

VET teachers: Qualifications and quality project

Summary of Delphi phases – validation with experts

Project title: Would more highly-qualified teachers and trainers help to address quality problems in the Australian vocational education and training system?

Part A: Overview of the research project as a whole

Research team

The Delphi stage of the project was undertaken by Professor Erica Smith and Dr Jackie Tuck from Federation University's 'RAVE' research group (Researching Adult and Vocational Education). Earlier in the project as a whole, Keiko Yasukawa (University of Technology Sydney), and Roger Harris (University of South Australia) were also involved. Assistance has also been provided by Hugh Guthrie at Victoria University and Patrick Korbel at the National Centre for Vocational Education Research (NCVER).¹

Funding source

This research was funded through the Australian Research Council (ARC) Linkage program.

Industry Partner Organisations

There are five partner organisations, providing financial and/or in-kind support to the project. These organisations have all had a close involvement with the project.

- TAFE Queensland
- Australian Council for Private Education and Training (ACPET)
- National Centre for Vocational Education Research (NCVER)
- VET Development Centre
- Federation Training

A larger reference group has also provided helpful advice regularly throughout the project, representing key stakeholder groups and experts in the area.

Research period

April 2015- December 2017. The Delphi phases took place in 2017.

Research questions for the project as a whole

The research questions that were addressed by the project were:

1. What differences do VET teachers' levels of qualification (both pedagogical and discipline-based) make to their teaching concepts, approaches and practice?
2. What differences do VET teachers' levels of qualification make to their ability to navigate complex training contexts, to teach across the large range of qualification levels and diversity of learners typical of VET, and to contribute to improved student outcomes?
3. How do levels of qualification affect VET teachers' engagement in further professional development activities (pedagogical and industry-related), and how can PD be tailored for different groups?
4. In what ways do more highly-qualified VET teachers contribute to improved quality in VET? What actual and potential barriers and facilitators are associated with this contribution, including resourcing issues and policy changes?

¹ Research assistance was provided over the duration of the project by Sally Burt, Catherine Cameron, David Adamson, Simone Bartrum, Nathan Stinton, Morgan Wise, Geordie Zhang, Scott Booth and Stephen Matthews.

Research method

The following table provides a summary of the method and participants in each Stage. In total 64 Registered Training Organisations assisted directly with the first two Stages of the project.

Research stages and participants

Stage/Phase	Activity	Number of research participants
Stage 1: Phase i	Stakeholder interviews	11
	11 focus groups of teacher/trainers and students	Teachers/Trainers: 29 Students: 40
Stage 1: Phase ii	National Teacher/Trainer Survey administered through eight TAFE and 48 non-TAFE RTOs	574
Stage 1: Phase iii	Case studies at four TAFE and four non-TAFE RTOs	128
Stage 2	Professional Development Survey administered through three external professional development providers	368
	Professional development case studies at three TAFE and three non-TAFE RTOs	50
Stage 3	Delphi process (numbers represent participants in Delphi Surveys 1 and 2)	55
Total		1255

Key findings from the first two stages of the project

Key Finding 1: Higher level qualifications in VET pedagogy improve teaching approaches, confidence and ability to address diversity in contexts, learners and AQF level of teaching.

Key Finding 2: VET teachers often have high level qualifications in their industry area or other disciplines and these too improve teaching approaches, confidence and ability to address diversity in contexts, learners and AQF level of teaching.

Key Finding 3: Higher level qualifications in VET pedagogy make a significant difference to VET teachers' confidence in teaching a diversity of learners.

Key Finding 4: The key qualification level that makes a difference is a degree.

Key Finding 5: Participation in both formal and informal PD, in both industry/discipline and VET teaching/training increases with higher qualifications, irrespective of the type of qualification.

Key Finding 6: VET teaching/training PD should be tailored for teachers with higher levels of VET pedagogy qualifications

Part B: The ‘Delphi’ phase

Part B covers the method for the Delphi phase and the findings from Delphi Phases 1 and 2.

Research method for Delphi phases

This stage of the research related primarily to Research Question 4. It involved two streams: a Policy stream and a senior RTO manager stream. Each expert was surveyed three times.

What is a Delphi process? Named after the Oracle at Delphi in ancient Greece, it refers to consultation with experts. When used in research, it involves successive consultation with experts in the field. We followed the normal procedure of three rounds of consultation, each of which builds on the previous round. People complete their surveys individually and there is no group discussion; but the results of each round are fed back to participants in the subsequent round(s).

We had two groups of respondents: a ‘Policy group’ and an ‘RTO CEO group’. In each group there were around 30 people, who were carefully selected and kindly agreed to participate. In the case of the RTO stream, we asked for volunteers via the peak bodies for TAFE, private RTOs, community colleges and enterprise RTOs. In the RTO stream respondents were CEOs or their delegates, and in the policy stream respondents were those nominated by the relevant department/body; and recognised experts in the field.

Each Round was accompanied by a Consultation Paper sent to participants, with a Support Document for each round which included the data collection instruments (survey and interview questions).

Round 1: In Round 1 we provided participants with a consultation paper with a summary of findings from the project – survey and interview findings - addressing links between VET teachers’/trainers’ qualifications and their teaching approaches, student learning, and contribution to quality in RTOs. We asked a number of questions based on the implications of the findings including participants’ reaction to the first four Key Findings of the project.

Round 2: Round 2’s consultation paper was in two parts. Part A provided a summary of findings from surveys and interviews in the project about links between VET teachers’/trainers’ qualifications and their engagement with, and outcomes from, professional development activities, both internal to their RTO and external. The findings produced Key Findings 5 & 6 of the project. Part B gave participants feedback from the responses to Round 1 of the Delphi survey itself: for each of the streams, and, for each group (policy and RTO), detailed findings from that group. Three ‘summary findings’ were produced from the Delphi 1 results. In the survey, we asked questions relating to Part A and Part B of the paper. These included reactions to the new Key Findings, and reactions to some of the findings from the Delphi survey.

Round 3: The Round 3 consultation paper summarised the results of the Delphi 2 survey and provides participants with some questions which delved more deeply into the implications of the project findings and the reactions of the ‘Delphi’ experts. We built on participant responses to create the Delphi 3 survey; we also took advice from our Project Reference Group.

Findings from Delphi 1 survey

Response rates to Delphi Round 1

Despite a few technical hitches, we had a good response rate (over 70% in both streams) to our surveys – see Tables 1a and 1b below.

Table 1a - Policy stream respondents

Type	No. of responses	No. in sample
Government/regulatory body	9	11
Peak body in VET or broader education sector	7	8
Individual expert	6	7
Skills Service Organisation	2	6
Other organisation	2	3
Total	26	35

Table 1b - RTO stream respondents

Type	No. of responses	No. in sample
TAFE or dual-sector university	12	17
Private RTO	5	7
Community college	4	5
Enterprise RTO	4	5
Total	25	34

We will first address some overall findings from both streams, and then go on to discuss more detailed findings from each stream in turn.

