

# CATs Revival of Formative Assessment

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## ABSTRACT

The concept of how formative assessment has been pushed aside for generations is troubling in all areas of education, especially when students are learning solely in non-primary languages. The formative assessment process is a must for any truly significant learning to occur. Exploring the summative assessment, formative assessment, and Classroom Assessment will provide a better insight into lesson planning as well as see how easy it is to become trapped in old teaching styles. The newest teaching styles and theories embrace the formative assessment process and Classroom Assessment Techniques because they have helped teachers see the problems faced when only summative assessment occurs and CATs have also helped bring back the process of formative assessment which allow teachers and students to understand the importance of significant learning as well as achieve it.

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## CATS REVIVAL OF FORMATIVE ASSESSMENT

The Three Little Pigs is a well-known fairy tale that is told to children worldwide with cultural and linguistic adaptations. Regardless of the variations, this story still manages to teach children a myriad of morals. Once children become adults, they can apply the morals learned from the story as well as find new meanings. One common lesson from The Three Little Pigs, often carried into adulthood, is that focusing on a goal and hard work will triumph in the end while laziness and lack of thinking about the future will leave one with nothing, which is indicated through the methods and materials that the pigs used to build their houses. In this barebones summary of the narrative, the first pig used straw and did not spend much time planning or building in lieu of playing the majority of the time. Meanwhile, the second pig used wood which took a little longer to build its house as well as some forethought and planning, but this pig also spent time more time playing instead of building. On the other hand, the third pig built its house with bricks which took a great deal of hard work and prudence leaving little time for play which also demonstrated the third pig's self-discipline. However, when the big bad wolf came along to eat the pigs, the pigs' foresight or lack thereof, came into play along with the amount of work each pig put into building each house.

One obvious moral learned from this story, working hard and planning ahead will always be successful, is an old adage and beloved affirmation from elders to youth, from parents to offspring, from teachers to students. Although it is a very worthy lesson, there are still more educationally significant lessons to be learned from The Three Little Pigs than the aforementioned; specifically one moral, slightly more pragmatic and modern, is gauging progress of what the pigs learned. The pigs' houses represent measurable experiences and developments of the growth of learners' knowledge. However, the circumstances of how this story ends thus how progress is evaluated remains. Should the pigs' be evaluated by the adaptation where at the end of the story each pig's house is tested by the wolf and if the house does not remain intact, that pig is eaten by the wolf, or should this retelling be the version where the wolf allows the pigs many chances along the way, running from house to house, until the pigs have found refuge and reflection in the third pig's impenetrable house built by means of scaffolding and best practice.

It takes no great stretch of imagination to deduce the reality of the roles and work of The Three Little Pigs when considered from an educational viewpoint. Too often are teachers viewed as the big bad wolf by the students, while the students each exhibit an individualized mix and match approach of the pigs' diverse attitudes towards their work from planning to work ethics. However, traditional fairy tales do not have two endings only adaptations which customarily change throughout time, much like how teaching and learning methods transition. The two endings provided in the rendition above embody these methods and with progression and adaptation, teachers are no longer the big bad wolf and students are no longer pigs left to slaughter. The first ending, where the wolf eats each pig that does not pass the wolf's test, illustrates basic summative assessment which does not allow the pigs to analyze their progress, improving progress, or learn from their mistakes until it is too late. Whereas the second ending symbolizes how formative assessment can evaluate each pig's progress throughout, from objective to objective,

which allows each to have self-reflection, then make adjustments to improve their understanding.

Just like fairy tales, summative assessment and formative assessment have their own substantial histories. However, one of these approaches to measuring learning was not as lucky as the fairy tales or the other assessment which were both passed on from generation to generation. Instead, formative assessment was left behind despite that its principles are found in prominent learning theories which are used by the very same people and educational institutes who neglect formative assessment and focus solely on summative assessment; this problem of ignoring formative methods while exclusively employing summative techniques is notably found in higher levels of academics. As Lowe (2007) succinctly states, “Typically, college teachers evaluate their classes only a few times, using tests that telescope all of the relevant skills into a single number or letter grade” (Lowe, 2007, p. 1). Nevertheless, the once dismissed formative assessment process experienced a rebirth and it has been growing perpetually in usage and esteem throughout progressive and pragmatic educational fields and publications as well as the more traditional.

