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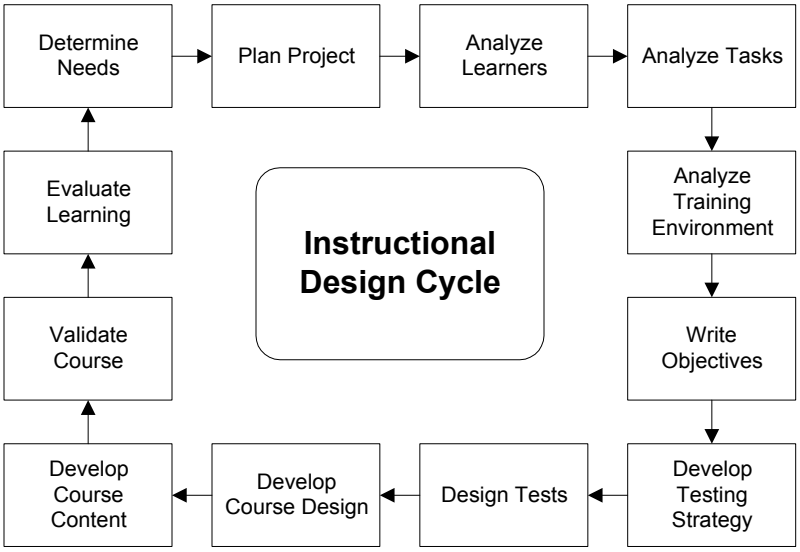
Learner Assessment
at a Distance

Objectives of the Workshop

1. To explain the relationship between learning objectives and learner assessments.
2. To outline the various levels of learner assessment (or evaluation).
3. To introduce techniques for assessing learners.

Instructional Design Cycle



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Terms and Definitions

Evaluation or Assessment or Tests —which is it?

Definition: The process of collecting and analyzing ***some type of data*** in order to ***do something***.

Some Type of Data		Do Something
Learners	• ability • achievement/improvement • participation • satisfaction with the course	• apply a mark • present a certificate • revise learning objectives • revise learning activities
Course Curriculum Program	• quality of materials • pace of the course • appropriate topics • opportunity for questions	• improve course effectiveness • adjust course length • modify course content • revise learning objectives • revise learning activities
Instructors	• treat all learners fairly • speak clearly • professional • knowledgeable	• ensure consistent instruction • determine to keep instructor • suggest improvements • justify a pay increase
Facilities	• comfortable • supplies and resources available • overall quality	• ensure quality • justify facility costs • aid the learning process

Learner Assessment Definition

The process of collecting and analyzing _____ in order to

_____.

Learner assessment may include initial learner assessment (prior knowledge), learner progress assessment, and final learner progress assessment.

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Formative versus Summative

Formative Evaluation The collection of data ***during*** the course development used to ***improve*** the effectiveness of the instruction.

Summative Evaluation The collection of data ***after*** the course delivery used to ***determine*** the effectiveness of the instruction.

Formative Learner Assessment _____

_____

_____

Summative Learner Assessment _____

_____

_____

Assessment Tools

Assessment tools come in many forms. List the tools used in your courses.

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

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Evaluate Learning

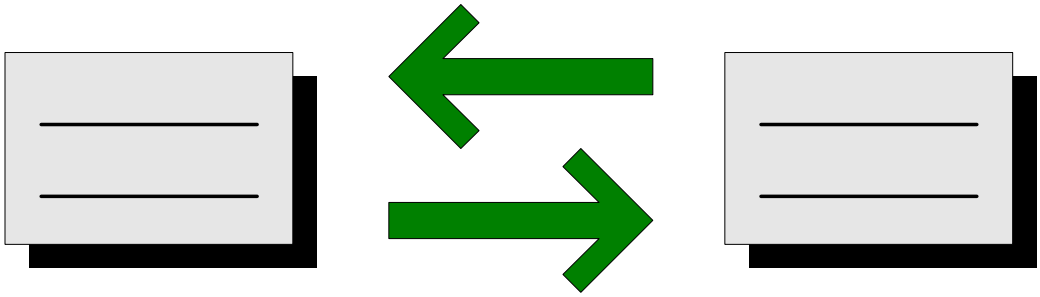
Given that you can evaluate or assessment many sources, and given that there are many assessment tools, you must spend time in developing testing strategies and designing tests—only then can you evaluate learning.

How to Ensure Proper Tests

To ensure the test contains the correct content, answer the following two questions:

1. Is each _____ addressed by at least one _____?

2. Does each _____ relate to a specific _____?



At this stage of the training development cycle, collecting data and information is used to improve the effectiveness of instruction and to measure learners' achievement of course objectives. Data collected on learner's achievement and satisfaction indicate adjustments that might be made to the course to improve its efficiency. Therefore, the work done in the design stage of the training development cycle—during which **course objectives** are determined—are reflected in the **evaluation stage** of the cycle. If the learning objectives are poorly written and defined, assessing the learners is unlike to produce valuable results.

Properly written objectives include three components: performance, condition, and standard. When **course objectives are "measurable**," they are **valuable inputs** into the **assessment process**. These measures, or criteria, help to determine how successful the training course is in relation to meeting the course objectives. Given the range of objectives and criteria possible, assessment should not be used to evaluate a course as good or bad or to evaluate a learner's achievements of course objectives as complete or not. Instead, use assessment as a scale, assessing the *degree* of success instead of an absolute yes-or-no conclusion.