Overall findings from both streams

Views about the project and its standing

Respondents were asked three preliminary questions about the project and the research method, to help establish the level of respect that might be accorded to the findings (Table 2)

Table 2 - Delphi participants' views about the significance and validity of the research

Preliminary statements (shortened)	Respondents strongly agreed or agreed		
	Policy stream	RTO stream	Overall
The research topic is important	100%	96%	98%
The research methods are suitable	92%	96%	94%
The diversity of the VET sector is represented	81%	80%	80%

Note: The tendency was to strongly agree' rather than 'agree'; apart from the question about research methods, where there were slightly more in the latter than the former group. (Note: one percentage was incorrect in prior version)

The table indicates that over 90% of respondents agreed with both the significance of the research and the way the project was carried out. 80% thought that the diversity of VET was definitely represented.

Five respondents in each group were either neutral or disagreed that the participating organisations and individuals represented the diversity of the VET sector. In the RTO stream, comments from those who did not agree included that: the sector was so diverse that one project could not possibly cover it; industry and employers should have been included in the research; and there were few responses from a particular State. Responses from the Policy stream included that: sessional/casual staff were under-represented; TAFE Institutes were over-represented; and industry and employers should have been included in the research.

Reactions to the findings presented in Round 1

The Delphi 1 Consultation Paper presented the project findings about the effects of VET teachers' and trainers' qualifications on their teaching and training in four sections:

1. Findings from initial interviews and focus groups;
2. Findings from initial case studies in four TAFE and four non-TAFE RTOs;
3. Findings from the national Teacher Survey of 569 VET teachers and trainers;
4. Differences that qualification levels of VET teachers make to their ability to address diversity (in contexts, learner group and AQF levels).

Table 3 below summarises the proportion of respondents that said their experiences ‘strongly aligned’ or ‘aligned’ with the findings in each of these four sections of the Consultation Paper. **84% or more of all respondents agreed that the findings in the Delphi 1 document reflected their own experiences**, for the policy and RTO streams alike.

Table 3 - Did the findings in relevant section of the Consultation Paper reflect respondents’ experiences?

Section no.	Section title (shortened)	Respondents’ experiences aligned or strongly aligned with the findings		
		Policy stream	RTO stream	Overall
1	Initial interviews	92%	84%	88%
2	Case studies	96%	92%	94%
3	Teacher Survey	96%	84%	90%
4	Findings about ability to address diversity	85%	88%	86%

Tables 2 and 3 indicate that the project method is sound and the findings are valid. This conclusion is buttressed by the active participation of VET-sector personnel and research experts through Partner Organisation and Reference Group participation in planning the research design and validating the survey instruments.

Reactions to the project’s four Key Findings

The Delphi 1 Consultation Paper drew out the four Key Findings from the findings that were reported. For each Key Finding, we asked two main questions of the respondents to find out what they thought about the finding; and what they believed others in the VET sector might think. As the question of VET teacher qualifications is complex and vexed, it was important to receive advice from participants on these matters.

The two questions were:

- i. Would they have expected this finding?
- ii. How well did they think the VET sector would receive this finding?

Tables 4 and 5 provide a snapshot of responses to these two questions, for both streams for each Key Finding. To save space, the extent of agreement only is provided as, with one notable exception (Key Finding 4), few disagreed. As well, respondents were invited to provide written comments under four headings (reported later).

Table 4: Would the respondents have expected each of the Key Findings? (Five choices were provided, ranging from ‘Strongly agree’ to ‘Strongly disagree’.)

Key finding	Title (shortened)	% strongly agreeing or agreeing they would have expected the finding		
		Policy stream	RTO stream	Overall
1	Benefit from higher-level VET pedagogy quals	81%	76%	78%
2	Benefit from higher-level industry or other quals	88%	96%	92%
3	Benefit of higher-level VET pedagogy quals on confidence in addressing diversity	88%	76%	82%
4	Key beneficial effect of a degree	64%	54%	59%

Table 5 - How well did the respondents think the VET sector would receive each of the Key Findings? (Five choices were provided, ranging from ‘Very favourably’ to ‘Not at all well’)

Key finding	Title (shortened)	% saying the VET sector would receive the finding very favourably or favourably		
		Policy stream	RTO stream	Overall
1	Benefit from higher-level VET pedagogy quals	54%	44%	49%
2	Benefit from higher-level industry or other quals	80%	72%	76%
3	Benefit of higher-level VET pedagogy quals on confidence in addressing diversity	76%	72%	74%
4	Key beneficial effect of a degree	16%	21%	18%

The Delphi experts agreed (**Table 4**) that the findings were to be expected, with most agreement relating to the benefit of high-level industry qualifications. Key Finding 4 - that it was a degree that made a key difference – was reportedly less well aligned to respondents’ experience, but still with well over 50% agreement. Policy respondents showed more agreement than RTO respondents.

The respondents also thought that the VET sector would be likely to react favourably (**Table 5**) to the first three Key Findings, again with higher expected ‘approval’ ratings for higher-level industry qualifications than higher-level VET pedagogy qualifications. Most strikingly, we were told very clearly that the VET sector would not react favourably to the findings about the particular importance of degree level qualifications (not divided by industry or pedagogy). However, around a third of the experts in each stream recorded ‘neutral’ for this question, meaning that not quite one half thought that the finding would be received not very favourably or not at all well. Figure 1 below shows clearly the differences between the way in which the participants (overall) received the findings and the way in which they thought the VET sector would receive the findings.