Since the rebirth of formative assessment, both phrases, *formative assessment* and *summative assessment*, have become increasingly popular key terms within current education communities worldwide, particularly within the realm of TESOL and teachers who utilize more modern teaching methods, such as experiential learning (Merriam, Caffarella, & Baumgartner, 2007). Briefly and fundamentally, summative assessment is the evaluation *of* knowledge acquired and formative assessment is the evaluation *for* knowledge acquired (Nicol & Macfarlane-Dick, 2006). These argot have helped define the evaluations given to students. Even if the specific phrase *summative assessment* is unknown by name to those who use it, summative assessment is still the more recognizable of the two due to the long lasting practice of the measurements it uses: tests and final exams, capstone projects and portfolios, standardized testing and even final class grades, which are all too often relied upon as the only way to assess students acquisition of knowledge (Fink, 2003; Johnson & Jenkins, 2009). As previously mentioned, summative assessment is a long drawn out story that has been used in very conventional ways of measuring students’ knowledge, especially in more traditional schools as well as with underdeveloped or outdated curriculum and teaching methodologies. In these types of situations, neither administration, teachers nor students typically have not been exposed to any other types of assessment except summative assessment or unfortunately do not take different assessments seriously (Brookfield, 2006; Case, 2013). Although summative assessment is a long standing approach to the evaluation of knowledge, research has repeatedly proven that it does not allow for teachers or students to know if the target knowledge have been acquired by students until it is too late (Stassen, Doherty, & Poe, 2001). Moreover, summative assessment techniques, particularly when used as the only measurement of progress, have been proven to cause unnecessary additional stress on students due to the extra pressure of these techniques’ high stakes, reduce significant learning, negatively affecting motivation, as well as being non-accommodating to different learning styles (Wynne & Crick, 2002; Al Kadri, Al-Moamary, & Van Der Vleuten, 2009). Since a lack of motivation occurs when different learning styles are ignored, motivation and accommodation of all learning styles are especially crucial in any learning that involves a learner’s non-native language. Hence formative assessment is incredibly important when it comes to leaning experiences in non-native languages.

Meanwhile, the pragmatic formative assessment process is proving to improve both learning and teaching by providing more accurate ways to gauge students' and teachers' progresses through continual usage of a sizeable variety of techniques throughout a course, which can appeal to all learning styles and allow constant, detailed, timely, and mutually beneficial feedback necessary for the growth of students as well as teachers (McTighe & O'Connor, 2005; Mihram, n.d.). Due to the existence of countless types of formative assessment as well as room for customization and innovation, there is always at least one type of formative assessment that can be applied to any class, any situation. This versatility allows teachers and students to be able to experience immediate reflections on a lesson's target learning outcome. Through usage of formative assessment, teachers can easily and quickly retrieve essential information from students in order to promptly provide necessary modifications to lessons which are conducive to cultivating the progress of students' knowledge acquisition as well as receive instant feedback about students' needs, effectiveness of lessons and teaching methods, and students' knowledge retention (Public Affairs and Communications Directorate, 2005).

