



## Methodology for Assessment Tool Usage

- Student Achievement Component
- Intensive Literacy and Numeracy
- Intensive Literacy and Numeracy ESOL
- Workplace Literacy and Numeracy
- Youth Guarantee

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# Measuring Assessment Tool Usage Performance

## Purpose of this document

This document defines the methodology for calculating TEO's<sup>1</sup> usage of the Assessment Tool, as required as a condition of funding for the Student Achievement Component (SAC); Intensive Literacy and Numeracy (ILN); Workplace Literacy and Numeracy (WLN); and Youth Guarantee (YG).

## Effective date

This methodology takes effect from 1 Jan 2017. It will be used to calculate usage performance until further notice or publication of a new or revised methodology.

## Who does this methodology apply to?

Organisations funded through SAC, ILN, ILN ESOL, WLN.

## Performance indicators

1. The indicators for measuring use include:
  - › LN percentage assessed (initial): The percentage of learners who were required to have an initial assessment and have had an initial assessment
  - › LN percentage assessed (progress): The percentage of learners who were required to have a progress assessment and have had a progress assessment.

## Who is required to be assessed?

2. All foundation-level learners should be assessed using the Assessment Tool. The following requirements apply according to the funding type:
  - › SAC-funded learners are required to be assessed using the Assessment Tool if they are enrolled in level 1 to 3 courses that lead to the award of a level 1 or 2 qualification on the NZQF (including NCEA)
  - › all YG, ILN and WLN funded learners are required to be assessed using the Assessment Tool.
3. Learners in ILN ESOL (English for Speakers of Other Languages) courses are required to be assessed using the Assessment Tool, such as through the online Starting Points options for Listening and for Reading, or the Step Two Threshold Assessment.
4. As good practice for other SAC-funded delivery, the TEC recommends that TEOs similarly assess:
  - › learners enrolled in level 1 to 3 courses that lead to the award of a level 3 qualification on the NZQF (including NCEA)

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<sup>1</sup> Excluding industry training organisations.

- › any learner, regardless of course or qualification level, where the TEO considers that the learner may have literacy and numeracy needs.
5. Learners enrolled in SAC-funded qualification's taught predominately in Te Reo Māori are not expected to be assessed (unless the TEO considers it will be beneficial for the learner). We will use qualification code NZSCED 91502 to identify these qualifications
  6. Learners who have met step 4 for reading or step 5 for numeracy are not required to be assessed again in the same assessment area in which they have met the threshold.

## Initial assessment usage indicator

7. The **initial assessment** is:
  - › The earliest assessment after or on the start date of the sequence<sup>2</sup> or programme and prior to the mid-point. If there is no assessment in this time, then:
    - an assessment that has been undertaken within 90 days prior to the commencement date of the programme or sequence at the same TEO. If there is no assessment in this time, then
    - an assessment that has been undertaken within 90 before the start date of the programme or sequence at a different TEO.
8. Initial assessment usage indicators are calculated separately for **reading** and **numeracy** for each fund.
9. To calculate the initial assessment usage indicator, we:
  - › identify all learners enrolled in a reporting year at a TEO who require an assessment. Exclusions include:
    - learners who have been assessed at step 4 reading or step 5 numeracy at any time prior to the programme/sequence start date
    - learners enrolled in qualifications taught predominately in Te Reo Māori (NZSCED code 91502)
    - any SAC or YG funded course a learner withdraws from prior to course completion
  - › identify from the Assessment Tool the learners who have had an initial assessment in reading and/or numeracy
  - › identify the initial assessment for each learner using the hierarchy listed in paragraph 10
  - › calculate the percentage of learners with an initial assessment by dividing the number of learners with an initial assessment by the number of learners required to have an initial assessment, for both reading and numeracy.

## Progress assessment usage indicator

10. The assessment area used in a progress assessment should be the same strand as that used for the initial assessment. See Appendix B for strand options.
11. The **progress assessment** is:

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<sup>2</sup> Refer to paragraph 17 for the definition of a programme and sequence.

- › the assessment with the highest score that occurred on or after the mid-point of the sequence or programme, and prior to or on the end date.

