

Alternative Assessments: An Annotated Bibliography

This document provides an overview of existing research regarding alternative assessments, with an emphasis on how they might be implemented in real-world situations. Given the volume of literature on the topic, this is a working document, to be expanded as the literature is explored.

Websites of Interest:

- Center for Innovative Teaching and Learning—Teaching Resources, Indiana University: <https://citl.indiana.edu/teaching-resources/index.html>
- National Institute for Learning Outcomes Assessment: <https://www.learningoutcomesassessment.org/>

Annotations:

American Psychological Association. (2020). *Teaching and supervising assessment beyond Covid19*. <https://www.apa.org/topics/covid-19/teaching-supervising-assessment-beyond.pdf>

This document provides specific suggestions for potential adaptations and options for consideration in preparation for the uncertainties of the 2020-2021 academic year. The authors state that while the document offers a “multitude of suggestions, it is by no means exhaustive.” It evaluates remote modality, in-person distanced modality, and blended modality, as well as legal, ethical, and professional issues to consider when using alternative assessments. Taking into account the standing of the APA and recency of the report, it is noteworthy the authors state that there is “limited information available in general about remote assessment and even less so regarding assessment training.” Importantly, they add that with “so many factors to consider,” there will be disagreement regarding exactly how to proceed with alternative assessment at this time.

Birch, E., & de Wolf, M. (2020). A novel approach to medical school examinations during the COVID-19 pandemic. *Medical Education Online*, 25(1), 1–7.
<https://doi.org/10.1080/10872981.2020.1785680>

Available to Columbus State Community College:

<https://login.cscs.ohionet.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,uid&db=a9h&AN=146906361&site=ehost-live>

A brief (just over one page) but insightful discussion from two medical students’ perspectives of the sudden shift in format to online, open-book examinations, rather than in-person practical placements, which were delayed due to the pandemic. Highly relevant to our nursing and other medicine-related programs.

Center for Innovative Teaching and Learning. (n.d.) *Alternatives to traditional exams and papers*. <https://citl.indiana.edu/teaching-resources/assessing-student-learning/alternatives-traditional-exams-papers/index.html>

This document groups examples of alternative assessments according to what sets of skills, or types of understanding, they are meant to assess. Many of the examples potentially offer a more accurate way to assess student learning, without requiring major changes in how courses are delivered.

Some of the suggested assessments require students to learn skills unrelated to the course in order to demonstrate their understanding of course materials. Such assignments presume access to resources (hardware/software, collaboration and study space, and the extra time to familiarize themselves with media types and related technology) that may not be available to our students.

Center for Innovative Teaching and Learning. (n.d.) *Authentic assessment*. <https://citl.indiana.edu/teaching-resources/assessing-student-learning/authentic-assessment/index.html>

Much of the information provided in this short document will already be known to the Committee. However, an extensive chart which compares typical vs. authentic tasks, with clues to evaluating the latter, may be particularly helpful for those wishing to create their own authentic assessments. Some examples of real-world authentic assessments for different academic topics are also included.

Center for Innovative Teaching and Learning. (n.d.) *Classroom assessment techniques*. <https://citl.indiana.edu/teaching-resources/assessing-student-learning/classroom-assessment-techniques/index.html>

Classroom Assessment Techniques (CATs) are a quick way for instructors to regularly assess students' learning, and can also help students identify issues and strengths in their own learning process. The relative speed of creating, answering, and evaluating CATs implies that they can be integrated into courses without substantially adding to the workload of either instructors or students. This article provides further information about the benefits of CATs for both instructors and students, as well as several examples of this assessment technique.

This piece indicates that CATs are often answered anonymously, which encourages students to answer freely and honestly. Columbus State's DEIS department has confirmed as of January 5, 2021 that our current learning platform, Blackboard, allows instructors to set up anonymous grading for an assignment.

Ellis, R., Skehan, P., Li, S., Shintani, N., & Lambert, C. (2019). *Task-based language teaching: Theory and practice*. Cambridge University Press. doi:10.1017/9781108643689

Available to Columbus State Community College:

<https://cslink.csc.edu/record=b612029>

Task-based teaching is a widely practiced alternative assessment method, and Ellis' book does much to familiarize readers with current theories, research, and practical output.

