December 16, 2013

Hi Folks,  Following the Graduation Success Team Meeting I'd like to suggest a few more resources related to the "Barrier/Gateway Courses" Committee's work.  In the Earth Sciences we have engaged a national program for faculty professional development as a key component of supporting student success. Two online modules we've created demonstrate the  importance of the Affective Domain and Metacognition in developing coursework to ensure student success.

The Affective Domain resources can be found here:
 http://serc.carleton.edu/NAGTWorkshops/affective/index.html  . There was a rich discussion on the importance of persistence this morning. I would also suggest that self-efficacy, the student's belief that they can learn, is also a highly important indicator of student success.   A large part of this module also involves a) identification of barriers to learning (which are often cultural) and b) enhancing students' motivation to learn.  Cognitive functions are closely related  to the affective domain, and learning simply can't take place if students are otherwise concerned about external factors that affect their ability to learn (e.g. the self perception that "I can't do math").

The Metacognition resources can be found here:
 http://serc.carleton.edu/NAGTWorkshops/metacognition/index.html .We have been emphasizing self-monitoring and self-regulatory behaviors that help students be aware of their learning and how to accept more personal responsibility for their learning. In particular, Karl Wirth, Macalester College, has been advocating the use of a "parallel curriculum" in which he overtly has his students do metacognitive reflections in the context of  his "content" classes to become "intentional learners" (see attached document on Learning to Learn).  Karl will be doing a one-day workshop here at MSU (on May 18) on these topics the day prior to the Rocky Mountain GSA Meeting that our department is hosting. Perhaps teaching faculty from MSU may be interested in attending.  I would also like to suggest that one of my colleagues from the Metacognition workshop, Saundra McGuire a chemist from Louisiana State University, has done a remarkable job in using metacognitive interventions to increase retention and overall academic success, particularly for students from underrepresented groups. She would be a tremendous person to invite to MSU to share her knowledge and methods in increasing student success rates.  See her webpage at: http://chemistry.lsu.edu/site/people/Faculty/Saundra%20McGuire/item1128.html

In the Department of Earth Sciences, I am committed to assigning my "A" team to teach our introductory courses—that means our senior instructional staff who are experienced and committed to excellence in the introductory course.  I would suggest that across MSU that we really need this commitment in all our Intro courses.  I don't think that it is sufficient to have a dedicated "college skills" course to help students engage college life (as important as the First Year Seminar courses are). This really has to be done "across the curriculum" and scholarly skills need to be practiced early and often.  Perhaps one key to student success would be to enhance faculty professional development so that all of our Intro faculty would be trained in effective use of the Affective Domain and Metacognition to help students establish a firm academic foundation.

The above information is just for your information. Use whatever may be useful.
David Mogk
Head, Dept. Earth Sciences