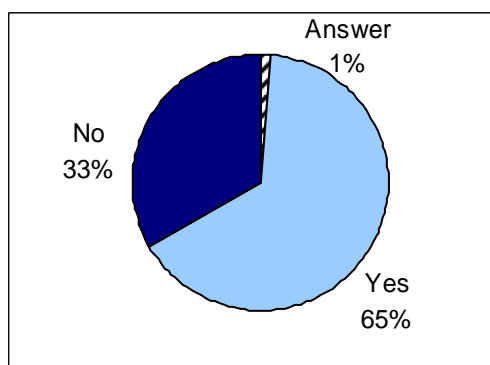
2. Where a practical skill is not completed (because other optional unit standards are seen to be preferable) is the knowledge that underpins that skill covered in the theory unit standards? If yes, is that theory knowledge sufficient to allow for a thorough understanding should the skill be required at a later date? If yes, why? If no, why not?

Industry Stakeholders and Staff

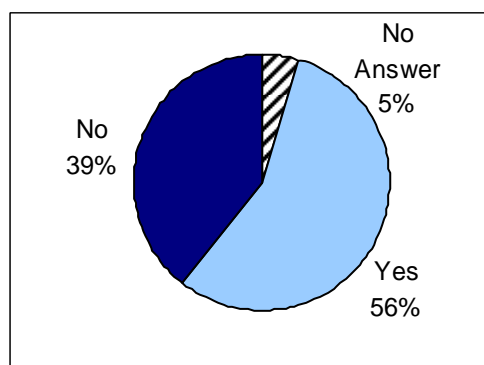
262 (58%) participants answered 'yes' to the question of whether the knowledge that underpins a skill is covered in the theory when that practical skill is not completed, while 175 (38%) answered 'no'. 19 (4%) did not answer.



In comparison, more staff (65%) than industry stakeholders (56%) answered 'yes' to this question. Contrasting the 14 regions, 9 regions (Whangarei, Auckland North & West, Hamilton, Tauranga, New Plymouth, Palmerston North, Napier, Wellington and Nelson) answered predominantly 'yes', 4 regions (Auckland South, Christchurch, Queenstown and Dunedin) answered primarily 'no', and 1 region (Invercargill) had equal 'yes' and 'no' responses.



BCITO Staff



Industry Stakeholders

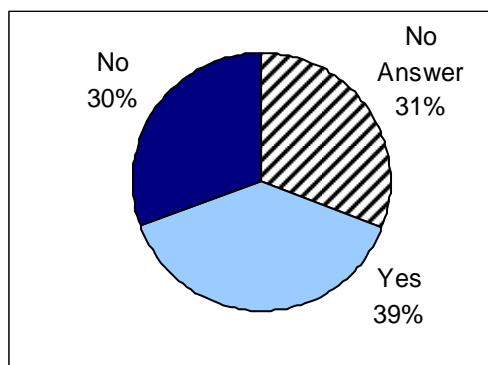
Reasons given for answering 'yes' included:

- ◆ Enough in the other units and resources to assist in transferring skills [x4]
- ◆ For basic's apprentices can still source specific information later [x2]
- ◆ Some overlapping of units and some optional units have no theory [x2]
- ◆ Provided current industry practices are maintained
- ◆ Yes, except for practical 4346 (Interior partitions), 4347 (Specialist partitions), 6155 (Suspended ceilings), 12028 (Pre cast concrete moulds), 12041 (Erect pre-cast concrete) – no theory for these units.

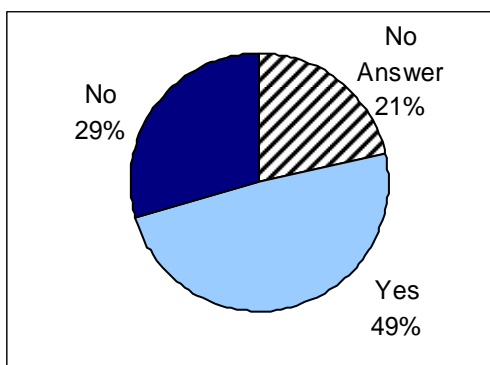
Reasons given for answering 'no' included:

- ◆ Too many gaps in specialist units. There should be a theoretical knowledge of all practical units – 6 practical units have no theory [x5]
- ◆ Theory is not sufficient to teach a full range without any practical to underpin the knowledge [x5]
- ◆ Commercial and residential are different
- ◆ Some exceptions: TG & V flooring, Tilt slab, Strip footing, Rib raft foundations
- ◆ Pre-cast concrete, prefab beam (structural steel) and specialist partitions were nominated as units that met this description
- ◆ There are not many commercial theory units.

