Inventories Used in Developing the Inventories

Context
The SAGE 2YC Faculty As Change Agents project is building a national network of self-sustaining communities of 2YC geoscience faculty and administrators who use evidence-based impact to improve all students' academic success, broaden participation, and facilitate students' professional pathways into the STEM workforce. A synergistic program of research and evaluation that is fully integrated in the project includes the development of two new inventories.

Purpose of the Inventories
The purpose of each inventory is two-fold: to assist geoscience educators in self-assessing their educational practices, and to provide a list of evidence-based practices for supporting the academic success of all students, broadening participation in the geosciences, and facilitating the professional pathways of 2YC students. Either instrument can be used to trace changes over time through multiple applications.

Educational Practices
The Inventory of Educational Practices focuses on evidence-based practices that individual faculty members can implement, both within and outside of the classroom. It has sections on questions about how often faculty incorporate active learning strategies; how often students engage in doing what scientists do; how often faculty incorporate metacognitive, motivational, and scaffolding strategies in their teaching; what kinds of opportunities faculty tell students about; and what actions faculty take to support students' professional pathways into the geosciences.

Geoscience Department and Program Practices
The Inventory of Geoscience Department and Program Practices focuses on evidence-based practices that geoscience departments or programs can implement. It has sections on questions about how often course and program design and assessment; attracting students to your program; fostering a sense of belonging; supporting and engaging a diverse population of students; facilitating students' professional pathways into the geosciences; and departmental culture.

Instruments Used in Developing the Inventories
Partnership for Undergraduate Life Sciences Education (PULSE) Vision and Change Rubrics
CWSEI Teaching Practices Inventory
2016 National Survey of Geoscience Faculty

Feedback
We invite your feedback on these instruments. Please see the handouts.

The Inventory of Educational Practices and the Inventory of Geoscience Department and Program Practices: Two new instruments in development from the SAGE 2YC Project

Items related to supporting student academic success ask about what teaching methods faculty use, what students do in class, and how faculty structure courses to support student learning.

Items related to broadening participation ask about how faculty share information about opportunities for students and about strategies for mitigating stereotype threat.

Items related to facilitating students' professional pathways ask about how faculty build students' awareness of geoscience careers and the pathways to those careers.

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