



# Grand Challenges 2020-2026 Strategic Plan

## Using Assessment Findings to Improve Student Learning through Pedagogical Improvements

### Introduction

(From Singer-Freeman and Robinson, 2020)

Assessment findings should be used to direct immediate pedagogical improvements. Too often, assessment findings are not utilized to direct immediate pedagogical improvements, in part because the work of closing the loop in student learning outcomes assessment is too slow to benefit the students who are assessed or to improve the instruction or course design of those who are teaching (Eubanks, 2017; Maki, 2017). We must find ways to make changes in response to assessment findings within the space of a single class through formative assessments (Dirlam, 2017; López-Pastor & Sicilia-Camacho, 2017; Maki, 2017). The rapid increase in online teaching and adaptive learning provides opportunities for assessments to take place in real time and may result in a shift to individualized instruction (Deeley, 2018; Neuman, 2017). Integration of information about student cognitive skills, social-emotional development, and current academic accomplishments can now be provided rapidly to faculty and students (Baer, 2017). This information can be used to improve pedagogy by providing faculty with information about how their current pedagogy is impacting individual students. If technology provides timely data to students and faculty, these data can support the rapid delivery of interventions to enhance and support student success (Baer, 2017; Shacklock, 2016). To measure the success of immediate pedagogical improvements, it will be important to measure student learning over time and encourage students to reflect on their own learning.



## Plan Structure

### Goal 1: Improve measurement of student learning over time

**Objective 1.1:** Identify measurement strategies to evaluate the impact of using assessment to effect pedagogical changes

**Objective 1.2:** Promote strategies that effectively measure student learning over time

### Goal 2: Increase the use of assessment to guide rapid and equitable improvements in learning

**Objective 2.1:** Identify equitable assessment practices that guide rapid improvements in pedagogy

**Objective 2.2:** Translate research to teaching practices that guide rapid pedagogical improvements

**Objective 2.3** Broaden the use of data-driven rapid improvements to pedagogy



## Full Plan

### Goal 1: Improve measurement of student learning over time

To provide rapid improvements to pedagogy it is essential to have good measurements of student learning over the time they spend in a single class. It is only by correctly identifying learning that is taking place in real time that we can identify effective areas for pedagogical interventions. The purpose of this goal is to uncover new and improved strategies for measuring student learning over time, discuss those strategies with stakeholders, and establish corporate partnerships for improving the use of technology to support data collection and analysis around classroom learning.

#### Objective 1.1: Identify measurement strategies to evaluate the impact of using assessment to effect pedagogical changes

We will identify and improve measurement strategies and related tools and technologies instructors and administration use to document and evaluate student progress in the learning environment.

Year	National Tactics	Local Tactics
1	<b>Evaluate literature for tools and technologies to evaluate learning</b> Include adaptive learning, formative assessments, ePortfolio, learning outcome dashboards, and developmental learning outcomes; review national datasets to identify variables used for both course assessment and integrated planning; Evaluate impact on immediate and long-term learning; Identify where in sequence of courses growth is measured	<b>Form discussion groups</b> to study use of class assessments measuring changes in learning; Share findings at assessment day or campus forum
2	<b>Create national survey</b> of users to assess efficacy of different practices in different disciplines for different students - Use NILOA Transparency Framework to assess cultural responsiveness; Identify strategies and tools that support equity and access; Recruit faculty to discuss findings with students at a diverse range of institutions	<b>Identify and Share</b> campus best practices and promising examples at a campus forum; Increase ease of access to disaggregated student data
3	<b>Partner with technology companies.</b> Fine-tune technology-based on formative and summative assessments to improve usefulness, accuracy, and equity of measurements	<b>Increase or pilot use of measurements of change</b> Offer statistics and learning outcome data support; Adopt new supportive technologies; create policies to protect faculty during pilots
4	<b>Initiate pilot programs</b> at partner institutions (4-year, 2-year, and professional schools) - Form user groups for each institution type	<b>Assess and improve pilots</b> - join national pilot; provide evaluation and statistics support
5	<b>Collect and analyze</b> year 1 data from pilot programs	





## Goal 2: Increase the use of assessment to guide rapid and equitable improvements in learning

As we work towards this goal we will identify and promote ways to leverage findings from measurements of student learning that are conducted during a class to respond with individualized activities that will maximally support future learning.

