Multiscale/Multi-institution Labs

University of Victoria, Mount Royal University, University of Alberta
Multi-institution Experiment (Across Alberta)

- Looking at implementing a province-wide experiment. Data acquisition done at various institutions and data are entered into a central database.

- Students gain experience with large database.

- Encourages collaboration between institutions
SCI 100 at University of Alberta currently runs a lab on water hardness where students sample from a variety of locations, run analyses, and then enter data on database.

- Students engaged--using their own samples.
- Part of a team effort
- See problems with good and bad data.
Obstacles to implementation are mostly in the planning/collaboration stage

- Course (10X, 2XX?)

- Experiment development/agreement

- Alberta Chemistry Educators (ACE)—use as a platform for ideas on common experiments/favorite experiments
Multi-institution Experiments

- Chemistry is expensive to teach and there are limited resources for some.
- Outreach to high schools in rural areas where students come to campus to do laboratory work.
- Outreach to small campuses (with no senior-level Chemistry) where students visit to do instrument/resource intensive work (The Center for Authentic Science Practice in Education—CASPIE at Purdue)