MUKA TANGATA
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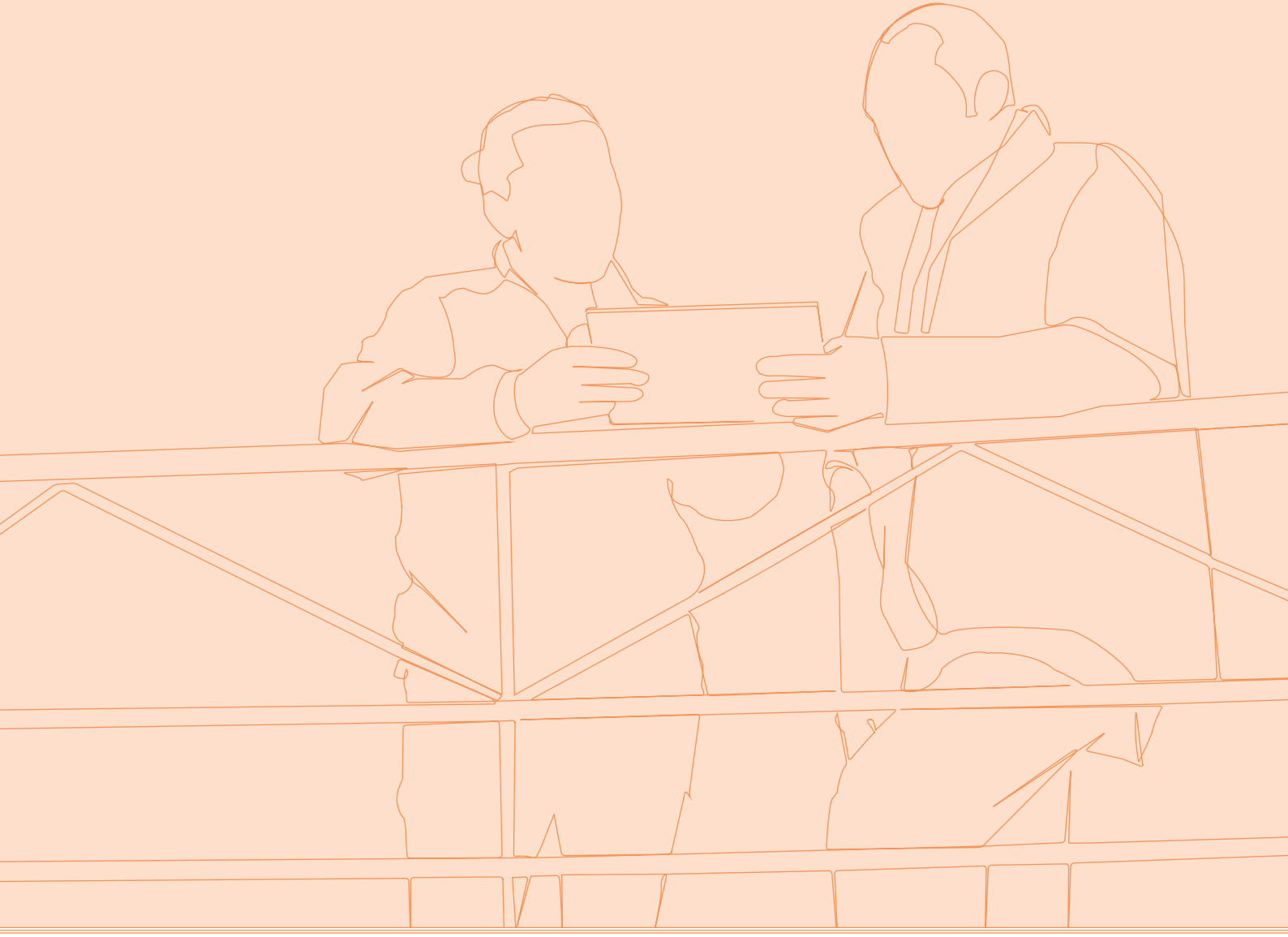


Guidelines for providers:

Designing online assessments

Key guidelines for designing online assessments

Introduction

The shift towards online learning has significantly increased the need for effective and reliable online assessments. For formative or summative evaluation, online assessments must ensure fairness, validity, and security while maintaining engagement and accessibility.

Formative assessments occur during the learning process, providing real-time insights into student understanding.