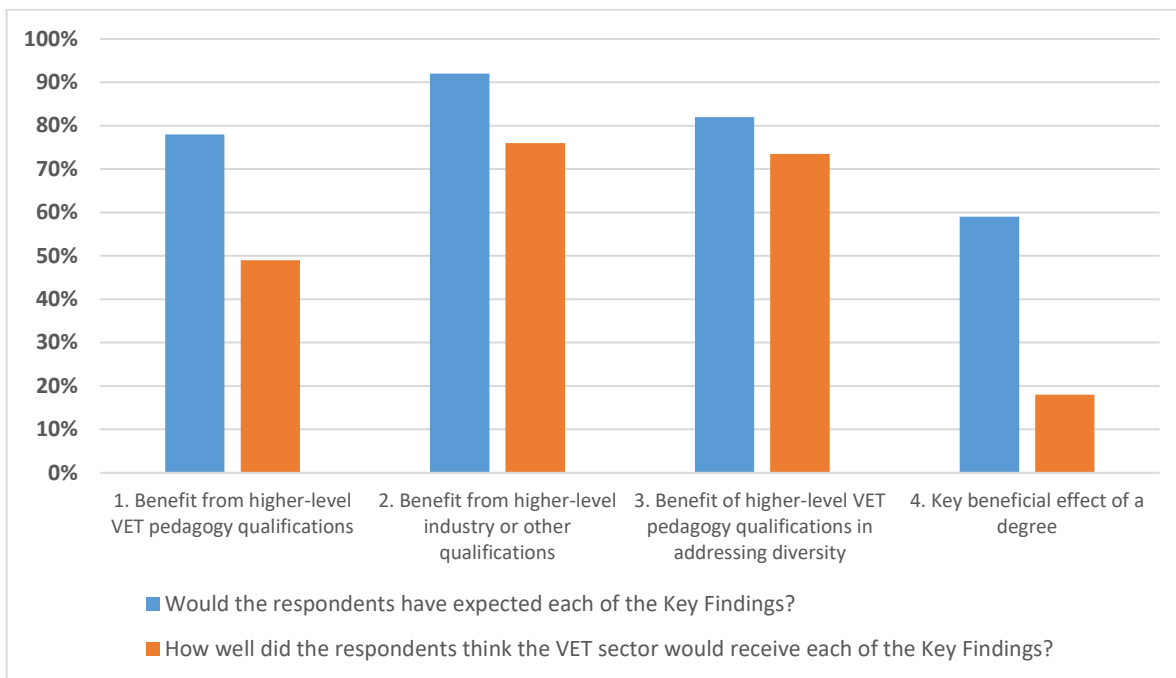


Figure 1: Overall participants in Delphi 1: for each Key Finding, would they have expected it?, and, in their view, how well would the VET sector respond? (Proportion strongly agreeing/agreeing shown)

More detailed findings from the Policy stream

In the next two sub-sections we provide more insight into responses from each Stream. This sub-section describes the Policy stream responses. Analysis was also undertaken by type of respondent within each stream. There was strong support from Policy respondents for the project's significance and validity. The numbers of respondents in some groups were quite small, but the response rate was high for most group of respondents, except for Skills Service organisations. Typical comments were:

Importance of the topic:

- *This topic is vitally important to the VET sector.*
- *Understanding the most effective way to train and support teachers delivering in any sector of education is critical to continuous improvement.*

Suitability of the research method:

- *The range of consultation methods and the use of the QLD VET Practitioner standards provide a solid basis for measuring and validating the results.*
- *All good on the research methods.*
- *I do have some concern as to the weight given to self-assessment.*

We asked whether respondents' experiences aligned with the project findings. The respondents almost all indicated 'strong' or 'partial' alignment with their experiences. For the interviews and initial case study phases (sections 1 and 2), the responses were almost equally distributed between 'strong' and 'partial' alignment; while the individual experts were much more likely than others to record 'strong' alignment for the findings from the Teacher Survey and for the section of the report recording findings about addressing diversity. The latter section also had the largest number of 'neutral' responses (n=4). No respondents to any of the questions reported their experiences not aligning with the findings.

We provided the opportunity for respondents to comment, for each phase, on whether there were any surprising findings, and that reasons there might be for the findings. In general the comments could be divided into some major themes:

- It is not surprising that higher level qualifications in VET teaching lead to better and more thoughtful teaching and training – they 'clearly work'.
- The findings were consistent with people's own beliefs and experiences that higher study in VET pedagogy increases teachers' skills;
- Teaching for diversity often requires higher level skills;
- We must not forget industry experience and passion;
- People's responses may have been affected by their own levels of qualification ;
- The difference between types of RTOs were expected and sometimes unexpected;
- Several people commented that the Certificate IV is generally inadequate.

One respondent expressed some concern as to how the comments selected for inclusion and for highlighting in the report were selected.

Policy stream views about the Key Findings

There were some differences among the types:

- Individual experts were somewhat more likely to have expected each of the key findings, with Government bodies generally in line with the average but lower for Key Finding 3.
- Government bodies were the most pessimistic respondents about how Key Finding 4 would be received, and slightly more pessimistic in relation to Key Finding 3.

Qualitative comments from Policy stream respondents about the Key Findings

For each Key Finding, respondents were asked to provide qualitative comments on four matters: The significance of the Key Finding; Any implications for the VET sector; Any implications for their own organisation; and What, if anything, needs to be done as a result? Over two-thirds of the respondents provided comments.

Qualitative comments associated with each Key Finding

Key Finding 1. Higher level qualifications in VET pedagogy improve teaching approaches, confidence and ability to address diversity in contexts, learners and AQF level of teaching.

Most comments noted that a more highly qualified workforce would be desirable; however, the implications for the VET sector were said to be a concern, particularly for small providers. While most respondents supported in principle higher level VET pedagogy qualifications, some major concerns were mentioned such as: the reluctance of some teachers to upgrade qualifications; potential teacher attrition; potential costs for RTOs; the long period of time that would be necessary to reverse the current trend; and perceived difficulty in persuading teachers from some discipline areas to gain higher level qualifications. However there were some divergent views, including a small number of responses which resisted any perceived attempt to require teachers/trainers to proceed beyond a Certificate IV level in VET pedagogy. A number of respondents said, in light of the findings, that a review of qualification requirements for VET teachers was needed.

Key Finding 2: VET teachers often have high level qualifications in their industry area or other disciplines and these too improve teaching approaches, confidence and ability to address diversity in contexts, learners and AQF level of teaching.

Nearly all of the comments were positive and many emphasised the importance of teachers being 'dual qualified' (discipline and pedagogy). Respondent said that content expertise was 'a must' for every VET teacher, that any higher level qualification provided greater skills to a teacher, and that greater confidence in teaching an industry area flowed from higher level qualifications in that area. In terms of implications, there was some concern about whether emphasising qualifications might result in a loss of focus on relevant experience. There was support from some respondents for mandating higher level industry qualifications than the AQF level being taught.

Key Finding 3: Higher level qualifications in VET pedagogy make a significant difference to VET teachers' confidence in teaching a diversity of learners.

Several respondents stated that this finding was particularly significant, and as one respondent said 'it is fundamental to the system's capacity to deal with a diverse range of students'. One remarked that the 'Certificate IV has insufficient coverage in what is such a complex area'. Others said that the sector was becoming ever more complex and this area was vital. Some respondents advocated improving the qualification regime for VET teachers, but implementation concerns were mentioned, around cost and inertia in the sector. A small number of respondents argued that PD, rather than qualifications, was the way to build skills in this area.

Key finding 4: The key qualification level that makes a difference is a degree.

The quantitative responses had showed that this was the most contentious of the Key Findings, with respondents not expecting the VET sector to receive the finding favourably. The qualitative comments included: concerns with a potential move to a degree as a minimum requirement, in particular, the respondents mentioned: a potential initial decline in teacher numbers; attrition of 'capable and passionate' teachers; and a potential for a reduction of potential new teachers with 'extensive industry knowledge and experience'. Some barriers were mentioned to degrees for VET teachers, including: cost; length of time to complete a degree; and the applicability of trade related degrees. A number of respondents indicated there would be a need for appropriately designed degree courses; and as one respondent said 'any decision to implement degree minimum VET teacher requirements would need to be taken slowly and evolve over time'.