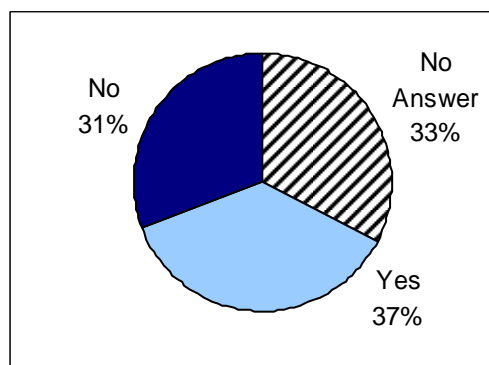
177 (39%) participants answered 'yes' to the question of whether that theory knowledge is sufficient to allow for a thorough understanding should the skill be required at a later date, while 139 (30%) answered 'no'. 140 (31%) did not answer.³



In comparison, more staff (49%) than industry stakeholders (37%) answered 'yes' to this question. Contrasting the 14 regions, 8 regions (Auckland North & West, Hamilton, Tauranga, New Plymouth, Palmerston North, Napier, Wellington and Queenstown) answered predominantly 'yes', 5 regions (Whangarei, Auckland South, Nelson, Christchurch and Dunedin) answered primarily 'no', and 1 region (Invercargill) had equal 'yes' and 'no' responses.



BCITO Staff



Industry Stakeholders

³ The majority of industry stakeholders (or staff) who answered 'no' to the first part of this question still decided to answer the second part of the question. Numbers and percentages are therefore based on total numbers of industry stakeholders (or staff) for both parts of the question and not only those who answered 'yes' to the first part.

Reasons given for answering 'yes' included:

- ◆ Can go back to theory unit standards and BCITO books as a reference [x6]
- ◆ Basic information sufficient to enable work to be carried in most situations – additions and alterations in particular [x5]
- ◆ If there has been sufficient skills learnt from similar units to transfer skills [x3]
- ◆ Theory underpins knowledge only – recall may be limited over time and depends on the individuals ability to retain [x2]
- ◆ Apprentices can always check with Training Advisors [x2]
- ◆ Trainee generally has the chance to observe task being undertaken and has transferable skills (depending on the complexity of the task) [x2]
- ◆ Current consents give more detailed information to proceed
- ◆ Basic understanding is essential using transferable skills
- ◆ Dependant on the trainer and the apprentice.

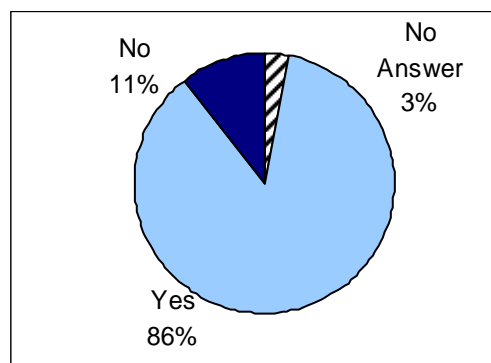
Reasons given for answering 'no' included:

- ◆ No substitute for both theory and practical experience [x13]
- ◆ Theory needs to be applied and underpinned by practical knowledge [x8]
- ◆ Need practical experience to master the actual techniques [x7]
- ◆ Retention of knowledge may diminish if not put into practice [x5]
- ◆ Practical units easier to learn - need to be taught on site not everyone is visual [x3]
- ◆ Not enough detail in theory units without some practical experience [x3]
- ◆ Theory is somewhat vague sometimes - need to dig deeper [x2]
- ◆ Some theory is too complex (i.e. trig.), there has to be an easier way
- ◆ Could be health and safety issues.

3. Is there enough flexibility within the qualification (i.e. choice of optional unit standards) while still ensuring that a qualified person can indeed call themselves a Carpenter? If yes, why? If no, why not?

Industry Stakeholders and Staff

394 (86%) participants answered 'yes' to the question of whether there is enough flexibility within the qualification, while 48 (11%) answered 'no'. 14 (3%) did not answer.



Reasons given for answering 'yes' included:

- ◆ The compulsory units ensure that the 'core' skills are covered and optional units allow some flexibility [x16]
- ◆ Broad range should give a grounding/covers all skills required [x11]
- ◆ Skills required in optional units depend on the company's type of building [x4]
- ◆ Employers scope of work generally covers the range may need to be more flexible and offer additional training to new staff [x4]
- ◆ Generally sufficient flexibility – especially with transferable skills [x3]
- ◆ Credit level is set – so once it is achieved you are entitled to be qualified [x2]
- ◆ Apprentices will choose what is useful to them, and chose between residential and commercial is possible [x2]
- ◆ Where course fails to teach, post licensed instructions can easily be sought – build by instructions (to a recipe)
- ◆ Units teach process to enable completion of optional practical units (e.g. hazard identification)
- ◆ Selection of practical units is good, some areas are not covered (i.e. Tilt slabs are not included in residential)
- ◆ Many units overlap and this allows us to call them carpenters
- ◆ There is sufficient flexibility to demonstrate competence in residential and/or commercial building.

