**WHY ARE INDIRECT MEASURES REQUIRED?**

Why are both direct and indirect evidence of student learning required? Here's an example. If students self-report on a survey (indirect evidence of learning) that their knowledge of world geography is excellent but later fail a multiple-choice world geography test (direct evidence), that's useful information. The indirect evidence by itself tells a different story without the direct evidence of students' knowledge. Direct evidence, by itself, can reveal what students have learned and to what degree, but it does not provide information as to what the student *thinks* they did or did not learn. Perception by students can directly affect program outcomes and student learning and should always be taken into consideration.

However, one of the most often missed pieces in an assessment plan is the indirect measure. Below are just a few suggestions of indirect measures a program can implement.

---

**WHAT ARE SOME EXAMPLES OF INDIRECT MEASURES?**

**Student surveys**
- **Pros:** Can administer to large groups for a relatively low cost.
- Analysis of responses typically quick and straightforward.
- Should include questions of self-evaluation of perceived outcome achievement.
- Cons: Low response rates are typical.
- With self-efficacy reports, students’ perceptions may be different from their actual abilities.

**End-of-course or mid-semester course surveys**
- **Pros:** Analysis of responses typically quick and straightforward.
- May allow both common questions across all courses and choice of questions.
- Cons: Difficult to summarize the results across courses
- May be property of individual faculty members.

**Alumni surveys**
- **Pros:** Can administer to large groups for a relatively low cost.
- Analysis of responses typically quick and straightforward.
- Cons: Low response rates are typical.
- If no up-to-date mailing list, alumni can be difficult to locate.

**Employer surveys**
- **Pros:** Can administer to large groups for a relatively low cost.
- Analysis of responses typically quick and straightforward.
- Provides a real-world perspective.
- Cons: Low response rates are typical.
- May have a very limited number of employers to seek information from.

Although we continue to work remotely, we are always available for a consult via Zoom or email. Ingrid’s email is novod@arizona.edu and Elaine’s is evmi@arizona.edu.