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Kirkpatrick's Model—Levels of Learner Assessment

Level 1—Reaction

Reaction gauges the learners' satisfaction with the course. It does not include a measure of the learning that took place. However, Kirkpatrick explains that even without a measure, this information is valuable because "positive reaction may not ensure learning, but negative reaction almost certainly reduces the possibility of its occurring."

Level 2—Learning

Learning focuses on assessing learner performance *during* the course based on the stated course objectives; it does not measure performance on the job. Assessment tools used in this level are often referred to as "criterion tests."

Level 3—Behaviour

Behaviour examines the extent to which learners transfer what they learned in the course to how they perform their jobs—measuring job performance. Assessment generally occurs 60 to 90 days after learners have completed the course. Follow-up tests and survey are not always clear indicators of job performance; an evaluation consultant may be required who can assess the relationship between behaviours and objectives. (Word of caution: Do not assume that learning always translates into behavioural changes.)

Level 4—Results

This level relates the results of the course to organizational objectives. Results may examine costs, turnover, absenteeism, grievances, and morale.

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Criterion Tests—Techniques for Assessing Learners

Learning activities (refer to Designing Learning Activities for Distance Education Courses workshop) and the following test items can be used to give feedback to learners about their learning progress (formative assessment) and to gauge what learners have learned or accomplished by the end of the course (summative assessment).

True/False

- Weakest, least reliable test (random guessing are correct half the time).
- Called a binary choice because of the 50-50 chance. Includes true/false, yes/no, agree/disagree, etc.
- Serious testing should avoid binary choices, but occasional use is acceptable.
- Avoid the use of words that tip off the answer (e.g., always, never).
- Ensure no answer pattern exists (e.g., true, true, false, true, true, false, etc.).

Multiple Choice

- Effective way to measure both simple knowledge and complex concepts.
- Have a minimum of 4 and a maximum of 5 alternative answers.
- Have 1 alternative that is correct and the other 3 or 4 that are plausible but incorrect.
- Avoid repetition in the wording of alternatives; place common items in the question.
- Watch for grammatical cues that may reveal the answer.
- Watch for 1 alternative that is longer than the others (it's usually the correct one).
- Label alternatives A, B, C, D instead of 1, 2, 3, 4.
- Ensure no answer pattern exists (randomly place correct answer).
- Use "all of the above" and "none of the above" sparingly.
- If you can only think of 2 alternatives, use "Both" and "Neither" as the other 2 alternatives. Again, use this sparingly.
- Ensure alternatives are similar in grammatical structure, content, and degree of precision.
- Keep alternatives brief.
- Alternatives should not overlap or be synonymous with each other.

Matching

- Effective way to test learners' recognition of relationships between words and definitions, events and dates, categories and examples, etc.
- Consider matching a variation of multiple choice.
- Label alternatives on one list with numbers and the other list with letters.
- Put no more than 7 or 8 items in the list.
- One list can have more items than the other so that the last item is not a "gift."

Fill-in-the-Blank

- Ask for only one work or a short phrase.
- Ensure the question is clear enough so that the learner knows what kind of answer is needed.
- Ensure the words to fill in are the most significant ones.
- Never omit verbs.
- Place the blank near the end of the sentence.

Short Answer

- Can call for one or two sentences.
- Short-answer tests are easy to write, but longer to mark.
- Provide some opportunity for allowing learners to express their thoughts.
- Avoid longer essay questions.

Re-Sequencing

- Asks learners to re-arrange items in correct order.
- Useful only when sequencings is a meaningful test.

Other, more advanced tests include performance tests and open-book tests.

Criterion Tests Source: Langevin Learning Services (The Successful Training Manager)

Self-Assessment List criterion tests used in your courses.

- _____
- _____
- _____
- _____
- _____

Notes

PRACTICE For each of the following objectives, select a type of question and write a criterion test. Invent information as needed. Use one type of question (e.g., true/false) only once!

1. By the end of the unit, you will identify the three steps in the process.

2. By the end of this workshop, the learner will be able to list the three domains.

3. By the end of December, you will be able to calculate the cost to host a holiday party.

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Tips for Writing Criterion Tests

- Spend adequate time developing the tests.
- Use a variety of testing methods.
- Ensure test items are independent of one another.
- Challenge the learner by moving beyond “recall” testing. For example, if the intellectual level of the course is cognitive, include items that test knowledge and analysis levels.
- Match your tests to the course content and learning objectives.
- Ensure tests are valid (i.e., results are appropriate and useful for making decisions), reliable (i.e., accurately and consistently evaluate a learner’s performance), and balanced (i.e., covers main ideas and important concepts in proportion to the emphasis they received in the course).
- Ensure test questions do not ambush the learner—concepts and level of difficulty should be covered in the course.
- The goals of criterion tests are awareness and application, not mastery.
- Determine how the test will be used.

PRACTICE Make each of the following criterion tests more effective by editing the tests (e.g., words, phrases, etc.) as needed.

1. Is the following statement true or false? It is not true that robins do not sing after dark.

_____

_____

_____

2. What colour is the puck that is being used at the Heritage Classic hockey game?
   a. Purple
   b. Yellow
   c. Purple and yellow
   d. Neither purple nor yellow
   e. None of the above

_____

_____

_____

_____

_____

_____

Self-Assessment Questions

1. What importance have I placed on assessing learners?

2. How can I use learner assessment to improve the course's effectiveness?

3. What levels of evaluation have I used?

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