Although formative assessment is a process that measures *for* knowledge acquired, *for* progress, it was still frequently rejected by educators even though eminent scholars of the time gave it meaning and significance over fifty years ago (Nicol & Macfarlane-Dick, 2006).. *Formative evaluation* and *summative evaluation* was originally conceived by Scriven, then Bloom, identified differences between *assessment* and *evaluation*, went on to use the term *formative assessment* as he explored and supported it in his publishings, including being an important part of every level in his renowned taxonomy (Popham, 2008). Surprisingly, many teachers and curriculum boards apply parts of Bloom's Taxonomy into curriculum without ever including any formative assessment, which reveals two unfortunate realities; there are those who use Bloom's Taxonomy and are familiar with formative assessment but choose to still ignore it or there are others who are unaware of the true purpose of Bloom's Taxonomy which was to give teachers across the world common vocabulary to use for assessment, not a hierarchical based method of how teach (Shulman, 2002; Case, 2013). Although ignored and/or misunderstood, formative assessment was not forgotten. In the 80s, it began to reappear again in prominent research, academic journals, and education publications closely connected to a new terms, *Classroom Assessment* (Malley & Pierce, 1996; Smith, 2001). Classroom Assessment is now recognizes as a very important part of the formative assessment process (Fink, 2003).

Angelo and Cross provide a prime example in one of the most definitive works on Classroom Assessment, *Classroom Assessment Techniques* (1993), where they describe assessment techniques as learner-centered, ongoing assessments with purpose "to empower both teachers and their students to improve the quality of learning in the classroom" (Angelo & Cross, 1993, p. 4). This book has an abundant amount of classroom assessment techniques, best known acronymically as CATs, are clearly based on formative assessment process. As can be seen throughout previous paragraphs, the precise definition of formative assessment is adaptable and has been adjusted from its beginnings to the present; nonetheless it is largely summarized as a process that teachers build into their course plans *for* both formally and informally measuring progress, which in turn improves teaching and learning by providing timely, mutually beneficial feedback to teachers and learners when applied systematically and continuously (Angelo & Cross, 1993; Coggshall, Rasmussen, Colton, Milton, & Jacques, 2012; Garrison & Ehringhaus,

2016). Classroom Assessment aligns extremely well with all of the aforementioned descriptions of the formative assessment process, especially in regards to feedback in which Classroom Assessment also maintains the concept that responding to the feedback engages learners and “lets [them] know that their participation in the Classroom Assessment can make a difference in your teaching and their learning” (Angelo & Cross, 1993, p. 30). In fact, the process of formative assessment can clearly be recognized in all of the seven assumptions of Classroom Assessment presented in Angelo’s and Cross’s (1993) still prominent book of CATs.