Two groups noted that there was too much flexibility/choice.

One group noted that there should be no flexibility/should have one standard.

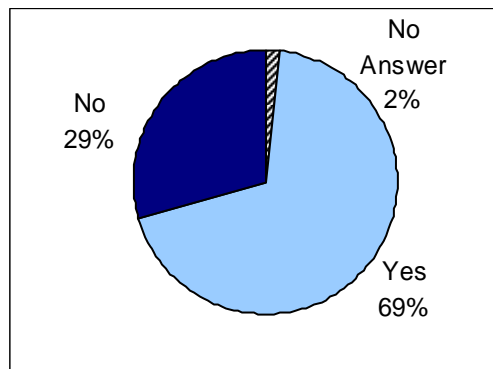
Reasons given for answering 'no' included:

- ◆ Core units must remain such as 13052, 13044, 13046, 13067) [x3]
- ◆ Not enough flexibility for those that cannot achieve specific units [x2]
- ◆ Not much flexibility towards large scale industrial (too focused on residential) [x2]
- ◆ Qualification should differentiate between levels of skills
- ◆ Credit value of practical units determine which to take to receive funding
- ◆ However more emphasis placed on future training. Improving on base skills
- ◆ Some items are now done by sub-trades
- ◆ Need a qualification that better targets civil/commercial
- ◆ Too much flexibility between optional and compulsory (i.e. apprentices do not have to do basics units that are required to "build a house")
- ◆ Residential and commercial are almost different trades now so rename the qualification: National Certificate in Building (Residential and/or Commercial).
- ◆ Some optional units need to be broken down further.

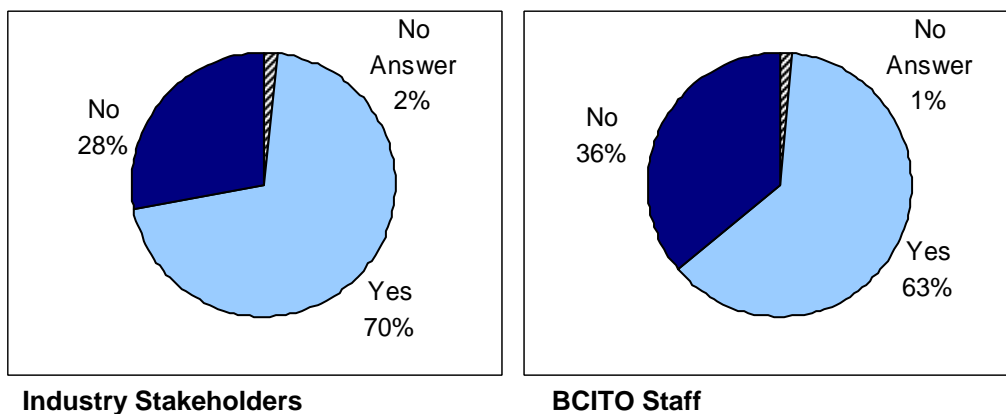
4. When looking at the practical unit standards, is the mix of Compulsory versus Optional producing good quality tradespersons? If yes, why? If no, why not?

Industry Stakeholders and Staff

315 (69%) participants answered 'yes' to the question of whether the mix of compulsory versus options is producing good tradespersons, while 134 (29%) answered 'no'. 7 (2%) did not answer.



In comparison, more industry stakeholders (70%) than staff (63%) answered 'yes' to this question. Contrasting the 14 regions, 13 regions (Whangarei, Auckland North & West, Auckland South, Hamilton, Tauranga, New Plymouth, Palmerston North, Napier, Wellington, Nelson, Christchurch, Dunedin and Invercargill) answered predominantly 'yes', 1 region (Queenstown) answered primarily 'no', and no region had equal 'yes' and 'no' responses.



Reasons given for answering 'yes' included:

- ◆ Meets current requirements covers most aspects of commercial and residential [x7]
- ◆ It gives every apprentice an opportunity to become a competent trades person [x7]
- ◆ Allows opportunity to specialise in areas where they are working [x7]
- ◆ Mostly - depends on the employer and the type of work [x5]
- ◆ Most of the optional units overlap with compulsory units and are achievable [x4]
- ◆ Overlapping units suits most work/jobs adds value to the qualification [x2]
- ◆ Compulsory units give good understanding of optional providing it remains current [x2]
- ◆ Hard to achieve commercially unless the work matches the requirements
- ◆ One suggestion was to add a specialist unit (i.e. finishing) into the optional unit list.