More detailed findings from the RTO stream

The response rate was high for each group of respondents. There was, overall, strong support from RTO respondents for the project's significance and validity. Typical comments were as follows:

Importance of the topic:

- *This topic is of vital importance to the future of the VET sector and to TAFE in particular.*
- *The impact of VET teacher qualifications on learner success is one very small part of this complex ever changing sector*

Suitability of the research method:

- *The research has employed a very good mix of methods from expert interviews to focus groups, case studies and a survey. This should give highly triangulated data.*
- *Due to limitations as stated, best possible method available.*

We asked whether respondents' experiences aligned with the project findings, indicate differentiation among types of RTOs, with TAFE respondents more likely to **strongly** agree that their experiences aligned with the project findings, and other respondents more likely to indicate 'agreement' rather than 'strong agreement'. Community College responses varied quite a lot among questions.

We provided the opportunity for respondents to comment, for each phase, on whether there were any surprising findings, and that reasons there might be for the findings. In general the comments could be divided into some major themes:

- The findings were consistent with what respondents were seeing every day;
- Higher levels of qualification are bound to create higher levels of expertise. It would be odd if this were not so; and
- Industry currency and personal characteristics of VET teachers are also very important.

A very small number of respondents indicated that they thought the research was 'biased' or not fully represented; or that they thought it did not address other matters of importance to VET quality. Several comments referred to the inadequacy of the Certificate IV TAE as a VET teacher qualification, although views had not been sought on this matter.

RTO views about the Key Findings

There were some obvious differences among the types:

- TAFE respondents were more likely than the average to have expected each of the Key Findings. Enterprise RTOs were the least likely to have expected the findings, especially Key Findings 1 and 4.
- TAFE respondents were less likely than the average to think that the VET sector would respond favourably to Key Finding 1, about the difference that higher-level qualifications in VET pedagogy make to VET teaching. No private RTOs thought that the sector would receive Key Finding 4 well.

Qualitative comments from RTO respondents about the Key Findings

For each Key Finding, respondents were asked to provide qualitative comments on four matters:

- The significance of the Key Finding;
- Any implications for the VET sector;
- Any implications for their own organisation, i.e. RTO; and
- What, if anything, needs to be done as a result?

Qualitative comments associated with each Key Finding

Key Finding 1. Higher level qualifications in VET pedagogy improve teaching approaches, confidence and ability to address diversity in contexts, learners and AQF level of teaching.

Most comments noted the concurrence of the findings with their own experience and noted that a more highly qualified workforce would be desirable and that they would support it. While most respondents supported higher level VET pedagogy qualifications, some snags were mentioned such as: the reluctance of some teachers to upgrade qualifications; the potential costs for RTOs; the long period of time that would be necessary to reverse the current trend; and perceived difficulty in having teachers from some discipline areas gain higher level qualifications. Some people said that their own RTO already encouraged and provided financial support for teacher studying at a higher level. However there were some divergent views, and there were a small number of strongly worded responses which resisted any perceived attempt to requires teachers/trainers to proceed beyond a Certificate IV level in VET pedagogy.

Key Finding 2: VET teachers often have high level qualifications in their industry area or other disciplines and these too improve teaching approaches, confidence and ability to address diversity in contexts, learners and AQF level of teaching.

Nearly all of the comments were positive. Respondent said that content expertise was 'a must' for every VET teacher, that any higher level qualification provided greater skills to a teacher, and that greater confidence in teaching an industry area flowed from higher level qualifications in that area. In terms of implications, there was some concern about impact on sessional staff and also a belief that some trade teachers might be 'reluctant learners'. Enterprise RTO respondents supported higher level industry qualifications. Some respondents advocated mandating higher level industry qualifications than the AQF level being taught.

Key Finding 3: Higher level qualifications in VET pedagogy make a significant difference to VET teachers' confidence in teaching a diversity of learners.

Several respondents stated that this finding was particularly significant, and as one respondent said 'a known fact'. One remarked that the Certificate IV does not really address teaching and so this finding made sense. Others said that the sector was becoming ever more complex and this area was vital. However one respondent thought that the finding was 'snobbish'. Some respondents advocated improving the qualification regime for VET teachers, but concerns were mentioned, around cost and potential discouragement of industry people coming into VET teaching.

Key finding 4: The key qualification level that makes a difference is a degree.

The quantitative responses showed that this was the most contentious of the Key Findings, with only just over half of the respondents saying that they would have expected this finding, and the majority either neutral or saying that the VET sector would not receive it favourably. The comments indicated divisions in the sector, from respondents in all sectors except enterprise RTOs who strongly concurred with the findings, to those in the same sectors who took great issue with it. Some barriers were mentioned to degrees for VET teachers, including: that people from some industry areas might be resistant to degree level studies; that some managers in VET might not have degrees and might resist others getting them; and that degree study patterns were not flexible enough. It was proposed that careful thought needed to put into content of VET pedagogy courses at degree level if VET pedagogy was the major type of degree that people sought; and that VET pedagogy degrees needed to include subject matter development. Some respondents talked about professional development and whether that might substitute for a degree.

As with the Policy stream, the number of people making comments dropped off towards the end of the survey, but nearly all of the questions were answered by more than half of the respondents and by people from all types of RTO involved. The qualitative comments added considerably to the richness of the research findings and were much appreciated.

Findings from Delphi 2 survey

Response rates to Delphi 2 were a little down from Delphi 1, but still high. Just under three-quarters responded to Round 1; and for Round 2, the policy stream had a 60% response rate and the RTO stream a 55% response rate. By type of organisation, in the Policy stream, Skills Service Organisations had the lowest response rate (one-third in each round) and in the RTO stream, TAFE had the lowest response rate (70% in round 1 and 47% in round 2).

Table 6 shows the sample size by type of respondent in each stream.

Table 6: Delphi Surveys 1 and 2, Policy and RTO stream responses

Policy stream: Type	Delphi 1	Delphi 2	RTO stream: Type	Delphi 1	Delphi 2
Government/regulatory body (11)	9	6	TAFE or dual-sector university (17)	12	8
Peak body in VET/adult ed sector (8)	7	6	Private RTO (7)	5	4
Skills Service Organisation (6)	2	2	Community college (5)	4	4
Other organisation (3)	2	0	Enterprise RTO (5)	4	3
Individual expert (7)	6	7			
Total (35)	26	21	Total (34)	25	19

In Part C we have provided overall findings, and analysis by the two streams only, to reduce reading time. We have produced analysis of the quantitative data by type of organisation within each stream (for example, analysis of the RTO data by type of RTO), which is available on request.

Validity of the findings

Respondents were asked preliminary questions about both sets of findings presented in the paper, to help establish the level of respect that might be accorded to the findings (Table 7)

Table 7 - Delphi participants' views about the findings about professional development, and the findings from the Delphi 1 survey.

Statements (shortened)	Respondents who strongly agreed or agreed		
	Policy stream	RTO stream	Overall
My experiences align with the findings about the relationship of VET teachers' quals with professional development engagement.	76.2%	89.5%	82.5%
I would have expected the results presented from the Delphi 1 survey.	90.5%	89.5%	90.0%

This table shows that the respondents validated the two sets of findings – about qualifications' relationship to professional development engagement, and about the reactions of their fellow respondents in the Delphi 1 survey. In particular the 90% who agreed that the findings about the Delphi 1 survey were what they would have expected indicates that the responses received can be viewed as representative of the VET sector.

