

Process Manufacturing RTO Survey

Survey Findings Report

Key Findings

The results of the survey show that:

- overall, RTOs are very happy with the Process Manufacturing qualifications;
- the flexibility of the qualifications is highly valued;
- the majority of RTOs for whom these qualifications are working well are partnering with employers to tailor the qualifications to specific workplace needs;
- strengthening the focus on industry trends such as lean manufacturing and reducing the length of the Certificate III and IV qualifications may make this group of qualifications more attractive to employers and learners in the future.

About the Survey

IBSA Manufacturing commissioned Ithaca Group to undertake a survey of registered training organisations (RTOs) with Certificate I, II, III or IV in Process Manufacturing on their scope of registration. The survey was conducted in August-September 2018.

Initially all 47 RTOs that had any of these qualifications on their scope of registration were contacted in order to determine:

- how many were actually delivering these qualifications
- what the level of demand was
- reasons for not delivering them.

In-depth interviews were then conducted with a selection of these RTOs to learn more about learner cohorts and whether changes are needed to the qualifications.

These survey findings are intended to inform preparation of the 2019 Industry Skills Forecast and Proposed Schedule of Work for the MSM Manufacturing Training Package.

Findings of Initial Survey Contacts

Of the 47 public and private RTOs from across Australia with one of more of the process manufacturing qualifications on their scope of registration, 30 responded to the initial brief telephone survey. Of these, 22 were delivering one or more of the qualifications.

Further details of which qualifications are and aren't being delivered by these 30 RTOs is details in the table below (note that some RTOs deliver more than one of the qualifications).

Qualification on Scope	Currently Delivering	Not Currently delivering
Certificate I	1	3
Certificate II	1	3
Certificate III	15	6
Certificate IV	4	1
Total	22	13

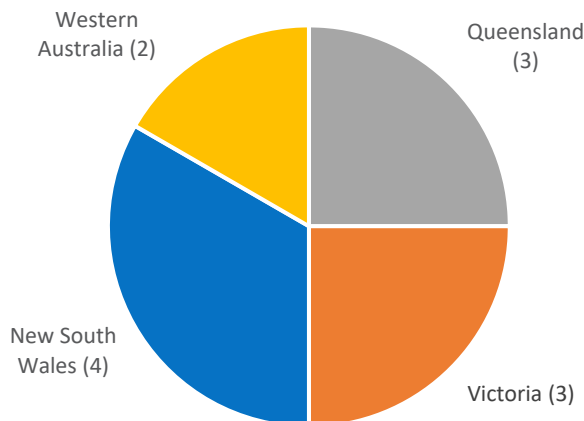
Of the RTOs not currently delivering qualifications on scope, one RTO was planning to deliver all four qualifications within the next year and another was planning to remove the qualifications from their scope.

The most common reasons given for not delivering Process Manufacturing qualifications on scope were a lack of demand and a lack of skilled trainers.

Findings of in-Depth Interviews

Following the initial scoping conversations, in-depth interviews were conducted by phone or through written responses with a total of ten individuals representing twelve RTOs across Australia.

Figure A: RTO Locations and numbers



Amongst RTOs participating in the in-depth interviews, the most commonly delivered qualification was the Certificate III in Process Manufacturing.

Of the respondents:

- one RTO was currently delivering the Certificate I in Process Manufacturing;
- one RTO was currently delivering the Certificate II in Process Manufacturing;
- eight RTOs were currently delivering the Certificate III in Process Manufacturing; and
- three RTOs were currently delivering the Certificate IV in Process Manufacturing.

Learner Types & Industries

Five of the RTOs involved in the in-depth interviews had between 50 - 100 learners enrol in Process Manufacturing qualifications in 2018, four RTOs had more than 100, while one RTO had 10 - 50 learners enrol this year. Two of the RTOs were unable to tell us how many learners they had enrolled in 2018.

Eight of the twelve RTOs delivered these qualifications solely to employees. In some cases, qualifications were offered to both employees and jobseekers, however in these cases the larger proportion of learners (up to 80%) were existing workers. Just two RTOs (out of twelve) delivered Process Manufacturing qualifications to jobseekers only.

