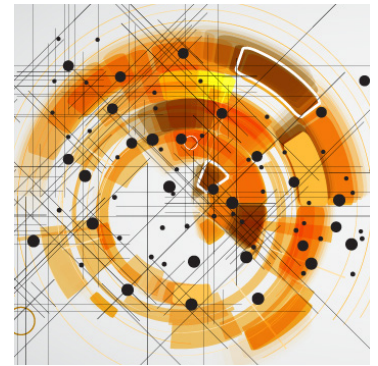


Abstract

In an age of increased focus on improving the student learning experience and engaging in quality improvement processes within academic programs, higher education institutions need to clearly articulate expectations and criteria for the assessment of students' learning to support academic programs in achieving their goals. Given the need for a standardized and transparent process along with an evaluation tool to provide programmatic feedback, the institutional assessment rubric, ASSESS-IT, rubric was developed. This article describes the evidence-based consensus process used to develop and refine ASSESS-IT. ASSESS-IT development process occurred over three phases of revision over a two-year period. The process of rigorous rubric development helped to track the assessment for student learning at the institution, and also led to increased stakeholder engagement, educational development of professionals, and increased meaningful alignment of assessment activities to learning outcomes. The authors provide ASSESS-IT development process and template as an institutional model in which to build and revise other institutional models.



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ASSESS-IT: The Development Story of an Institutional Rubric for Evaluating Programmatic Assessment Plans and Reports

In an age of increased focus on improving the student learning experience and engaging in quality improvement processes within academic programs, higher education institutions need to clearly articulate expectations and criteria for the assessment of student learning to support academic programs in achieving their goals (Banta & Palomba, 2014; Council for Higher Education Accreditation, 2019; Montenegro & Jankowski, 2017; Suskie, 2014). Achievement of educational goals requires the implementation of systematic teaching and learning processes to draw inferences and evaluate outcomes, typically referred to as assessment within the academy (Yudkowsky, Park, & Downing, 2019). When done well, the systematic institutional process of assessment of educational outcomes is transparent and allows for an appraisal of outcomes from internal and external audiences (National Institute for Learning Outcomes Assessment, 2011). These audiences include, and center, faculty and students across campus to share their respective student learning outcomes, to review, and to provide programmatic feedback to academic peers. These activities are guided by well-constructed institutional rubrics that can provide a framework to guide the development and evaluation of quality assessment reports (Fulcher & Orem, 2010; Groover et al., 2019; Wicinski, et al 2020). While an abundance of institutional rubrics can be found on higher education websites, there is limited existence of institutional rubrics as well as how they were developed within peer reviewed literature (The State University of New York, 2020; University of Delaware, 2020; University of Hawai'i at M noa,

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2020). Given the need for a peer-reviewed standardized and transparent process along with a rigorous evaluation tool to provide programmatic feedback, the institutional assessment rubric, ASSESS-IT, was developed.

The ongoing development of an instructional-level rubric for assessment processes requires the strategic engagement of faculty as they are the core drivers of assessment of student learning within their courses and academic programs. Faculty are also responsible for ensuring alignment of programmatic requirements with university core educational competencies (Hutchings, 2010). Many universities have faculty-driven assessment councils that track and advocate for quality assessment institutionally and who also ensure that the institution meets the expectations of external accreditors. For the purposes of this article, the Assessment Council is an inclusive and highly engaged group of faculty, staff, and students who represent all academic programs, student services, institutional research, accreditation, and academic policy. Assessment Council is charged with establishing, monitoring, and reporting on institutional assessment activities for all academic programs (Northwest Commission on Colleges and Universities, 2019, 2020).

To meet that charge, the Assessment Council developed and uses ASSESS-IT to annually evaluate the quality of each academic program's assessment plan and related report to provide feedback for continuous improvement. These reviews include ensuring accurate general program descriptions and contacts, purpose statements, student learning outcomes, and alignment of student learning outcomes with the university's graduation core competencies. This process drives and informs strategic initiatives to improve the assessment of core competencies and student learning outcomes across the institution. This article describes the evidence-based consensus process used to develop and refine ASSESS-IT.