Comments were invited for each of the questions reported in Table 7, about what people found surprising, or what might be explanations for the findings.

Few people found anything surprising in the results about professional development engagement; the same applied to the Delphi 1 findings, although a few participants were surprised by the extent of opposition to higher-level qualifications. Possible explanations for the two sets of findings were offered. There was little difference between comments from the two streams.

Possible explanations from participants for the PD findings:

- Those who have higher level qualifications have characteristics (e.g. persistence; understanding what is yet to be learned) that also draw them to PD;
- Confidence gained from higher qualifications encourages PD participation;
- More highly qualified people might have higher aspirations;
- Trade teachers are slow to identify as teachers rather than as tradespeople;
- Other influences: Age, stage of career, whether there was payment to attend.

Possible explanations from participants for the Delphi 1 results:

- Results indicate concerns about cost implications;
- Some results indicate ‘anti-intellectualism’; challenge the status quo;
- Concerns that mandating higher level qualifications could risk losing some of current system strengths. Should not change system without knowing more about potential outcomes
- The reader acceptance for higher level industry qualifications may reflect teachers’ self-identification with their previous occupation.
- There needed to be more acknowledgement of the diversity of the sector.

Nearly all responses were supportive of the project; and while not everyone has said that their experiences align with the findings (although the majority did say that, as noted above) criticism has been constructive. But it may be worth mentioning that, while of course all responses were valued, there were a small number of quite critical respondents. One was in the Policy stream; and three in in the RTO stream – one each from TAFE, community and ERTO groups. These responses help to alert us to potential negative reactions in the VET community.

Action to be taken in relation to Key Findings

The Delphi 2 Consultation Paper worked through each of the six project Key Findings, asking respondents if they were likely to take action as a result of the Key Findings. In the Delphi 2 survey questions, the provided options about the type of action that respondents might take varied by stream, as different types of action are possible within RTOs from those at the policy level. It is also recognised that due the nature of the respondents for the Policy stream, fewer people were in a position to effect change autonomously. We allowed for this by providing options for the policy stream with wording such as they might ‘work with other stakeholders’ to take action. The RTO stream, consisting of CEOs or senior managers, were in a better position to take direct action.

Figure 3 shows what the respondents to the Delphi 2 survey said about whether they would take action as a result of each of Key Findings 1 to 6 (which are listed below).

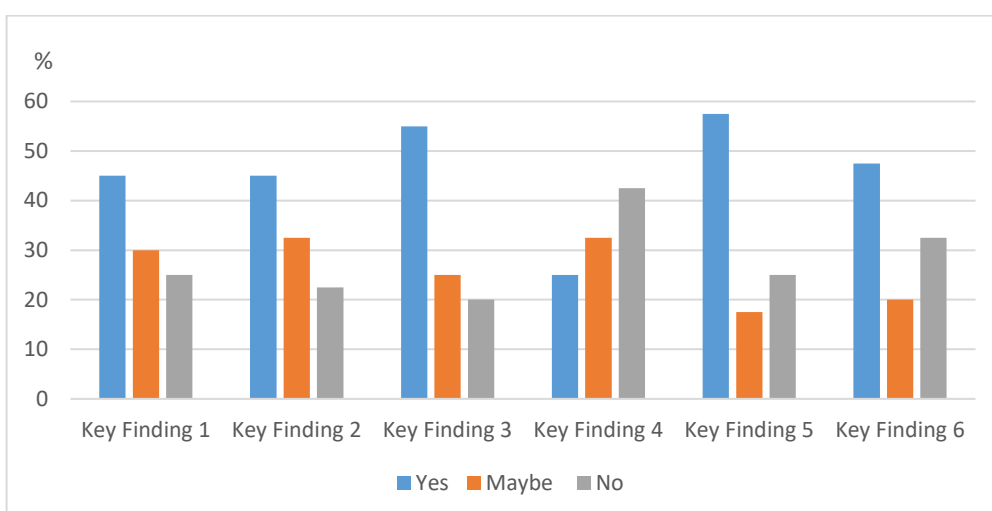


Figure 3: For each Key Finding, whether the respondents were likely to take action - All respondents. (Percentage of ‘yes’, ‘maybe’ and ‘no’ responses shown.)

Table 8 below summarises the proportion of respondents **in each stream** who said that they were likely to take some action, and the strength of that intention (*).

Table 8– Are respondents likely to take action as a result of each Key Finding of the project? Policy and RTO streams

Key Finding	Key Finding title (shortened)	Respondents are likely to (i.e. ‘yes’, or ‘maybe’ responses), take action as a result		
		Policy stream	RTO stream	Overall
1	Higher VET pedagogy quals improve teaching	85.7%	63.1%	75.0%
2	Higher industry quals improve teaching	80.9%	73.7%	77.5%
3	Higher VET pedagogy quals improve confidence in addressing diversity	90.4%	68.4%*	80.0%*
4	The key qualification is a degree	61.9%	52.7%#	57.5% #
5	PD participation increases with higher level quals	80.9%*	68.4%*	75.0%*
6	PD should be tailored for people with higher-level quals	76.2%*	57.9%*	67.5%*

Notes: * Indicates where there were twice as many ‘yes’ and ‘maybe’ choices, indicating stronger support for taking action on these items; # Indicates where there more ‘maybe’ than ‘yes’ choices.

From Figure 3 and Table 8, it can be concluded that each of the project’s Key Findings is likely to have some effect in the VET sector. While the least ‘popular’ Key Findings in terms of spurring action is the Key Finding about the difference a degree makes, even that is likely to lead to action. **In every case, the Policy respondents were somewhat more likely to take action than RTO respondents.**

What actions are most likely to occur?

Those who responded ‘yes’ or ‘maybe’ to each Key Findings were given a provided menu of options to select; and a separate set of options was provided for ‘no’ respondents. When the menus of provided options for action were analysed, the following (Table 9) emerged as the actions most likely to occur.

Table 9: The actions most likely to be taken by the respondents, in each stream

Key Finding	Key Finding title (shortened)	Actions to be undertaken: Normal font: Selected by more than half of total respondents in each stream; <i>Italics: Selected by more than half of those in each stream who said that they would ‘yes or maybe’ take action</i>	
		Policy stream	RTO stream
1 and 3	Higher VET pedagogy qualifications improve teaching; & Higher VET pedagogy qualifications improve confidence in addressing diversity	Work towards differentiating requirements for VET pedagogy quals for teachers/trainers in different roles. <i>Work, with appropriate stakeholders, towards requiring VET teachers to acquire higher level VET pedagogy quals (Dip VET and/or degree).</i> <i>Work towards requirements for registration and/or a professional body for VET teachers.</i> <i>Work towards other methods of helping teachers acquire the necessary skills.</i>	Encourage teachers to acquire higher level VET pedagogy qualifications after recruitment.
2	Higher industry quals improve teaching	Encourage IRCs or other industry bodies to work towards other methods of helping VET teachers acquire the necessary industry/discipline background. <i>Encourage Industry Reference Committees (IRCs) or other industry bodies to institute requirements for registration and/or professional bodies for VET teachers in their industry areas.</i>	<i>Encourage teachers to acquire higher level industry/other discipline qualifications after recruitment.</i>