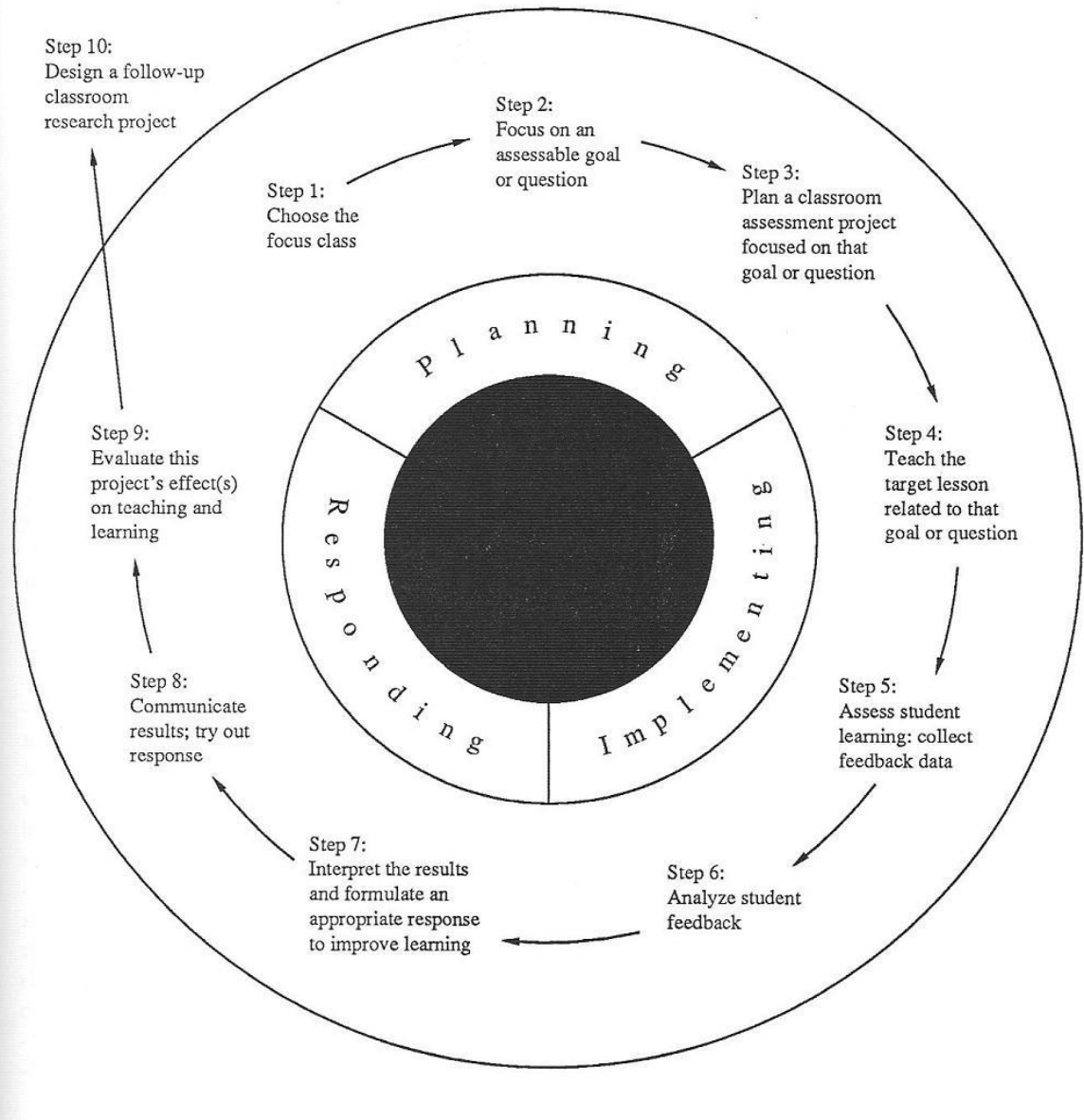
The Classroom Assessment process is based on these seven assumptions:

1. Learning is related to teaching. Therefore, improving teaching improves learning.
2. To improve teaching, teachers must identify and clarify goals and objectives and then get specific feedback on the achievement of those goals and objectives.
3. To improve learning, students need to receive frequent, focused feedback and learn to self-assess.
4. The best assessment for improving teaching and learning is conducted by teachers in their own classrooms.
5. Systematic investigation of classroom teaching and learning and intellectual challenge keep teachers motivated to improve and understand their abilities.
6. Classroom Assessment is not specialized or discipline-specific; all teachers can use it.
7. Collaboration with colleagues and students on Classroom Assessment enhances learning.

(Angelo & Cross, 1993, pp. 7-11).

The seven assumptions listed above clearly show that the concept of Classroom Assessment is extremely essential to the fundamentals of significant learning, which confirms how significant formative assessment truly is for an all-encompassing higher quality of learning and teaching (Fink, 2003). In order to begin on the path of progress towards being a better teacher, Angelo and Cross (1993) suggest focusing Classroom Assessment on a single goal or question, planning an appropriate assessment strategy to collect feedback on the achievement of that goal, and responding to the feedback, all of which are once again clearly represented parts of the formative assessment process (Angelo & Cross, 1993). An example of teachers and students performing formative assessment is a classic CAT, The One Minute Paper, which asks students at the end of class to quickly and individually write down the most important part that they learned from the session and what part remains unclear to them (Angelo & Cross, 1993; Mihram, n.d.). The following image, “Figure 4.1 Map of a Classroom Assessment Project Cycle” (Angelo & Cross, 1993, p. 35) presents a visual representation how to achieve their suggestion, which represents three main phases of the cycle of classroom assessment: planning, implementing, and responding.