Methods

The ongoing development of ASSESS-IT is evidence of practice-based and process-oriented improvement as the Assessment Council evaluates programs' assessment activities. ASSESS-IT utilizes and reinforces evaluative criteria, definitions of levels, and scoring strategies (Dawson, 2017; Simper, 2018). To develop ASSESS-IT, a systematic literature review was used to build a framework, and the Assessment Council came to a consensus around the minimum amount of evidence needed to make a judgment about quality (Alsina et al., 2017; Dawson, 2017; Moskal & Leydens, 2000; Timmerman et al., 2011; Wald et al., 2012). The literature review included peer-reviewed literature, as well as institution-specific data to incorporate both a top-down and bottom-up approach (Alsina et al., 2017; Dawson, 2017; Goodwin & Leech, 2003; Jonsson & Svingby, 2007; Moskal & Leydens, 2000; Simper, 2018; Timmerman et al., 2011; Wald et al., 2012).

The ASSESS-IT development process occurred over three phases of revision over a two-year period. In the first phase, ASSESS-IT was developed from both literature review and institutional data, as well as polling of the Assessment Council members for content items. Throughout the second phase, Assessment Council members offered feedback and negotiated revisions to the content and organization of the rubric through a consensus driven decision making process (National Institute for Learning Outcomes Assessment, 2018). The use of this consensus driven decision making process increased the content validity of ASSESS-IT (i.e., how well the rubric represents the criteria it is intended to evaluate). During this phase of the process, there were numerous opportunities to share opinions via email with the chair and post questions to the group via a consensus driven decision making process, but none were completely anonymous. Finally, in the third phase, council members applied the rubrics to departmental plans and reports and commented on requested edits for ASSESS-IT in both structure and content. The following section will review the process used to develop the current version, as well as, describe the three phases of revision.

The ongoing development of an instructional-level rubric for assessment processes requires the strategic engagement of faculty as they are the core drivers of assessment of student learning within their courses and academic programs.

Instrument Development

Original Rubric

The original rubric focused on five evaluative criteria for developing student learning outcomes: measurable, student-centered, clear, and aligned to degree and program type. This version allowed programs to focus their attention on the quality of their student learning outcomes. With a strong foundation of quality student learning outcomes, the Assessment Council rubric continued to evolve to include the number of SLOs, alignment with Bloom's taxonomy, and the use of stems to guide action-oriented SLO statements. The rubric's evolution was an attempt to move from an SLO compliance activity to a renewed focus on the use of evidence of student learning.

The rubric's evolution was an attempt to move from an SLO compliance activity to a renewed focus on the use of evidence of student learning.

Iteration One

The first iteration was focused on determining the content and the Assessment Council process for evaluating academic assessment activity (American Educational Research Association American Psychological Association & National Council on Measurement in Education, 2014; Goodwin & Leech, 2003; Timmerman et al., 2011). While external accrediting organizations require continuous assessment processes, it is up to institutions to set individual goals for programmatic assessment. ASSESS-IT was designed to include content items Assessment Council felt were necessary to review the program student learning outcomes. ASSESS-IT's evaluative criteria were re-evaluated to ensure their feasibility and appropriateness across schools and programs. For example, Assessment Council members provided anonymous feedback on the ease of use and quality of information on the rubric as they reviewed academic programs. Techniques to ensure that ASSESS-IT measures what it is intended to measure, i.e. content validity, included the systematic review of the literature related to the evaluative criteria, quality levels, and scoring strategy including guidelines from regional accreditation bodies, the National Institute for Learning Outcomes Assessment, as well as, input from subject matter experts on the university Assessment Council.