4	The key qualification is a degree	<p><i>Work, with appropriate stakeholders, towards requiring VET teachers to acquire degrees.</i></p> <p><i>Work towards differentiating requirements for degree-level qualifications for teachers in different roles.</i></p> <p><i>Work towards other methods of helping teachers acquire the necessary skills.</i></p>	-
5	PD participation increases with higher-level quals	<p>Encourage Industry Reference Committees or other industry bodies to discuss nature of <i>professional development</i> (PD) for VET teachers in their industry areas</p> <p><i>Work, with appropriate stakeholders, towards a concerted national approach to PD for VET teachers.</i></p> <p><i>Work towards specific requirements for teachers with lower qualification levels to do PD.</i></p>	<p>Provide a proportion of PD suitable for, and open to, teachers at all levels of qualification.</p> <p><i>Remove barriers for participation for teachers of all types.</i></p> <p><i>Encourage teachers with lower qualification levels to do PD.</i></p>
6	PD should be tailored for people with higher-level quals	<p>Work, with appropriate stakeholders, towards requiring external providers of PD to state the 'level' of PD offerings.</p> <p><i>Work towards differentiating requirements for PD in the RTO standards.</i></p>	<p><i>Tailor our own PD offerings for teachers of different levels of VET pedagogy qualifications.</i></p> <p><i>Be more selective when approving external PD, for teachers with different levels of VET pedagogy qualifications.</i></p>

For people who said they would not take action, we provided some possible reasons from which they might select. The most consistently selected options for RTOs were 'the nature of our teaching workforce' and 'do not think any action is required'. In 'other' responses, some RTOs mentioned initiatives they were already taking, which meant, they said, that they would not take new actions as a result of the Key Findings.

What would help, and what would hinder, actions being taken?

Tables 10 and 11 shows the respondents' views about the facilitators for, and barriers relating to, action on the Key Findings. There was little difference between comments from the two streams, so we have not presented any comparative analysis.

Table 10: What would assist and what would be a barrier to taking action on Key Findings 1 to 4? (about VET teacher qualification levels and their effects on teaching/training)

<p><i>Facilitators</i></p> <ul style="list-style-type: none"> • National approach to improving VET teachers' qualifications, their PD and their practice e.g. professional association/register/financial resources; • Shift in attitude of State governments about qualifications for VET teachers (c.f. school teachers); • Buy-in at RTO and practitioner level; • Change in RTO standards; • Industry support. • Alignment with VET teacher Awards; • More understanding about how this affects student outcomes and inclusion; • Availability of degrees unit by unit so teams could enrol.
<p><i>Barriers</i></p> <ul style="list-style-type: none"> • The need for a change in culture to value qualifications; • The need to change policy settings, incentives, and funding; • The long lead time needed; • The extra cost involved in hiring or developing more highly qualified staff; • Negative attitudes towards qualifications for staff in the VET sector; • Teachers' ability to undertake qualifications as well as maintain industry currency; • Resistance to more change; • Teachers may not want to become qualified; • Possible union resistance; industrial relations arrangements; • Need to show return on investment; • Need to improve degree level quals in VET teaching - accessibility, cost, time needed.

Table 11: What would assist, and what would be a barrier to, taking action on Key Findings 5 and 6? (about the link between VET teachers’ qualification levels and their engagement with professional development)

<p><i>Facilitators</i></p> <ul style="list-style-type: none"> • Good on-line resources/activities available for RTOs to use in PD. • Guidance for PD providers including how to tailor PD better and market appropriately for the level • National standards/frameworks for PD/professional association/existing capability frameworks; • Other national oversight e.g. a national portal for PD; a PD ‘unit’ located within an agency; • Career pathways and incentives linked to PD; • Other mechanisms to reward those who develop themselves. • Funding – might only need initial (not ongoing) funding from Commonwealth; • Identification of PD needs across RTOs (govt. could carry out); • Employers (RTOs) to provide time release for PD. • Sharing good practice via communities of practice; • Teachers to improve their commitment and take responsibility for PD; • ‘My RTO needs to develop a strategy for PD’.
<p><i>Barriers</i></p> <ul style="list-style-type: none"> • Insufficient funding; • Cost; • Lack of buy-in/Resistance/‘Attitude’ from teachers and/or RTOs. • PD providers don’t work in concert; • Absence of incentives/career paths; • Existing institutions don’t see it as their roles; • Too much energy has to be spent on compliance; • Hard to reach casual teachers; • Potential resistance from PD providers • ‘Inability to get everyone into the same room’. • Tailoring would be problematic and expensive; • Time constraints on teachers; • Poor access to appropriate external PD e.g. at right level, in appropriate locations.

In the Delphi 3 survey, we will be asking you some follow-up questions about the **facilitators** that respondents mentioned.

Does the minimum VET pedagogy qualification for VET teachers need to be increased?

This is a major area of the project, as it is VET pedagogy qualifications that are most readily addressed in policy terms. Industry qualifications are more problematic. Respondents were asked a question about whether the minimum qualification in VET teaching/training should be increased, for various segments of the VET teaching/training workforce (Figure 4, overleaf), based on options of:

- Diploma of VET
- Degree or above in VET pedagogy
- No change required.

Nearly three-quarters of the respondents in both streams said that the minimum VET pedagogy qualification should be increased for existing VET teachers and trainers, and for full-time VET teachers and trainers (Figure 4), either to Dip VET level or to a degree. There was also a strong feeling that new recruits should be required to gain a Diploma of VET. The lowest level of support was for non-full-time practitioners, but even for this segment of the VET workforce, just over half or respondents voted either for Dip VET or a degree as the minimum VET pedagogy qualification.

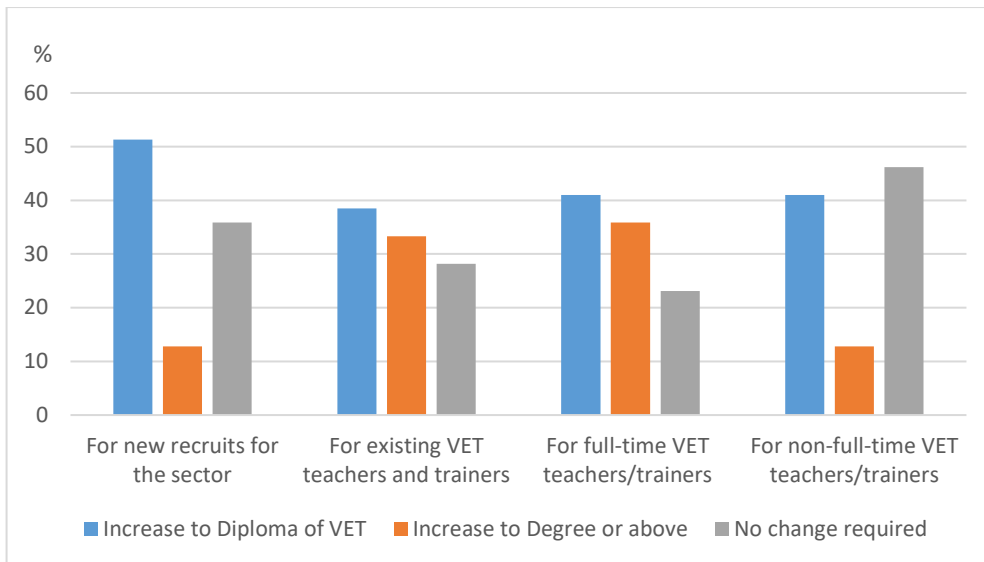


Figure 4. Do the project results indicate a need to increase the minimum qualification in VET pedagogy, and if so, to what level and for whom? All respondents.

