



ANKARA UNIVERSITY DISTANCE EDUCATION CENTER e-Tutor Certificate Program



E-Assessment

E-assessment is a testing and evaluation process that deals with information, skill, meaning, competency and ability or talent level by using information and communication technologies (ICTs). Assessment is crucial for effective instruction. Assessment may be conducted to reveal which subject areas have not been understood, to rank the learners based on their performance, or to mark their tasks, as well as to teach them directly.

It is easy to adapt assessment types in traditional learning environments to online learning environments. It is useful to conduct both process and product assessments in online learning environments so as to support the learning process, to collect evidence by tracking students' success and competencies or to determine learning difficulties, either through traditional methods like exams or through recently developed Web 2.0 technologies and social media applications such as blogs, forums, chat, etc.

Assessment process consists of six stages: (1) development, (2) production, (3) delivery, (4) weighting the results, (5) marking, (6) feedback (Figure 8.1).

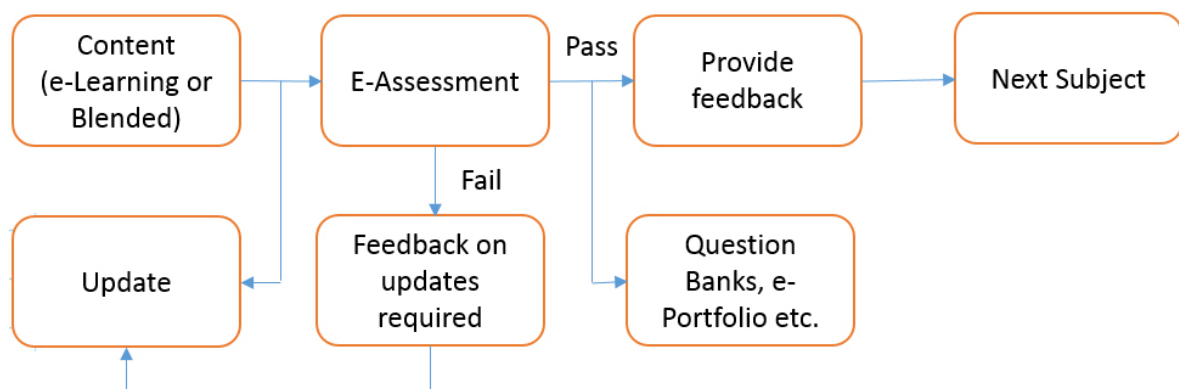


Figure 8.1. Stages of e-Assessment Process

E-assessment has common benefits for instructors, participants and administrators:

1. Flexibility of updating
2. Ability to integrate multimedia into question content
3. Grouping methods like question banks
4. Easy and immediate measurement and marking
5. Reliable evaluation and delivery of documents
6. Individualised and detailed feedback
7. Safe storage of assessment data
8. Promoting motivation through modern technologies
9. Adaptive test composition
10. Reusability
11. Random question selection
12. Question-based analysis

One important aspect to note; it is inappropriate to rely on traditional methods for evaluating e-learning when the learning processes have been reshaped to modern technologies. Therefore, it is important to utilise the technology for both the teaching-learning process and for its evaluation.

1. Assessment Types

There are different classifications of assessment in the literature. Garrison & Ehringhaus (2011) divide assessment as summative and formative, while Presley & McCormick (2007) classify it as classical and alternative assessments. Both assessment types can be adapted to e-assessment settings. Web 2.0 technologies, other applications and social media features can be used in order to apply these assessment types to e-assessment processes.

Classical Assessment Approaches

The most widely used traditional assessment tools are true/false tests, multiple-choice tests, essays, and short-answer tests (Dikli, 2003).

1. **True/false tests:** True/false items require students to make a decision, selecting which of the two potential responses is valid.
2. **Multiple-choice tests:** Multiple-choice tests are commonly utilised by instructors, schools, and assessment organisations for the following reasons:
 - a. They are fast, easy, and economical to score; mostly machine-scorable.
 - b. They can be scored objectively and thus may give the test the appearance of being fairer and/or more reliable than subjectively scored tests.
 - c. They ‘look like’ tests and are therefore acceptable by convention.
 - d. They reduce the chances of learners guessing the correct items in comparison to true-false items (Dikli, 2003).
3. **Essays:** Essays are effective assessment tools since the questions are flexible, and assess higher order learning skills. However, they are not very practical as it is difficult and time consuming to assess and score the essays.
4. **Short-answer tests:** In short-answer tests, items are written either as a direct question, requiring the learner fill in a word or phrase, or as statements in which a space has been left blank for a brief written answer.