Freeley, M. E., & Hanzelka, R. (2009). Getting away from seat time. *Educational Leadership*, 67(3), 63–67.

Available to Columbus State Community College:

<https://login.csc.ohionet.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,uid&db=eft&AN=508106709&site=ehost-live>

New Hampshire's bold statewide initiative launched in 2009 with a "Follow the Child" focus that required schools to move forward within 3 years with greater focus on competencies. Individual schools/districts were given significant latitude and flexibility regarding how to accomplish this goal. Schools developed a variety of programs emphasizing (1) personalized learning (2) student engagement and (3) alternative approaches to student assessments.

Gergen, K. J., & Scherto, G. R. (2020). *Beyond the tyranny of testing: Relational evaluation in education*. Oxford University Press.

Available to Columbus State Community College:

<http://rave.ohiolink.edu/ebooks/ebc2/9780190872762>

This book proposes a far-reaching alternative to the measurement-based assessment tradition. Its focus is on education as a relational process, which necessitates the need for relational-centered evaluations and nothing less than a systemic transformation in education. Gergen writes, "When testing and grades become the very goal of education, learning suffers, along with the well-being of students and teachers."

Grove O'Grady, A. (2020). *Pedagogy, empathy and praxis*. Springer International Publishing.

Available to Columbus State Community College:

<http://rave.ohiolink.edu/ebooks/ebc/9783030395261>

Examines the concept of empathy as an essential part of any teacher training curriculum and student assessment, and poses questions as to how it may be taught. The book is especially valuable as there are very few other works dedicated so comprehensively to the topic.

Jacobs, G. M. & Renandya, W. A. (2019) *Student-centered cooperative learning: Linking concepts in education to promote student learning*. Springer Nature.

Available to Columbus State Community College:

<http://rave.ohiolink.edu/ebooks/ebc2/9789811372131>

Chapter 5 is devoted to an examination of AA (alternative assessments), in particular the connection between SCCL (student-centered cooperative learning) and AA, which is defined here as a practice of expanding the ways of assessing students' knowledge, skills, and attitudes about learning. SCCL is valued for offering significant insight into the thinking process of students, and it provides more options for their involvement in assignments. Examples of SCCL include students giving each other feedback, students assessing their own strengths and weaknesses, and groups discussing/improving upon their work processes.

In contrast, the traditional methods epitomized by standardized tests rely on instruments used at the end of the unit, term, etc. (summative assessment). Among the many drawbacks of traditional assessment is that it requires an inordinate amount of time, not only from the standpoint of teacher planning, but also of student study hours.

Formative assessment is the increasingly popular alternative or supplement to the traditional summative approach cited above. It occurs more informally, frequently, and intermittently, with an interest not simply in the product, but the much more crucial process of learning. It allows students' understanding to be continually checked, with no need for learning to stop to do so as is the case with more traditional approaches and standardized testing. Formative assessment stresses the interactions between teachers and students; its greatest concern lies in the formation of how and what students are thinking and learning. Peer assessments and self-assessments are addressed, the latter which allow an individual student to compare her current work or performance with previous ones. This kind of self-directed learning encompasses the positive skills of goal setting, time management, and assignment preparation. The chapter stands out for its discussion of grades/grading, presenting the grade options of (1) no grades, (2) same grade for all, (3) separate grades, and (4) combined grade (some combination of 2 & 3 above).

Jorgensen, R., & Larkin, K. (Eds.). (2017). *STEM education in the junior secondary: The state of play*. Springer Singapore.

Available to Columbus State Community College:

<http://rave.ohiolink.edu/ebooks/ebc/9789811054488>

This book's specific focus is STEM education in its current varieties in the junior year of high school, with various aspects of alternative assessment including word clouds, record-keeping, and other specific practices addressed.

Kitchen, J., Berry, A., Bullock, S., Crowe, A., Taylor, M., Guðjónsdóttir, H., & Thomas, L. (Eds.). (2020). *International Handbook of Self-Study of Teaching and Teacher Education Practices*. Springer Singapore.