Iteration Two

In the second iteration of ASSESS-IT, the Assessment Council intentionally revised the rubric to remedy problems identified within the evaluative criteria descriptions and categories to make it easier to identify distinct quality levels of assessment excellence between programs (Dawson, 2017; Goodwin & Leech, 2003; Jonsson & Svingby, 2007; Moskal & Leydens, 2000). Also, Assessment Council members reflected on the rubric's ability to provide evidence of closing the loop using a consensus driven decision making process (Glassman, et al., 2014; Lennertz & Lutzenhiser, 2006). The results of these sessions were collected and distributed to the Assessment Council for approval through a blind e-vote. Subsequent versions of the rubric were developed to incorporate the refined criterion, and the Assessment Council repeated the process of consensus driven decision making about the language until the final rubric was achieved.

Final Rubric

In the third phase, the rubric went through two additional modifications related to assessment reporting to improve content validity utilizing an informed research approach to stakeholder engagement. First, the closing of the loop dimension was expanded and clarified to include two focused dimensions of using data to inform curricular change: closing the loop using course improvement data or course evaluation feedback and closing the loop using Assessment Council feedback. Second, the Assessment Council added an optional dimension for the submission of a sample rubric so that programs could be recognized for exemplary practices but also so that the Assessment Council could create an assessment repository for educators. These changes reinforced the rubric's validity and demonstrated the value of institutional frameworks to model assessment excellence.

Results

The current ASSESS-IT rubric is divided into two sections: Assessment Planning and Assessment Reporting (Table 1). The assessment-planning rubric includes five dimensions: Communication of SLOs, Progression, Measurable SLOs, Alignment of Core Competencies to SLOs, and Levels of Evaluation Outcomes. The ASSESS-IT reporting section highlights six dimensions, including interpretation of targets, met or not met, engagement of stakeholders in program assessment planning & reporting, closing the loop utilizing course improvement or course evaluation feedback, and Assessment Council feedback, and inclusion of a sample rubric. Table 1 provides the rubric dimensions, definitions when operationalized, as well as a general source citation for each dimension. Discussion and Lessons Learned

This article reviewed the evidence-based consensus process to develop ASSESS-IT. The process of rigorous rubric development helped to track the assessment for student learning at the institution, but also led to increased stakeholder engagement, educational development of professionals, and increased meaningful alignment of assessment activities to learning outcomes.

Stakeholder Engagement: Rubric Development Process

The development of ASSESS-IT is rooted in high levels of institutional stakeholder engagement. Faculty, students, and staff from across the institution provided feedback to the ASSESS-IT development process as members of the Assessment Council and during public forums (i.e., Assessment Academy, Board of Directors Meetings, Student Council, faculty curriculum meetings). At the institutional level, stakeholders focused on the co-creation of meaningful assessment terminology. In addition, faculty, staff, and students engaged, collaborated, and co-created the metrics on the rubric to define engagement at programmatic levels. ASSESS-IT's development supported stakeholder engagement to not only co-create but also evaluate program quality.

Stakeholder Engagement: Adding in a Rubric Dimension

Within academic programs, stakeholder engagement was evaluated as both a quantity and quality metric. Stakeholder quantity defined the variety of groups involved and the frequency of involvement while stakeholder quality identified the participation of the groups in academic programs from information sharing to collaboration. For example, academic programs demonstrated that they engaged employers, students, faculty, staff, and alumni, the frequency of those interactions, and how the information was used to improve student learning. ASSESS-IT development process reinforced and rewarded programs for stakeholder engagement and stimulated discussion on who is and is not engaged in programmatic assessment.