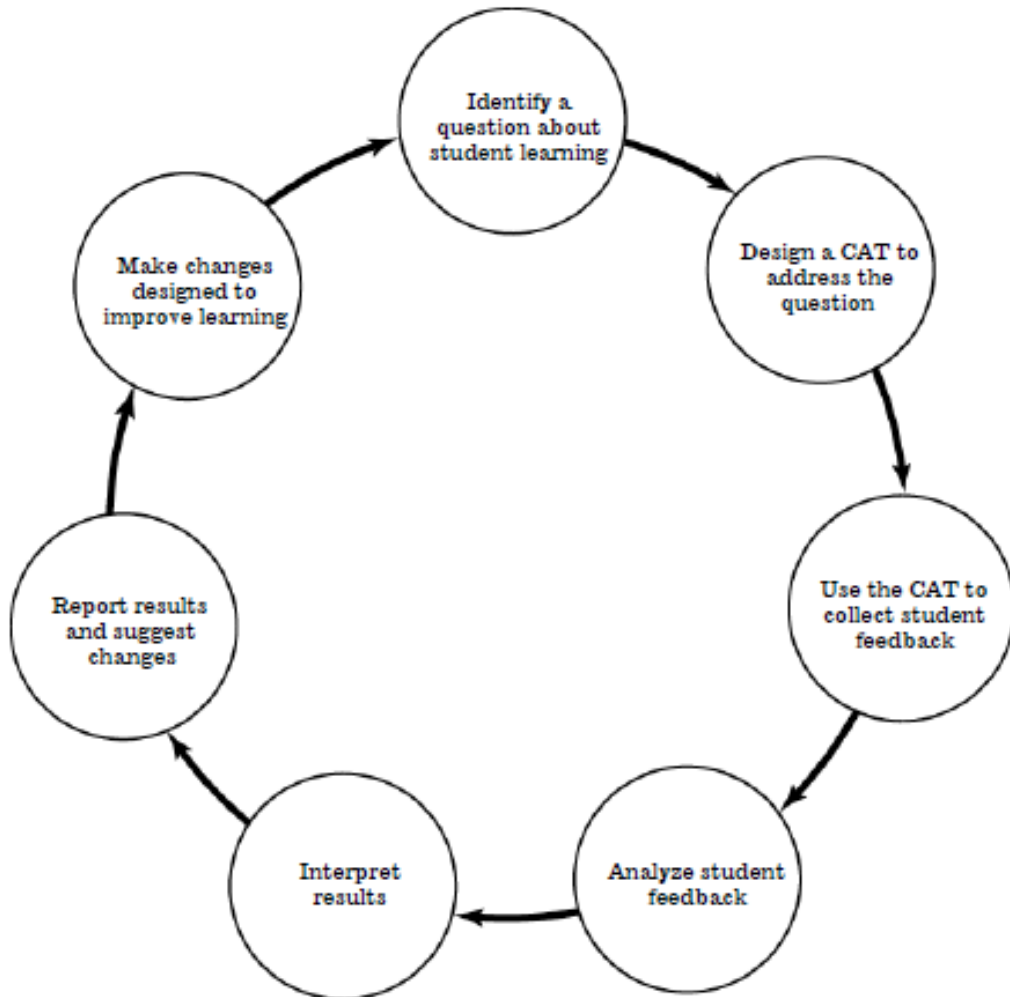


**Figure 4.1. Map of a Classroom Assessment Project Cycle.**

(Angelo &amp; Cross, 1993, p. 35)

Meanwhile, this next model, "Figure 1 The Process of Classroom Assessment" (Harwood & Cohen, 1999, p. 696), simplifies the language and visuals of the previously shown illustration from Angelo and Cross (1993), but this figure contains the same salient information and key steps in the Classroom Assessment process. The steps in this figure, are easy to follow yet critical for planning and incorporating formative assessment into lessons and courses (Dean, 2010).

