

Questions and Responses

Innovation and

Productivity Roundtable

Laurentian University, Sudbury, ON

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TEACHING QUALITY & LEARNING OUTCOMES

Questions

1. If government shifts funding to focus more heavily on learning outcomes, what do you think will be the likely benefits for students? What are the drawbacks and how can they be overcome?
2. How can we determine and measure learning outcomes in Ontario? Are you aware of any best practices in this regard based on your experience and research?
3. What barriers do we need to overcome to create a more robust culture of teaching and learning in Ontario?

Response

There are some difficult issues that need to be addressed in discussing learning outcomes, particularly at a university level.

At a two year college level or for programs that are directly aimed at the current job market, it is possible to define competencies and level of achievement (i.e., mastery - 100%, or competence: 50% or more) on usually some form of quantitative assessment or general, specifically-defined criteria that are easily observable. This also applies to some aspects of university teaching, such as comprehension, memory and some procedural skills, such as solving equations or using a microscope.

However, defining learning outcomes related to immediate employment requirements is dangerous, as it is training specifically for current needs and not for future needs, which are less easily identified. It is particularly dangerous in areas where practice and knowledge undergoes rapid change. In particular, while appropriate for an old industrial economy, such a focus on externally determined learning outcomes based on employers' immediate needs is not going to produce the flexible learners we need in a knowledge-based society.

The more one moves to more generic or 'abstract' skills or competencies, such as 'flexibility' or 'communications skills', the more difficult it is to have quantitative measurements that will be generally agreed to or which can be externally set.

At a university level, it becomes even more difficult. How do you measure creativity, originality, or critical thinking? One relies increasingly on subjective assessment by 'experts'. Thus, we end up having the learning outcomes both being set and being assessed by faculty, using subjective judgments, because they are the experts.

Furthermore, learning is not about pouring information from an instructor into a student's head, but about the mental development of students. As students vary considerably in their needs and abilities, this requires some flexibility in determining which learning outcomes are most important or most needed at a particular point in time. As students become more confident or skilled, they may choose valid learning outcomes themselves (think of a literature course, where a female student prefers to look at gender issues in a novel where the teaching focus is on other aspects).

In a number of jurisdictions, there have been moves to have externally defined learning outcomes and criteria for assessing such outcomes externally set, especially in the K-12 area. This usually results in setting learning outcomes that can easily be measured or assessed quantitatively. This is, in fact, a cause of a great deal of difficulties for students when they come to post-secondary education if their curriculum has not encouraged creative or critical thinking, which cannot so easily be assessed quantitatively.

Now this does not mean that setting learning outcomes is not useful. The question though is, "Who should choose these outcomes, who should assess them, and by what criteria?" There are very good reasons for leaving this decision in universities to well-trained faculty, who have a good understanding of pedagogy, or for faculty working with instructional designers who do. Unfortunately, this often does not happen. However, this is a training issue.

A different approach, such as that being reviewed in Texas, focused not so much on learning outcomes for individual students, but at institutional outcomes with respect to learning. Rather than looking at student-based outcomes as a basis for funding, Texas is looking at productivity and performance outcomes as part of the basis for funding¹. While this may lead to changes in how students experience their college or university programs, it does seek to avoid some of the issues described above.

TECHNOLOGY-ENABLED LEARNING

Questions

1. High quality electronic content is being produced from many sources, such as elite global universities and inter-jurisdictional consortiums like the Western Governors. This content comes in many forms from webcast lectures, open source e-books, and online evaluation tools.

Given that today's students learn in new ways and will hopefully continue to be life-long learners, how should government ensure that we have a system capable of serving students with a range of needs using technology – be it the full-time student or the single parent working two jobs?

¹ See <http://www.texastribune.org/texas-education/higher-education/outcomes-based-higher-ed-funding-plans-moving-forw/> for a description.

Response

Government can ensure we have a system capable of serving students with a range of needs using technology by doing the following to ensure:

1. Students have technology access in three ways:
 - a. Either through regulation or funding, students have the broadband Internet access necessary for online learning, wherever they live in the province.
 - b. Financial aid does not penalize students who study intermittently or part-time rather than full-time; aid should be proportional to the time spent studying and independent of the mode of study (this may be a federal rather than a provincial issue).
 - c. There are provincial accessibility standards (based on international best practice) for all online learning for students with disabilities.
2. Ontario has a consistent set of standards for credit transfer, both between institutions within the province, and for credentials obtained outside the province. The province needs to implement the Ontario Council for Articulation and Transfer (ONCAT) as quickly as possible; in the meantime, institutions need to be encouraged to facilitate transfer arrangements on a partnership basis without waiting for a system-wide solution: without credit transfer, there is no encouragement for students to take online programs from out of province. In the long run, the result of poor credit transfer arrangements will be a higher cost per graduate, lack of competitiveness in the labour market and loss of enrolments as Ontario students opt for out-of-province providers for their entire program or who permit block transfer. This becomes more urgent by the day.
3. Through the degree quality assurance approval process, all institutions offering online teaching are meeting the provincial quality assurance standards for online learning (this should apply to all institutions, not just college degree programs).
4. That every institution has an institutional plan or strategy for digital learning (preferably as part of its overall planning process), as a condition of provincial funding (accepting that there may be good reasons for limited use of digital learning in some cases); the aim is to encourage institutions to think through carefully how they plan to offer programs in the future and not just default to campus-based delivery.
5. The requirements for pedagogical training for all faculty and instructors are strengthened: without pedagogical training, the benefits of online learning will not be properly developed. The Ontario government should work with stakeholders to ensure there is a province-wide program for the pre-service training and accreditation of post-secondary instructors.

6. Leadership training is facilitated and provided in the management of learning technologies.
7. A provincial approach to open content, open research and open publishing is encouraged.
8. Dedicated funding is provided for the development of online courses and programs in ways that will stimulate greater collaboration and cooperation between Ontario institutions (i.e., a province-wide, fully online bachelors' program in areas such as business administration, general arts, technology, and general science; collaborative or joint graduate programs).