12. To calculate the progress assessment usage indicator, we:

- › identify all learners enrolled in a reporting year at a TEO who had an initial assessment and have reached the mid-point of their programme or sequence. A learner may be assessed multiple times prior to the sequence mid-point. Once step 4 in reading or step 5 in numeracy is met the learner will not need further assessment in that assessment area
- › identify from the Assessment Tool the learners who have had a progress assessment in the same strand as their initial assessment between the programme or sequence mid-point and prior to or on the end date
- › identify as the progress assessment the highest scoring assessment achieved between and on the mid-point and completion date
- › calculate the percentage of learners with a progress assessment by dividing the number of learners with a progress assessment by the number of learners required to have a progress assessment, for both reading and numeracy.

## Programmes and sequences

13. The period of learning comprises a programme or, if a programme does not exist, the TEC will approximate the concept in the form of a sequence. This involves grouping courses that occur within 90 days of each other into a default programme. Refer to Table 1 for details of funds and whether they have defined programmes or constructed sequences.

**Table 1: Programme or sequence**

| Course funding type             | Programme or sequence? |
|---------------------------------|------------------------|
| Intensive Literacy and Numeracy | Programme              |
| Workplace Literacy and Numeracy | Programme              |
| Student Achievement Component   | Sequence               |
| Youth Guarantee                 | Sequence               |

14. Enrolments that occur more than 90 days apart are assumed to be unrelated to each other and will be viewed as separate programmes or sequences.

## Deriving a sequence

### Definition of a sequence

15. A sequence provides an approximation of a programme by grouping course enrolments for a learner together. The purpose of the sequence is to provide a timeframe for measuring that initial and progress assessments have taken place.

### Methodology for deriving a sequence

16. To derive a sequence we:
- › identify the ‘master’ NSN, if a student has multiple NSNs. Any previous NSN for a learner in the Assessment Tool will be matched against this master NSN
  - › select records from the course enrolment file in the SDR:
    - SAC-funded based on course register level 1 to 3 and NZQF qualification register levels 1 and 2<sup>3</sup>, and
      - SAC-funded source codes = 01, 25, 26, 27, 28, or 29
      - YG-funded source code = 22
  - › allocate all courses for an individual learner with a 90-day or less interval between the latest course end date and the next course start date into a sequence
  - › allocate courses to separate sequences where the interval between the latest course end date to the next course start date is greater than 90 days, whereby each sequence contains course enrolments for one NSN enrolled at one TEO accessing funding from one course funding source code
  - › assign sequences to a ‘reporting year’ based on the year of the latest course end date in a calendar year. Sequences with course end dates in multiple years are assigned to multiple reporting years. These are defined as continuing sequences
  - › define the sequence start date as the earliest of any course start dates in the sequence
  - › define the sequence end date as the latest of any course end dates in the sequence
  - › define the sequence mid-point as the date halfway between the start and end dates of the sequence.

### What data to use

17. Table 2 defines the minimum data used to produce the sequence.

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<sup>3</sup> Excluding learners enrolled in a qualification taught predominately in Te Reo Māori (NZSCED code 91502)

**Table 2: Data used to produce the sequence**

| Period of interest                                       | Year                                        |
|----------------------------------------------------------|---------------------------------------------|
| Reporting year                                           | Year N                                      |
| Year-to-date data produced at any time in reporting year | Most recent SDR data from Year N or earlier |
| Full-year data availability                              | December SDR for each year up to Year N     |

## Methodology for joining assessments to sequences

18. In joining assessments to sequences, we use the:
  - › sequence definition in paragraph 16
  - › Assessment Tool data
  - › Master NSN (any previous NSN for a learner in the Assessment Tool will be matched against this master NSN).
19. To join assessments to sequences, we:
  - › define the 'assessment date' as the date the assessment is submitted. If the assessment type is paper-based, the assessment date is the assessment start date
  - › determine for each sequence the initial assessment for each assessment area following the hierarchical priority listed in paragraph 10, and joins this assessment to the sequence
  - › determine for each sequence the progress assessment for each assessment area following the hierarchical priority listed in paragraph 13, and joins this assessment to the sequence.
20. For worked examples of when to assess refer to Appendix A.
21. For dimension source data refer to Appendix B.