Rubric as a Teaching Tool

While not unique to this rubric, ASSESS-IT serves as a faculty development tool regarding the assessment of student learning and effective curriculum development in two ways. First, faculty from across the institution have clear criteria and standards to evaluate programmatic assessment activities that align with institutional expectations (Andrade, 2000). Second, by summarizing the findings of the ASSESS-IT and providing the aggregated results to faculty, a shared understanding of assessment, direct and indirect methods, levels of assessment, and exemplar tools across programs can be developed. Programs receive feedback on their individual reports with commendations, recommendations, or required changes along with the rubric language to explain the results. Additionally, the Assessment Council provides university best practices and overall results for each dimension so programs can benchmark against the university and gain insight into methods for improvement in assessment and reporting (Oregon Health & Science University, 2020).

Importance of Meaningful Rubric and Curricular Alignment

The ability of ASSESS-IT to be effective at the institutional level is dependent on the intentional and meaningful alignment of the institutional rubric with instruction and

The ASSESS-IT development process reinforced and rewarded programs for stakeholder engagement and stimulated discussion on who is and is not engaged in programmatic assessment.

Table 1
ASSESS-IT Rubric Elements and Standard for Exemplary Rating

Dimension	Exemplary Definition	Reference
Communication of SLOs	Student learning outcomes statements are prominently posted on the institutional website and made available to students.	Excellence in Assessment Rubric (National Institute for Learning Outcomes Assessment, 2019).
Progression	The difference between unique degree/certificate levels is clearly defined in the SLOs, if applicable.	Accreditation standards (Northwest Commission on Colleges and Universities, 2019, 2020).
Measurable SLOs	SLOs are measurable.	S.M.A.R.T. goals (Doran, 1981).
Alignment of Core Competencies to SLOs	Alignment of SLOs with OHSU core competencies is clear	Alignment of Standards And Assessments as an Accountability Criterion (La Marca, 2001).
Levels of Evaluation Outcomes	Assessment methods are appropriately aligned.	Moore's Outcome Framework (Moore, Green, & Gallis, 2009). Blooms' Taxonomy (Bloom et al., 2001)
Interpretation of Targets Met/Not Met	Program explores learner achievement by reviewing and interpreting their targets through a process of data analysis, comparison to peers, and discussion. This includes reflection about missed targets that could prompt a course or program change aimed at improving learning.	Using Evidence of Student Learning to Improve Higher Education (Kuh, et.al., 2015)
Engagement of Stakeholders in Program Assessment Planning & Review	Group and individual engagement regularly include representatives from a) faculty; b) staff; c) students; d) alumni; e) employers; f) external stakeholders/ advisory	Stakeholder Engagement Spectrum (Australian Nursing & Midwifery Accreditation Council, 2017).
Closing the Loop: Course Improvement Data or Course Evaluation Feedback	There is evidence that the program collected, analyzed, and used course level assessment data, not limited to course evaluation data, to inform student learning improvement in at least one course.	Excellence in Assessment Rubric (Banta & Blaich, 2011; National Institute for Learning Outcomes Assessment, 2019). Course improvement through evaluation (Cronbach, 2000). Standards for accreditation (Northwest Commission on Colleges and Universities, 2019, 2020). Key factors influencing student achievement: graduation, retention, completion, classroom environment, and student satisfaction (Elliott & Healy, 2001)
Closing the Loop: Evidence of Program Improvement	Assessment data have been analyzed and used to inform and/or improve the program	Establishing Academic Program Priorities (Shirley & Volkwein, 1978)
Closing the Loop: Address Assessment Council Feedback	The program responded to the assessment council's required feedback from previous assessment cycle, and no further required changes are necessary	Managing Quality in Higher Education: An International Perspective on Institutional Assessment and Change (Pennie, 2001; Brennan & Shah, 2000).
Inclusion of Sample Rubric	The program submitted a sample assessment method (i.e., rubric) which is well aligned with a core competency	Assessing outcomes and improving achievement: Tips and tools for using rubrics (Rhodes, 2010).

