Queen's University

TEACHING AND LEARNING ACTION PLAN

FEBRUARY 2014

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Executive Summary

The **Teaching and Learning Action Plan** comprises the final recommendations of the **Provost's Task Force on the Student Learning Experience**, a group of faculty, staff and students given the mandate to propose specific sustainable initiatives and processes that would enhance the student learning experience. The **Task Force** was asked to make recommendations for academic and learning support units, to support the Queen's University Quality Assurance Processes, and to propose infrastructure, policy, and resource requirements related to teaching and learning.

The recommendations here build upon the key recommendations in the Student Learning Experience Pillar of the Senate Academic Planning Task Force's Academic Plan (2011), specifically that Queen's emphasize the development of fundamental academic skills (including integrating into curricula and developing pilot projects to foster their development), continue to develop an inquiry-based model of learning, and expand Queen's Learning Commons to appropriately support student learning. **The Task Force's** work has also been informed by the recommendations of other planning documents, such as the Strategic Mandate Agreement (2012), the Strategic Research Plan (2012), the Senate Academic Planning Task Force Report on Virtualization and Online Learning (2013), Principal's Commission on Mental Health (2013), the Strategic Enrolment Management Group Report (2013), the IT@Queen's External Review (2013), and the Library and Archives Master Plan (2013).

The Teaching and Learning Action Plan's recommendations are underpinned by several key principles; they must be **actionable**, **high-impact**, **sustainable**, **cost-effective**, and **informed by evidence-based practices in teaching and learning**.

The recommendations are intended to provide direction for both collective and individual innovation and improvement initiatives at the university, guide the development of strong support services for faculty, staff and students, and inform decision making with regard to all aspects of teaching and learning at Queen's.

See **Appendix I** for a full description of our mandate and process.

The Teaching and Learning Action Plan comprises fifteen recommendations:

1. Establish a University Teaching and Learning Committee
2. Revise the name, mandate and scope of the teaching and learning service unit (presently named the Centre for Teaching and Learning)
3. Establish a competitive, university-wide teaching enhancement program
4. Establish a learning analytics program and develop supporting tools
5. Develop university-wide support for eLearning
6. Enhance first-year transitional programs for students and assess these regularly
7. Define experiential learning at Queen's, and develop offerings, including self-sustaining curricular and co-curricular opportunities for students
8. Review the effectiveness of structures and approaches to academic and career advising across Queen's
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11. Create mechanisms to hire teaching-focused faculty positions, that include scholarship of teaching and learning in higher education
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13. Ensure that Queen's University Quality Assurance Processes emphasize collaborative program improvement
14. Implement a Queen's credential in teaching and learning in higher education
15. Secure external resources to partly fund the recommendations of the Student Learning Experience Task Force

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Introduction

Queen's University is recognized for its quality learning environment and spirited student body. The university community views itself as a balanced academy with a full-spectrum research profile and excellent academic programs. However, the teaching and learning environment in higher education is evolving rapidly due to changing student demographics, increased enrollments, and research in cognitive science and education. Post-secondary institutions also face pressure to use more effective pedagogical practices, increase flexibility in programs, develop new and innovative programs, develop and use active learning spaces, provide more opportunities for experiential and entrepreneurial learning, and demonstrate the value of a degree to stakeholders, including students, parents, employers and government bodies.

The call for greater accountability in the post-secondary sector has led to a new quality assurance framework[1] for all Ontario universities, which places greater emphasis on demonstrating student learning. There is renewed emphasis on developing and assessing key transferable academic skills, such as critical thinking and communication[2]. New learning technologies can improve learning environments but require additional support for both instructors and students[3]. Shifting demographics means that universities will be serving more international students, more adult and professional learners, and more non-degree students[4], potentially over distances and through educational technology as well as face-to-face.

Higher education research demonstrates that there are key principles underlying effective learning environments (e.g. Ambrose, Bridges, DiPietro, Lovett, & Norman, 2010; Bransford, Brown, & Cocking, 1999; Hattie, 2008). Abundant evidence supports the value of enhancing traditional university instruction with active learning, collaboration (Lewis & Lewis, 2005; Prince, 2004), departmental curriculum planning, and technology support.

Instructors at Queen's continue to innovate in course and program delivery by piloting new instructional approaches, explicitly developing and assessing learning outcomes, and incorporating educational technology, and incorporating active learning strategies in the classroom. Currently instructors face significant barriers to large-scale redevelopment of courses or programs; a significant investment of time is required to apply new approaches, develop new skills and expertise, consult with educational developers, and incorporate new technology[5]. This work is important because, although Queen's generally excels on the learning environment, there are areas for improvement, including active and collaborative learning and student faculty interaction, as measured by the National Survey of Student Engagement (NSSE). Faculty often need support from teaching and learning professionals with a wide range of skills and expertise, including curriculum specialists, educational technologists, and librarians.