## Identifying assessments based on a programme

### Definition of a programme

22. For ILN and WLN funded learners, a 'programme' is defined as the duration of the learner's enrolment in the same programme at the same TEO with no break of more than 90 days.

### Programmes and assessments

23. The start, end, and mid-point dates of programmes are used to provide a timeframe for initial and progress assessments to take place for a learner. For the purposes of LN indicators, distinct programmes are those programmes which are more than 90 days.
24. Learner enrolment in a programme may start in one calendar year and finish in the next calendar year<sup>4</sup>.
25. Learners reaching the 'no re-assessment required' threshold at their initial assessment are excluded from the initial assessment usage indicator calculation for the reporting year<sup>5</sup>.
26. Exempt learners are automatically excluded from counts in both the numerator and denominator of any calculation that involves the exempt assessment area. The learner will still be counted under any non-exempt assessment area and in any years prior to the exemption taking effect.

### Identifying a programme's mid- and end-points

27. Enrolments can continue over subsequent years, for example, they may not be confined to a single calendar year.
28. Enrolment duration is calculated as the time between the 'participation start date' and the date when the status is 'complete'. These dates are otherwise referred to as the enrolment 'start date' and 'end date'. The mid-point is halfway between the start date and the end date.

### Joining assessments to programmes

29. Joining assessments to programmes allows learner engagement with the Assessment Tool to be reported and progress scores calculated.
30. In joining assessments to programmes, the TEC uses the learner's:
  - › Assessment Tool data
  - › Master NSN (any previous NSN for a learner in the Assessment Tool will be matched against this master NSN).
31. To join assessments to programmes we:

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<sup>4</sup> Learners enrolled in ILN and WLN programmes are reported with a start date and an end date; there is no withdrawal date.

<sup>5</sup> We will nevertheless monitor this across the sector by TEO. Learners who are at the thresholds for reading and numeracy should not be enrolled in an ILN or WLN programme.

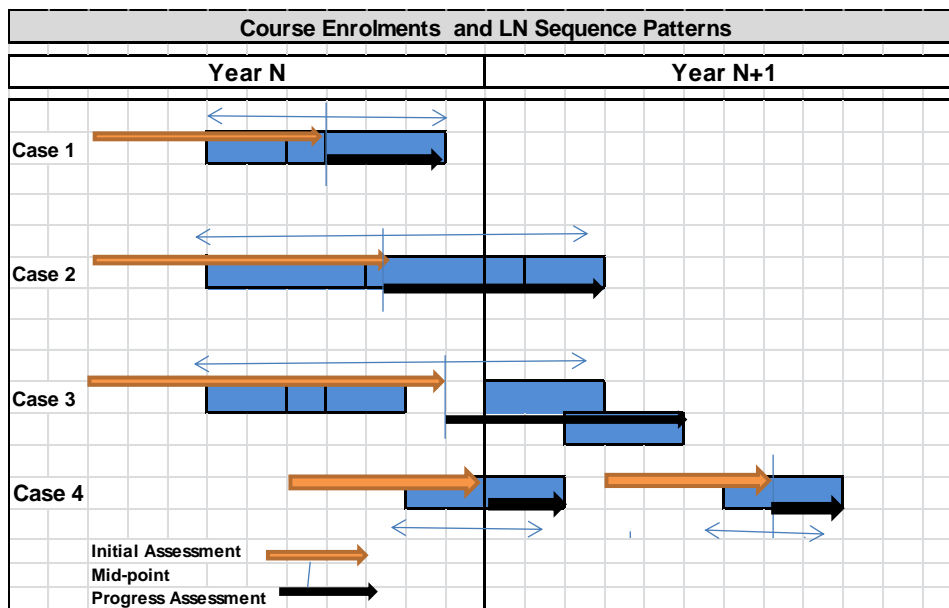
- › define the 'assessment date' as the date the assessment is submitted unless the assessment type is non-adaptive for printing, in which case the 'assessment date' is the assessment start date.
  - › determine for each programme the initial assessment for each assessment area following the hierarchical priority listed in paragraph 10, and joins this assessment to the programme.
  - › determine for each programme the progress assessment for each assessment area following the hierarchical priority listed in paragraph 13, and joins this assessment to the programme.
32. For worked examples of when to assess refer to Appendix A.
33. For dimension source data refer to Appendix B.

