Overview of online assessment methods

- Quiz/Test

- Written Exam

- Oral Exam

- Oral Presentation

- E-Portfolio

- Written Assignment

- Learning Diary

- Project + Report

- Self-Assessment

- Peer-Assessment
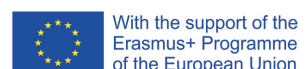
- Design/Product/Artefact

- Simulation

- Case Study

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Test/Quiz

Description

Quiz/Tests (e.g. single choice, multiple choice) can be used to assess basic and complex knowledge. Since students can respond to questions swiftly, you may evaluate their understanding of several topics in a short test. Although questions are hard to prepare, the scoring is simple and fair.

Cohort size

Quiz/Tests are suitable, particularly for large groups but can be used with small groups.
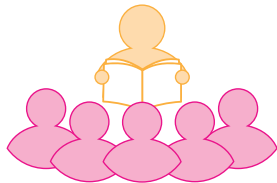
Suggestions for implementation

- Use item banks in preparing questions
- Refer to the effective item writing guidelines (e.g., avoiding negative stems, using plausible distractors, keeping options at a similar length, avoiding hints)
- Use an ungraded test with similar test item designs and feedback choices to help learners feel less anxious when taking online tests.

Taxonomy level

Create

Apply/analyse/evaluate ✓

Remember/understand ✓

Suggestions for handling fraud

- inviligate if e.g. online proctoring is not possible
- randomise the order of questions and answers
- prepare alternative versions of the test/quiz
- hide correct answers until the test is closed
- request a justification for students' response in the form of a brief written essay or even a voice recording

Practice examples / literature

- Semester quiz series using ILIAS tests (Bremen University, GER): https://www.uni-bremen.de/en/center-for-multimedia-in-higher-education-zmml/areas-of-competence/e-assessment/eassessment-types/semester-quiz-series
- Haladyna et al. (2002). A Review of Multiple-Choice Item-Writing Guidelines for Classroom Assessment.
- Haladyna, T.M. (2018). Developing test items for course examinations. IDEA Paper 70.

Written Exam
Open Questions

Description

Written exam with open questions requires learners to demonstrate their knowledge, show critical thinking, analysis, and synthesis abilities, and organize ideas and information. It can also be given in the form of a take-home (open-book) exam. Although open questions are created easier than multiple-choice questions, ensuring consistency and objectivity in scoring in such exams is harder and more costly in terms of time.

Cohort size

Written exam with open questions is suitable for small, medium, and large cohorts. However, for medium to large cohorts, assistant support would be needed for scoring.

Suggestions for implementation

- Use open questions to assess higher order thinking skills
- Use a scoring rubric in grading and make it open to learners. Refer to effective item writing guidelines
- Return exams and your feedback as soon as possible

Taxonomy level

Create ✓

Apply/analyse/evaluate ✓

Remember/understand ✓

Suggestions for handling fraud

- Communicate exam rules and procedures with learners
- Use a tool for cheating prevention (e.g., video, proctoring)
- Use a safe exam browser and limit access to different websites
- Verify the IDs of learners

Practice examples / literature

- Open-book exams (Georg-August-Universität Göttingen): https://www.uni-goettingen.de/en/626427.html#info-2
- Davis (2009). Tools for Teaching.
- Boye, A. (2019). Writing Better Essay Exams. IDEA paper #76.

Oral Exam

Description

Oral exam is the assessment of students' learning based on the dialogue or spoken word and directed by pre- determined questions based on learning objectives.

Cohort size

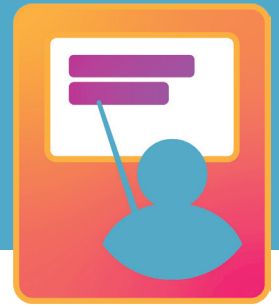This type of assessment is more suitable for small and medium size cohorts.

Suggestions for implementation

- Use a rubric to be reliable and consistent
- Use of second evaluators to increase the reliability
- Start with simple questions

Taxonomy level

Create ✓

Apply/analyse/evaluate ✓

Remember/understand ✓

Suggestions for handling fraud

- Use video recording
- It is a direct way of providing evidence for the work and ideas belonging to students so that cheating and fraud are hardly possible.

Practice examples / literature

- Oral Exams using web conferencing systems (Bremen University, GER): https://www.uni-bremen.de/en/center-for-multimedia-in-higher-education-zmml/areas-of-competence/e-assessment/eassessment-types/oral-e-exam
- Joughin, G. (2010). A short guide to oral assessment.

Oral Presentation

Description

Oral presentation is used to deliver particular content to the audience, which enables follow-up questions and immediate feedback. It requires learners to search and synthesise relevant information to present it in a logical order and coherent and engaging way. It allows for flexibility in terms of format (individual or group presentations) and time of delivery (live or recorded) and can be combined with other assessment modes (e.g., project).