Learners enrolling in these qualifications represented a wide range of job roles generally comprising technicians/operators at the Certificate I - III level and supervisors/team leaders at the Certificate IV level.

Process Manufacturing qualifications can be applied to almost any industry. As such, learners also represented an extremely wide range of industries including Manufacturing, Mining and resources, Chemicals, Warehouse/logistics, Food & beverage, Commercial laundries, Recycling facilities, Water and sewage treatment, Hospitals, Engineering works, Furniture assembly, Construction equipment manufacturing, Canvas/textile industry, Steel products, Importing, Packaging, Plastics industries, Concrete supplies and more.

Industry, Employer and Learner Needs

In order to find out how well qualifications within the Process Manufacturing Training Package are currently meeting the needs of industry, employers and learners, respondents were asked to identify what's working well, what could be improved and what's missing in the qualifications that they deliver. Respondents also provided their opinion of the effectiveness of the qualifications in meeting employer and learner needs by rating the qualifications that they deliver on a scale of 1 - 10.

What is Working Well?

Flexibility, content and skills development were most commonly cited as working well in the current qualifications. These, and other responses, are expanded below.

Flexibility

Overall, the flexibility of the qualifications was viewed as a real benefit by almost all respondents (90%). Reasons cited included:

- Being able to add value from the broad range of units in other packages as electives;
- Their generic nature which allows them to be applied to any number of industries; in comparison, other qualifications were considered too restrictive to allow this;
- Being able to tailor qualifications to meet employer needs.

For many, and particularly RTOs delivering in workplace settings, the real value of flexibility lies in the fact that the packaging rules are open but enable specialisation as well. For example, in tyre manufacturing, the packaging rules allow RTOs to construct qualifications that enable learners to specialise in polymer manufacture.

The broad nature of the qualifications allows them to be packaged up to include a mixture of process manufacturing (MSM) and competitive systems and practices units (MSS). Forklift units were also noted to be in demand.

In the case of the Certificate I, the flexibility of being able to choose electives out of other equivalent qualifications or the Certificate II allows providers to modify the qualification to closely resemble the occupation.

Overall, the flexibility of the qualifications was seen to be of benefit to employers because, as one participant noted, “It allows us to say, “let’s map YOUR processes” which makes it relevant to the employer.” For learners, it is also of benefit because the result is a fully contextualised qualification, relevant to the industry that they are working in.

Content

Approximately half of respondents explicitly identified that the existing core units were good, with one participant extending this to include electives.

Skills Development

Overall, the majority of respondents felt that the qualifications meet the primary skills development needs of employers and learners. Respondents noted that the qualifications:

- Provide a good grounding in employability skills including skills like working in a team;
- Help learners to develop a basic understanding of workplace practices;
- Cover what most employers are looking for, which are the general skills e.g. make calculations, identify signs, and health and safety; and
- Introduce both the process and maintenance aspects of process manufacturing.

One respondent delivering the Certificate IV felt that the qualification enables a transformational change in thinking and practice that is incredibly valuable both to learners and employers, and which can be applied to any process or industry.

“This is a really good qualification for anyone who does a trade because it steps people into a different mindset, or a new way of thinking about process improvement and sustainability.”

Contextualisation

At their core, these qualifications - particularly at the higher levels - were identified as being about organising people, processes and purpose. These are skill that are universal to all process manufacturing environments. Their focus on problem solving and continuous improvement can also be applied to any process or system. According to respondents, this gives process manufacturing qualifications great relevance as they can be contextualised to nearly any job or industry.

This ability to contextualise training has significant benefits for both employers and learners. By contextualising training material and assessments to the specific workplace, using projects to achieve workplace outcomes that demonstrate continuous improvement, and addressing key topics for all businesses such as WHSE, Quality, Performance, Cost reduction, speed of delivery, teamwork and customer focus, both employers and learners immediately perceive the value of training. As one respondent noted, “It provides a good “sell-case” to employers as we can approach them and say look at this selection of units: we can make this work for you.”

Ability to Create a Specialised Qualification

One RTO identified that they were currently delivering the Certificate IV in the workplace as a 'specialised' qualification that combines general process manufacturing with a specialised focus e.g. process plant technology. For this RTO, this provides greater value from an otherwise generic qualification, tailored to the specific needs of employers.