The meaningful process work of rubric development is an effective vehicle for educational quality improvement that reinforces transparency with not just what we assess, but how we assess.

program assessment activities. Vertical alignment of programmatic assessment activities with ASSESS-IT supports the ability to use data to inform change at the course, program, or institutional level (Liu, Wrobbel, & Blankson, 2010; Vidic & Weitlauf, 2002). To ensure alignment, the Assessment Council engages in Assessment Academy workshops to educate faculty and staff and commits to maintain a diverse membership who advocates for alignment of assessment activities within their respective programs and curricular councils.

Conclusion

Through meaningful collaboration, the Assessment Council developed ASSESS-IT to evaluate programmatic assessment activities across the institution. The development process required the Assessment Council to make explicit their approach to institutional assessment, which included redefining the purpose of institutional assessment, revising graduation core competencies, and restating programmatic expectations across the institution. The authors provide ASSESS-IT development process and template as an institutional model in which to build and revise other institutional models.

The next steps in ASSESS-IT refinement include examining the validity and reliability of scoring the rubric as well as developing stronger alignment with the co-curricular assessment activities. To this end, the authors will examine ASSESS-IT's inter-rater and intra-rater reliability to determine the extent to which the rubric yields consistent results. Through this ongoing rubric development process, the authors encourage others to focus on both the significant outcomes of rigorous rubric development, but also on the process of fostering a culture of assessment through the engagement of diverse stakeholders, educator development, and alignment of assessment and curricular goals and improvements. The meaningful process work of rubric development is an effective vehicle for educational quality improvement that reinforces transparency with not just what we assess, but how we assess.

References

- Alsina, Á., Ayllón, S., Colomer, J., Fernández-Peña, R., Fullana, J., Pallisera, M., Pérez-Burriel, M., Serra, L. (2017). Improving and evaluating reflective narratives: A rubric for higher education students. *Teaching and Teacher Education*, 63, 148-158. <https://doi.org/10.1016/j.tate.2016.12.015>
- American Educational Research Association, American Psychological Association & National Council on Measurement in Education. (2014). *Standards for Educational and Psychological Testing*. American Educational Research Association: Washington, DC.
- Australian Nursing & Midwifery Accreditation Council. (2017). *Stakeholder Engagement Framework*. Retrieved from <https://www.anmac.org.au/document/stakeholder-engagement-framework>
- Banta, T. W., & Blaich, C. (2011). Closing the assessment loop. *Change: The Magazine of Higher Learning*, 43(1), 22-27. <https://doi.org/10.1080/00091383.2011.538642>
- Banta, T. W., & Palomba, C. A. (2014). *Assessment essentials: Planning, implementing, and improving assessment in higher education*. John Wiley & Sons.