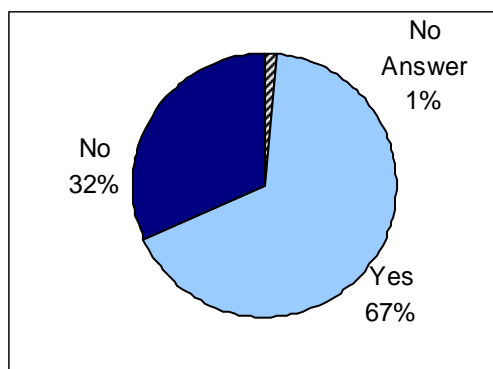
Reasons given for answering 'no' included:

- ◆ Units contained in compulsory not relevant to civil work – irrelevant & no benefit [x3]
- ◆ Too much flexibility – more optional units should be compulsory [x3]
- ◆ Too much choice means people calling themselves carpenters cannot do certain tasks [x2]
- ◆ Could result in jumping from residential to commercial to complete the units [2]
- ◆ Needs reviewing – some elements are no longer relevant (i.e. 13063 Masonry) [2]
- ◆ Units are set out in wrong order of good “building practice” (i.e. ground up to roof on, all carpenters should know all basics)
- ◆ Last 6 elective practical units should have theory component
- ◆ Mix is not key factor – skills and experience counts for good quality
- ◆ Some practical optional units should be compulsory, e.g.
 - 13044 Foundations [x7]
 - 13048 Floor framing [x6]
 - 13047 Concrete [x6]
 - 13046 Reinforcing [x5]
 - 13067 Order lists [x4]
 - 13052 Subcontractors [x3]
 - 13053 Scaffolding [x2]
 - 18727 Demolition [x2]
 - 13049 Wall framing
 - 13051 Alt roofing
 - 18728 Suspend concrete floors
 - 18730 Roof framing
 - 18732 Erect trusses
 - 13062 Construct retaining walls.

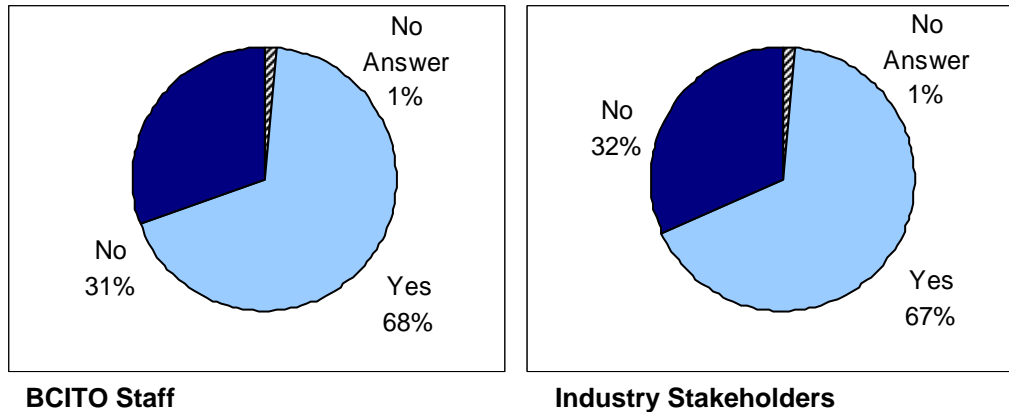
5. Are there other practical skills that some Carpenters are required to undertake that are not currently covered in the qualification? If yes, what are these?

Industry Stakeholders and Staff

306 (67%) participants answered 'yes' to the question of whether there were any other practical skills not covered in the qualification, while 144 (32%) answered 'no'. 6 (1%) did not answer.



In comparison, more staff (68%) than industry stakeholders (67%) answered 'yes' to this question. Contrasting the 14 regions, 11 regions (Whangarei, Auckland North & West, Auckland South, Hamilton, Tauranga, New Plymouth, Napier, Wellington, Nelson, Christchurch and Queenstown) answered predominantly 'yes', 1 region (Palmerston North) answered primarily 'no', and 2 regions (Dunedin and Invercargill) had equal 'yes' and 'no' responses.



Practical skills nominated as being necessary included:

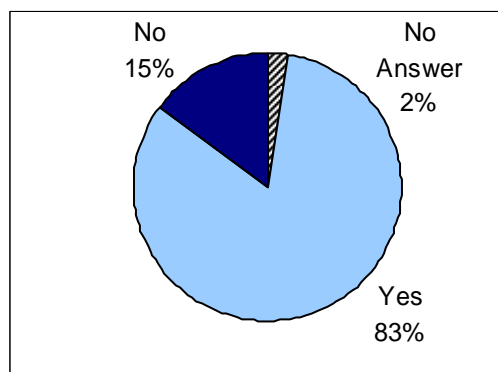
- ◆ Communication/people management skills/dealing with clients [x13]
- ◆ Construction management skills (invoicing/quoting and pricing) [x5]
- ◆ Legislation and compliance requirements [x5]
- ◆ New products/manufacturers specs/producer statements [x5]
- ◆ Water proofing/weather tightness [x4]
- ◆ Poly blocks [x4]
- ◆ Rib raft foundation / slabs [x4]
- ◆ Plan reading on site [x4]
- ◆ New exterior cladding [x3]
- ◆ Subcontractor and Time Management [x3]
- ◆ Working around heavy machinery/cranes operation [x3]
- ◆ Running a business: computers, accounting, GST, etc [x3]
- ◆ Technical drawing skills - drafting [x3]
- ◆ Structural steel and timber [x3]
- ◆ Lockwood style timber construction [x3]
- ◆ Dealing with council/consents/laws/bylaws [x2]
- ◆ Hebel [x2]
- ◆ Civil – tilt slabs, pre-cast concrete, finishing & vibration of concrete [x2]
- ◆ Flashings around windows and parapet walls (only theory available) [x2]
- ◆ Venting and Block Foundations [x2]
- ◆ Record of work by apprentices [x2]
- ◆ Tie loads [x2]
- ◆ Curved walls
- ◆ Roles of professionals and TAs
- ◆ Site safety re Ramset/Pasloe guns
- ◆ House levelling – old villas, etc.
- ◆ Regulations for coastal constructions
- ◆ Cavity construction techniques
- ◆ Timber treatment schedule
- ◆ Learning how to learn is important

- ◆ Mark a plate
- ◆ Build a basic roof
- ◆ Fretwork
- ◆ Joinery skills
- ◆ Glazing
- ◆ Steel partitioning
- ◆ Fencing
- ◆ Steel framing
- ◆ Estimating quantities
- ◆ Difference between commercial and residential
- ◆ Work ethic
- ◆ Fire protection
- ◆ Sound design
- ◆ Joints
- ◆ Tilt panels
- ◆ Installing pre-cut floors
- ◆ Commercial buildings
- ◆ Block laying
- ◆ Bridge building
- ◆ Harness and height training
- ◆ Crane and pump signals
- ◆ HT Licence
- ◆ Thermo Mass
- ◆ Shower and bath instillation
- ◆ Straw bale
- ◆ Adobe packed earth
- ◆ Chainsaws
- ◆ Hanging doors.

6. Are there sufficient optional unit standards in the qualification to allow those working in the commercial sector and those working in the residential sector to successfully complete? If no, what is missing?

Industry Stakeholders and Staff

377 (83%) participants answered 'yes' to the question of whether there are sufficient optional unit standards, while 68 (15%) answered 'no'. 11 (2%) did not answer.



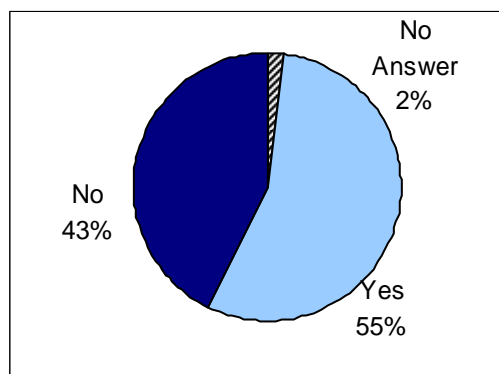
Unit standards nominated as being missing included:

- ◆ The qualification be split into two strands (residential and commercial) [x3]
- ◆ Steel frame construction [x2]
- ◆ Commercial trainees still struggle to gain experience in sufficient range of optional and practical units [x2]
- ◆ A group from civil industry noted that they cannot meet the residential requirements, and called for a separate qualification
- ◆ One group noted that commercial builders struggle to complete due to both size/length of projects and that work is often subcontracted out. This leads to a lack of opportunity for repetition.
- ◆ One group noted that there was not enough flexibility for housing builders. Those in commercial are fine with optionals, but are struggling with compulsory, while those in housing are the opposite.
- ◆ Some units for commercial work are useless for residential construction
- ◆ If you are on a commercial site, optionals should be compulsory!
- ◆ Commercial units to meet new methods of construction
- ◆ Would prefer a greater range of optional units
- ◆ Pricing specific jobs
- ◆ Related options (i.e. 97 Apply surface coatings and Painting ITO)
- ◆ 12028 (Adhesive sealant) 12041 (Take delivery and erect pre-cast concrete units on site) need theory component.