Cohort size

Oral presentations are suitable for small, medium, and large cohorts. Group formats can be selected for relatively larger cohorts.

Suggestions for implementation

- Inform learners about the assessment criteria and use a rubric
- For group presentation, decide what you will assess and how you will grade members
- Establish some ground rules for the roles of peers during the presentations
- Create alternatives for learners with different disadvantages (e.g., non-native learners or learners with speech disabilities) and offer assistance when needed
- Ensure that cultural and gender differences are respected in presentations
- If live evaluation is not feasible, upload the audio and video recordings to the learning management system

Taxonomy level

Create

Apply/analyse/evaluate ✔

Remember/understand ✔
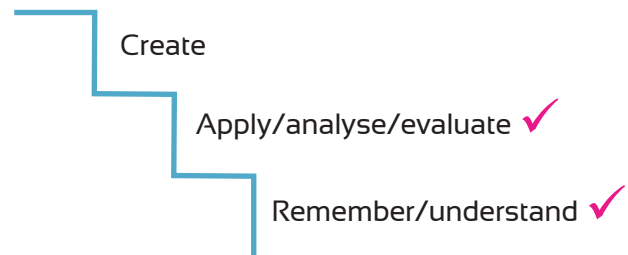
Suggestions for handling fraud

- If written materials are demanded as part of the assessment, offer guidance to learners for avoiding plagiarism and properly crediting the sources.
- Use precise rubrics to recognize good academic integrity behavior.

Practice examples / literature

- Oral Communication VALUE Rubric (Association of American Colleges and Universities) : https://drive.google.com/file/d/1MDJRFjFrPXOw8TvF-xq8RHF7tMBO2hOOo/view

E-Portfolio

Description

E-portfolio is a purposeful collection of student products that compile several works in a digital setting, including reflections, demonstrations, artifacts, presentations, and multimedia materials such as recordings (e.g., interviews) completed throughout a period by students. E-portfolio is an effective assessment tool to support students' autonomy, enable students to reflect on their learning and skills, and eventually demonstrate students' progress, growth, and performance.

Cohort size

This assessment mode is especially appropriate for small-size groups. If there are support staff, this can be used with medium-scale cohort groups.

Suggestions for implementation

- Make sure that tasks required align with course objectives
- Define the scope of the portfolio clearly
- Provide rubric, standards, and template that will guide students
- Integrate e-portfolio with self-assessment, peer-assessment, and feedback mode of tools
- Consider that creating e-portfolio needs digital literacy skills
- Consider the privacy issues (secure the anonymity and safety of students' data)

Taxonomy level

Create ✓

Apply/analyse/evaluate ✓

Remember/understand ✓

Suggestions for handling fraud

- Verify the authenticity of the e-portfolio and ask for an ownership declaration
- Ask students for screenshots or concrete evidence while work is in progress
- Personalise the assessment process by askingfor a reflection based on students' individual experiences
- Use plagiarism-checking software

Practice examples / literature

- E-Portfolio in Teaching ILIAS (Göttingen University, GER): https://www.uni-goettingen.de/en/573045.html
- Semester quiz series using ILIAS tests (Bremen University, GER): https://www.uni-bremen.de/en/center-for-multimedia-in-higher-education-zmml/areas-of-competence/e-assessment/eassessment-types/semester-quiz-series
- E-Portfolio best practice guidelines for instructors (University of Waterloo, CAN): https://uwaterloo.ca/centre-for-teaching-excellence/resources/integrative-learning/eportfolios
- Bair et al. (2019). Implementing e-portfolio tools within curricula: A guide for faculty.
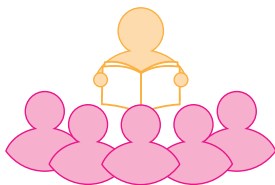
Written Assignment

Description

A written assignment is a text written by students to demonstrate their perspectives, learning process, and writing skills. There are several types of written assignments, such as essays, lab reports, literature reviews, and research proposals.

Taxonomy level

Create ✓

Apply/analyse/evaluate ✓

Remember/understand ✓

Cohort size

Written assignment is suitable, particularly for small groups but shorter written assignments can be used in large groups.

Suggestions for handling fraud

- Use precise scoring rubrics to recognize good academic integrity behavior.
- Ask students to produce originality reports for their submissions.
- Give students the assignment of creating an annotated bibliography of the works they want to use as sources for their research and writing as a preliminary task

Suggestions for implementation

- Provide scaffolding for assignments so that learners can submit smaller pieces of their work and receive feedback along the way, building up to a final output
- Be transparent about your expectations
- Use a well-defined scoring rubric
- Provide an exemplar to students
- Specify the genre of the written assignment (e.g., essay, letter, report)
- Specify the approximate length and format
- Provide some tips for writing (e.g., commonly made grammatical mistakes)
- Provide feedback verbally, in writing, or via audio or video.