Students also need new kinds of supports to ensure their success in this learning environment. As our curriculum evolves to include more active and collaborative learning, more experiential, entrepreneurial and community-service learning opportunities, and more technology-enhanced or online learning, our student support services will need to adapt and evolve[6].

Administratively, the teaching and learning environment has changed in the past few years. The university now has a Vice-Provost (Teaching and Learning), and three of the six faculties have appointed an administrator, either an associate dean or director, responsible for teaching and learning initiatives. These positions provide the means to create alignment among teaching and learning activities throughout the university; to ensure that central university activities and resources support faculty and departmental priorities; and reinforce programs and services that enable student learning.

The **Student Learning Experience Task Force** has identified key issues related to the learning environment at Queen's, all of which are addressed in the recommendations of this report. The **Task Force** endorses the **Academic Plan's** recommendation that Queen's make the teaching and learning of the fundamental academic skills a high priority. The development of these skills requires that we clearly articulate what we expect students to be able to do at each critical juncture of their studies, hence the emphasis on developing robust learning outcomes across courses and programs and integrating these into learning activities[7].

The **Task Force** identified four key principles to guide the development of recommendations. The group required that all recommendations:

1 Be directed towards processes that are likely to have sustained and broad impact on student learning;

2 Support evidence-based practices, where evidence is obtained from research literature or institutional data;

3 Include processes to measure impact; and

4 Consider resource implications.

Among the recommendations in this report is a proposal to establish a university committee to oversee the development and implementation of teaching and learning initiatives, and a recommendation for a revised mandate and structure for the university's teaching and learning services (currently called the Centre for Teaching and Learning). This is intended to encourage interaction among central teaching and learning services, other shared services (ITServices, Office of Institutional Research and Planning (OIRP), the Library, Queen's Learning Commons) and faculty-based teaching and learning professionals and distance study units. Such a structure will enable both large-scale strategic initiatives and small-scale innovations, foster collaboration among departments and faculties, ensure that Queen's is a leader in evidence-based teaching innovation and that students have access to a variety of high-quality learning experiences. Indeed, enacting this report's recommendations would be a significant step towards implementing recommendations in the Queen's Academic Plan.

Since a new **Campus Master Plan** is soon to be complete, this report does not make any specific recommendations about learning spaces. However, the University Teaching and Learning Committee (see **Recommendation 1**) will, as one of its responsibilities, advise appropriate units on classroom construction and redesign to support the adoption of active and collaborative learning, as well as student study space in alignment with the **Campus Master Plan** and the **Library and Archives Master Plan**.

Further, this report recommends an integrated approach to gathering and disseminating information about student learning and the learning environment to ensure that decision-making in the areas of program delivery, space management, and student support services is based on reliable and valid data. Finally, the **Task Force** proposes a variety of recommendations regarding evaluating and rewarding teaching, the creation of teaching-focused tenured or tenure-track faculty positions, support for the scholarship of teaching and learning, appropriate student supports that reflect the shifts in the learning environment, and training for graduate students in teaching and learning in higher-education[8].

These recommendations are intended to ensure that adequate supports are in place to foster evidence-based practices in teaching and learning. In accordance with the **Task Force's** Terms of Reference (see **Appendix**), the recommendations are more heavily weighted to undergraduate programs. Many of the principles apply to both graduate and undergraduate students and programs, however, and some pertain exclusively to graduate students.

The remainder of this document includes an overview of the state of the learning at Queen's and the fifteen key recommendations. The **Appendix** includes the Terms of Reference and a summary of the process followed by the **Task Force**.

RECOMMENDATIONS

1 Establish a University Teaching and Learning Committee

We recommend establishing a single committee with a combination of advisory and decision-making responsibilities to oversee teaching and learning initiatives across the university. This may involve subgroups to take on specific tasks, such as eLearning coordination, strategic redevelopment program, assessment, etc. Representatives from faculties and appropriate shared services will build alignment with institutional priorities and ensure effective communication and coordination among service providers. The advisory body will help to implement the recommendations of the **Task Force**, develop institutional policy, and advise the Vice-Provost (Teaching and Learning) on all matters regarding teaching and learning. It will also ensure that student perspectives are included in developing supports for faculty to improve the overall student learning experience.