- Bloom, B. S., Airasian, P. W., Cruikshank, K. A., Mayer, R. E., Pintrich, P. R., Raths, J., & Wittrock, M. C. (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Longman.
- Brennan, J., & Shah, T. (2000). *Managing quality in higher education: An international perspective on institutional assessment and change*. Buckingham, England: Organisation for Economic Co-operation and Development, Society for Research into Higher Education & Open University Press.
- Council for Higher Education Accreditation. (2019) *Toolkit for CEOs and CAOs: Making the case for quality*. CHEA/CIQG Publication Series. <https://files.eric.ed.gov/fulltext/ED603175.pdf>
- Cronbach, L. J. (2000). Course improvement through evaluation. In D. L. Stufflebeam, G. F. Madaus, & T. Kellaighan (Eds.), *Evaluation Models: Viewpoints on Educational and Human Services Evaluation* (pp. 235-247). Springer Netherlands. https://doi.org/10.1007/0-306-47559-6_14.
- Dawson, P. (2017). Assessment rubrics: Towards clearer and more replicable design, research and practice. *Assessment & Evaluation in Higher Education*, 42(3), 347-360. <https://doi.org/10.1080/02602938.2015.1111294>
- Doran, G. T. (1981). There's a S.M.A.R.T. way to write management's goals and objectives. *Management Review*, 70(11), 35-36.
- Elliott, K. M., & Healy, M. A. (2001). Key factors influencing student satisfaction related to recruitment and retention. *Journal of Marketing for Higher Education*, 10(4), 1-11. https://doi.org/10.1300/J050v10n04_01
- Fulcher, K., & Orem, C. (2010). Evolving from quantity to quality: A new yardstick for assessment. *Research & Practice in Assessment*, 5, 13-17. <http://www.rpajournal.com/dev/wp-content/uploads/2012/05/A25.pdf>
- Glassman, A. M., Zell, D., & Duron, S. (2014). *Thinking Strategically in Turbulent Times: An Inside View of Strategy Making: An Inside View of Strategy Making*, Armonk, N.Y.: Routledge. <https://doi.org/10.4324/9781315698717>
- Goodwin, L. D., & Leech, N. L. (2003). The meaning of validity in the new standards for educational and psychological testing: Implications for measurement courses. *Measurement and Evaluation in Counseling and Development*, 36(3), 181-191. <https://doi.org/10.1080/07481756.2003.11909741>
- Groover, C., McBryaer, J.S., Cleveland, R., & Riggs, A.J. (2019). Utilization and perceived utility of institutional administrative and student affairs assessment resources. *Research & Practice in Assessment*, 14, 52-64. <https://www.rpajournal.com/dev/wp-content/uploads/2019/07/A4.pdf>
- Hutchings, P. (2010). Opening doors to faculty involvement in assessment. *NILOA Occasional Paper*, 4. https://learningoutcomesassessment.org/documents/PatHutchings_000.pdf
- Jonsson, A., & Svingby, G. (2007). The use of scoring rubrics: Reliability, validity and educational consequences. *Educational Research Review*, 2(2), 130-144. <https://doi.org/https://doi.org/10.1016/j.edurev.2007.05.002>
- Kuh, G. D., Ikenberry, S. O., Jankowski, N. A., Cain, T. R., Ewell, P., Hutchings, P., & Kinzie, J. (2015). *Using evidence of student learning to improve higher education*. San Francisco, CA: Jossey-Bass.
- La Marca, P. M. (2000) Alignment of standards and assessments as an accountability criterion, *Practical Assessment, Research, and Evaluation*, 7(21). <https://doi.org/10.7275/ahcr-wg84>