Practice examples / literature

- Davis (2009). Tools for Teaching

Learning Diary

Description

A learning diary is a collection of students' reflections and self-involvement in their learning process. A learning diary ensures reflective practice and critical thinking by integrating existing knowledge, learning, theory, and practice.

Cohort size

Learning diary is suitable for small groups, as giving feedback to larger groups might be challenging.
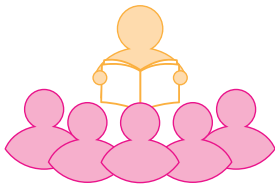
Suggestions for implementation

- Provide good and bad examples of learning diaries, including format, style, and structure
- Support learning diary with group discussions to help students gain critical thinking
- Prepare general criteria for assessing the learning diary (i.e. degree of self-awareness, evidence of critical thinking and reflection, presentation, the inclusion of different materials)

Taxonomy level
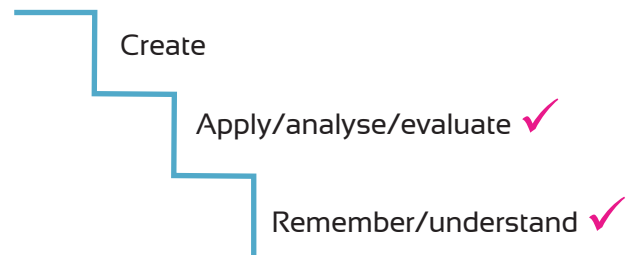
Create

Apply/analyse/evaluate ✓

Remember/understand ✓

Suggestions for handling fraud

- The potential for academic misconduct is low.

Practice examples / literature

- Learning Journals and Logs Guide (University College Dublin): https://www.ucd.ie/teaching/t4media/learning_journals_logs.pdf

Project + Report

Description

The project and reports created as end products are used for a single student, peer, or group to demonstrate specific learning outcomes using web-based tools, graphics, videos, and many other online materials to build knowledge creatively.

Taxonomy level

Create ✓

Apply/analyse/evaluate ✓

Remember/understand ✓

Cohort size

Projects and report assessment is suitable, particularly for small groups but can be used with large cohort size by creating groups

Suggestions for handling fraud

- Allow learners to use diverse strategies of showing their progress and learning
- Use precise scoring guidelines and rubrics to recognise good academic integrity behavior.
- Ask students to provide evidence for the development of the project
- Ask students to reflect on their learning process

Suggestions for implementation

- Provide scaffolding for the project so that learners can submit smaller pieces of their work and receive feedback along the way
- Make sure that there is an alignment between the project content and learning outcomes
- Provide clear guidelines for students to follow
- Use other assessment modes (i.e., group work) to create collaborative practice during the process
- Ask students to use at least three various learning materials to enlive their learning process and eventually their projects and report
- Provide examples for students to clarify the scope, length, and format

Practice examples / literature

- Media competences for digital citizenship - Pre-service teacher education (Erasmus + project: D-EVA): https://d-eva.eu/wp-content/uploads/2022/07/D-EvaBank-IO1.pdf (pp. 43-48)
- Conrad and Openo (2018). Assessment strategies for online learning.

Self-Assessment

Description

Self-assessment is the engagement of learners in the evaluation of their works against a set of standards and reaching a judgment on the extent to meet them. When managed well, self-assessment also contributes to the ability to assess learning, reflect, and think critically and develops autonomy.

Cohort size

Self-assessment is suitable for small, medium, and large cohorts.

Suggestions for implementation

- Set clear guidelines, criteria, and standards, and share them with learners
- Prepare learners for self- assessment and communicate the purpose and procedures
- Be available for support and feedback and give enough time to learners
- Use self-assessment together with other instructor-driven formal assessment practices

Taxonomy level

Create

Apply/analyse/evaluate ✓

Remember/understand ✓

Suggestions for handling fraud

- The potential for academic misconduct is low

Practice examples / literature

- Introduction to Student Assessment, Guidelines for self-assessment (Commonwealth Education Trust): https://www.coursera.org/lecture/learning-assessment/good-self-assessment-practices-oGl3V
- Orsmond, P. (2004). Self and Peer Assessment. Guidance on practice in the Biosciences (Centre for Bioscience, the Higher Education Academy, Leeds): https://www.ucl.ac.uk/teaching-learning/sites/teaching-learning/files/self_and_peer_assessment.pdf

Peer-Assessment

Description

Learners evaluate each other's work and/or provide feedback on it. Group work, oral presentations, essays, and reports are a few examples where this method can be applied. It is beneficial to engage learners in assessment in order to better grasp assessment criteria and academic standards.