**FIGURE 1**  
**The Process of Classroom Assessment**



(Harwood & Cohen, 1999, p. 696)

When teachers are lesson planning, Vygotsky's scaffolding, which is when students receive new input and layer it onto previous learned information, implementing CATs into lessons helps both students and teachers know when it is time to add another layer or if adjustments need to be made to reinforce previous knowledge (Malley & Pierce, 1996; Merriam, Caffarella, & Baumgartner, 2007; Centre for Innovative Teaching and Learning, 2011).

Clearly Classroom Assessment Techniques have become a great part of the formative assessment process. Both are very important for ensuring that significant learning is taking place. No person is flawless in every subject and needs the chance to assess what they do and do not know without any pressure. Being able to explore acquired knowledge without pressure is even more imperative for non-native language learners, especially when both students and teachers need to frequently know if students are understanding and retaining knowledge in all subjects that are taught in non-primary

languages, where there is always bound to be confusion and communication breakdowns. Through formative assessment and CATs, teachers can help minimize confusion and communication breakdowns and teachers no longer have to be viewed as the big bad wolf nor do students have only binary options, live or die, pass or fail.



## REFERENCES

- Al Kadri, H. M., Al-Moamary, M. S., & van der Vleuten, C. (2009). Students' and teachers' perceptions of clinical assessment program: A qualitative study in a PBL curriculum. *BMC Research Notes*, 2, 263. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2804577/#>
- Angelo, T. A., & Cross, K. P. (1993). *Classroom assessment techniques: A handbook for college teachers*. San Francisco, CA: Jossey-Bass.
- Brookfield, S. D. (2006). *The skillful teacher: On technique, trust, and responsiveness in the classroom*. (2<sup>nd</sup> Ed.). San Francisco, CA: Jossey-Bass.
- Case, R. (2013). The unfortunate consequences of Bloom's taxonomy. The Critical Thinking Consortium. Retrieved from [https://tc2.ca/uploads/PDFs/Critical%20Discussions/unfortunate\\_consequences\\_blooms\\_taxonomy.pdf](https://tc2.ca/uploads/PDFs/Critical%20Discussions/unfortunate_consequences_blooms_taxonomy.pdf)
- Centre for Innovative Teaching and Learning. (2011). Classroom assessment techniques: Specific methods. Indiana University Bloomington. Retrieved from [http://citl.indiana.edu/resources\\_files/teaching-resources1/sampleCATs.php](http://citl.indiana.edu/resources_files/teaching-resources1/sampleCATs.php)
- Coggshall, J. G., Rasmussen, C., Colton, A., Milton, J., & Jacques, C. (2012, May). Generating teaching effectiveness: The Role of job-embedded professional learning in teacher evaluation. *A Research & Policy Brief*. National Comprehensive Center for Teacher Quality. Retrieved from <http://www.gtlcenter.org/sites/default/files/docs/GeneratingTeachingEffectiveness.pdf>
- Dean, S. (2010, October). Preparation to implement next generation assessment. *The Hunt Institute's Blueprint for Education Leadership*, 5. Retrieved from <http://www.ode.state.or.us/wma/teachlearn/commoncore/blueprint-number-5-october-2010.pdf>
- Fink, L. D. (2003). *Creating significant learning experiences*. San Francisco, CA: Jossey-Bass.
- Garrison, C. & Ehringhaus, M. (2016). Formative and summative assessments in the classroom. Retrieved from <https://www.amle.org/BrowsebyTopic/WhatsNew/WNDet/TabId/270/ArtMID/888/ArticleID/286/Formative-and-Summative-Assessments-in-the-Classroom.aspx>
- Harwood, E.M., & Cohen, J.R. (1999). Classroom assessment: Educational and research opportunities. *Issues in accounting education*, 14(4), 691-724. <http://dx.doi.org/10.2308/iace.1999.14.4.691>
- Johnson, E. & Jenkins, J. (2009, December 23). Formative and summative assessment. Retrieved from <http://www.education.com/reference/article/formative-and-summative-assessment/>