Members:

- Vice-Provost (Teaching and Learning)
- Director of the teaching and learning service unit
- One dean's representative from each faculty (e.g. associate dean of teaching and learning, director of program development, or other position as delegated by the dean), the School of Graduate Studies and the Library
- One representative each from Student Affairs, ITS and OIRP
- A faculty or staff member with expertise in educational assessment
- One representative each from AMS and SGPS

This group will oversee programs recommended by the **Task Force**, such as:

- provide direction to the teaching and learning service unit (**Recommendation 2**)
- serve as an educational technology decision-making body, in consultation with appropriate groups in Queen's Information Technology governance structures
- oversee the creation of university-level learning outcomes (as set out in **Recommendation 14**)
- oversee the teaching enhancement program, along with an educational developer and ad hoc members
- oversee the direction of the learning analytics program (**Recommendation 4**), along with director of OIRP and ad hoc members
- ensure alignment between teaching and learning services and faculties' priorities

Some of these activities may require the formation of a subcommittee with appropriate members.

2 Revise the name, mandate and scope of the teaching and learning service unit (presently named the Centre for Teaching and Learning)

The current teaching and learning service unit, the Centre for Teaching and Learning, will have a new structure and mandate (possibly including colocation with related student academic support services and educational technology service units). The director of the unit will provide strong leadership and vision to help shape the development of teaching and learning services in alignment with the recommendations of this report.

The mandate of the revised unit will be to promote and enable high-impact, sustainable and cost-effective innovation, design, enhancement and assessment in teaching and learning in alignment with strategic priorities and the institutional mission of faculties and units within Queen's University. This aligns with a recommendation in the Academic Plan to promote greater coordination among learning support units.

The unit will work collaboratively with personnel doing educational development and assessment in faculties and other units, and be responsive to university priorities set by the University Teaching and Learning Committee.

The unit will:

- support **high-impact, evidence-based, innovative and sustainable strategic program enhancement initiatives**, such as course or program redesign, curriculum alignment and new program development (including QUQAP), and learning spaces (see **Recommendation 3**);
- develop a **full-service model**, including advising and consulting but also providing full instructional design, program redesign, educational technology, and program development services;
- provide a **seamless interface with educational technology** to support technology-enhanced learning (face-to-face, blended, online and distance delivery modes) by integrating Information Technology staff who support teaching and learning (as recommended in the Senate Academic Planning Task Force on Virtualization and Online Learning, see **Recommendation 4**);
- develop a **team approach to service delivery**, whereby projects are implemented by a variety of teaching and learning professionals
- create a **hub and spoke model**, ensuring coordination with teaching and learning services and service professionals in faculties and units at Queen's
- make **assessment** of student learning and student engagement a part of its core operations to ensure that program improvement decisions are grounded in data (see **Recommendation 4**);
- establish a **data warehouse** and develop effective means of collecting and disseminating data so that decision-making around every aspect of teaching and learning is based on evidence (see **Recommendation 4**); and
- support the development of laddered (allowing students to complete a certificate or diploma to be counted toward a degree program) and non-degree **credentials**. Provide support for the development of **expanded credentials** (diplomas, certificates, laddered to professional master's, non-degree, full-fee programs).

The following is a summary of the proposed structure:

Director: To take a strong leadership role in shaping teaching and learning services and implementing the recommendations of the **Task Force**

Advisory body: Oversight by University Teaching and Learning Committee

Staff: Educational developers, instructional designers and educational technology specialists, either faculty or staff positions

ITS: Co-reporting or integration of appropriate information technology staff

Post-docs, including some with PhDs in disciplines they are supporting who, work on teaching and learning initiatives

Librarian: appointed in the Library, who promotes the inclusion of information literacy in program enhancement and instructional design and effective leveraging of the Library's information resources.

3 Establish a competitive, university-wide teaching enhancement program

Queen's University is known for its high quality undergraduate experience, and for innovations across the university. However, faculty and departments face significant barriers to large-scale redevelopment, which often requires significant time investment to learn about and try new approaches, consult with educational developers, and invest in new technology. Evidence from repeated deliveries of the National Survey of Student Engagement (NSSE) outlined in a detailed report by Office of Institutional Research and Planning (OIRP) shows that Queen's has some areas of exemplary strength and some areas that have been identified as priorities for improvements (e.g. active and collaborative learning, student-faculty engagement) (see also Conway 2011, 2012 and NSSE Benchmark Comparisons). Abundant evidence supports the value of enhancing traditional university instruction with active learning, collaboration, departmental curriculum planning, and technology support, so a plan to support development in these areas will benefit our programs.

