

Leveraging Learning Management Systems for Culturally Responsive Assessment Practice

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The National Institute for Learning Outcomes Assessment (Montenegro & Jankowski, 2017), has directed assessment practices to serve as critical components in delivering teaching and learning. The NILOA paper states that assessment practice must be “mindful of student differences and employ assessment methods appropriate for different student groups” (p. 9). This is a call for all higher education institutions to make assessment practices ‘responsive’ to equity and issues around privilege in higher education. For this to occur, assessment systems need to be more comprehensive, and less disparate. We have piloted a holistic assessment approach by leveraging our university Learning Management System (LMS), laying important foundations to go beyond assessment for the sake of accreditation, diving deeper into discovering and correcting implicit bias within our assessment practices.

The adoption of LMS within higher education expands our assessment capacities by providing comprehensive assessment activities designed to advance engagement that enables deeper awareness and understanding of learning (Matuga & Turos, 2018). The LMS serves as a platform to electronically deliver learning content (text, audio, video), support assessments, and provide large scale data on student progress and success for all modalities of courses (Means et al., 2009). When leveraged holistically, LMS can also generate data analytics that show student outcomes beyond a course, connecting learning successes and risks across the academic landscape.

In the same way that faculty develop their courses based on the use of alignment between learning objectives and assessments, an LMS supports alignment between the pedagogical activities (faculty teaching and student learning) and the alignment of rubrics to communicate expectations of work and learning outcomes to evaluate the competency or mastery to the topic (Means et al., 2009, p. 82). Outcomes and rubrics provide faculty the ability to track students’ progress and mastery or competency within a course over a period of time, and simultaneously allow comprehensive, long-term examination of student impacts at the institutional level. We offer one example from our university that demonstrates how an LMS can catalyze culturally responsive assessment practice by providing more information about the student learning outcomes across courses, programs, and student demographics.

Equity Response

Culturally Responsive Assessment

Before we describe our example of using LMS as an intentional tool for gauging culturally responsive assessment practice, definitions of terminology are important. Within the literature, the terms ‘culturally relevant’ and ‘culturally responsive’ are often used interchangeably (Aronson & Laughter, 2016). However, we note a key distinction between these two terms, based upon our interpretations of the theoretical frameworks. We see *culturally relevant* as a term most appropriately applied to pedagogy at the classroom level (Ladson-Billings, 2004), and the term *culturally responsive* (Montenegro & Jankowski, 2017) as best applied to assessment practice at the program and institutional levels. These two terms are connected, and we think ultimately must be practiced simultaneously.

Culture of Assessment

Institutions increasingly seek to justify their value and impact to students (Worthen, 2018), and are providing increased support for faculty and staff to practice assessment at the course level. An unfortunate side effect of the attempt to continually improve student learning outcomes and the assessment practice required to do so, is a strain on monetary and staff resources, and lack of understanding of the field of assessment (e.g. training and awareness) (Jankowski, 2018). This context can produce an assessment culture that focuses on accreditation standards, because of resources and knowledge stretched too thin to engage in meaningful assessment. This charge is truly reflective, and grounded in the spirit of inquiry so central to research.

Our leveraging LMS provides two primary goals: 1) to support faculty in the classroom to enhance their teaching practices, and 2) to enhance the institutional capacity to go beyond tracking accreditation requirements toward investigation of the cultural responsiveness of our programs. By including culturally responsive inquiry in institutional assessment, the practice of assessment becomes inherently more meaningful, and more inclusive. The result is an increase in participation for research and inquiry from across the institution, as departments and colleges utilize student engagement and learning outcomes data to answer wider assessment questions.

Assessment Practices

In a recent study of academic provosts about assessment, “authentic” measures of learning that campuses are using include rubrics, classroom-based performance assessments, and capstones (Jankowski, Timmer, Kinzie, & Kuh, 2018). Likewise, 82 percent of survey respondents reported to have established learning outcomes for all students at their institutions, with the focus being on accreditation. An increasing emphasis on equity concerns, such as student achievement gaps, were also noted.

Assessment methods extend to formative and summative assessments that provide students with salient feedback which allows them to improve their learning towards achieving mastery. As indicated by Montenegro & Jankowski (2017), if assessment initiatives are not being used to inform learning at every step of a student’s learning, then it provides no context for students to improve their own learning and competency. Incorporating assessment initiatives across the breath of the institution allows educators the agency to support the diverse learning experiences of different student groups. Being culturally relevant to the student population allows educators to promote student engagement by offering diverse learning

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experiences in the classroom, face-to-face, and online spaces. Being culturally responsive at the program and institutional levels allows institutions to observe current patterns among student cultural groups, and to proactively address disparity.

Our Pilot

At the University of North Carolina at Charlotte, the College of Computing and Informatics (CCI) leverages the use of Canvas LMS Outcomes and Rubrics in support of the investigation and application of culturally responsive assessment practices. With enrollment more than doubling in the last 6 years (Fact Book: Enrollment Summary Dashboard, n.d.), the CCI and Center for Teaching and Learning (CTL) piloted the LMS as a means to increase the assessment capacity within the college and to investigate cultural bias within the curriculum.