When analysed by stream, Policy stream respondents were more likely to say the minimum should be a degree, while RTO respondents were more likely to state a Diploma of VET. Policy respondents also had a higher proportion stating that higher qualifications should be required of full-time teachers (80.9%).

Reasons for expected unfavourable reaction to suggestion of degrees (of any type)

Respondents had said in the Delphi 1 survey that the sector would be resistant to the idea of degree qualifications (in any discipline area) for its teaching/training workforce, and that we needed to follow up on reasons for this. Hence in the Delphi 2 survey we provided a menu of various reasons that might account for this, derived from the literature, comments provided in the Delphi 1 survey, and other data gathered in this project and other interactions in the sector. Respondents were asked to select as many as seemed appropriate. Table 12 shows some differences among policy and RTO streams in perceptions of opposition to degree level qualifications among the VET workforce; but the first three reasons are held in common among the streams.

Table 12: Reasons why the VET sector might oppose the ideas of degree level qualifications, according to Delphi 2 respondents. (X indicates options that were selected by more than half of the respondents in each stream, and overall. A ‘near miss’ shows between 40% and 50% selecting that option.)

	X = Selected by more than half of Policy stream	X = Selected by more than half of RTO stream	X = Selected by more than half of all respondents
The VET sector would be worried about who would pay	X	X	X
The VET sector thinks other attributes besides qualifications are more important for VET teachers/trainers	X	X	X
The VET sector thinks that some people coming out of industry would not want to study a degree	X	X	X
The VET sector would consider a degree an unnecessary level of qualification for people teaching/ training in VET	<i>near miss</i>	X	X
The VET sector would consider that professional development can address all the higher-level capabilities needed		X	<i>near miss</i>
The VET sector is unaware that many VET teachers historically have held, and many still hold, degree level quals	<i>near miss</i>		
Some types of RTO might consider they should have different qualification regimes from other types of RTO		<i>near miss</i>	

The following two options were selected by fewer than 40% - but still over one-quarter of people: ‘The VET sector thinks that some people coming out of industry would not have the ability to study a degree’; ‘The VET sector sees the higher education sector as a rival to itself’.

When asked to select the **single most important reason** for the perceived opposition, the following were the most often selected:

- 28.2% - The VET sector would be worried about who would pay. *(More often selected by Policy stream)*
- 25.6% - The VET sector thinks other attributes besides qualifications are more important *(More often selected by Policy stream)*
- 17.9% - Other *(Combination of reasons; not necessary; recruitment barrier; will not help community or industry) (Almost equally selected by both streams)*
- 10.3% - The VET sector would consider a degree an unnecessary level of qualification for people teaching/training in VET *(More often selected by Policy stream)*

What is added by higher-level VET pedagogy qualifications?

Given that there was widespread support for higher-level VET pedagogy qualifications, it is important to know what is gained through such qualifications. Those who ‘voted for’ each of the qualification levels were invited to say what they thought the qualification added to VET teachers’ tool-kits. Their answers are summarised and paraphrased below (Tables 13 & 14), analysed by the stream and by the nature of the comments.

Table 13: For those who selected ‘Diploma of VET’ as a minimum qualification for any group of VET teachers, what they think the qualification adds to VET teachers’ ‘tool-kits’

Responses from Policy stream participants relating to content of the qualification	Responses from RTO stream participants relating to content of the qualification
<p><i>Issues raised by more than one person:</i></p> <ul style="list-style-type: none"> • In depth knowledge/theory of pedagogy; • How people learn; • Better understanding of assessment; • Ability to deal with diverse learners &/or teaching situations; • <i>Two respondents simply listed the Dip VET units that were additional to the Cert IV and useful.</i> 	<p><i>Issues raised by more than one person:</i></p> <ul style="list-style-type: none"> • Knowledge about learning styles/pedagogy; • Better understanding of assessment.
<p><i>Issues raised by one person only</i></p> <ul style="list-style-type: none"> • Deeper proficiency in teaching; • Range of teaching strategies; • Ability to cope with regulatory requirements; • Reflecting and improving practice; • <i>One respondent thought the Dip VET was similar to old Dip TAS (i.e. not about pedagogy)</i> 	<p><i>Issues raised by one person only:</i></p> <ul style="list-style-type: none"> • Higher order/greater depth focus on teaching; • Classroom management; • Understanding of recent VET trends e.g. re compliance; • Modifying resources to suit learners.
Responses that related to adoption mode	Responses that related to adoption mode
<ul style="list-style-type: none"> • After completion of Cert IV there is need for practice before taking on a Dip; • Worth considering but would need to know about effects on student outcomes: ‘Perhaps a trial or phased-in’; • Would be resistance especially from private RTOs. 	<ul style="list-style-type: none"> • Should be a pathway Cert IV-Dip VET-degree; • The Dip VET provides only a basic introduction to pedagogy. ‘It really is the minimum requirement’; • The Dip VET needs to be redesigned as per findings of the survey; • The Cert IV is only focused on compliance and doesn’t develop pedagogical skill.

Table 14: For those who selected ‘Degree or above’ as a minimum qualification for any group of VET teachers, what they think the qualification adds to VET teachers’ ‘tool-kits’

Responses from Policy stream participants relating to content of the qualification	Responses from RTO stream participants relating to content of the qualification
<p><i>Issues raised by more than one person:</i></p> <ul style="list-style-type: none"> • Conceptual/theoretical/knowledge foundation; • Critically reflect on performance; • Up to date teaching & assessment methods including technologies and a range of assessment tools; • Teaching diverse learners and in diverse contexts. 	<p><i>Issues raised by more than one person:</i></p> <ul style="list-style-type: none"> • Deeper theoretical understanding; • Greater understanding of the sector and its needs/terminology.
<p><i>Issues raised by one person only</i></p> <ul style="list-style-type: none"> • Teaching for different content areas ; • Critical thinking skills; • More depth and ‘possibly breadth’; • Better understanding of the sector. 	<p><i>Issues raised by one person only:</i></p> <ul style="list-style-type: none"> • Reflective practice leading to better student outcomes; • More capability in teaching; • Develops work ethic, resilience, openness to change.
Reponses that related to adoption mode	Reponses that related to adoption mode
<ul style="list-style-type: none"> • For full-time VET teachers (Dip VET for the others); • Would need to be carefully considered and modelled; would it necessarily add benefit – or a ‘panacea’? 	<ul style="list-style-type: none"> • Two said the ‘value added’ points were ‘essential’ in VET teaching; • ‘Depends on the content of the degree.

