Mobilising Future-Focused Work-Based Learning in Automotive Engineering

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Targeted Review of the Qualification

- TRoQ/MRoQ Commenced in 2008
- 4610 different qualifications in 2010
- Concerns on clarity and relevance of qualifications
- Review was conducted to reduce the number and **duplication** of qualifications and filter out ITP’s based **local qualifications**
- The new qualification was developed by the ITO in consultation with the industry and representatives of ITP’s?
New Qualifications

• New Zealand Certificate in Light Automotive Engineering (level 4) - 5 graduate profiles outcomes (GPO’s)
• New Zealand Certificate in Automotive Electrical Engineering (level 4) - 4 graduate profiles outcomes
• GPO’s are very broad statements
• New Qualifications were released in May 2016
ITP Consortium

• Joint development of Programme of study
• Consortium of 9 ITP’s
• Consistency across the country
• Shared development with different subject specialist.
Old National Qualifications

• Units standards – were assessment standards.
• Big misconception commonly were accepted as curriculums
• Comprising: Elements, performance criteria and Range notes
• More than 20 years of Unit Standards and paper based type assessments
On-Line Portfolio Type assessments

• Learning management systems- Google Classroom
• Supported by CDX on-line learning resource
• World's leading provider of interactive and experiential Automotive Engineering curriculum
Why Google Classroom

• Cloud based
• Unlimited storage
• Access not governed by enrolment, it is for life
• Portfolio for employment
• Free
• Universal
• Compatible with other software
Challenges

• Learning management system
• Moving from paper based- to online
• Resistance from staff and students
• Staff and student capability
• Devices and Connectivity issues
Benefits

• COVID 19 already on-line
• Remote access
• 24/7 access for students
• On-line real time- immediate feedback
• Accessible through any devices- IOS and Android
• Evidence can be supported through multiple media
• Employer/ student focussed
## Learner Portfolio Sample

### Job #1

<table>
<thead>
<tr>
<th>Make</th>
<th>Greatwall</th>
</tr>
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<tbody>
<tr>
<td>Rego</td>
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<tr>
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<td>Year</td>
<td>2014</td>
</tr>
<tr>
<td>Odometer</td>
<td>179,233</td>
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<tr>
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</table>

Relevant evidence is highlighted.
Learner Portfolio Sample

Job #1

Attach evidence of manufacturer’s instructions followed when applying relevant precautionary measures while working on high-pressure fuel systems (Petrol and Diesel)

OR

If manufacturer’s instructions are not available, attach evidence of approved industry practice for applying relevant precautionary measures while working on high-pressure fuel systems (Petrol and Diesel)

Due to the lack of manufacturers instructions, as they are only available to dealerships or diesel specialists, safety procedure information is limited

Using the resources provided in this assessment I am able to understand and apply safe practice to work on high pressure fuel systems

References
https://drive.google.com/file/d/14ep4qiOx-S5GjbgR9ZjA0Jju-_JLKyX/view
https://www.youtube.com/watch?v=15oN5Xdu10
How did you confirm the vehicle was safe to work on? *(you may also include evidence of the tests)*

When the vehicle had been switched off for 10 minutes, to depressurise, then I can unplug the PCV and crank sensor and wind it over. Doing this will fill the lines from the pump to injectors with low pressure diesel, and relieve any high pressure diesel that may be left in the system meaning it will be safe to work on. Once I know there is no high pressure in the system, I can remove the lines and take the injectors out safely to send away for repair.
Learner Portfolio Sample
Programme review

- Living programme
- Internal moderation
- Industry feedback
- Student feedback
- External moderation
- Issues after 1st round of delivery
First Year Delivery Reflection

• Completion of on job practical assessments
• Course completion issues- size and number of tasks
• Modified assessment criteria- introduction of work-based attestations and reduction of photographic evidence
• Availability of practical off-job assessments at Unitec
• CDX theory formative assessment competency
Future Focussed

Achievable in workplace
On-line real time
Remote learning/assessment support
Curriculum is adaptable
Not resource intensive
Multiple video conferencing capability
Multi-lingual capability
Unlimited enrolment capacity
Te Pukenga – NZIST?
Ongoing development of software functionality/features
Where to from here?