The **Task Force** recommends the development of a teaching enhancement program that would include:

a **High-impact program for large teaching enhancement projects:**

- large-scale strategic redevelopment encompassing an entire program, a grouping of large courses (e.g. large first year courses), or multi-departmental collaboration;
- appropriate resources (including educational developers, educational technologists, librarians, etc.);
- each project to be allocated a postdoctoral fellow in a relevant discipline who receives training in education;
- proposals must include a research question and an assessment component; and
- successful proposals could include a project targeting a group of large first-year courses that do not use evidence-based practices that impact a significant number of students (NSSE data could suggest appropriate places to start);

b **Innovations program** for smaller initiatives proposed by individual faculty, adjuncts, or other instructors, with two sub-categories:

- Faculty: Small-scale redevelopment within a course, but with potential for broader impact, a flexible spending timeline, some staff support, and renewable only in exceptional circumstances; and
- Graduate student instructor or teaching fellow: Small-scale proposals from graduate students and post-doctoral fellows responsible for teaching a course, including a flexible spending timeline and renewable only in exceptional circumstances.

Course and program transformation initiatives have already had a significant positive impact on learning, such as the Arts and Science Course Redesign project, which impacts nearly 9,000 student enrolments. The program employs the Classroom Survey of Student Engagement (CLASSE), a widely-used assessment tool to evaluate redesigned courses, results for which show statistically significant improvements in the NSSE subscales that Queen's has targeted for improvement: active learning in the classroom and student-faculty interactions.

This kind of program is already underway at other universities, for example the large-scale program -redesign Science Education Initiative at UBC is noting significant improvements in learning.[9]

4 Establish a learning analytics program and develop supporting tools

Gathering and disseminating key information on the state of learning, engagement, and perceptions of the community will enable units, faculties, and the university as a whole to make informed decisions. Learning analytics is commonly understood as the collection and analysis of data about learners and their learning patterns and behaviours in order to make improvements to curricula, learning environments, and student supports, as well as for institutional decision-making purposes.

It is important to effectively collect and evaluate the information documenting learning from various courses across the university. The information resulting from assessment can help to optimize the learning environment and help inform decisions. As part of the restructured teaching and learning services, the university should develop a learning analytics program that provides a trusted source of data that is integrated and easily accessible to all members of the community. These learning analytics projects in order of priority will include:

- measurement of key performance indicators;
- ongoing oversight of existing metrics (security, privacy, completeness, accuracy. linkages, etc.); and
- identification of future reporting priorities

The **Task Force** recommends establishing a dashboard and eventual Learning Analytics Tools to provide end users with the means to generate reports. We recommend that the learning analytics:

- use the static dashboard currently under development by the Office of Institutional Research and Planning for the next two years;
- determine the feasibility of purchasing a web-based analytics tool at the end of this pilot phase; and
- consolidate data sources, where possible, through Queen's Learning Management Systems.

This process should begin with a pilot project to mine and link existing data from learning management systems to produce information of interest to students, instructors, department heads and administrators. Because many units do not currently have a practice of using data to inform decision-making, decision-makers do not know what data to request, how to interpret it, and how to determine a set of metrics against which they want to measure themselves. The aim of the pilot project is to introduce units to the potential data sets and to survey faculty to learn more about their level of knowledge about using data and about what data would be of most use.

This pilot project should include the following steps:

1. For each of these stakeholders, generate a series of brief reports or profiles with quantitative data (tables and graphs) as well as a narrative explaining the results of a question of interest;
2. Conduct a brief, general survey as well as focus groups with targeted individuals from each sector to review these brief reports, discuss the results, and to assist in identifying further report topics;
3. Where we have appropriate data, provide the answers to the more common questions generated by these surveys and focus groups; and

4 Share these preliminary reports more broadly, perhaps via presentations in such venues as Committee of Departments, Faculty Boards, and/or AMS Assembly, as well as via a dashboard and/or infographics.

This program should be coordinated by a learning analytics and research group that is a subgroup of the University Teaching and Learning Committee (see **Recommendation 1**). This group would:

- advise the University Teaching and Learning Committee on matters relating to data gathering and communication and the evaluation of the student learning experience;
- act as a clearinghouse to coordinate and communicate the development of queries and the management of surveys that go out to students, staff, and faculty (regarding the student learning experience, program achievements, learning outcomes, faculty experience, and the long-term success of students);
- facilitate better integration of current in-house expertise to design new and ongoing teaching and learning research, reducing redundancy and survey fatigue;
- ensure that program evaluation remains focused on one or two institutional priorities, the results of which will drive institutional change;
- establish and oversee the application of appropriate surveys for faculty and students, including polls about student experiences with face-to-face, blended and online learning on an annual basis; and
- poll faculty regularly to better understand how the university might support them in the transition from face-to-face teaching to a variety of forms of technology-enhanced learning, including blended and fully online learning (the 2013 SAPTF report on Virtualization and Online Learning identifies that helping faculty to increase their knowledge and utilization of a learning management system is possibly more important than the tool itself).