Summative assessments take place at the end of a course and evaluate what students have learned.

This guide provides considerations for developing and implementing online assessments that align with learning outcomes. It covers essential aspects such as question design, technical considerations, security measures, and feedback mechanisms to help educators, trainers, and providers create assessments that support meaningful learning and accurate evaluation.

Here are the key areas to consider when developing and implementing online assessments:

1) Define clear objectives

1.1) Clearly define the purpose of the assessment

- Are you measuring knowledge, skills, or both?
- Are you evaluating overall competency or specific tasks?

1.2) Learning outcomes

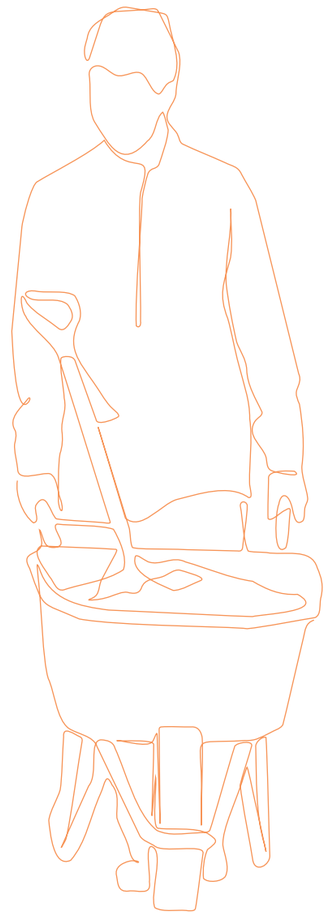
Align the assessment with specific learning outcomes or skill standards. This ensures that the questions or tasks evaluate what is intended to be taught or learned.

2) Choose the right assessment format

2.1) Incorporate a variety of question formats to assess different aspects of learning.

Examples could include:

- Multiple-choice questions, drag and drop, fill in the blanks, quizzes, cloze (embedded questions), and clicking on a selection of words are all valid options for knowledge recall and comprehension i.e. when the criteria require the learner to ‘identify’.
- Short answer or essay questions for critical thinking and applied knowledge i.e. when the criteria require the learner to ‘describe’.
- True/False for testing fundamental facts
- Matching questions for assessing relationships between concepts
- Practical tasks or simulations for skills and application-based assessments
- Uploading naturally occurring workplace documents or verifications that can be used as alternatives for theory-based questions
- Automated vs. Manual Grading: Choose question types that can be automatically graded (e.g., multiple-choice) or manual grading (e.g., essays) based on your needs and resources.



3) Design a user-friendly interface

3.1) Navigation

Ensure the assessment interface is easy to navigate. Clear instructions, progress bars, and simple controls (like “Next” or “Back”) improve the user experience.

- Consider ‘how to’ videos that the learner can view.

3.2) Accessibility

Make sure the assessment is accessible to all users, including those with disabilities, language, literacy and numeracy (LLN) challenges and neurodiversity.

- Provide alternative text for images or images instead of text, ensure colour contrast is readable, and use screen reader-compatible formats.
- Consider using voice-to-text and text-to-voice options.

3.3) Responsive design

Ensure the assessment is optimised for multiple devices, including desktops, tablets, and smartphones, to accommodate different user preferences and contexts.

4) Ensure validity, fairness, and reliability

4.1) Question relevance

- Ensure that each question directly tests the intended learning outcome.
- Avoid ambiguous or misleading questions that might confuse learners.

4.2) Consistent difficulty level

Maintain a balanced level of difficulty in your questions, ensuring that the assessment is neither too easy nor too difficult for the majority of learners. Use the NZQA level descriptors to guide you with this.

- If designing multiple choice questions, ensure the distractors are relevant and the length of each sample distractor is the same.

4.3) Avoid bias

Make sure that the assessment is free from cultural, gender, or other forms of bias that could unfairly disadvantage certain groups of learners.

5) Provide clear instructions

5.1) Learner pre-assessment guidelines

Provide clear instructions on the assessment's format, time limits (if applicable), the appeals process, the resubmission process, that the work is in the learner's own words, and any special rules (e.g. open book vs. closed book).

- Have a learner declaration that they understand the requirements before completing the assessment.

5.2) Question instructions

Each question or section should have specific instructions about what is expected from the learner. If necessary, give examples to illustrate how to answer.