Another respondent suggested that there is significant potential for the process manufacturing qualifications to be packaged up with a combination of MSM, MEM and MSS units (including units such as 3D printing, hand tools, injection moulding) to create a pathway from Cert II and Cert III into higher level Industry 4.0 qualifications, such as the accredited course being implemented in Victoria.

Training Accessibility

One respondent suggested that because these are generic qualifications, there is no limitation on who can come into training i.e. it's not tied to industry (people don't need to already have a job) the way that other qualifications are. This means that the qualification is accessible to anyone and there is no artificial limitation on the number of people coming into training: this helps people to get jobs, rather than restricting access to training only to those who are already employed.

Return on Investment

For some RTOs, an immediate return on investment for both learners and employers was seen to be one of the key benefits of undertaking these qualifications. In the case for employers, it enables an immediate return through improved efficiency and productivity gains, while for learners it enables them to have an immediate value in the workplace (as long as there is supportive middle management). Outcomes that were cited as easily traced and attributed to this program include savings efficiency, increased staff retention, less waste and less time on floor. For learners, it helps them always ask the question "What can be done to make this more efficient or useful?"

At lower qualification levels, the fact that it provides milestone certification was identified as giving learners the feeling of having achieved something, while demonstrating competency to employers.

What Could be Improved?

The two most commonly reported areas for improvement in the current Process Manufacturing qualifications were reducing the volume of learning at the Certificate III level and a desire for greater focus on employer-centric methodologies such as lean manufacturing within the qualifications.

Length of the Qualification

The size of the Certificate III qualification was the biggest area for improvement noted by the majority of respondents. Reducing the qualification to 15 - 18 units (from 21 currently) was suggested to be more attractive and realistic for a generic qualification without specific outcomes.

While the core units and qualification overall were perceived to be valuable, reducing the size of the qualification was suggested to be necessary to reduce the big time and cost commitment that present an upfront barrier to employers and learners engaging in training.

"21 units is a lot of units for a Certificate III. 18 units would be more realistic."

"A major setback of this qualification and one of the reasons why - for our RTO at least - enrolments have decreased is because it is seen to be too long. We lose people. Employers and learners don't want to commit to 2 years. While the units are good, if there is any way that can be found to rationalise and restructure it so that it can be built in terms of the enterprise, this would be good."

Content

“The qualification could include more lean manufacturing units. This is what the majority of employers that we approach are looking for.”

Some respondents suggested that a greater (or more obvious) focus on employer-centred methodologies such as lean manufacturing or ‘Just-In-Time’ manufacturing could help the qualifications gain employer relevance as “this is where manufacturing industries are going around the world.” It is also language that employers understand and recognise.

In order to accommodate this, a suggested improvement to the units on offer is to:

- remove either MSMSUP200 Achieve Work Outcomes or MSMSUP210 Process and Record Information; and
- replace with MSS403033 Map an Operational Process or MSS403010 Facilitate Change in an Organisation Implementing Competitive Systems and Practices.

It was suggested that making these changes would help to set up an overview of what the whole course is about i.e. lean business.

Another respondent identified that within the Group A electives, there is not much related to chemical, hydrocarbons and refining (i.e. the PMA training package). It was suggested that an additional one or two units could be helpful.

However, it was also noted that overall, not too much change was needed to the core units or electives.

Packaging Rules and Assessment Requirements

While overall the Training Package requirements were felt to offer significant flexibility, respondents did identify some areas that could be improved. For example, it was suggested that, for those who are employed, the requirement to select five Group A units can be too restrictive. “It can be hard to find five that are really relevant to the workplace.” It was suggested that reducing this to four may be better.

Likewise, one respondent suggested that the Training Package evidence requirements were restrictive and should be reviewed. Within the Certificate I, the units of competency criteria for some units sometimes repeat e.g. follow OH&S procedures. In this instance, the RTO concerned consistently received learner feedback to say, “I’ve done that before”, and suggesting a need to make sure that the assessment criteria between core and specific electives don’t clash.

Style and Language

At the Certificate II and III level in particular, there is a need to ensure that wording is clear and concise, uses common industry language and avoids “waffle”.