## Appendix A: Worked examples for a LN sequence and LN programme

### LN sequence

The following section provides worked examples of the functioning of the sequence and the selection of assessments. Figure 1 displays the possible permutations for sequence construction.

Figure 1: Course enrolments and LN sequence patterns



The following cases cover the possible scenarios under which sequences are constructed for a single learner at a single TEO for a single funding source:

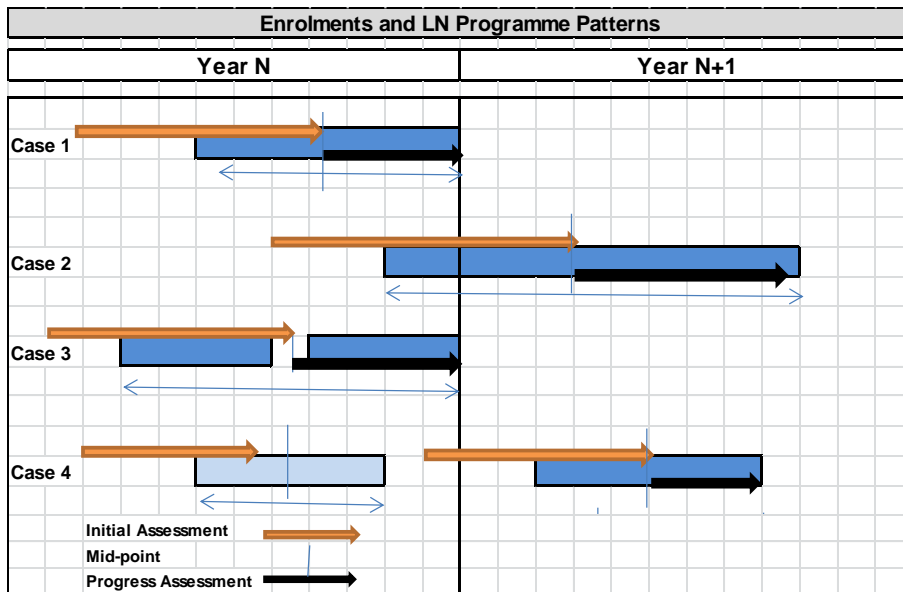
- Case 1:** A learner enrolls in three applicable courses in a calendar year with no gaps of more than 90 days between. The earliest and latest course start and end dates define the duration of the sequence. The sequence is denoted as sequence number 1 for Year N. Both an initial and a progress assessment are expected in Year N.
- Case 2:** A learner starts a sequence in Year N and completes in Year N+1. An initial assessment is required in Year N with a progress assessment in the last two months of Year N or the first three months of Year N+1. If the progress assessment takes place in Year N, this will be included in the Year N+1 calculation. The highest assessment will be selected after the course's mid-point whether that occurs in Year N or Year N+1.
- Case 3:** A learner enrolls in two applicable courses in the following year, the first is within 90 days of the last completed course and the second is more than 90 days after the last completed course. The sequence will now end at the completion of the second course started in Year N+1. An initial assessment will be expected in Year N and a progress assessment in the last month of Year N, or the first 5 months of Year N+1.
- Case 4:** A learner enrolls in an applicable course that spans two calendar years. Following this course they do not enrol in any other courses within 90 days. This learner is required to have an initial assessment in Year N and a progress assessment in Year N+1. The

sequence would be denoted as sequence number 1 in Year N+1. The learner subsequently enrolls in another applicable course in Year N+1 more than 90 days after the end date of the previous course. This new course is counted as a separate sequence. The sequence is denoted as sequence number 2 for Year N+1 and an initial assessment and a progress assessment are required for this sequence.