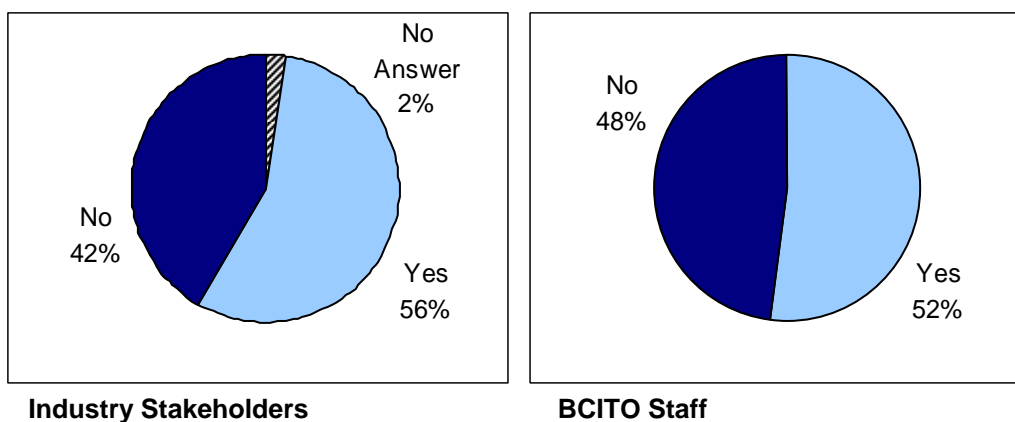
7. Are different materials and construction methods recognised within the current qualification? If yes, how? If no, should they be, and what are they?

Industry Stakeholders and Staff

252 (55%) participants answered 'yes' to the question of whether different materials and methods are recognised, while 195 (43%) answered 'no'. 9 (2%) did not answer.



In comparison, more industry stakeholders (56%) than staff (52%) answered 'yes' to this question. Contrasting the 14 regions, 7 regions (Tauranga, Palmerston North, Wellington, Christchurch, Dunedin, Queenstown and Invercargill) answered predominantly 'yes', 7 regions (Whangarei, Auckland North & West, Auckland South, Hamilton, New Plymouth, Napier and Nelson) answered primarily 'no', and no region had equal 'yes' and 'no' responses.



Of the participants who answered 'yes' to the question of whether different materials and methods are recognised, examples given of how this occurred included:

- ◆ Bulk of material and construction methods are covered in theory and resources [x5]
- ◆ Being aware specialist systems now covered in consent process [x4]
- ◆ Apprentice able to work with current standards, 3604, and product information [x4]
- ◆ Needs to be constantly reviewed to keep up with current construction methods and products used [x3]
- ◆ Through the range of products identified within the unit standard [x3].
- ◆ Manufacturers products changing too quick for the unit standards to keep up [x2]
- ◆ Unit 13033 (Alt. construction) theory [x2]
- ◆ Encouragement to seek out manufacturers information and understanding [x2]
- ◆ Through range statements and transfer of generic skills [x2]
- ◆ Through large variety of claddings and experience in using them
- ◆ Mail out of changes, industry or trade evenings
- ◆ Unit standards focus on the outcome and allow flexibility.

Reasons for answering 'no' included:

- ◆ Too many changes occurring within the industry – over short periods [x2]
- ◆ Need to put onus on the theory and apprentices to keep up to date [x2]
- ◆ Not all should be – generally all relevant methods are covered [x2]
- ◆ They never will be due to the rapid change in the industry through technology [x2]
- ◆ Knowledge is taught and can be applied to new products and methods
- ◆ Many types of monolithic cladding are complex and often inferior. A carpenter should only have to qualify to fix traditional cladding.

Of the participants who answered 'no' to the question of whether different materials and methods are recognised, reasons given for 'yes' they should be recognised included:

- ◆ Changes all the time, course work fails to keep up with product technology [2]
- ◆ You can specialise within the industry for particular products
- ◆ Civil materials/methods not covered in qualification
- ◆ Most builders have transferable skills.
- ◆ Can adapt to changing materials and methods.

Of the participants who answered 'no' to the question of whether different materials and methods are recognised, reasons given for 'no' they should not be recognised included:

- ◆ Methods/materials/technology is changing too fast to keep up [x9]
- ◆ Employers and apprentices need to refer to manufactures specifications and other sources of information [x2]
- ◆ Apprentices need to interact with inspectors and subcontractors
- ◆ Questions about how up to date they are e.g. dividers and butt gauges, bit and auger
- ◆ Don't need to be / Haven't been proven
- ◆ Legislative changes

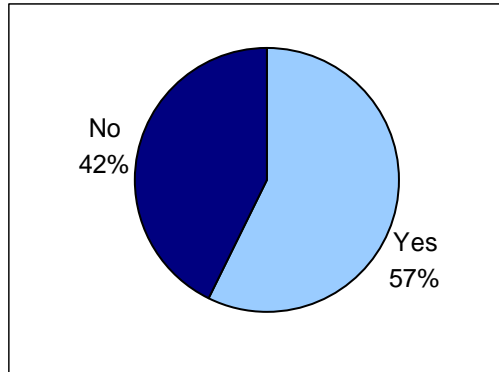
Materials and construction methods nominated as needing to be recognised included:

- ◆ Structural steel and steel frames [x6]
- ◆ Hebel (aerated concrete) [x3]
- ◆ Cavity construction/regulations [x3]
- ◆ Weather tightness requirements [x2]
- ◆ Lockwood construction [x2]
- ◆ Poly block [x2]
- ◆ Cladding [x2]
- ◆ Rammed earth and straw-bale houses [x2]
- ◆ Mono pitched roofs
- ◆ Window flashing systems
- ◆ Cavity batten system
- ◆ Timber coding system
- ◆ Risk matrix
- ◆ Structural glass
- ◆ In situ face finish concrete
- ◆ Linea
- ◆ Tri board/s
- ◆ Rondo battons
- ◆ Lift slabs
- ◆ A-frames.

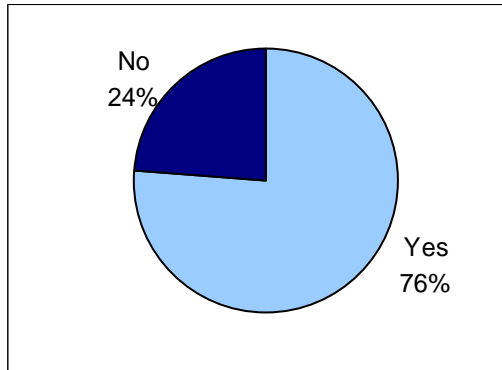
8. Does there need to be recognition for steel frame construction within the Carpentry qualification? If yes, why? If no, why not?

Industry Stakeholders and Staff

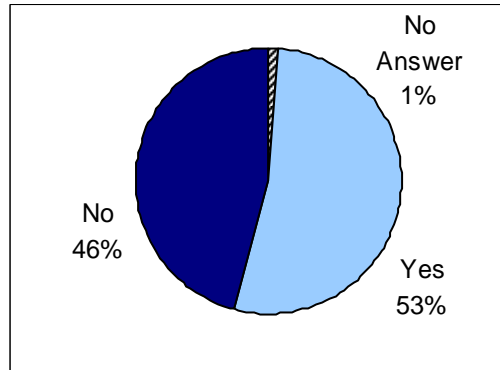
259 (57%) participants answered 'yes' to the question of whether steel frame construction should be recognised, while 193 (42%) answered 'no'. 4 (1%) did not answer.



In comparison, more staff (76%) than industry stakeholders (53%) answered 'yes' to this question. Contrasting the 14 regions, 8 regions (Auckland South, Tauranga, Palmerston North, Wellington, Nelson, Christchurch, Dunedin and Queenstown) answered predominantly 'yes', 5 regions (Whangarei, Auckland North & West, Hamilton, New Plymouth and Napier) answered primarily 'no', and 1 region (Invercargill) had equal 'yes' and 'no' responses.



BCITO Staff



Industry Stakeholders

Reasons given for answering 'yes' included:

- ◆ Should be recognised as an optional module [x26]
- ◆ Steel frame construction is being used it's a growing trend, reflects the way part of the industry is moving [x16]
- ◆ Steel frame is a valid alternative to timber frame, the course should cover it [x4]
- ◆ Should be structured as a strand qualification [x2]
- ◆ Good carpenters should know basics how to construct steel frames [x2]
- ◆ Include theory and practical unit options provided the demand is justified [x2]
- ◆ In the civil industry steel is used extensively in conjunction with pre-cast concrete
- ◆ Residential still uses steel beams so still need to know about this
- ◆ Because of tools used and safety issues
- ◆ Need to be able to recognise whether a tradesperson involved in construction work has completed the work competently
- ◆ Included as element in 13033. Alternative construction as opposed to actual stand alone unit
- ◆ Need to stay current and ensure trainees are given recognition for their skills
- ◆ Also other alternatives such as Trower panel partitions, Tipco hardboard partitions, Fit easy split jamb doors.

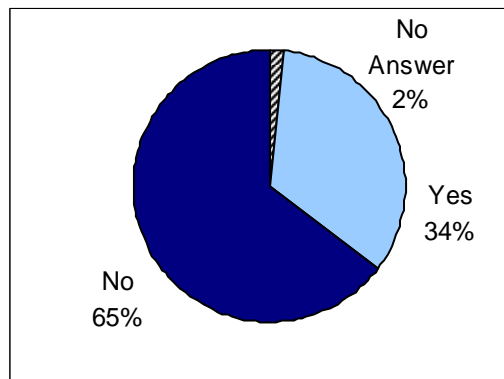
Reasons given for answering 'no' included:

- ◆ Minimal demand, not a component of every day residential construction [x5]
- ◆ Should be a specialised trade, installers role [x4]
- ◆ Minimal skill required does not need to be recognised as yet [x4]
- ◆ It is a specific form of construction that is similar to timber framing methods [x4]
- ◆ National Certificate. Cover with Proprietary Partition installation [x3]
- ◆ Should be separate, specialised standard and design [x3]
- ◆ Basic skills are the same and principles similar [x3]
- ◆ Covered by information in consent drawings
- ◆ Not cost effective or enough demand to warrant qualification
- ◆ If used, the builder will get information from the provider
- ◆ Carpenters deal with traditional timber construction methods.

