

EM@FSE

Robust Assessment

By Gary Lichtenstein
Email: gary.lichtenstein@asu.edu
Director of EM@FSE Program
Effectiveness
Ira A. Fulton Schools of Engineering

Gary's Working Hypothesis:

EM instruction not assessed or assessed weakly will fail to enhance student EM competency because superficial (or EM-lite) assessment fails to stimulate students' curiosity, prompt them to make connections, or encourage them to create value.

EM Assessment Best Practice	Explanation
1. The assessment requires students to demonstrate curiosity, make connections, and/or create value.	If students are not required to demonstrate proficiency related to the 3Cs, we have to question whether entrepreneurial mindset competencies are being assessed.
2. EM is assessed using EM@FSE 2.0 (a-q) indicators.	EM@FSE is FSE's branding of EM. These indicators reflect College-adopted competencies across all ABET-accredited programs.
3. Each EM@FSE indicator is assessed <i>explicitly</i> .	Make sure students know when EM is being taught and/or assessed. Use EM@FSE language when possible. Identify indicators by letter: e.g. EM@FSE(a).
4. Each EM@FSE indicator is assessed <i>individually</i> .	Assess one score per indicator, as opposed to one score for multiple indicators at once.
5. The assessment indicates a level of performance <i>at, above, and below</i> proficient.	After grading, faculty can determine whether 70% of students scored 70% proficient or better.
6. EM indicators are assessed multiple times during the term.	Multiple grades (2x-4x/term) reinforces skills with target EM indicators, as well as boosts reliability of assessment.

When creating assessments, please consider these *Qualities of Effective Assessment*

1. Meaningful—Learning Objectives are relevant and valuable relative to the goals of the course.
2. Valid/Fair—you assess Learning Objectives, which you have taught.
3. Reliable--you (and your graders) apply the same criteria in assessing every student's exam/deliverable.
4. Efficient--grading doesn't take excessive time or energy.
5. Feedback is speedy and actionable.
6. The assessment experience provides students an opportunity to grow.

Contact Gary to brainstorm creative strategies and solutions.