

Introduction

Much of what is known about undergraduate research in the Canadian context is anecdotal, un-standardized, and uneven. There is relatively scarce published or other readily accessible information and evidence.

Part of the reason for this lack of national level data is that within Canada, education is under provincial jurisdiction, and therefore, the responsibility of the ten provinces and three territories. Canada, as a federal state, is different than its nearest neighbour the United States of America because it does not have federal office or department of education.

Canada has a Council of Ministers of Education (CMEC), an intergovernmental body, founded in 1967 by ministers of education with the stated goals to provide:

- a forum for discussion of policy issues;
- mechanisms to undertake activities in areas of mutual interest;
- a means through which collaboration between education organizations and the federal government can occur; and,
- a group to internationally represent the interests of provinces and territories (CMEC, 2010).

Given the lack of federal jurisdiction over education in Canada, there is no single standard or stated objective for undergraduate student research, thus, there is wide provincial and institutional variation in the available undergraduate research opportunities.

In this poster you will be provided a synopsis of the type of research activities that are currently available within the Canadian context. This synopsis represents a snapshot rather than a comprehensive list of all opportunities. Following the list you are asked to consider how more students could engage in research and you are provided one approach.

Canadian Student's Research Awareness

Turner et al (2008) examined student awareness of research at two institutions within the UK and one within Canada. They determined that Canadian students were much more aware than their UK counterparts that faculty (i.e., staff in the UK) were undertaking funded research (**77% in Canada vs average of 38% in the UK**).

However, this awareness did not necessarily translate in to a positive perception of research by the Canadian students as these students reported significantly higher scores than their UK counterparts on questions asking about faculty's inability to explain material; lack of in academic welfare of the students and their research interests distorting what they teach (Turner, 2008).

It must be recognized that this data represents information from three institutions and it is a snapshot in time; it does not necessarily represent national differences but it does allow one to ask interesting questions about different levels of appreciation of the research process.

The Opportunities

Prestige Awards

- Undergraduate Student Research Awards (USRA) that provide funding for students to engage in research for a 16 week period offered by the national science and engineering research council (NSERC, 2010).
- Provide a deep meaningful experience for a select group of students
- McMaster University provides internal funding for USRAs in Arts & Science, Business, Humanities and Social Sciences
 - nearly 24,000 undergraduate students in 2009-10; 114 NSERCs, 10 Humanities; 12 Social Sciences and 4 Arts & Science students were funded representing <0.6% of student population (School of Graduate Studies, 2010).
- University of British Columbia hosts the Rising Stars of Research Annual Conference for students to present their research in an academic conference (UBC, 2010).
- A number of examples of on-line, peer-reviewed publications emerging for students to publish their work (Lethbridge, 2010; McGill, 2010; SFU, 2010).

Honour's Thesis

- Independent research project, overseen by a faculty supervisor (staff in the UK).
- Summative piece of work, typically in the form of a 10,000 word thesis.
- Sometimes completed as part of a small group of students typically with a larger project and larger summative piece of work upon completion.

Experiential Research Opportunities

- Variety of 'hands-on' learning opportunities for students to engage in research.
- These may include co-operative learning placements (e.g., University of Waterloo); internships; and, transcript notation relevant work experience.

The Big Question

Research has shown, that student participation in research enhances their learning (Russell et al., 2007). The examples provided from Canada describe deep and meaningful experiences for a small group of students. **How can we provide deep and meaningful research opportunities for a greater number of students?**

One Possible Answer

Inquiry Learning. Inquiry promotes student-directed learning and helps the student to develop the skills necessary to acquire and reflect on new knowledge and understanding (Spronken-Smith & Walker, 2010; Healey & Jenkins, 2009; Justice et al., 2007; Healey, 2005; Vajoczki et al, (in review a & b).

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