



# Ensuring quality in classroom assessments

HOW CAN TEACHERS MAKE CLASSROOM-BASED ASSESSMENTS MORE VALID, RELIABLE, AND FAIR? **SHILPI BANERJEE** SHARES SOME GUIDING PRINCIPLES TO HELP TEACHERS DESIGN QUALITY CLASSROOM-BASED ASSESSMENTS AND USE THEIR RESULTS EFFECTIVELY.

According to the Standards for Educational and Psychological Testing by the American Educational Research Association (AERA), validity, reliability, and fairness are critical attributes of the quality of any assessment. These measures are mostly statistical in nature and hence the availability of a large data set is essential. They have been effectively used in estimating the quality of large-scale assessments.

Unfortunately, statistical measures are not applicable in a similar manner to classroom assessments as a limited number of students take the tests. So what would validity, reliability, and fairness mean in the context of classroom-based assessments? What are the guiding principles for the evaluation of quality? The guidelines provided in this article, although coarse-grained, can provide helpful insights to teachers for ensuring quality in the assessments they design.

AERA defines **validity** as the degree to which evidence and theory support the interpretation of test scores for proposed uses of tests. This definition stresses the use of scores – assessments should be primarily conducted to assign scores to students based on their level of proficiency against learning outcomes. However, the purpose of conducting classroom assessment which is mostly formative in nature is to gain feedback on the entire teaching and learning process. Therefore, validity here is related to the accuracy and quality of inferences made about student learning outcomes. Valid assessments are aligned to both content domains and cognitive skills as indicated in learning outcomes.

AERA defines **reliability** in terms of consistency with regards to replication of the testing procedures. Reliability in the classroom context is understood in terms of the properties of consistency and uniformity. Classroom assessments comprise a series of informal and formal assessments including observation, projects, portfolio, debate, and

exhibition. Consistency is ensured when there is uniformity in students' performance across multiple methods of assessment. Also, sharing clearly defined assessment expectations in the form of rubrics ensures consistency in students' performance and uniformity in teachers' evaluation.

AERA defines **fairness** as responsiveness to individual characteristics and testing contexts so that testing scores yield valid interpretations for intended uses. In the context of classroom assessment, assessments should provide students with opportunities to best demonstrate their achievement of learning outcomes through various methods of assessment without any explicit or implicit teacher bias. Also, for assessments to be fair, students should be aware of learning outcomes, assessment content, and their usage.

In practice, validity, reliability, and fairness indicators overlap each other. Ensuring one attribute may also help in achieving another attribute and vice versa. For example, while multiple methods of assessment are required for ensuring reliability and fairness, they also give accurate information on student achievement. The following four important questions can serve as guiding principles to help a teacher ensure validity, reliability, and fairness in classroom assessments and thus enable more effective use of assessment results.

#### ■ Why am I assessing?

Classroom assessments are tools used for collecting, analysing, and using evidence of student learning for a variety of purposes, including diagnosing student strengths and weaknesses, monitoring students' progress towards meeting desired levels of proficiency, assigning grades, and providing feedback to students and parents. Stiggins mentioned in his 2014 study that inept assessments may lead to inefficient decisions about students learning.

**Guiding principle 1: Begin by defining the purpose of assessment clearly, understanding the users of assessment, and the kinds of decisions that will be taken based on assessment information.**

#### ■ What am I assessing?

Learning outcomes guide both pedagogy and assessment. They indicate what a student will be able to do at the end of an instruction unit by precisely breaking down broad goals of education such as problem solving and critical thinking to more measurable and observable behaviour for each grade. For example, critical thinking in language for a Grade 4 child is the ability to ask questions on read texts while for a Grade 5 child, it is the ability to draw conclusions on a text read. Having a good understanding of these outcomes helps a teacher design an accurate assessment to measure student abilities and know what they need to attain. These outcomes should also be communicated to students to ensure a fair assessment.

**Guiding principle 2: Chalk out specific learning outcomes and closely align pedagogy and assessment with learning outcomes.**

#### ■ How will I assess?

Teachers have to design an instrument that assesses the attainment of learning outcomes. A proper assessment method should be identified based on the nature of a learning outcome. For example, for a learning outcome like 'constructs Newton's colour disc using materials from surroundings and explains their working', project-based assessment will yield the most valid information about its attainment by students. High quality assessment items that are factually and conceptually correct and free of sensitivity issues should be designed. Comprehensive rubrics in alignment with the cognitive level of the learning outcome should be created and then shared with the students to ensure fairness in assessment.

**Guiding principle 3: Design high quality**

assessment to elicit evidence of student learning.

■ How am I going to communicate assessment results?

The purpose of communicating classroom assessment results is not merely to report results but to support learning. Students need descriptive feedback focused on strengths and weaknesses that target specific misconceptions and learning gaps. The idea is to tell students how they progress towards their individual learning goals and help teachers understand the kind of scaffolding that is needed to support students in achieving the desired level of proficiency. Results can be communicated through words, pictures, illustrations, examples, and many other means aimed at conveying descriptions of student performance and helping pupils improve.

Guiding principle 4: Communicate assessment results efficiently. 1

#### AUTHOR

*Shilpi Banerjee is an Assistant Professor at the Institute of Assessment and Accreditation, Azim Premji University, Bangalore.*

#### REFERENCES

*American Educational Research Association, American Psychological Association, National Council on Measurement in Education, Joint Committee on Standards for Educational and Psychological Testing (U.S.). (2014). Standards for educational and psychological testing. AERA.*  
*Stiggins, R. J., Arter, J. A., Chappuis, J., & Chappuis, S. (2004). Classroom assessment for student learning: Doing it right, using it well. Assessment Training Institute.*

PHOTO © 123rf