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Educational Goals Assessment Data Sources

Below is a list of possible data sources that could be collected and analyzed to assess Educational Goals. This is a list of options and intended to be a resource. It isn't expected that units use all of these, but rather select those that make the most sense for them.

Assessment of Educational Goals should contain direct and indirect measures of student learning. Direct measures are examples of student work that demonstrate their attainment of an educational goal. These are normally taken from student assignments, ranging from scores on particular exam questions that align with an educational goal, projects, capstones, and portfolios. Indirect measures are other indicators that students attained an educational goal, that can come from alumni perceptions, faculty perspectives, reports from co-op advisors or preceptors.

Curriculum Mapping and Analysis

Name of Data	Purpose	Notes
Curriculum Map	An analysis that maps where and how educational goals are taught and assessed in a program's curriculum. Shows sequence of learning in a program, identifying gaps and unhelpful overlaps.	Recommend that units focus mapping efforts on key courses Methods of mapping may include: Level of attainment of Ed Goal in a course (Introduce, Develop, Proficient); Instructional strategies; particular assessments that are aligned with an Ed Goal. Mapping typically results in a table that shows, at a glance, which EGs are addressed in which courses.
Comparator Analysis of Peer Institutions	Analyze peer institutions' learning outcomes to identify what differentiates your program, and to see different institutions' approaches to teaching in a discipline.	
Curriculum recommendations or guidelines, produced by disciplinary organizations (not accreditation requirements)	Provides broad expectations for graduates in a discipline and/or recommendations for areas or core concepts that should be addressed in a curriculum.	These have not been developed for all disciplines Two examples are: Computing Science: Computer Science Curricula 2013 (ACM & IEEE) Biology: Vision and Change in Undergraduate Biology Education (AAAS)

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Direct evidence from existing student generated data

Type of Data	Name of Data	Purpose	Notes
Course-generated student Work	Assignment/Exam Question Scores	Scores on assignment rubrics or exam questions that are aligned with EGs can be used to measure student attainment of the EG.	Need to be closely aligned with EG to be a valid measure. Needs to come from targeted courses/assignments.
Course-generated student work	Sample of student work	Student work from assignments that are aligned with EGs can be used to measure student attainment of the EG.	Needs to come from targeted courses/assignments. Student work can be randomly sampled and re-assessed. When analysing this data, some units report on overall trends and suggest areas for improvement; others determine and track the proportion of students whose work either meets or exceeds expectations for a given educational goal. In some units, instructors re-assess work, reflecting on attainment of educational goals. In others, instructors re-assess work using custom rubrics that are aligned with the educational goals. Units that want to use custom rubrics may find it helpful to use or adapt rubrics developed by the AACU under its VALUE (Valid Assessment of Learning in Undergraduate Education) project. These assess fundamental skills, such as written and oral communication, critical thinking, teamwork, etc.
Course-generated student work	Capstone projects or experiences	Can show how students integrate knowledge attained throughout the degree.	
Program-generated student work	ePortfolios	Can be used to assess achievement of educational goals, and show progression through the degree	
Program-generated student work	Public Student Scholarship	Assess the quality of student work that is publicly presented in venues such as student colloquia or poster presentations.	May not capture a representative sample of student learning.

Program-generated student work	Student theses/publications /conference presentations		Collectively authored works may not provide evidence of an individual student's learning.

Direct evidence from student generated data that needs to be collected

Type of Data	Name of Data	Purpose	Notes
Assessment Questions	New assessment questions for course-based assessments	Develop new questions, targeted to Educational Goals, to be embedded in existing course assessments.	Needs to align with learning that happens in the course
Validated survey instruments	Concept inventories	Tests student understanding of key disciplinary-specific concepts.	These have not been developed for all disciplines. Need to be aligned with Educational Goals. Typically administered as pre-post surveys (either same cohort, or comparing cohorts).
Validated survey instruments	Attitude surveys	Tests whether students have adopted more expert-like attitudes in a particular area of study.	These have not been developed for all disciplines. Need to be aligned with Educational Goals. Typically administered as pre-post surveys. Best used to measure differences in same cohort over long time frame (e.g comparing 1st and 4th year students), or comparing different groups of students (e.g. majors and non-majors).

Indirect evidence from existing data

Type of Data	Name of Data	Purpose	Notes
Report	Preceptor reports from student	Determine student attainment of educational goals in a practical setting	

	practicum/internship placements		

Indirect evidence from stakeholder consultations

Instruments commonly used for stakeholder consultations include surveys, interviews, and focus groups.

Stakeholder Group	Purpose	Notes
Students	Identify the degree to which they feel they are attaining educational goals. Identify gaps and unhelpful redundancies across multiple courses. Can provide insight into the interaction of curricular and co-curricular learning (e.g. co-op), and student experiences of your program.	Consultation should focus on students who are leaving the program or nearing program completion.
Employers and other Community Stakeholders	Identify key knowledge/skills they expect and/or desire from recent graduates, as well as perceived strengths and weaknesses of the program. Provide insight into current needs and emerging trends.	
Faculty	Describe strengths and gaps in the curriculum, as well as provide insight into emerging disciplinary trends that can be incorporated into the curriculum, and/or what distinguishes your program from peer institutions.	
Alumni	Identify the degree to which they feel they attained educational goals. Describe knowledge/skills they attained in their program that they use and/or value, as well as knowledge/skills that would have benefitted them. Provides an overview into alumni trajectories after graduation.	Alumni can be challenging to access. The BC Graduate Outcomes survey of program graduates may provide insight into alumni perspectives.

Additional existing data sources

Type of Data	Name of Data	Purpose	Notes
Survey	SFU Undergraduate Student Survey	Unit-specific data can provide context into student experiences of learning	

Survey	BC Student Outcomes Baccalaureate Graduates Survey	Unit-specific data can provide context into student experiences of learning and of their pathways 2 years post-graduation.	
Report	Unit external review	Identifies strengths, challenges and recommendations for program improvements	Program-level insights and recommendations should be analyzed alongside Educational Goals; Educational Goals may need to be revised in light of External Review findings.

 Adapted from *Curricular Review Evaluation Methods*, Gavan Watson, Teaching Support Centre, Western University