Available to Columbus State Community College:

<http://rave.ohiolink.edu/ebooks/ebc2/9789811368806>

Provides a re-examination of self-study 16 years after publication of the first edition in 2004. Of particular interest are sections on social justice, specific methods across subject disciplines, and specific methods across cultures and languages.

Montgomery, C. & Daniel, B. (2020). *Alternative approaches to assessment*. Center for Teaching and Learning. <https://humanities.byu.edu/wp-content/uploads/Alternative-Approaches-to-Assessment.pdf>

This chart-intensive document provides detailed examples of nine different alternatives to traditional assessments and assignments, as well as how to explain them to students. It also includes general steps for creating and explaining any alternative assessment, as well as a brief list of other assessments and the tools students could use to fulfill them.

The document also assumes that students have the technology skills, equipment, resources, time, educational background, instructor time/support, and study space available to create complex multimedia projects. This assumes a level of financial, housing, and other privileges that are not available to many Columbus State, particularly in a virtual learning setting.

Moore, C. P. (2018). Adding authenticity to controlled conditions assessment: Introduction of an online, open book, essay based exam. *International Journal of Educational Technology in Higher Education*, 15(1), 1. <https://doi.org/10.1186/s41239-018-0108-z>

Available to Columbus State Community College:

<https://login.cscs.ohionet.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,uid&db=eht&AN=130552415&site=ehost-live>

In this study, science undergraduates were required to complete a timed (3 hours) essay test with a previously unseen question. They were permitted to use the following outside information sources: their university library's electronic resources, Google Scholar, and PubMed. The students were expected to use at least five resources, and to write at least 500 words. The results showed that students' familiarity with the course's core material could still be assessed despite their being permitted to use outside resources during testing. Students who had internalized the core material demonstrated more proficient use of the outside resources and showed greater critical engagement with the question.

NB: Moore made this observation regarding students' familiarity with technology:

“[I]t can be all too easy to presume student perceptions of new assessments relating to digital innovation will always be positive, simply based on their use of online social media platforms.”

In other words, students’ familiarity with and access to one form of technology, such as smartphones or social media, does not guarantee that they have an understanding of other technologies. This may be worth considering not only regarding formal assessments, but also regarding alternative assessments requiring the use of novel formats and technologies.

Myyry, L., & Joutsenvirta, T. (2015). Open-book, open-web online examinations: Developing examination practices to support university students’ learning and self-efficacy. *Active Learning in Higher Education*, 16(2), 119-132. doi:10.1177/1469787415574053

Available to Columbus State Community College:
<http://rave.ohiolink.edu/ejournals/article/322287105>

The study surveyed 110 students, 93% of whom were undergraduates, regarding their experiences with a series of open-book and open-web examinations. The examinations were not monitored, and students were permitted to collaborate. The questions were designed to encourage students to apply their knowledge, rather than repeat facts from memory. Overall, the students said that this style of examination changed how they learned, causing them to engage in deeper learning, where understanding the course material was emphasized over rote memorization.

The article’s exploration of literature supporting the efficacy of open-book testing will be valuable to readers unfamiliar with the existing research on this topic.

Pope, D. (2019). 7 approaches to alternative assessments. *Assessments that Empower Learning*, 15(5), n.p., <http://www.ascd.org/ascd-express/vol15/num05/7-approaches-to-alternative-assessments.aspx>

As outlined in this concise article, the approaches are as follows: (1) use of multiple forms of assessment, in contrast to standardized tests or overly weighted final exams; (2) possible elimination of midterms and final exams; (3) provision of more opportunities for self-assessments, revisions, and peer review among students; (4) modification or elimination of late work and “zero” policies; (5) allowance for test corrections so that students can show what they have learned from their mistakes; (6) elimination of grades for the first assignment of any semester; and (7) increased attention to and use of diversity strategies.