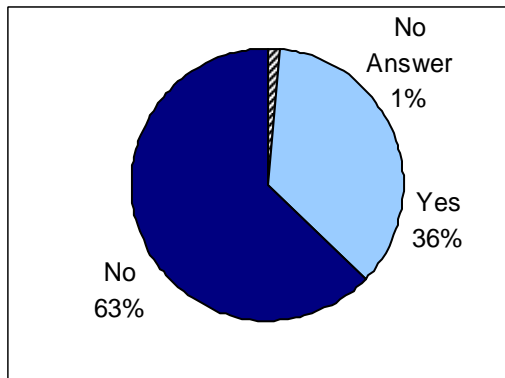
9. Given the move to proprietary plaster cladding systems in the past 15 years, should there be unit standards dedicated to the fixing and detailing of fibre cement board and polystyrene board as stand-alone components of exterior claddings? If yes, why? If no, why not?

Industry Stakeholders and Staff

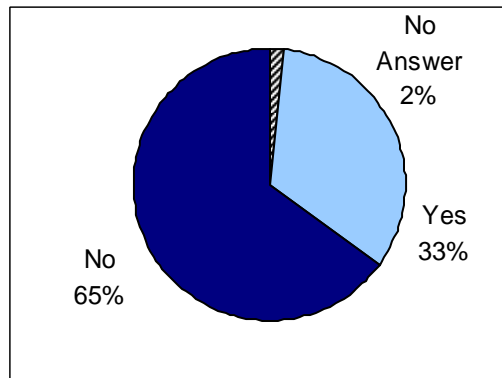
154 (34%) participants answered 'yes' to the question of whether fibre cement board and polystyrene board should be stand alone components, while 295 (65%) answered 'no'. 7 (2%) did not answer.



In comparison, more staff (36%) than industry stakeholders (33%) answered 'yes' to this question. Contrasting the 14 regions, 1 region (Wellington) answered predominantly 'yes', 12 regions (Whangarei, Auckland North & West, Auckland South, Hamilton, Tauranga, New Plymouth, Napier, Palmerston North, Nelson, Christchurch, Dunedin and Queenstown) answered primarily 'no', and 1 region (Invercargill) had equal 'yes' and 'no' responses.



BCITO Staff



Industry Stakeholders

Reasons given for answering 'yes' included:

- ◆ As an optional unit/s – theory and practical [x10]
- ◆ Claddings are an important part of building, so apprentices need to know how [x6]
- ◆ Need to know basics now a mainstream part of cladding – especially flashings [x5]
- ◆ To improve weather tightness, responsibility for handing over weather-tight building to the client [x4]
- ◆ Most builders put up cement board - will become part of licensing [x3]
- ◆ Too many systems available for a single cladding unit to adequately cover – keep it separate [x2]
- ◆ Add to existing cladding unit, require theory unit to underpin knowledge [x2]
- ◆ Manufacturers presentations requirements essential and invaluable [x2]
- ◆ Knowledge to be able to fit all components within the building [x2]
- ◆ Need to be able to recognise whether a tradesperson involved in construction work has completed the work competently
- ◆ In reality builders do the prep work so need to understand standards/requirements
- ◆ Applies to those contractors concentrating on re-cladding of weather tightness houses
- ◆ We already have the PPCS qualification – fibre cement.

Reasons given for answering 'no' included:

- ◆ Already covered within the exterior cladding and weather proofing units [x13]
- ◆ Licensed applicators warrant and provide certification for these products [x8]
- ◆ Fixing and finishing is generally done by the specialist sub contractor [x8]
- ◆ Covered in working drawings and consent and manufacturers instructions, too much detail would be overloading [x7]
- ◆ There were too many variables to be covered by a single unit [x7]
- ◆ Should be able to follow manufacturers instructions and specifications [x5]
- ◆ No end to all the different products that would need to be included [x3]
- ◆ Skills to read specifications and fix according to such are already taught
- ◆ Too many changes for the industry/ BCITO to keep up with
- ◆ Poly board falls under plasterer apprenticeship and builders don't fit polystyrene
- ◆ Hazard identification, working drawings, MDS material data sheet
- ◆ Because civil industry don't use these applications
- ◆ Stick to the industry standards for learning – basic cladding (i.e. bricks and mortar)
- ◆ These systems have caused immense problems in our industry – leave them to be approved installer certified by the manufacturer (not the fixer) so that they are responsible if it fails.