



Technical Note on Engaging Learners to Assess and Clarify Learning



Learner engagement is often the pinnacle of learning. Engagement of learners should not be confused with activities which are often just for fun. Engaging learners should be well thought through and contain elements of assessment and feedback for the instructor and learner. Feedback provided to the instructor will lead to the clarification of learning. Active learning strategies are appropriate tools to engage learners (Bonwell & Sutherland, 1996). When instructors use active learning strategies, formative assessments are employed to determine direction of the lesson and to clarify misconceptions of the learners. Instructors can also utilize assessments as a way to gain feedback in addition to gauging learning. Teacher-learner interaction activities can take place inside a traditional classroom, in laboratory investigations, and/or in informal settings and typically encompass an assessment.

FORMATIVE AND SUMMATIVE ASSESSMENTS

Interactions and assessments may be formative or summative. *Formative* assessments seek to determine clarity for individual learners as a growing process of learning. *Summative* assessments provide feedback to the learner after the completion of a task (Garrison & Ehringhaus, 2007). Formative assessments are utilized during the presentation or workshop session so the instructor can make appropriate accommodations based on the learners' understanding. Summative assessments are utilized at the end of the lesson or session and often serve to inform the instructor of concepts that were difficult for the learners and allow the instructor to make appropriate accommodations the next time the presentation or session is taught. An easy way to remember the difference between formative and summative:

Formative – Form (part of the word) – to inform, or looking forward, allows for the presentation or lesson to be changed during.

Summative – Sum (part of the word) – to summarize, at the end.

TYPES OF TEACHER-LEARNER INTERACTION ACTIVITIES

There are numerous teacher-learner interaction activities that provide opportunity for the instructor to assess learner clarity. Interaction activities do not have to be separate from the content being taught. Interactions and pausing to gauge for clarity and to assess learning should be integrated into presentations approximately every 15 minutes. There are several techniques that can be done to achieve engagement through assessment.

Questioning

First, questioning is a means by which instructors can assess learners. There are four types of questions that can be asked by instructors to learners. A question will either be a closed or open question. A closed question has a known correct answer. An example of a closed question is: What is the chemical reaction that takes place during photosynthesis? An open question has multiple correct answers. An example of an open question is: What is an acceptable method of asexual reproduction for plants?

Closed – has a correct answer

Open – has multiple correct answers

Another aspect to questioning is to whom the question is directed. A directed question is given to one specific learner, while a non-directed question is asked of the entire group of learners to answer. An example of a directed question is: "Russ, can you tell me the chemical reaction for photosynthesis?" An example of a non-directed question is: "Who can tell me the chemical reaction of photosynthesis?"

Directed – to a learner

Non-directed – to the group of learners

To explain further, a question is either closed or open and can be directed or non-directed. Selection of the best type of question depends on the purpose intended by the instructor. If the instructor would like to assess one learner's knowledge, the instructor will direct the question toward that individual. On the other hand, if the instructor would like to assess the group's knowledge, the instructor will ask a non-directed question. A closed question has a single correct answer and is often asked by the instructor for feedback for understanding of a concept. An open question may be used to allow a learner to further explain an answer to the question posed by the instructor. An open question often has less assessment value but will provide the instructor with information regarding clarity of a specific concept.

Overall, questioning is an effective way for instructors to find out what learners already know, what they think they know, or what misconceptions the learners may have. Instructors can then identify gaps and help learners build connections between previous knowledge and new knowledge (Sullivan, 2003).

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Written or Oral Feedback to Learners

Formative feedback is a useful tool in providing clarity for learners and assessing learner understanding. Feedback should be provided during any active learning strategy. The instructor should provide feedback often and must provide feedback on three necessary components:

- the standard which is to be achieved;
- the actual level of performance; and
- how to close the gap between the standard and current performance

The standard which is to be achieved is set by the instructor and should correspond to the objective of the lesson plan. The actual level of performance traditionally utilizes Bloom's (1956) taxonomy (See Technical Note on *Writing Instructional Objectives*). Scaffolding will then be utilized by the instructor to bring about a higher level of success against the objective. Learners may be asked to provide their answers in written or oral form.

Journals/Field Guides

Guides or journals recorded by learners are another effective way to assess and gauge understanding of the learners. This assessment method may be more applicable during field-based instruction or in laboratory activities as learners journal their thoughts and learning during a specific event or unit of instruction. Further, journals may be kept on an entire course or a single workshop. The purpose of journals is to create reference materials for learners to access quickly and to serve as a reflection tool. Instructors can assess their learners' knowledge through the collection or examination of the journals during the experience, provide formative feedback, and allow the student to develop a dialog among the material, instructor, and their learning.



This Technical Note is from a series on Effective Teaching and Learning. Modernizing an extension and advisory services system in any location requires competent field agents and others who know and/or have access to content needed at the local level and are able to teach that content using proven teaching strategies and methodology. These technical papers should be utilized by anyone involved in the training of extension professionals.

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Summary

Assessment is a necessary part of instructing. Otherwise, it is just presenting! There are many ways to assess learning for clarity of concepts. Presented here were questioning, written and oral feedback, and journaling/field guides. Questioning may be open or closed; directed or non-directed. Questioning provides for immediate feedback for the instructor but does take instruction time. Written or oral feedback may be provided outside of instructional time, but will require more time for both the instructor and learner. However, written and oral feedback will allow for a more in-depth assessment for clarification. Lastly, journals/field guides provide for longitudinal observations of a project, unit of instruction, or field-based experience. Journal/field guides can be reviewed and read periodically outside of instructional time. Finally, one should not rely on a single assessment exercise; it is important to note when assessing learners to:

- Use a variety of different approaches;
- Create tests before beginning a unit;
- Connect assessment with objectives/standards/benchmarks;
- Give clear directions and use appropriate reading level;
- Arrange questions/tasks from simple to complex and group them by type;
- Address learners' special learning needs;
- Vary the cognitive levels;
- Provide sufficient time for completion; and
- Ask yourself, "Does this measure what it should?"

References

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