## LN programme

The figure below summarises the details of the enrolment patterns for LN programmes.

**Figure 2: Programme enrolment and LN programme patterns**



- Case 1:** A learner enrolls in an applicable programme in Year N. The programme is completed in a single calendar year therefore an initial and a progress assessment are required to be completed by the learner in Year N.
- Case 2:** A learner enrolls in an applicable programme that starts in Year N and finishes in Year N+1. An initial assessment is required in either Year N or Year N+1 prior to the programme mid-point, with a progress assessment required after the programme mid-point in Year N+1.
- Case 3:** A learner enrolls in an applicable programme that ends within Year N. The learner then re-enrolls at the same TEO less than or equal to 90 days of the previous end date. The two enrolments are treated as one LN programme. An initial assessment is required prior to the mid-point of the programme and a progress assessment is required in Year N+1, after the midpoint.
- Case 4:** A learner enrolls in an applicable programme in Year N that ends in Year N. More than 90 days after the end date the learner re-enrolls at the same TEO. The two enrolments are treated as separate programmes. Only the second programme will require an initial and a progress assessment because it will have a start and an end date.

## Appendix B: Dimension source data

### Dimensions sourced from the SDR and Course Qualification Register

The following dimensions, as described in our definitions and the performance calculation methodology for educational performance indicators, will be used with the following LN information:

- › gender
- › age
- › ethnicity
- › course funding source code.

### Dimensions sourced from the Assessment Tool

#### English first language flag

The English first language flag indicates whether a learner has English as a first language (=Yes) or not (=No), or if the value is unknown (=Unknown).

The most recent value of the flag from any TEO is used. This flag can have different values for the same learner at different TEOs.

#### Assessment area

The Assessment area<sup>6</sup> is recorded by the Assessment Tool against each assessment. It has one of five values:

- › numeracy
- › reading
- › writing
- › vocabulary.
- › Starting Points.

#### Assessment strand

An assessment strand is a sub-set of the assessment area. Assessment strands are described in Table 3 overleaf.

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<sup>6</sup><http://literacyandnumeracyforadults.com/Assessment-Tool-Support/Glossary/Assessment-Strand>

**Table 3: Assessment strands**

| Assessment Area           | Assessment Strand                 |
|---------------------------|-----------------------------------|
| Numeracy                  | Number knowledge                  |
|                           | General numeracy                  |
|                           | Number strategies and measurement |
| Reading                   | Read with understanding           |
|                           | Language and text features        |
|                           | Comprehension                     |
|                           | Reading critically                |
| Writing                   | Write to communicate              |
| Vocabulary                | Vocabulary                        |
| Starting Points Listening | Listen with Understanding         |
| Starting Points Reading   | Reading Comprehension             |

### Step

The step is recorded by the Assessment Tool against each assessment. For reading, writing and numeracy, it records the level a learner has attained in an assessment as numeric values 1 to 6. Vocabulary assessments do not map to the steps and instead use the terms ‘emerging’, ‘expanding’ and ‘extended’ to describe learner progress.

Starting Points assessments can return a result of ‘Discontinued’ – this occurs where the assessment has terminated early due to the response pattern of the learner (a series of 7 incorrect and/or skipped questions). Note that a discontinued result is a valid result in terms of using the Assessment Tool .

### Assessment type

Assessment type flags whether the assessment adjusts to the learner’s answers so that the questions reach the level of the learner’s literacy or numeracy abilities. There are five types:

Online Assessment Types (Assessment Date is the submission date)

- › **Adaptive** (adjusts automatically)
- › **Non-Adaptive** (does not adjust automatically)
- › **Snapshot** (adjusts automatically)

Paper Based Assessment Types (Assessment Date is the start date entered in the Assessment Tool)

- › **Non-Adaptive for Printing<sup>7</sup>** (does not adjust automatically)
- › **Non-Adaptive Snapshot for Printing** (does not adjust automatically).

<sup>7</sup> Note: these assessment results may be marked and put into the Assessment Tool up to 8 weeks after calendar year end.