### Objective 2.1: Identify equitable assessment practices that guide rapid improvements in pedagogy

In recent years there has been a rapid increase in the use of in class measurements of learning to direct pedagogical adaptations. However, there has not yet been careful attention to the ways in which these new techniques might influence educational equity or student success. To meet this objective, we will review the current published research and encourage careful evaluation of assessment practices that are directing rapid pedagogical changes to evaluate the extent to which the practices are effective and equitable.

Year	National Tactics	Local Tactics
1	<b>Develop literature repository of assessment practice that guides pedagogical improvements</b> - Develop criteria for reviewing research and determining efficacy and equity of practice; Identify practices resulting in effective and equitable outcomes; Draft and submit review of literature that meets identified criteria	<b>Submit case studies of effective and equitable practices</b> ; Create policies to protect faculty during pilots
2	<b>Host Rapid Learning Improvement strand at 2022-2023 national conferences</b> to encourage assessment of learning improvement strategies that can be used within a single class offering <b>Disseminate findings from the literature review and advertise online repository</b>	<b>Send faculty to rapid learning improvement strands</b> at conferences - provide support
3	<b>Issue calls for special issues on effective changes made in courses from assessment findings</b> - Add to digital repository; Create calls around gaps identified during campus discussions (Objective 2.2) possibly: limitations; impact on social-emotional learning, academic self-efficacy, and ability to reflect on learning; embodied classroom experience; equity; intersections of lived conditions of classroom with life beyond classroom; assessment as a communicative act; ways digital and analog technologies structure and document course experience	<b>Encourage faculty submissions to special journal calls</b> - To support faculty provide publishing stipends
4	<b>Establish disciplinary calls for research, special issues, or conference tracks</b> ; develop guides to assess threshold concepts and propose pedagogical solutions to help students achieve threshold concepts and discipline-specific competencies; Add new information for disciplinary strands to the online repository	

**Costs** - Time for work; Stipends for committee members; Pay for conference travel and consulting work; website construction and maintenance



**Possible Contributors** - AALHE, NILOA, and POD Network.

**Performance Goal** – If successful, we will spur the field of assessment to engage in careful evaluation of assessment practices that are directing rapid pedagogical changes to identify and promote practices that are both effective and equitable. Within five years, the field will have a greatly improved understanding of the tools and techniques that can be used to create effective and equitable adjustments to teaching during a class.

**Objective 2.2: Translate research to teaching practices that guide rapid pedagogical improvements**

To achieve this objective, we must take the collected knowledge from Objective 2.1, develop and gain feedback on flexible strategies that instructors and administrators can use to guide their implementation of effective and equitable assessment for rapid improvements in pedagogy. Because some of the work of this objective relies on efforts to fulfill Objective 2.1, this objective work will not begin until year 2.

Year	National Tactics	Local Tactics
2	<b>Enlist campus groups to discuss literature review</b> include faculty, students, assessment leaders, and faculty development leaders; Solicit feedback from career and tech ed, community college, liberal arts, and research institutions; Summarize findings and use to direct future research (solicited in Year 3 for Objective 2.1).	<b>Host discussion of literature review</b> – Support attendance by providing food
3	<b>Develop guides and training for instructors to implement equitable assessment for rapid improvements</b> - Collect feedback on use of guides; Create guides and publish thought pieces that encourage assessment to be regarded as communication that improves the experience of students and instructors and holds no punitive connotations	<b>Provide professional development</b> for use of equitable assessment for rapid improvements - Provide substitutes so instructors can shadow/mentor others; Provide data evaluation and statistics support
4	<b>Issue a call for case studies of effective use of data-driven rapid improvements.</b>	<b>Encourage faculty to pilot and share use of data-driven rapid improvements</b> - Create policies to protect faculty from negative repercussions during piloting

**Costs** – Time to develop materials and gather feedback

**Possible Contributors** - ACPA members have expertise on equitable formative assessment practices in co-curricular settings; AALHE could feature examples of formative assessment practices that can be implemented at the local level; NILOA

**Performance Goal** – If successful, we will create a rich array of resources to support the effective and equitable use of assessment data to direct rapid improvements in teaching.