Specialisation

Alongside the benefits of flexibility, there was some recognition amongst a small number of respondents that too much flexibility can also detract from outcomes and have both positive and negative effects. Respondents were split however as to whether defining streams or specialisations within the qualifications (e.g. allowing learners to choose an area of expertise such as process manufacturing - tyre manufacture) could be helpful, or whether this may get in the way of the flexibility of these qualifications.

Positioning

Several respondents identified that improving the way the qualifications are positioned would help.

One respondent identified that improving the marketing, labelling and language used in the Certificate IV would help employers and learners to better understand its relevance. Even though it’s about lean methodology - highly attractive for employers - it was felt that this doesn’t really come through in the way it is described. “The pathway is not as sharp or smooth as other Qualifications such as Competitive Systems and Processes. It is hard

for people to understand. There is a need to take out the dry, uninteresting words from the package and “shine it up a bit”.

There is also a need to ensure that the qualifications and training package support material fully capture the breadth of scope that these qualifications relate to. For example, one respondent noted that the preamble currently refers to three industries for which the qualification is relevant, however doesn't include food processing, a key industry to which they deliver. This should instead reflect any instance where a process is employed to create a product. Similarly, where applicable job roles are identified, this is limited to production line only, and excludes other important roles such as refining.

What is Missing?

While a significant proportion of respondents (30%) were satisfied with the existing qualifications as is, including the ability to import units from other qualifications, other respondents made specific recommendations. Responses are summarised below.

Clarity

A clear delineation between manufacturing and process manufacturing via Training Package definitions is needed. One respondent suggested that this would help to clarify unit selection that is relevant to process manufacturing as currently there is a lot of overlap between the two.

Specific Units and Electives

Respondents suggested several specific units and electives that could enhance process manufacturing qualifications, including:

- Implement Continuous Improvement Based on Standardised Work Practices as an “other” elective. This can be used to build a process map which makes it easier for the team to see the whole context.
- A laboratory unit at the Certificate III level (in addition to those at the Certificate IV level currently) might provide greater flexibility;
- Mathematics (ability to perform computations) and chemistry;
- A unit on automation and robotics.

OH&S “Key Risk” Performance Criteria

One respondent indicated that the core OH&S unit performance criteria could be enhanced by including key risks occurring in most occupations. At the moment, this enterprise RTO delivers its own unit providing critical training in 10 things rated by the company as able to kill you e.g. load tie down, fatigue management, chemicals and risky personal behavior. They issue a company certificate for this unit to trainees before they go onto a client's site. It would be useful to apply some of the key cross-occupational risks that fall into this category (e.g. drug and alcohol and fatigue management) to the OH&S core unit too to improve and enhance knowledge needed.

Absorption of Discontinued Training Packages

With the PMC training package being absorbed into the MSM training package, it will be important to ensure that those manufactured minerals products are being picked up in the process manufacturing qualifications.

It was noted that a close eye also needs to be kept on the work being done on the PMB training package and anything that no longer sits there might need to be captured under the process manufacturing qualifications too.

Effectiveness in Meeting Employer and Learner Needs

In order to evaluate how effective the current qualifications are in meeting employer and learner needs, respondents rated the qualifications on a scale of 1 - 10, with 1 representing the lowest possible score and 10 the highest.

Overall, the current qualifications scored relatively highly, as shown below, suggesting that tweaks rather than complete overhaul of the qualifications are what's needed.

Employer Needs

Lowest Score - 7

Lower scores were given by one RTO delivering the Certificate III as a generic qualification for jobseekers and one enterprise RTO who has created an additional unit to expand on "key risks" not covered by the current occupational health and safety unit.

Highest Score - 9

RTOs using the flexibility of the Training package to deliver specialised qualifications gave the highest ratings.

Average Score (of all responses) - 7.9

Learner Needs

Lowest Score - 6

The lowest score was given by one RTO due to the duplication of evidence requirements across units.

Highest Score - 9

RTOs that gave the highest ratings attributed this to the ability to provide a high level of contextualisation specific to industry and workplace needs, as well as the suitability of the qualifications for learners who may experience learning difficulties (e.g. learners from non-English speaking backgrounds).

Average Score (of all responses) - 7.8

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