Cohort size

Peer assessment is suitable, both for large groups and small groups.

Suggestions for implementation

- Introduce peer assessment to learners by explaining the benefits for learners
- Train the learners on how to assess their peer's work fairly and how to give effective feedback
- Discuss sample work online to better understand the criteria for assessment and use those samples as a practice run, particularly if learners lack much experience
- Prepare a feedback form to guide learners
- If possible, make sure the tasks are submitted and graded anonymously

Taxonomy level

Create ✓

Apply/analyse/evaluate ✓

Remember/understand ✓

Suggestions for handling fraud

- The potential for academic misconduct is low.

Practice examples / literature

- Successful peer review (University of Michigan, USA): https://onlineteaching.umich.edu/successful-peer-review
- Orsmond, P. (2004). Self and Peer Assessment. Guidance on practice in the Biosciences (Centre for Bioscience, the Higher Education Academy, Leeds): https://www.ucl.ac.uk/teaching-learning/sites/teaching-learning/files/self_and_peer_assessment.pdf

Design/Product/Artefact

Description

Artefacts are the digital products of a student's activity to demonstrate their certain problem-solving skills and competencies and include digital content creation, composition, and representation by using software. Online artifact assessment can bebased either on a product or the process of development the product. Artefacts can include any digital material, such as videos, posters, online presentations, voices, or cartoons and they can also be a part of an e-port-folio.

Cohort size

This assessment mode is especially appropriate for small-size groups. If there are support staff, this can be used with medium-size cohort groups.

Suggestions for implementation

- Provide a description of the artefact before the evaluation
- Ask students to describe the reasons for choosing specific style or format
- Remind students to give reference to the materials they benefit from

Taxonomy level

Create ✓

Apply/analyse/evaluate ✓

Remember/understand ✓

Suggestions for handling fraud

- Ask for process evidence for the designed product
- Test the digital skills of the students

Practice examples / literature

- Rubric for grading art: http://www.zimmerworks.com/rubric.htm
- Ehlers, U-D. (2020). Making Open Educational Practices real. The case of "The Grand Challenge 2020" (Baden-Württemberg Cooperative State University).
- Pearson, J. (2020). Digital artefacts as assessment in law.

Simulation

Description

An authentic assessment method is a simulation. It mostly includes a role-play component. Learners' roles may vary, assuming a character or personality profile. Through simulations, learners can practice making decisions or taking actions without running the risk of being negatively affected by poor choices.

Cohort size

Simulations are suitable for small groups, as giving feedback to larger groups might be challenging.

Suggestions for implementation

- Develop an authentic problem.
- Give learners concrete instructions about your expectations.
- By dividing the work into small pieces, you may scaffold the learning process.
- Use well-defined scoring rubrics and discuss them with learners at the beginning

Taxonomy level

Create ✓

Apply/analyse/evaluate ✓

Remember/understand

Suggestions for handling fraud

- Design as an iterative or continuous assessment, where the various stages of the simulation (such as preparatory draft, meetings, and other drafts) are being regularly reviewed
- Change the important elements every year.

Practice examples / literature

- Integration of an online simulation game (Universidad de Zaragoza, ES) https://catbs-unizar-es.translate.goog/listado-de-buenas-practicas/entry/29?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=de&_x_tr_pto=wapp
- Simulation of a teaching staff meeting at school (Erasmus+ project D-EVA): https://d-eva.eu/wp-content/uploads/2022/07/D-EvaBank-IO1.pdf (pp. 19-22)

Case Study

Description

A case study is an assessment method in which the case is a situation or a realistic simulation based on a problem. Students are expected to analyse and critici-se as well as demonstrate and apply their theoretical knowledge to the case through provided questions and principles.

Cohort size

Case study assessment is suitable, particularly for small groups but can be used with large cohort size by creating groups.

Suggestions for implementation

- Provide discussion questions with the case
- Provide concrete steps for case analysis (i.e., identi-fication of a problem, creation of the hypothesis)
- Use for complex situations
- Assess case study through group discussion
- Create or choose a case relevant to the subject

Taxonomy level

- Create ✔
- Apply/analyse/evaluate ✔
- Remember/understand ✔

Suggestions for handling fraud

- Ask students to explain the case both in writ-ten and oral form
- Assess the work at several points during the assessment process

Practice examples / literature

- Case study on Master's courses in Finance (London School of Economics, GB): https://info.lse.ac.uk/staff/divisions/Teaching-and-Learning-Centre/Assets/Documents/Case-studies/Case-Study-10-Finance-Case-Studies-FINAL.pdf