## Appendix A - Membership

### Co-Chairs

**Merideth Garcia, Ph.D.**, Assistant Professor of English at the University of Wisconsin-La Crosse where she teaches courses in first-year writing, gen-ed literature, fan studies, English teaching methods, and field supervision. Her research focuses on the social dynamics of networked classrooms and the construction of inclusive and sustainable teaching and learning environments.

**Justin Hoshaw, M.S.**, Associate Professor of Biology at Waubesa Community College and Outcomes Assessment Liaison. He has taught biology and microbiology for a decade, striving to include new technologies, bring faculty together through the sharing of resources and increased communication, and advance assessment for learning improvement. He has edited textbooks, written and edited test-banks, and written lab manuals. He collaborated with colleagues to implement new solutions and questions for students across the institution.

**Jessica Taylor, Ph.D.**, Assistant Professor of Education Ed.D. Program at Lincoln Memorial University. Her research interests focus on community college students and the factors that contribute to their success through their behavioral responses to failure and academic feedback remains a priority in teaching and in service to the Conference on College Composition and the Council of Writing Program Administrators.

### Members

**Michael Ben-Avie, Ph.D.**, Senior Director of Learning Assessment and Research at Quinnipiac University and a Senior Fellow at AAC&U. He co-edited six books on educational change and youth development with colleagues at the Yale Child Study Center. He conducts longitudinal, cohort studies to discern the impact of higher education on students' learning and development. He develops predictive models using an AI to inform the design of university interventions to promote students' persistence, academic achievement, and graduation. IBM developed a "use case" of his research analyzing institutional data for accreditation and academic program review. He received Campus Technology's Impact Award for his analysis of a 10-year longitudinal cohort study of college success. He also translates research about neuropsychiatric disorders into instructional strategies and assistive technology.

**Chris Blankenship, Ph.D.**, Associate Professor of English Linguistics, and Writing Studies at Salt Lake Community College where he teaches composition courses and core courses in the Writing Studies and Linguistics programs His research focuses on writing studies, pedagogy, assessment practices, and academic labor.

**Dr. Kimberly K. Daugherty**, Professor and Assistant Dean of Academic Affairs and Assessment at the Sullivan University College of Pharmacy and Health Sciences. She has over 40 publications and has received research funding. She has served as the American Association of Colleges of Pharmacy (AACP) Assessment Sig Chair and in leadership positions for the Michigan Pharmacists Association and Kentucky Society of Health System Pharmacists. She serves as a reviewer for professional peer-reviewed journals. She has received various awards, such as the Department of Health and Human Services Secretary's Award, the National Associates Competition of the American College of Physicians, and the AACP Assessment SIG Collaborative Publication Award.



**Yao Hill, Ph.D.**, Associate Faculty Specialist in the Office of Assessment and Curriculum Support Center at the University of Hawaii at Manoa. Yao coordinates academic-degree programs learning assessment and organizes institutional assessment projects. She considers herself a professional faculty developer in addition to an assessment specialist.

**Bryant Hutson, Ph.D.**, University Director of Assessment for the University of North Carolina at Chapel Hill. Previously Director of the Faculty Teaching and Learning Commons and Associate Director for Student Academic Services at the University of North Carolina at Greensboro. His research focuses on the application of positive psychology and strengths-based theories in higher education assessment practice. He has co-authored four books and over 40 articles and book chapters related to the use of assessment to support academic achievement and institutional change. He received the North Carolina College Personnel Association Distinguished Scholar Award and the Noel-Levitz Retention Excellence Award.

**Susan N. Kahn, Ph.D.**, Assistant Director of Assessment in the Office of Institutional Effectiveness and Evaluation at Texas A&M University. She has taught undergraduate and graduate courses in assessment, research, and policy issues in higher education and has guided masters and doctoral studies in adult learning and workforce development. She is passionate about quality leadership in policy and practice for excellence in institutional effectiveness and equity in learning outcomes.

**Serafina Pastore, Ph.D.**, Researcher and lecturer in the Department of Education at the University of Bari (Italy). Her research interests include the study of assessment in higher education, formative assessment, feedback, and teacher assessment literacy. She has extensive experience in the educational assessment field and evaluation studies.