## Appendix C: Abbreviations and version control

Table 4: Abbreviations used in this document

| Abbreviation           | Term                                             |
|------------------------|--------------------------------------------------|
| <b>Assessment Tool</b> | Literacy and Numeracy for Adults Assessment Tool |
| <b>DW</b>              | TEC Data Warehouse                               |
| <b>EFTS</b>            | Equivalent Full-Time Student                     |
| <b>ELN</b>             | Embedded Literacy and Numeracy                   |
| <b>ILN</b>             | Intensive Literacy and Numeracy                  |
| <b>ITP</b>             | Institute of Technology and Polytechnic          |
| <b>LN</b>              | Literacy and Numeracy                            |
| <b>NCEA</b>            | National Certificate of Educational Achievement  |
| <b>NSN</b>             | National Student Number                          |
| <b>NZQF</b>            | New Zealand Qualifications Framework             |
| <b>NZSCED</b>          | New Zealand Standard Classification of Education |
| <b>PTE</b>             | Private Training Establishment                   |
| <b>SAC</b>             | Student Achievement Component Fund               |
| <b>SDR</b>             | Single Data Return                               |
| <b>STA</b>             | Step Two Threshold Assessment                    |
| <b>TEO</b>             | Tertiary Education Organisation                  |
| <b>TEC</b>             | Tertiary Education Commission                    |
| <b>YG</b>              | Youth Guarantee                                  |
| <b>WLN</b>             | Workplace Literacy and Numeracy                  |



**Table 5: Version control on this document**

| Version | Date          | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.0     | October 2014  | Original Release                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2.0     | January 2015  | Revised release to clarify funds that the methodology will be used for (SAC, ILN, WPL and YG); removed reference to ITOs from this document (a separate document for the methodology for Assessment Tool usage for ITOs will be released by the TEC later in 2015); additional context for why the Assessment Tool is used; and provided more clarity on expectations for TEOs by fund. An update has also been made in paragraph 11 to align with the TEC's funding requirements.                                                                                                                                                                                                                                                                                                                                         |
| 3.0     | February 2015 | Revised release to clarify the timing of assessments <ul style="list-style-type: none"> <li>› Para 11: The earliest assessment after <b>or on</b> the commencement date of the sequence or programme and prior to the mid-point.</li> <li>› Para 19: The progress assessment is the assessment with the highest score that occurred after the mid-point of the sequence or programme, and prior to <b>or on</b> the end date.</li> <li>› Para 20: Identifies from the Assessment Tool the learners who have had a progress assessment in the same strand as their initial assessment between the programme or sequence mid-point and prior to <b>or on</b> the end date.</li> <li>› Para 24 (under second bullet): Based on course register level and <b>NZQF</b> qualification register <b>levels 1 and 2</b>.</li> </ul> |
| 3.1     | October 2015  | The assessment date for Assessment Type 'Non Adaptive Snapshot for Printing' will now be the Assessment Start date instead of the submission date.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 3.2     | March 2016    | Removed ESOL courses from usage calculation exemptions.<br>Clarifies that the assessment date for all paper-based assessments (full-length and snapshot) will be the 'Assessment Start Date' – para 27 and page 14.<br>Note that Version 3.2 will be apply for 2016 onwards. 2014 and 2015 usage will still be calculated using Version 3.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 3.3     | May 2016      | Broaden exemption of learners to now include both Te Reo Māori qualifications and courses with NZSCED 91502. Note all learners enrolled in a Te Reo Māori qualification or a Te Reo Māori course are exempt from being assessed regardless of whether the assessment is 80% or more in Māori. This change removes the requirement to report to the TEC Sector Helpdesk which courses need to be exempt because the assessment is 80% or more in Māori.                                                                                                                                                                                                                                                                                                                                                                     |
| 3.4     | February 2017 | ESOL learners no longer exempt<br>Starting Points and Step Two Threshold Assessments online are not exempt<br>Courses with NZSCED 91502 (Te Reo Māori) removed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

|  |  |                                                                             |
|--|--|-----------------------------------------------------------------------------|
|  |  | Qualification NZSCED 91502 will be used to identify learners who are exempt |
|--|--|-----------------------------------------------------------------------------|