Does the minimum industry qualification for VET teachers need to be increased?

Just over half of all (51.3%) respondents to the Delphi 2 survey thought that a minimum industry qualification should be mandated for VET teachers/trainers. Policy respondents were slightly less likely to consider this necessary. Overall, 38.5% of respondents considered a required qualification would vary by Training Package area, and 28.3% that it should depend on the AQF level being taught. In comments, one person said that teachers/trainers should have a higher level industry qualification than the one they were teaching, another that it would depend on circumstances, and another that staff with higher level industry qualifications could supervise others. One person noted that pedagogy should be discipline-specific. Finally, one RTO respondent said that there should be funding for PD in vocational currency.

In the Delphi 2 survey we indicated that this matter would be explored further in the third Delphi survey. You will find a series of questions on this matter in the Delphi 3 survey.

What is added to specific VET teacher capabilities through different qualifications and different types of professional development?

In the Delphi 2 survey we asked respondents about some key elements of VET teaching and assessment practice, selecting those items from the Queensland VET practitioner standards (which have been used throughout this project) that best reflected the range of teaching and assessment skills required of VET teachers. We asked respondents to say how well each of main available types of VET teacher training and professional development helped to improve teachers’ capability in each of these items. Respondents were given a ‘don’t know’ option in case they were not familiar with some of the sources.

Qld VET practitioner standards Items selected for questions about sources of teacher/trainer development
Item 1.2 Understand the demands of different learning contexts including classrooms, workplace, virtual and community education locations (Q28)
Item 1.4 Understand effective teaching/training strategies that are responsive to the community, cultural setting, linguistic background and histories of learners (Q29).
Item 3.1 Plan, design and deliver engaging and inclusive learning experiences (Q31).
Item 3.2 Select, develop and use a range of teaching/training strategies and resources including new and emerging technologies (Q32).
Item 3.4 Reflect on your practice to improve the learning experience (Q33).
Item 4.2 Use a range of assessment methods and tools (Q34).

The overall results for each of the two streams, using mean scores (averages) are shown in Table 15. In the relevant questions, 1 was 'very little' and 5 was a great deal'.

Table 15: Views about efficacy of various forms of VET teacher/trainer development, six selected items from Queensland VET practitioner standards (means). *Items are detailed in the box on the previous page*

	Policy stream, mean, n = 21	RTO stream, mean, n = 18	Overall mean of the two streams
Cert IV TAE	2.66	2.60	2.63
Dip VET	3.39	3.12	3.26
VET pedagogy degree or above	4.36	3.39	3.88
PD within RTOs on VET pedagogy	3.85	3.88	3.87
External PD on VET pedagogy	4.02	3.70	3.86

From this table, it seems that a **VET pedagogy degree and professional development are seen as the best ways for VET teachers to develop specific VET teaching and assessment-related skills**. The policy stream favoured degrees, while the RTO stream favoured professional development. The Diploma of VET falls well behind these sources, and the Cert IV a similar distance behind the Dip VET.

We also analysed the scores for each item, and the means are shown below for each stream (Tables 16 & 17).

Table 16: Policy stream – Views about efficacy of various forms of VET teacher/trainer development, specific items from Queensland VET practitioner standards (means) *(See box above for the items)*

	Item 1.2	Item 1.4	Item 3.1	Item 3.2	Item 3.4	Item 4.2	Overall
Cert IV TAE	2.65	2.56	2.86	2.67	2.39	2.83	2.66
Dip VET	3.50	2.77	3.71	3.22	3.39	3.72	3.39
VET pedagogy degree or above	4.45	4.38	4.50	4.24	4.39	4.17	4.36
PD within RTOs on VET pedagogy	4.25	4.31	4.05	3.42	3.54	3.50	3.85
External PD on VET pedagogy	4.18	4.08	4.24	3.93	3.80	3.86	4.02

Table 17: RTO stream - Perceived efficacy of various forms of VET teacher/trainer development, specific items from Queensland VET practitioner standards (means)

	Item 1.2	Item 1.4	Item 3.1	Item 3.2	Item 3.4	Item 4.2	Overall
Cert IV TAE	2.82	2.65	2.44	2.39	2.50	2.78	2.60
Dip VET	3.50	3.13	3.11	2.83	3.00	3.17	3.12
VET pedagogy degree or above	3.38	3.50	3.47	3.31	3.29	3.40	3.39
PD within RTOs on VET pedagogy	4.00	3.78	3.94	3.83	3.65	4.06	3.88
External PD on VET pedagogy	3.69	3.75	3.63	3.65	3.47	4.00	3.70

In Tables 16 and 17 we have shaded the 'top-scoring' items for each of the provided sources of VET teacher development. This analysis has highlighted differences among the streams in their perceptions of relative efficacy of the different sources. For the RTO stream, for example, PD was considered to be the best form of development for assessment methods and tools (Item 4.2), while for the policy stream the Dip VET was considered to be the best form.

Other suggestions from our respondents

In the questions on barriers to, and facilitators of, possible action (responses reported on pp 714-15 above), there were some responses in which people talked about ways in which they might use the research could be used. One said 'This research will help me to argue the value of level of quals for teachers'. Others said that the research could be used within people's RTOs in the following ways: Role modelling; working on criteria to help with recruitment; and identifying PD needs. Another made a plea for special provisions needed for Enterprise RTOs; and for areas (geographical or

industry) where teachers are hard-to-find. One respondent feared that the findings might be discounted and therefore not taken up.

Some specific suggestions were made for the research team to carry out:

- Produce a list of specific recommendations & how they could be implemented;
- Identify key areas for professional development;
- Provide descriptors of effective VET teaching.

The main messages conveyed from analysis of our Delphi 1 and 2 responses can be summarised as follows:

Delphi Finding 1: Stakeholders have validated, from their own experience, that higher level qualifications for VET teachers do make a difference to teaching quality.

Delphi Finding 2: Stakeholders report that the VET sector would find it more palatable to accept the beneficial effects of higher-level qualifications in industry/discipline area than qualifications in VET pedagogy.

Delphi Finding 3: Some resistance is to be expected to any potential moves to increase requirements for qualification for VET teachers, especially to degree level.

Delphi Finding 4: Each of the project's six Key Findings is likely to have some effect in the VET sector, with over half of respondents for each finding saying they would definitely or possibly take action as a result.

Delphi Finding 5: Over half of respondents thought that the minimum VET pedagogy qualification should be increased for VET teachers and trainers, with the greatest support relating to full-time and existing VET teachers.

Delphi Finding 6: VET pedagogy degrees and professional development (external and internal) are seen as the three best ways for VET teachers to develop specific VET teaching and assessment-related skills.

Delphi Finding 7: Respondents are looking for a national body to assist with teacher qualifications and professional development

The findings of the third Delphi phase have yet to be added.

The project web site is at: <http://federation.edu.au/research-vet-quality>

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