- Lennertz, W. R., & Lutzenhiser, A. (2006). *The charrette handbook: the essential guide for accelerated, collaborative community planning*. Chicago: APA, American Planning Association.
- Liu, M., Wrobbel, D., & Blankson, I. (2010). Rethinking program assessment through the use of program alignment mapping technique. *Communication Teacher*, 24(4), 238-246. <https://doi.org/10.1080/17404622.2010.513002>
- Montenegro, E., & Jankowski, N. A. (2017). Equity and assessment: Moving towards culturally responsive assessment. *Occasional Paper*, 29. <https://learningoutcomesassessment.org/documents/OccasionalPaper29.pdf>
- Moore, D. E., Green, J. S., & Gallis, H. A. (2009). Achieving desired results and improved outcomes: integrating planning and assessment throughout learning activities. *Journal of Continuing Education in the Health Professions*, 29(1), 1-15. <https://doi.org/10.1002/chp.20001>
- Moskal, B. M., & Leydens, J. A. (2000). Scoring rubric development: Validity and reliability. *Practical Assessment, Research & Evaluation*, 7(10), 71-81. <https://doi.org/10.7275/q7rm-gg74>
- National Institute for Learning Outcomes Assessment. (2011). *Transparency Framework*. Retrieved from Urbana, IL: <https://www.learningoutcomesassessment.org/ourwork/transparency-framework/>
- National Institute for Learning Outcomes Assessment (2018, February). *The Assignment Charrette Toolkit*. Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA). <https://www.learningoutcomesassessment.org/ourwork/assignment-charrette/#1549481918909-4e924c6d-3b02>
- National Institute for Learning Outcomes Assessment. (2019). *Excellence in Assessment (EIA) Designation*. Retrieved from <https://www.learningoutcomesassessment.org/eia/>
- Northwest Commission on Colleges and Universities. (2019). *NWCCU Standards*. Retrieved from <https://www.nwccu.org/accreditation/standards-policies/standards/>.
- Northwest Commission on Colleges and Universities. (2020). *2020 Standards for Accreditation*. Retrieved from <https://www.nwccu.org/wp-content/uploads/2019/08/2020-NWCCU-ERs-and-Standards-1.pdf>.
- Oregon Health & Science University. (2020). *Assessment for Educators: Reports*. Retrieved from <https://www.ohsu.edu/education/assessment-educators>.
- Pennie, I. (2001), "Managing Quality in Higher Education: An International Perspective on Institutional Assessment and Change", *Quality Assurance in Education*, 9(2), 116-117. <https://doi.org/10.1108/qa.2001.9.2.116.1>
- Rhodes, T. L. (2010). *Assessing outcomes and improving achievement: Tips and tools for using rubrics*. Washington, DC: Association of American Colleges and Universities.
- Shirley, R. C., & Volkwein, J. F. (1978). Establishing academic program priorities. *The Journal of Higher Education*, 49(5), 472-488. <http://dx.doi.org/10.2307/1980511>
- Simper, N. (2018). Rubric authoring tool supporting cognitive skills assessment across an institution. *Teaching & Learning Inquiry*, 6(1), 10-24. <http://dx.doi.org/10.20343/teachlearning.6.1.3>
- Suskie, L. (2014). *Five dimensions of quality: A common sense guide to accreditation and accountability*. San Francisco: Jossey-Bass. <https://doi.org/10.1353/rhe.2016.0021>
- The State University of New York. (2020, September 24). *Assessing Institutional Effectiveness Self-Assessment*. Retrieved from <https://system.suny.edu/media/suny/content-assets/documents/academic-affairs/assessment/Institutional-Effectiveness-Rubric-Branded.pdf>
- Timmerman, B. E. C., Strickland, D. C., Johnson, R. L., & Payne, J. R. (2011). Development of a 'universal' rubric for assessing undergraduates' scientific reasoning skills using scientific writing. *Assessment & Evaluation in Higher Education*, 36(5), 509-547. <https://doi.org/10.1080/02602930903540991>
- University of Delaware. (2020, September 24). *UD's General Education Rubrics*. Retrieved from <https://ctal.udel.edu/resources-2/rubrics/>
- University of Hawai'i at Manoa. (2020, September 24). *Rubric for Assessment the Quality of Program-level Student Learning Outcomes & Assessment Plans*. Retrieved from <http://manoa.hawaii.edu/assessment/resources/rubrics/rubric-for-assessing-the-quality-of-program-level-student-learning-outcomes-assessment-plans/>
- Vidic, B., & Weitlauf, H. M. (2002). Horizontal and vertical integration of academic disciplines in the medical school curriculum. *Clinical Anatomy: The Official Journal of the American Association of Clinical Anatomists and the British Association of Clinical Anatomists*, 15(3), 233-235. <https://doi.org/10.1002/ca.10019>

- Wald, H. S., Borkan, J. M., Taylor, J. S., Anthony, D., & Reis, S. P. (2012). Fostering and evaluating reflective capacity in medical education: developing the REFLECT rubric for assessing reflective writing. *Academic Medicine*, 87(1), 1-50. <https://doi.org/10.1097/acm.0b013e31823b55fa>
- Wicinski, M.L., Burr, K., Pinkey, G.L. (2020). Assessing assessment: Using a rubric to improve quality and enhance communication. *Assessment Update*, 32(5), 6-14. <https://doi.org/10.1002/au.30227>
- Yudkowsky, R., Park, Y. S., & Downing, S. M. (2019). *Assessment in health professions education*: New York: Routledge. <https://doi.org/10.4324/9781138054394>