Alternative Assessment Approaches

“Alternative assessment, often called authentic, comprehensive, or performance assessment, is usually designed by the instructor to gauge students’ understanding of material. Examples of these measurements are open-ended questions, written compositions, oral presentations, projects, experiments, and portfolios of student work. Performance assessments are designed so that the content of the assessment matches the content of the instruction” (Dikli, 2003). Alternative assessment types are listed below:

Web-Quest

A WebQuest is an inquiry-oriented lesson format, in which most or all of the information that learners work with is sourced from the internet. These can be created using various programs, including a simple word processing document that includes website links. A WebQuest has five essential parts: (i) introduction, (ii) task, (iii) process, (iv) resources, (v) evaluation and conclusion. The original paper on WebQuests has a component called guidance instead of evaluation. Instructors use WebQuests to:

- Keep students on-task while working online (Student activities are organized by the WebQuest and they can stay focused on using information rather than finding it);



- Extend students' thinking to the higher levels of Bloom's Taxonomy: analysis, synthesis, and evaluation;
- Support critical thinking and problem-solving through authentic assessment, cooperative learning, scaffolding, and technology integration;
- Introduce a unit, conclude a unit, or to provide a culmination activity;
- Foster cooperative learning through collaborative activities with a group project;
- Encourage independent thinking and to motivate students;
- Enhance students' technological competencies;
- Differentiate instruction by providing multiple final product choices and multiple resource websites. Using multiple websites as reading content allows students to use the resource that works best for their level of understanding;
- Encourages accountability. Specific task guidelines and/or rubrics are provided from the beginning of the WebQuest project, so that all students are aware of exactly what is expected of them;
- Enhance the development of transferable skills and help students to bridge the gap between school and 'real world' experiences;
- Provide a situation in which students acquire information, debate issues, participate in meaningful discussions, engage in role-play simulations and solve problems;
- Encourage students to become connected and involved learners;
- Move themselves into the role of coach and adviser, rather than the sole source of information.

E-Portfolio

Electronic portfolio is a collection of a students' work that can advance learning by providing a way for them to organize, archive, and display work. The electronic format allows instructors to evaluate student portfolios via the Internet, CD-ROM or DVD. Electronic portfolios have become a popular alternative to paper-based portfolios because they provide the opportunity to review, communicate and give feedback in an asynchronous manner. In addition, students are able to reflect on their work, which makes the experience of creating the e-portfolio more meaningful. A student e-portfolio may be shared with prospective employers, or used to record the achievement of programme or course-specific learning outcomes.

The use of e-portfolios is quite common in courses given by departments of education. Most pre-service teachers are asked to compile an e-portfolio to demonstrate the competencies needed to gain teaching certification or licensure. Student e-portfolios are increasingly being used in other disciplines such as communications, mathematics, business, nursing, engineering and architecture. In education, e-portfolios have six major functions:

- Document, skills and learning;
- Record and track development within a programme;
- Plan educational programmes;
- Evaluate and monitor performance;
- Evaluate a course;
- Find a job.

In general, e-portfolios promote critical thinking and support the development of digital literacy skills. Faculty members, today, use e-portfolios in order to record course or discipline designs that



may be shared with colleagues to promote teaching and learning. A teaching e-portfolio is also used to showcase career accomplishments (Wikipedia, 2014).

Concept Maps

A concept map is a diagram that depicts suggested relationships between concepts. It is a graphical tool that designers, engineers, technical writers, and others use to organise and structure knowledge.

Diagnostic Tree

A diagnostic tree identifies the root causes of the problem by answering a key question formulated with a “why”.

Structured Grid (Rubric)

A rubric provides a measure of quality of performance on the basis of established criteria. Rubrics are often used with benchmarks or samples that serve as standards against which student performance is judged.

Word Relation

Word Relation evaluation is a series of disconnected words that are projected orally or in writing to the respondents who must respond with the first word which comes to mind. These associations reveal the respondents’ verbal memories and thought processes.

Projects

Projects are used to give a specific problem to students. Students are then tasked with solving these specific problems within a project.

Interview

An interview is a conversation between two or more people where questions are asked by the interviewer to elicit facts or statements from the interviewee. In education, instructors can use interview to evaluate students.

Written Reports

Instructors may give assignments to students. With written reports, students are supposed to write their observations or reflections about the given task as a report.

Presentation

These activities allow an instructor to observe his students performing the required skills. A science fair is a type of performance assessment, as are choral performances. A mathematics instructor may ask his students to design a bridge based on hypothetical dimensions he has provided.

Poster

A poster is any piece of printed paper designed to be attached to a wall or vertical surface. Typically, posters include both textual and graphical elements, although a poster may be either wholly graphical or textual. Giving a specific topic and task, students can prepare posters, and instructors can evaluate students by their poster product.

Group - Peer Evaluation

Peer evaluation is the evaluation of work by one or more people of similar competence to the producers of the work (peers). It constitutes a form of self-regulation by qualified members of a profession within the relevant field. Peer review methods are employed to maintain standards of quality, improve performance, and provide credibility.



Self-Assessment

Self-assessment is a systematic process of data-driven self-reflection. Self-assessments require students to reflect on their own work and judge how well they have performed in relation to given assessment criteria. The focus is not necessarily on having students generate their own grades, but rather on providing opportunities for them to identify what constitutes a good (or poor!) piece of work.

2. Conclusion

Assessment approaches shapes how learners gain knowledge, either on the surface or at a deeper level. Eclectic usage of various methods makes learners explore the phenomenon from different perspectives and increases the possibility of effective learning and longer retention. Hence, for e-learning, individual and group assessment should be used in harmony by considering both alternative and classical approaches to assessment.

3. References

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Garrison C. & Ehringhaus M., (2011). Formative and Summative Assessments in the Classroom. NMSA Annual Conference and Exhibit. http://ccti.colfinder.org/sites/default/files/formative_and_summative_assessment_in_the_classroom.pdf

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