

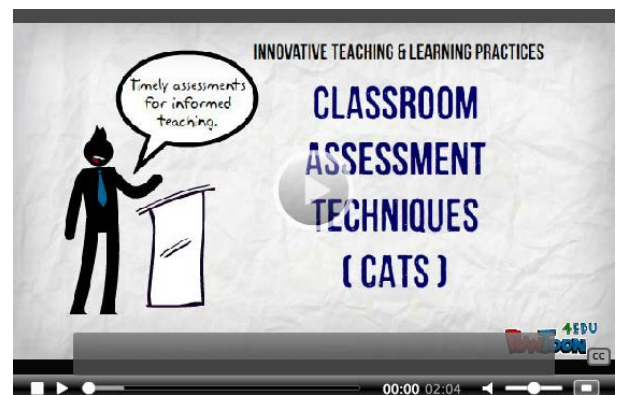
TEACHING ELEMENTS CLASSROOM ASSESSMENT TECHNIQUES (CATS)

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WHAT IS IT?

Have you ever been unpleasantly surprised by your students' performance on a quiz, project, or paper?

Classroom Assessment Techniques (CATs) are a type of formative evaluation that allow you and your students to gauge their comprehension of content or concepts and ability to analyze and synthesize their learning *before* they complete a summative evaluation. CATs allow you to adjust course content and teaching methods to meet students' learning needs. There are many forms of CATs and most are quick and easy to design and use.



Video: Classroom Assessment Techniques

WHAT IS THE EVIDENCE THAT CATs HAVE A POSITIVE IMPACT ON LEARNING?

Research in the effective use of CATs has consistently shown that they:

- Positively affect a student's role, **motivation**, and self-perception (Sadler, 1989; Barchfeld-Venet, 2005), which in turn increases student **satisfaction** and involvement or engagement (Kalina & Catlin, 1994; Steadman 1993).
- Have an especially positive impact on low achievers and students with learning challenges improving their learning outcomes (Fuchs, et al., 1997; Black & Wiliam, 1998).
- Improve student achievement and **reduce the time** it takes for students to grasp the content (Leahy, Lyon, Thompson, & Wiliam, 2005).
- Facilitate the development of students' **critical analysis** ability (Pastor, 2011).
- Significantly improve and raise **academic performance** (Pastor, 2011).
- Provide **useful information** about student learning with a much lower investment of time as compared to tests, papers, and other traditional means of learning assessment (Angelo & Cross 1993).

CATS IN ACTION

There are many types of CATs and the following table highlights a few, based on the focus of the assessment. Select a CAT to learn more about how to use the technique.

Knowledge assessment (facts, concepts, principles)	Problem Solving assessment (task)	Integration assessment (critical thinking, analysis)
Muddiest Point	What's the Principle?	Pro and Con Grid
Memory Matrix	Documented Problem Solutions	Application cards

WHERE CAN I LEARN MORE?

Books:

Angelo, T. (Ed.). (1998). *Classroom assessment and research: An update on uses, approaches, and research findings*. San Francisco, CA: Jossey-Bass.

Angelo, T. A., & Cross, P. (1993). *Classroom assessment techniques: A handbook for college teachers*. San Francisco, CA: Jossey-Bass.

Articles:

Briggs, C. L., & Keyek-Franssen, D. (2010, December 15). Clickers and CATs: Using learner response systems for formative assessments in the classroom. Retrieved November 9, 2012, from Educause Review Online website: <http://www.educause.edu/ero/article/clickers-and-cats-using-learner-response-systems-formative-assessments-classroom>

Simpson-Beck, V. (2011). [Assessing classroom assessment techniques](#). *Active Learning in Higher Education*, 12(2), 125-132. doi:10.1177/1469787411402482

Websites:

<http://www.rit.edu/academicaffairs/outcomes/classroom-assessment-techniques>

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Angelo, T.A., and Cross, K.P. (1993) *Classroom Assessment Techniques: A Handbook for College Teachers*, 2nd ed. San Francisco: Jossey-Bass

Barchfeld-Venet, P. (2005). Formative assessment: The basics. *Alliance Access*, 9(1), 2–3.

Black, P. & Wiliam, D. (1998). Assessment and classroom learning. *Educational Assessment: Principles, Policy and Practice*. 5(1), 7-74.

- Fuchs, L., Fuchs, D., Karns, K., Hamlett, C.L., Kataroff, M. and Dutka, S. (1997). Effects of Task-Focused Goals on Low-Achieving Students with and Without Learning Disabilities. *American Educational Research Journal*, vol. 34,, pp. 513-43.
- Kalina, M.L and Catlin,A. (1994). The Effects of the Cross-Angelo Model of Classroom Assessment on Student Outcomes: A Study. *Assessment Update* 6 (May-June 1994)
- Leahy, S., Lyon, C., Thompson, M., & Wiliam, D. (2005). Classroom assessment—minute by minute, day by day, *Educational Leadership*, 63(3), 18-24.
- Pastor, V. (2011). Best practices in academic assessment in higher education: A case in formative and shared assessment. *Journal Of Technology And Science Education*, 1(2), 25 - 39. doi:10.3926/jotse.20
- Sadler, R. (1989). Formative assessment and the design of instructional systems. *Instructional Science*, 18, 119-144.
- Steadman, M. (1998) Using classroom assessment to change both learning and teaching, *New Directions for Teaching and Learning*, 75, 23-35.