- Lowe, J. P. (2007). Assessment that promotes learning. Schreyer Institute for Teaching Excellence. Penn State. Retrieved from [https://www.schreyerinstitute.psu.edu/pdf/Assessment\\_That\\_Promotes\\_Learning.pdf](https://www.schreyerinstitute.psu.edu/pdf/Assessment_That_Promotes_Learning.pdf)
- Malley, J. M. & Pierce, L. V. (1996). *Authentic assessment for English language learners: practical approaches for teachers*. Reading, MA: Addison-Wesley Pub. Co.
- McTighe, J. & O'Connor, K. (2005, November). Seven practices for effective learning. *Assessment to Promote Learning*, 63(3), 10-17. Retrieved from <http://www.ascd.org/publications/educational-leadership/nov05/vol63/num03/Seven-Practices-for-Effective-Learning.aspx>
- Merriam, S. B., Caffarella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood: A comprehensive guide*. (3rd ed.). San Francisco, CA: Jossey-Bass.
- Mihram, D. (n.d.). *Classroom assessment techniques*. Document compiled for and posted on The Center for Teaching and Learning with Technology website, The Johns Hopkins Bloomberg School of Public Health. Retrieved from <http://www.jhsph.edu/departments/population-family-and-reproductive-health/docs/teaching-resources/cla-02-classroom-assessment-techniques-sept-2013.pdf>
- Nicol, D. J. & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: a model and seven principles of good feedback practice. *Studies in Higher Education*, 31(2), 199-218. <http://dx.doi.org/10.1080/03075070600572090>
- Popham, W. J. (2008). Chapter 1: Formative assessment: Why, what, and whether. *Transformative Assessment*. Retrieved from <http://www.ascd.org/publications/books/108018/chapters/Formative-Assessment@-Why,-What,-and-Whether.aspx>
- Public Affairs and Communications Directorate. (2005, November). Policy brief: Formative assessment: Improving learning in secondary classrooms. *Organization for Economic Co-operation and Development*. Retrieved from <http://www.oecd.org/edu/ceri/35661078.pdf>
- Shulman, L. S. (2002). Making a difference: A table of learning. Retrieved from [http://work.colum.edu/~amiller/making\\_differences.htm](http://work.colum.edu/~amiller/making_differences.htm)
- Smith, R. (2001). Formative evaluation and the scholarship of teaching and learning, *New directions for teaching and learning*, no. 88. San Francisco, CA: John Wiley & Sons, Inc. Retrieved from <http://edweb.sdsu.edu/bober/montgomery/Article004.pdf>
- Stassen, M. L. A., Doherty, K., & Poe, M. (2001). Course-based review and assessment: Methods for understanding student learning. Retrieved from [http://www.umass.edu/oapa/oapa/publications/online\\_handbooks/course\\_based.pdf](http://www.umass.edu/oapa/oapa/publications/online_handbooks/course_based.pdf)
- Wynne, H. & Crick, R. D. (2002, June). A systematic review of the impact of summative assessment and tests on students' motivation for learning. *EPPI-Centre Review*, 1(1). In Research Evidence in Education Library. London: EPPI-Centre, Social Science Research Unit, Institute of Education. Retrieved from [https://eppi.ioe.ac.uk/cms/Portals/0/PDF%20reviews%20and%20summaries/ass\\_rv1.pdf](https://eppi.ioe.ac.uk/cms/Portals/0/PDF%20reviews%20and%20summaries/ass_rv1.pdf)  
[ver=2006-02-24-112939-763](https://eppi.ioe.ac.uk/cms/Portals/0/PDF%20reviews%20and%20summaries/ass_rv1.pdf)