6) Set time limits and manageability

6.1) Time constraints

Decide whether the assessment will have a time limit or be untimed. A time limit can encourage learners to manage their time effectively but ensure that the time allocated is reasonable for the questions asked.

- If a time limit is imposed, ensure it doesn't disadvantage neurodivergent learners.

6.2) Pacing

Design assessments that can be completed in a reasonable timeframe, preventing learners from feeling rushed or overwhelmed.

- Break longer assessments into smaller, manageable sections if needed.

7) Randomise questions and answers

7.1) Question pooling

- Use question banks to randomise questions for different users, ensuring that no two learners have the exact same assessment, which can support academic integrity.

7.2) Randomise answer choices

For multiple-choice questions, randomise the order of answer options to avoid patterns that learners could exploit.

8) Incorporate feedback mechanisms

8.1) Instant feedback

Provide immediate feedback on correct or incorrect answers where possible. This allows learners to learn from mistakes and reinforces concepts.

8.2) Detailed explanations

Offer explanations for answers, especially for complex questions. This helps learners understand the reasoning behind the correct answers, enhancing learning.

8.3) Resubmissions

Have a process for how resubmissions will be handled.

- How many times will the learner have to reattempt a question?
- For auto-marked questions, is there a question bank so the learner doesn't have the same question to answer?
- Consider having a layer of 3-4 questions that are worded differently but will still meet the requirements of the outcome.
- If the learner still does not meet the requirements, will there be assessor intervention?

9) Test for technical performance

9.1) System compatibility

Ensure the assessment platform is compatible with various web browsers, operating systems, and devices to avoid technical issues.

9.2) Load testing

Conduct load tests to ensure the system can handle the expected number of learners without crashes or slowdowns.

10) Ensure security and integrity

10.1) Proctoring tools

For high-stakes assessments, consider integrating proctoring solutions or using tools to track user behaviour (e.g., prevent copying and pasting, monitor webcam feeds) to uphold/preserve academic integrity.

10.2) Password protection and session locking

Use secure logins, time-limited sessions, and automatic log-off to ensure the integrity of the assessment.

10.3) Randomisation of content

Use question pools and answer shuffling to make it harder for learners to share answers during the assessment.

11) Test the assessment

11.1) Create a process map

Consider creating a process map detailing the digital assessment journey from start to finish (pre-assessment to post-moderation).

11.2) Pilot testing

Conduct a trial run with a small group of learners, assessors and support staff before launching the assessment to identify any issues related to question clarity, interface navigation, or technical functionality.

11.3) Review results

After the pilot test, analyse the results to identify if any questions are too easy, too hard, or ambiguous, and make adjustments as necessary.

12) Consider grading and scoring

12.1) Automatic grading

For question types like multiple-choice or true/false, enable automatic grading to provide quick feedback to learners.

12.2) Rubrics for manual assessing

If your assessment includes essay questions or other subjective responses, develop clear rubrics to help assessors assess submissions consistently and transparently. Ensure there is space for the assessor to add comments and feedback.

12.3) Evidence and judgement statements

Evidence statement / model answers and judgement statements must be provided when manual assessing is required.

13) Support for learners

13.1) Technical support

Provide access to technical support in case learners experience issues with the assessment platform.

13.2) Clarification requests

Allow learners to request clarification for ambiguous questions, ideally during the assessment or via a set process afterwards, depending on your platform and policies.

14) Moderation

14.1) Quality assurance and moderation

Consider how the online material will be submitted for pre- and post-moderation.

- Different platforms may allow separate moderation profiles to be created or files to be exported.

Include continuous improvement and quality assurance through regularly reviewing assessment design to align with technological changes and andragogy.

More information

1) Assessment principles and guidelines

New Zealand Qualifications Authority (NZQA). (n.d.). *Assessment principles and guidelines*. www.nzqa.govt.nz.

2) Online assessment: Guidance for Providers

New Zealand Qualifications Authority (NZQA). *Online assessment: Guidance for Providers.* www2.nzqa.govt.nz/tertiary/quality-assurance/monitoring-and-assessment/online-assessment-guidance-for-providers/.

3) Level descriptors for the NZQCF

New Zealand Qualifications Authority (NZQA). *Level descriptors for the NZQCF*. www2.nzqa.govt.nz/qualifications-and-standards/about-new-zealand-qualifications-credentials-framework/level-descriptors-nzqcf/.