Schlosser, M. (2015). *Analysis of alternative assessments in the mathematics classroom*. ScholarWorks@BGSU. <https://scholarworks.bgsu.edu/honorsprojects/177>

This article is of particular interest because it details the implementation of alternative assessment in a math class, a subject one might assume would not lend itself to non-traditional assessments. The author used an interview-style process for examinations, in which students explained their problem-solving process as they worked. This allowed the author to assess the students' deeper understanding of the course material, and allowed the students to self-assess and self-correct, building their understanding as they worked through the test questions.

The author stresses the importance of priming students for alternative assessments in order to familiarize them with what may be an unfamiliar assessment type. This requires a course structure that to some extent mimics the form of the assessments, which in this case meant that the class regularly required students to provide a spoken explanation of their thinking processes. As other literature has stated, the form of the assessment often changes the way students learn, and it was clear from the author's results that in this instance, students learned the course material in a deep way, allowing them to apply mathematical concepts rather than engage in rote memorization.

Senkova, O., Otani, H., Skeel, R. L., & Babcock, R. L. (2018). Testing effect: A further examination of open-book and closed-book test formats. *Journal of Effective Teaching in Higher Education*, 1(1), 20–36. <https://jethe.org/index.php/jethe/article/view/15>

This study compared the effectiveness of open- and closed-book testing on the ability of students to remember pairs of Swahili and English words. Additionally, some students were allowed to prepare for a final test by re-studying the material, some were given open-book quizzes throughout the learning process, and some were given closed-book quizzes throughout the learning process. Because of the number of factors involved in the study, the results and discussion are more nuanced than can be elaborated here, but overall, the authors concluded that “an open-book test format is as effective as a closed-book test format in promoting long-term retention” (p. 31). The authors go on to suggest that “it seems to be safe to replace traditional closed-book tests with open-book tests if the purpose of education is to build knowledge” (p. 32).

NB: Readers new to this topic may also find the article's extensive, plain-language literature review helpful.

Wielicki, T. (2016). Statistical Measures of Integrity in Online Testing: Empirical Study. *International Association for Development of the Information Society*, 1.

Available via ERIC: <https://eric.ed.gov/?id=ED571480>

This study examines a large sample group: 416 undergraduates, with a total of 5824 individual graded quizzes and tests. Approximately half the students were online-only, with no face-to-face contact. Assessments were constructed in a variety of ways that could make cheating more or less difficult, and the mean scores of each variation were compared. Wielicki says that “in general, delivery of quizzes and tests in an online/open book format does not seem to be conducive to cheating as it does not lead to variations in scores obtained by students under different assessment setups” (p. 172) and that:

[A]n average student taking an online class is less mischievous and interested in cheating as he/she is overworked, disconnected and ill organized to be an effective cheater in digital world. Cheating and abusing online testing environment through copying questions, sharing, taking screenshots etc. can be easily made very time consuming and difficult for students by a skillful instructor. (p.173)

Williams, J. B., & Wong, A. (2009). The efficacy of final examinations: A comparative study of closed-book, invigilated exams and open-book, open-web exams. *British Journal of Educational Technology*, 40(2), 227–236. <https://doi.org/10.1111/j.1467-8535.2008.00929.x>

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<https://login.cscclib.org/login?url=https://search.ebscohost.com/login.aspx?direct=true&AuthType=cookie,ip,uid&db=eht&AN=36506739&site=ehost-live>

NB: Despite its age, this piece is of considerable worth, as it measures students’ behaviors, needs, and perceptions, rather than focusing on the specifics of technology.

As Wielicki (above) also noted, the authors and their students maintain that proper test design can make it difficult to cheat on even an open book, open web online (OBOW) test. Specifically, “students felt that the OBOW exam is designed in such a way that cheating is difficult given the exam is based on a current case study that was developed and customized, taking into consideration the theories, concepts and issues covered in the discussion boards and assignments” (p. 231). Students also reported feeling engaged with and intellectually challenged by the test questions. The authors also note that the OBOW format more closely resembles the real-world work conditions for which college is meant to prepare students.

From the conclusion:

Importantly, OBOW is a transferable model that can just as easily be administered in an on-campus setting as online, and while there will always be a small number

of students who will cheat, the main priority should be to focus on the higher quality learning outcomes of the majority, rather than set up an entire system to stop a small minority. (p. 234)