5 Develop university-wide support for eLearning

Online learning, also known as eLearning, is changing rapidly and student demand for technology-enhanced learning of all kinds is increasing, partly because of the flexibility it provides in terms of scheduling and partly because of changing demographics among learners (e.g. more professional, adult and post-degree learners). Online learning also relieves space, infrastructure and timetabling constraints on campus. More importantly, however, models for online, blended and technology-enhanced education are quickly adapting to include a high level of student engagement.

A recent HEQCO study reviewed the evidence on online learning, and concluded:

> *The evidence reviewed suggests that, for a range of students and learning outcomes, fully online instruction produces learning that is on par with face-to-face instruction. The students most likely to benefit are those who are academically well prepared and highly motivated to learn independently. Students who are not well prepared to learn at the postsecondary level or do not devote the necessary time to learning are less likely to benefit from online learning and may in fact do better in a face-to-face setting.* (Carey & Trick, 2013, p. 2)

The Senate Academic Planning Task Force on Virtualization and Online Learning acknowledges that there are benefits and risks to using online technologies in teaching and learning, and the relative balance depends on how the technology is employed and supported, and that Queen's should encourage the incorporation of evidence-based practices in developing courses, and use such changes to contribute to pedagogical research. The Report concludes that no one medium is superior, but that appropriate technologies and evidence-based practice of teaching and learning are a good means to ensure the quality of the student learning experience.

As digital natives, students recognize and appreciate the opportunity to develop virtual communities of learning. A 2013 Educause Report, "The State of E-Learning in Higher Education: An Eye Toward Growth and Increased Access," found that 73% of student surveyed felt that educational technology helped them to achieve their academic outcomes, while 46% had taken an online course in the past year, and that 58% owned three or more internet-capable devices.

In order to enhance existing online learning and to facilitate quality growth and expansion, it will be important to provide appropriate resources for course development and structural supports. These could include:

- a single portal for all online courses and programs across the university;
- an eLearning speaker series;
- resources for eLearning specialists and instructors to attend eLearning conferences;
- support for eLearning early adopters; and
- encouragement for scholarly development of eLearning.

It will also be important to emphasize and support the scholarship of online teaching and learning, and encourage the scholarship of educational technology so that faculty can engage in learning activities and disseminate the results as part of their scholarly publications (see **Recommendations 9 and 10**). Finally, in order to give early adopters the room and support they need to explore new trends in technology-enhanced teaching and learning, instructors should be exempt from any negative consequences of evaluations during the implementation period, perhaps a one-year hiatus from USATs.

Massive Open Online Courses (MOOCs) have dominated recent media reporting in higher education. University Affairs called 2012 "the year of the MOOC", but many institutions are concluding that MOOCs do not achieve their educational goals and nor are they sustainable from a resource perspective. A recent article in the Chronicle of Higher Education, "MOOCs, been there, done that," suggests that, while morphing MOOCs into "ambitious textbooks" is unlikely to succeed, they do point to alternatives, such as hybrid or blended courses, and other technology-enhanced education. The **Student Learning Experience Task Force** agrees with The Senate Academic Planning Task Force on Virtualization and Online Learning recommendation that Queen's should not become involved in a MOOC at this time (p. 90).

6 Enhance first-year transitional programs for students and assess these regularly

The University recently reintroduced a number of programs to support undergraduate students with the academic and social transitions from high school to university learning. In 2012 the university reintroduced the S.O.A.R. program (Summer Orientation to Academics and Resources) that had previously been available to incoming Arts and Science students but which had been discontinued some years ago. This program runs over several days in July and provides incoming students from all faculties as well as their family members with the opportunity to attend sessions given by faculty, staff and upper-year students on academic preparedness, learning support services, course selection and academic advising. It also offers sessions on personal wellness and allows attendees to become familiar with all of the resources that support student success at Queen's.

With the generous support of donors, the university also introduced the QSuccess program in 2013-14. A recommendation of the Principal's Commission on Mental Health Report, this program provides first-year students with timely workshops during the first eight weeks of university on a number of academic and personal transition issues. Through a partnership between Student Affairs and the Faculty of Arts and Science, and with the generous support of The *Jack Project@Queen's*, the university has introduced a Bounce Back program for first-year students, whose first-semester GPA places them at risk of academic probation. The program assigns trained upper-year student mentors to work with first-year students who are struggling academically to help them get back on track in the second semester. In light of these programs, the **Task Force** recommends that the university:

- communicate regularly to faculty members, students, parents and the wider community about the availability and benefits of first-year transitional support programs to maximize the programs' reach and impact;
- regularly assess student transition and first-year student success programs to continue to ensure programming adapts to meet the needs of the increasing diversity of the student body; and
- continue to promote existing learning support programs to students in all years of study, with particular attention to reaching students in academic difficulty.

