ASCN

Accelerating Systemic Change Network
Promoting knowledge development to support instructional change in higher education

Critical Resources for Aligning Faculty Work with Systemic Change
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List of Critical Resources

American Association for the Advancement of Science. (2013). *Describing and Measuring Undergraduate STEM Teaching Practices*. Washington, D.C.
> *This report from the National Meeting on the Measurement of Undergraduate STEM Teaching provides an overview of methods for describing and measuring undergraduate STEM teaching practices, including surveys, interviews, teaching observations, and teaching portfolios.*

Association of American Universities. (2017). *Essential Questions & Data Sources for Continuous Improvement of Undergraduate STEM Teaching and Learning*. Washington, D.C.
> *This resource complements AAU's* Framework for Systemic Change in Undergraduate STEM Teaching and Learning *and provides a set of questions and tools designed to assess progress along the institutional elements identified in the* Framework. *These questions and tools can be used to support institutional initiatives that target evidence-based teaching and learning, measuring teaching effectiveness, equity and inclusion, and designing learning spaces.*

Association of American Universities. (2013). *Framework for Systemic Change in Undergraduate STEM Teaching and Learning*. Washington, D.C.
> *This resource, part of the AAU Undergraduate STEM Education Initiative, provides a set of key elements for institutions to address in order to bring about sustainable change in higher education. The purpose of this framework is to guide institutions in adopting and supporting evidence-based teaching practices in STEM.*

Association of American Universities. (2017). *Progress Toward Achieving Systemic Change: A Five-Year Status Report on the AAU Undergraduate STEM Education Initiative*. Washington, D.C.
> *This status report on the AAU Undergraduate STEM Initiative draws from instructor surveys, department chair narratives on policy and practice, and campus- and department-level assessments of learning spaces from the project sites.*

Commission on the Future of Undergraduate Education. (2017). *The Future of Undergraduate Education: The Future of America*. Retrieved from: https://www.amacad.org/cfue
> *This report provides a comprehensive national strategy, based on three practical and actionable recommendations, for supporting student success in the 21st century.*

Dennin, M., Schultz, Z. D., Feig, A., Finkelstein, N., Greenhoot, A. F., Hildreth, M., Leibovich, A. K., Martin, J. D., Moldwin, M. B., O'Dowd, D. K., Posey, L. A., Smith, T. L., & Miller, E. R. (2017). Aligning practice to policies: changing the culture to recognize and reward teaching at research universities. *CBE—Life Sciences Education, 16*(4), p. 1-8.
> *In this review, the authors highlight the gap between existing policies at many research institutions, which explicitly value teaching, and their tenure and promotion practices that do not do the same. The authors present four guiding principles for aligning practice with formal policies and three examples of existing initiatives on university campuses.*

Dolan, E. L., Elliott, S. L., Henderson, C., Curran-Everett, D., St. John, K., & Ortiz, P. A. (2018). Evaluating Discipline-Based Education Research for Promotion and Tenure. *Innovative Higher Education, 43*(1), 31–39. https://doi.org/10.1007/s10755-017-9406-y
> *As the number of DBER faculty members in STEM departments grows, the purpose of this essay is to facilitate the evaluation of scholarly accomplishments of DBER faculty for purposes of tenure and promotion.*

Flaherty, C. (2018). Teaching Eval Shake-Up. *Inside Higher Ed*. Retrieved from:
https://www.insidehighered.com/news/2018/05/22/most-institutions-say-they-value-teaching-how-they-assess-it-tells-different-story
Flaherty describes recent changes in the tenure and promotion processes at two institutions, the University of Southern California and the University of Oregon, involving discontinuing the use of student evaluations as part of these decisions.

Gillman, R. A., Hensel, N. H., Salomon, D. A., & Wilhite, S. C. (2018). *Refining the Paradigm: Holistic Evaluation of Faculty to Support Faculty and Student Learning*. Retrieved from: http://newamericancolleges.org/wp-content/uploads/2018/06/NACU_REFINING-THE-PARADIGM_READER.pdf
The authors present a holistic approach to evaluating faculty work that includes an integrated perspective on teaching, scholarship, service, and professional development. They provide guidelines for application of this approach as well as examples.

Kezar, Adrianna. (2019). *Scaling Improvement in STEM Learning Environments: The Strategic Role of a National Organization*. Washington, D.C., Association of American Universities.
This report summarizes the initial observations and assessment of the first years of AAU's Undergraduate STEM Education Initiative. It provides key lessons for scaling change in STEM teaching and learning.

Miller, E., & Broussard, C. Matrix of institutional policy and practice innovations. Updated: 6/6/18.
This developing resource maps the landscape of policies and practices that evaluate and reward teaching, scholarship, and service from a variety of institutions in higher ed.

Miller, E. R., Fairweather, J. S., Slakey, L., Smith, T., & King, T. (2017). Catalyzing Institutional Transformation: Insights from the AAU STEM Initiative. *Change: The Magazine of Higher Learning, 49*(5), 36–45. https://doi.org/10.1080/00091383.2017.1366810
The authors describe the development of AAU's Undergraduate STEM Education Initiative, the approach AAU took to building this network, and the results of the Initiative thus far. They also provide recommendations for undergraduate STEM education reforms based on the work of the Initiative.

Royal Academy of Engineering. (2018). *Career Framework for University Teaching: Background and Overview*. London.
This report provides a template for universities to guide and measure faculty members' teaching successes and achievements, with the goal of encouraging institutions to appropriately reward effective teaching.

Royal Academy of Engineering. (2016). [Table: Examples of evidence that could be included in a promotion case for each level of teaching achievement, structured within four evidence domains]. Taken from *Does teaching advance your academic career?* London.
This table, taken from a report on treatment of teaching in promotion decisions, provides a practical list of assessments, reliable sources of information, and actionable examples of evidence regarding teaching that could be used in promotion decisions in higher ed.

Taber, K. S. (2013). Three levels of chemistry educational research. *Chemistry Education Research and Practice, 14*(2), 151–155. https://doi.org/10.1039/C3RP90003G
In this editorial, the author provides a three-category typology of submissions received by the journal, based on the extent to which the submission is specifically concerned with teaching and learning in chemistry.

Wieman, C. (2015). A Better Way to Evaluate Undergraduate Teaching. *Change: The Magazine of Higher Learning, 47*(1), 6–15. https://doi.org/10.1080/00091383.2015.996077
In this article, the author considers current methods of evaluating teaching at research universities and proposes a new method for evaluation based on teaching methods, the Teaching Practices Inventory.