The Twisted Path of Assessment Development
Michelle Malone and Scott Linneman

**The Problem:**
How to assess the effectiveness of an interactive web object about mountain building

**List prepositional knowledge statements (PKS)**

**Validate PKS with geology faculty**

**Review misconceptions literature about mountain building and plate tectonics**

**Develop and administer open-ended survey of WWU 101 students**

**Pilot assessment with Geology 101 students**

**Develop conceptual M/C items (related to PKS) with free-response reasoning**

**Determine face validity for coverage of PKS and misconceptions**

**Interview with subjects for item validity**

**Administer Delayed Post-test (M/C version and essay version)**

**Administer Post-test (M/C version and essay version)**

**Develop 2-tier multiple-choice diagnostic assessment (1st tier - content, 2nd tier - reasoning)**

**Administer Pre-test (M/C version and essay version)**

**Share validated assessment with community (e.g. FLAG)**

**START HERE**

**FINISH!**