7 Define experiential learning at Queen's, and develop offerings, including self-sustaining curricular and co-curricular opportunities for students

There is a growing recognition of the importance of experiential learning in providing university students with the opportunity to combine traditional academic learning with practical experience both inside and outside the classroom (see Queen's University Strategic Mandate Agreement). Definitions of experiential learning vary and many institutions have developed their own definition and mandate with respect to experiential learning. A simplistic definition is "learning by doing"; a situation where the learner constructs knowledge, skill and value from direct experience.[10]

The recently developed Queen's University Strategic Mandate Agreement commits Queen's to helping students develop twenty-first century skills through entrepreneurial and experiential learning:

> *Today's students recognize the need to supplement the baccalaureate degree's academic and foundational skills, described by our Academic Plan as the "fundamental" outcomes of the Queen's student learning experience. Employers still value these skills highly, but are also looking for more specific career-related skills and experiences. The resulting combination of twenty-first century learning skills and experiential opportunities is what students need if they are to make productive contributions to Ontario's prosperity.* (p. 3)

Opportunities for experiential learning for students at Queen's vary across academic programs. The 2013 Exit Poll indicated that 48% of undergraduate students agreed or strongly agreed that their programs offered opportunities for experiential learning[11]. The Office of the University Registrar indicates that many prospective students ask about cooperative education and practicum opportunities during the student recruitment process and that a Queen's statement about experiential learning would be helpful in broadening the understanding that students can gain valuable experience outside of formal cooperative education programs.

Queen's does have many experiential learning opportunities, but there is no clearly understood definition of experiential learning across the university, such as internships, practica, courses that include service learning, undergraduate research opportunities, such as the Undergraduate Student Summer Research Fellowships, Inquiry@Queen's Undergraduate Research Conference, or the Matariki Undergraduate Research Network or (see Strategic Research Plan), as well as laboratory or other experiential components. In addition, no central directory exists of such opportunities for students. Career Services has recently embarked on a process to compile a map of all curricular experiential learning opportunities for students and that project is underway in partnership with academic departments. In addition, the university recently developed a co-curricular opportunities directory that allows students to search for co-curricular volunteer opportunities at Queen's and in the local community. This directory is regularly updated and has been well used by students looking for opportunities to enhance their experience at Queen's.

The **Task Force** therefore recommends that Queen's:

- establish an experiential learning group, potentially as a subgroup of the University Teaching and Learning Committee, with a mandate to facilitate the development and growth of self-sustaining curricular and co-curricular-based experiential educational opportunities for undergraduate and graduate students that build on existing programs and course offerings;
- develop a Queen's-specific definition of experiential learning and common language for associated terms (internship, practicum, community service learning etc.); and
- ensure collaboration, sharing of resources and the development of system-wide best practices to support instructors, administrators and faculties offering experiential learning opportunities with administrative support around program management.

8 Review the effectiveness of structures and approaches to academic and career advising across Queen's

Academic advising is an important service for students at university both in choosing a course of study and in assisting students to make informed decisions at all stages of their university careers. Academic advising at Queen's is delivered in a decentralized fashion at either the faculty or departmental level with varying approaches and resources dedicated to advising[12].

According to the University/College Applicant Study 2012 UCASTM, career preparation and exploring career options are key reasons students choose to attend university; according to the Queen's University 2012 Student Health and Wellness survey, the third highest source of stress for current students is worry about their future or career. A recent survey of undergraduate applicants to Queen's revealed that 42% of first-year students expect to frequently or very frequently speak with an advisor about preparing for and starting a career (UCASTM 2012). Despite the importance of both academic and career advising Queen's has not yet conducted a thorough assessment of the effectiveness of our advising models. While the NSSE and Exit Poll surveys each contain one question about advising, it is a summative overall satisfaction question. For example the 2013 Exit Poll results indicate that 58% of Queen's undergraduate students are "satisfied or very satisfied with academic advising/counselling."