The Outcomes and Rubrics tool in Canvas modeled the organizational framework of the university, comprising divisional programs, departments, and colleges. The CTL and CCI derived a well-defined nomenclature for each outcome and rubric, in order to create an easily identifiable library of outcomes and rubrics for faculty adoption into courses, and for subsequent data capture and analytics application at organizational levels. For example, the Bachelor in Computer Science degree program has several program learning outcomes (Office of the Provost, n.d.), each with a supporting rubric. The faculty link course assignments within the Canvas LMS to rubrics and outcomes that align to their courses, providing them with learning outcomes data for their specific course, and useful information about their students. Through using the Canvas LMS in this way, faculty are able to easily adopt quality assessment practices by incorporating standardized rubrics into their courses. The LMS saves faculty and assessment staff time, in that the rubrics are readily available for automatic course incorporation and statistics, as well as automatic aggregate program level statistics.

Prior to the pilot, the assessment data consisted of counts and percentages of learning outcome scores, without the availability of sub-criterion data, or mapping to additional student demographic data. Student entry type is a primary cultural context within our institution, as it operates as a direct measure of prior education exposure and as a proxy measure for other factors, requiring further examination. Therefore, a central research question to examine cultural differences within learning outcomes is; are there differential learning outcomes among our students by entry types? By utilizing the LMS data and linking it to student demographic data, we discovered that students who enter as transfers from other institutions had significantly different scores on some learning outcomes¹, an indication that these students were not as prepared for upper-level coursework despite having transfer credits. These findings demonstrate the promise of discovering additional patterns because of the capacity development afforded in LMS.

Conclusion

The result from the pilot test confirms the strength of the process as a means of linking course level data to the university outcomes with actual student assessment and performance data. This pilot provided the college with direct measures of analyzing student outcomes from what students actually learn through analytical data captured from the course level and

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¹It is beyond the scope of this feature article to describe the full study and results.

applied to student variables. This process allows colleges to more actively use learning evidence to improve student learning (Kuh et al., 2014) in a timely manner. The implementation and dissemination of the outcomes and rubrics tool supports the work of campus leaders towards creating a culture of data-informed decision-making on all faculty professional development programs. This, in turn, informs institutional initiatives and cross-campus teaching and learning collaborations.

Assessment data viewed through a culturally responsive lens supports practice and students' attitudes enhancing accreditation and accountability. By mapping student outcome results in LMS to Student Information Systems, assessment offices efficiently report disaggregated analyses of student assessments and competency data by cultural factors. This supports deeper understanding of student learning outcome patterns, thereby enhancing curriculum planning to be culturally relevant for the students and their discipline.

By mapping student outcome results in an LMS, assessment offices can efficiently report disaggregated analyses of student assessments and competency data by cultural factors.

References

- Aronson, B., & Laughter, J. (2016). The theory and practice of culturally relevant education: A synthesis of research across content areas. *Review of Educational Research*, 86(1), 163–206. doi:10.3102/0034654315582066
- Fact Book: Enrollment Summary Dashboard*. (n.d.). Retrieved from <https://ir-analytics.uncc.edu/tableau/fact-book-enrollment-summary-dashboard>
- Jankowski, N. (2018) *Response to “the misguided drive to measure learning outcomes”*. Retrieved from <https://www.learningoutcomesassessment.org/wp-content/uploads/2019/08/Viewpoint-Jankowski.pdf>
- Jankowski, N., Timmer, J., Kinzie, J., & Kuh, G. (2018). *Assessment that matters: Trending toward practices that document authentic student learning*. Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA). Retrieved from <https://www.learningoutcomesassessment.org/wp-content/uploads/2019/02/2018SurveyReport.pdf>
- Kuh, G.D., Jankowski, N., Ikenberry, S.O., & Kinzie, J. (2014). *Knowing what students know and can do: The current state of student learning outcomes assessment in US colleges and universities*. Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA). Retrieved from <https://www.learningoutcomesassessment.org/wp-content/uploads/2019/02/2013SurveyReport.pdf>
- Ladson-Billings, G. (2004). New directions in multicultural education. In J. Banks (Ed.), *Handbook of multicultural education* (pp. 50-65). San Francisco, CA: Jossey-Bass
- Matuga, J. M., & Turos, J. M. (2018). Infrastructure support for using assessment data for continuous improvement. *New Directions for Teaching and Learning*, 2018(155), 81-88. doi:10.1002/tl.20306
- Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies*. U.S. Department of Education. Retrieved from <http://www.gilfuseducationgroup.com/wp-content/uploads/2009/09/Evidence-Based-Practices-in-Online-Learning-Review-of-Online-Learning-Studies.pdf>
- Montenegro, E., & Jankowski, N. A. (2017). *Equity and assessment: Moving towards culturally responsive assessment* (Occasional Paper No. 29). Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA). Retrieved from <https://www.learningoutcomesassessment.org/wp-content/uploads/2019/02/OccasionalPaper29.pdf>
- Office of the Provost*. (n.d.). Retrieved from <https://provost.uncc.edu/about-academic-affairs/goals-plans/academic-planning-2011-2016>
- Worthen, M. (2018). The misguided drive to measure learning outcomes. *The New York Times*. Retrieved from <https://www.nytimes.com/2018/02/23/opinion/sunday/colleges-measure-learning-outcomes.html>

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