Active Learning Classrooms

External Context

The National Survey for Student Engagement (NSSE) is a respected indicator of student engagement that has been used by more than 800 universities across North America. Both first year and fourth year students are surveyed; results provide audiences with a sense of how a given university is perceived by both commencing and graduating students. The multiple-choice questions are aligned with five benchmarks for educational practice, which are based upon extensive educational research on post-secondary student engagement:

1. Level of academic challenge
2. Active and collaborative learning
3. Student-faculty interaction
4. Enriching educational experiences
5. Supportive campus environment

McGill Context

McGill University implements the NSSE every two years. The results indicate that McGill scores high on the Level of Academic Challenge and does moderately well with Enriching Educational Experiences. However, there is opportunity for significant improvement in the areas of Active and Collaborative Learning, Student-Faculty Interaction, and Supportive Campus Environment.

Several initiatives were undertaken to address these areas. In 2005, the Principal's Task Force on Student Life and Learning was launched. In July 2006, Dr. Morton J. Mendelson was named the first Deputy Provost of Student Life and Learning. The far-reaching goals of the Task Force include enhancing undergraduate student life and learning at McGill University. The Provost's June 2006 strategic plan includes an emphasis upon a variety of aspects of the undergraduate experience. This intensive emphasis upon students has led to McGill's current self-identification as a student-centered, publicly funded, research-intensive university.

Another initiative, the Teaching and Learning Spaces Working Group (TLSWG), was formed in 2006 to create a vision for teaching and learning space development aligned with University directions and to establish teaching space standards based on sound pedagogical principles with the aim of enhancing students' learning experience at McGill. In 2007, the TLSWG developed a set of principles for designing teaching and learning spaces based on the NSSE benchmarks. Since 2007, the TLSWG has worked incrementally to make renovations that promote student-faculty interaction (SFI) and active and collaborative learning (ACL). In 2009, the TLSWG took a bold step towards enhancing active and collaborative learning by funding the transformative redesign of two existing classrooms to become Active Learning Classrooms.

Active Learning Classrooms (ALCs)

Two Active Learning Classrooms were created in 2009 and one in 2010 based upon research, planning, and extensive input from the McGill community. These rooms draw from the SCALE-UP (Student-Centered Active Learning Environment for Undergraduate Programs) principles and classrooms at over 40 universities across North America.

The deployment of the ALCs does not end with their construction but rather continues through carefully planned support services to assist professors in the unique opportunities afforded by these spaces. Based in part upon visits to other universities that are successfully using similar classrooms with highly positive feedback, as well as upon consultation and feedback gathered from the survey responses of over 50 professors and from support units who have already been involved in active learning classrooms, McGill University's teaching and support units (TLS, ICS, CCS, NCS) are collaborating to provide enhanced support to professors throughout the academic year. While McGill has always supported instructors in their use of classrooms for teaching, the support for these new spaces includes specialized one-on-one and group consultations, technical support for professors (on-site, telephone and e-mail), and instructional guides. An emphasis upon inter-unit collaboration between TLS, campus instructional technology units (ICS, CCS, NCS), and Enrolment Services has allowed those with expertise in various areas to contribute towards the success of this endeavor. In keeping with this emphasis upon transparency and collaboration, these rooms are available for use by all Faculties at McGill.

The brief details below describe some of the aspects of these two classrooms that can contribute to students' active engagement with course content, collaboration between students, and interaction with faculty.

	Features	Room Layout
Burnside 511	• Movable wall allows for room to be split into two smaller rooms: a classroom of ~23 (6 tables of 6-8 students), and one small seminar room of ~10 that can be used for breakout sessions • Every student has access to a high-powered computer with specialized software • Presenter can show two sources • Furniture facilitates interaction and collaboration among students • Software can be used to share students' screens with entire classroom	
Education 627	• 8 round tables of ~9 students • Students have access to 2 computers per table (plus laptops) • Presenter can show two sources • Furniture facilitates interaction and collaboration among students • Students can share their screens at their table and with the entire classroom • Students have writing space on walls for collaboration	
Macdonald Stewart 2-028, 2-029	• Movable wall allows for room to be split into two smaller rooms of ~25 (total of 6 large tables of 8-9 students) • Students have access to 4 computers per table (plus laptops connections) • Presenter can show three sources • The furniture facilitates interaction and collaboration among students • Students can share their screens at their table and with the entire classroom • Students have writing space on walls for collaboration	

Support

We have implemented a comprehensive support strategy that includes the following components:

- *Community of practice e-mail listserv*: Instructors can share ideas and practices about teaching in the ALCs. The support team uses for communication with instructors.
- *Orientation to the Active Learning Classrooms*: New instructors gain familiarity with the room's layout and affordances.
- *Scheduled practice sessions*: Hands-on sessions for instructors to try out and familiarize themselves with specific features.
- *In-class tech support*: A student technology assistant provide the instructor with in-class technology support during the first weeks of class.
- *Mid-term instructors meeting*: Instructors can share experiences, pose questions and exchange information about teaching in the ALCs.
- *Instructors' debriefing meeting*: At the end of the term, instructors provide feedback on their experiences and the support received.
- *Instructional guides* on how to use the classroom's features and some equipment.
- *Individual consultations*: available upon request.
- *Classroom observations and feedback*: also available upon request.

Our partners in support are Content and Collaboration Solutions (CCS), Network and Communications Services (NCS), IT Customer Support (ICS) and Enrolment Services.

Evaluation

During the first year of the implementation of the first two ALCs, 1,277 students, both undergraduate (935) and graduate (342) students from seven different faculties experienced learning in these new classrooms. Forty courses were taught by 31 instructors in the two ALCs.

Students and instructors in Education 627 were asked to complete a questionnaire at the end of the term. The questionnaire was designed based on 4 of the benchmarks of effective educational practice from the NSSE. The response rate for instructors was 68.4% (13/19[1]) while the response rate for students is 53.2% (461/866).

Further details are available on the TLS website.

-- URLs for hyperlinks above --
National Survey for Student Engagement (NSSE): http://nsse.iub.edu/html/about.cfm
post-secondary student engagement: http://nsse.iub.edu/2004_annual_report/pdf/2004_Conceptual_Framework.pdf
Teaching and Learning Spaces Working Group: http://www.mcgill.ca/tls/spaces/tlswg
Principles for designing teaching and learning spaces: http://www.mcgill.ca/tls/spaces/tlswg/principles
Student-Centered Active Learning Environment for Undergraduate Programs: http://scaleup.ncsu.edu/
survey responses: http://www.educause.edu/Resources/PedagogicalTechnologicalSuppor/175297
Approaches to Teaching inventory: Trigwell, K, Prosser, M., & Waterhouse, F. (1999) Relations between teachers' approaches to teaching and students' approaches to learning. *Higher Education 37*: 57–70. Full text available at http://www.springerlink.com/content/h783327838855132/fulltext.pdf. Last access: February 9, 2011.
TLS website: http://www.mcgill.ca/tls/spaces/alc

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[1] The total number of instructors in Fall 2009 is 8 while the total number of courses is 9; one instructor taught two courses.