In order to better integrate career and academic advising for students, a new committee was formed in the fall of 2012 that brought together staff advisors from each faculty with career advisors from three campus career centres. This group has already instituted promising practices, such as improved referral mechanisms and enhanced coordination and information sharing between units. While this coordination is very positive, this group has not able been able to address the broader question of whether Queen's has the right organizational structure to deliver the best quality academic and career advising for students. In alignment with the recommendation from the Principal's Task Force on Mental Health, which focuses on transitions from university to the working world, this report recommends that the university:

> Conduct a review of academic and career advising (working with faculties and current academic and career advisors) to assess structures and approaches and recommend possible changes to the overall model for career and academic advising at Queen's that meets student needs, expectations and demands.

9 Review the means by which teaching quality is assessed

Evaluating teaching quality across the university is a complex task that has been a point of discussion for many years. Teaching evaluations should provide formative feedback to instructors and teaching assistants from students, but must also have a summative function for the purposes of evaluating faculty performance by unit heads and deans. These sometimes conflicting requirements make the design of a system challenging. Instructors are increasingly using non-traditional instructional approaches, including project-based instruction, skill-based courses, team-taught courses, and technology-enhanced learning, which need to be accounted for in the tool for evaluating teaching[13].

It is important to gather relevant information on instruction and student learning both to inform decision-making about improving the learning environment (as identified in **Recommendation 5**), and as a summative assessment of instructors. Means should be sought to integrate these different functions of an assessment tool. Gravestock & Gregor-Greenleaf (2008) conclude that evaluations must be designed to match the institutional context, that policies need to be equitable, and that institutional support must be provided for evaluators in order to improve the reliability of the instrument (p. 73). Evidence indicates that there are significant limitations in relying on student evaluations of teaching only:

> *While students are effective at measuring in-class teaching behaviours and activities, they are not well-qualified to evaluate course content or teaching goals and other sources of information therefore need to be consulted.* (Gravestock & Gregor-Greenleaf, 2008, p. 14)

In 2007, a Teaching Assessment Committee submitted a recommendation to the Joint Committee for the Administration of the Agreement to revise the approach to assessing teaching at Queen's. Based on institutional research and the literature on student evaluation of university teaching, it recommended that a multi-faceted alternative system using self, peer and student-generated data on various components of an individual's teaching, on the basis of a self-reflection document, a course-planning document and a newly generated student questionnaire. Unit Heads and Deans were to use these multiple sources of data to evaluate the effectiveness of an individual's teaching for the purposes of Annual Review and Renewal, Tenure and Promotion purposes. The tool was designed to provide constructive feedback to instructors on students' experiences of learning in the course, allowing the instructor to use this feedback as the basis for improvement. The recommendations of this report were ultimately not implemented.

The **Task Force** recommends that a subset of the University Teaching and Learning Committee (**Recommendation 1**) and representatives from QUFA revisit the process for evaluating teaching. This review should include a study on the historical USAT data, consultation with faculty, and a analysis of the strengths and weaknesses of the 2007 recommendations. In order to promote innovation and experimentation in course design and instructional methodologies, the **Task Force** also recommends that early adopters be given a reprieve from USAT evaluations. During the implementation stages of teaching and learning innovations, for example the first year, USATs might be administered but not used for the purposes of Annual Review or Renewal, Tenure and Promotion purposes. Effective models for such a hiatus from student evaluations exist at McMaster University and at Concordia University.

It should be noted that there are currently considerable inconsistencies regarding evaluation of teaching at the graduate level. USAT evaluations are generally not administered because the low enrolment in graduate courses erodes the reliability of the data and because confidentiality is compromised in a smaller group. Some units have developed their own evaluation instruments (using a variety of methodologies), and in some cases, individual faculty members have developed their own sets of questions. The **Task Force** therefore recommends that evaluation of graduate instruction be included in a more general review of USAT evaluations. Coordinated effort needs to be made to ensure that graduate student feedback on instruction promote quality improvement in graduate courses and programs.

10 Review processes for evaluating teaching for the purposes of Merit, Annual Review and RTP decisions

The university should ensure that heads of departments, deans and RTP Committees have sufficient training to evaluate teaching for Annual Review and for Renewal, Tenure, and Promotion decisions. Orientation sessions for new heads of departments should ideally include an introduction to indicators of quality in teaching and learning with a variety of methods of evaluation, including but not limited to USAT evaluations. The Annual Review templates and processes should also be reviewed to ensure that they allow instructors to fully document their contributions to teaching and learning and in turn enable heads and deans to appropriately recognize teaching enhancement and evidence-based practices.

11 Create mechanisms to hire teaching-focused faculty positions, that include scholarship of teaching and learning in higher education

The university should create a limited number of faculty positions, whose mandate it is to focus on teaching and on the scholarship of teaching and learning in higher education. These positions would have a larger teaching load than regular faculty positions and include research related to teaching and curriculum development activities. These positions could allow some faculty the opportunity to devote scholarly attention to curriculum development, educational leadership, and educational research within their discipline. These positions could also allow some faculty the time to teach more courses than usual within a program in order to develop a quality understanding of the relationship between courses, and support strategic program redevelopment (**Recommendation 3**).

A HEQCO recent report on the status in Ontario universities examined teaching-stream positions based on experiences from other Ontario institutions (Vajoczki, Fenton, Menard, & Pollon, 2011). It concluded that there are overwhelming benefits to the quality of teaching and learning, but there are cultural long-term issues that will need to be addressed over time (Vajoczki et al., 2011, p. 52). Both the HEQCO report, and a report on the same topic by COU (Sanders, 2011), include a short list of recommendations for introducing these positions that include starting small, keeping these positions to a relatively small number, continuing to value teaching excellence in regular faculty positions, and requiring scholarship in the positions.

12 Develop Queen's-specific and program-specific learning outcomes

A **Task Force** with representation from all the faculties should be created to identify university-wide learning outcomes, instructions to faculties to take action to achieve these outcomes, and to specify the kinds of generic knowledge and skills Queen's graduates can expect to acquire by the end of their degree. These learning outcomes should be aligned with Ontario Universities Council on Quality Assurances Degree Level Expectations, UUDLEs and GUDLEs and might include foundational skills, such as critical thinking, communication skills (including writing), information literacy, diversity and equity, professional and ethical behaviour, internationalization, leadership and mental health literacy. This project could use the data and processes created as a result of the university's involvement in the HEQCO Learning Outcomes Assessment Consortium project. John Hattie's influential study, Visible Learning, a synthesis of over 800 meta-analyses on studies on the influences of achievement in education, concludes that explicit goals and objectives are one of the most important determinants of student learning, which supports the visible teaching and visible learning approach learning outcomes. In Ontario, a good example of this is University of Guelph's Senate-approved Undergraduate Learning Outcomes or Kansas University's KU-Core, which are a set of educational goals that are incorporated into all degrees and majors.

13 Ensure that Queen's University Quality Assurance Processes emphasize collaborative program improvement

The Queen's University Quality Assurance Processes (QUQAPs), including Cyclical Program Reviews (CPR), should develop and make widely known a vision that emphasizes that program review and evaluation be a collaborative process that entails using the results to improve the student learning experience. The process should respect that individual faculties and academic units may approach and achieve their program review and improvement goals in different ways, driven by evidence gathered. The self-study document should initiate the conversation about quality, learning outcomes and improvement of the student learning experience, and insofar as possible include a curriculum mapping process to encourage departments to identify gaps, redundancies and areas where professional development would be helpful. Developing and sustaining a culture of review and continuous improvement is an important initiative that must be supported at all administrative and academic levels of the university and by sufficient human, financial and technological resources:

> *Effective assessment doesn't just happen. It emerges over time as an outcome of thoughtful planning, and in the spirit of continuous improvement, it evolves as reflection on the processes of implementing and sustaining assessment and suggests modifications.* (Banta, Jones, & Black, 2009. p. 3)

An open invitation should be extended to faculty, staff and administrators to the annual QUQAP CPR Orientation Sessions offered by the Office of the Provost and Vice-Principal (Academic), recognizing that units may begin the process at any time. If the quality assurance processes are to result in real improvements to curricula and consequently to enhancing the student learning experience, they should ideally be proactive in nature rather than reactive. That is to say, these processes should not be a one-time initiative but an ongoing cycle of using data to inform discussion and decision-making regarding program improvement.

14 Implement a Queen's credential in teaching and learning in higher education

The university should ensure that graduate-level education in the latest research and evidence-based practices in higher education is readily available to those faculty and staff members who wish to deepen their understanding of the core work of our university. Recognizing that this would be a longer-term initiative, we recommend that Queen's develop certificate, diploma, or degree-level courses in higher education relevant to both general and disciplinary pedagogy. The university has some of these courses, for example MGMT-993 in Queen's School of Business and formerly CHEE-840 in the Faculty of Engineering and Applied Science, as well as SGS 901. Many graduate programs provide students with excellent training in teaching and learning, but there are considerable inconsistencies across faculties and departments, and teaching assistants would benefit from more comprehensive training opportunities (Bok 2013). In order to be competitive for academic positions, graduate students are now required to have advanced knowledge of teaching and learning and demonstrated skills and experience evidenced by a teaching dossier. An example of graduate student training in higher education is Western University's Teaching Assistant Training Program.

15 Secure external resources to partly fund the recommendations of the Student Learning Experience Task Force

The University Teaching and Learning Committee will work with the Office of Advancement to develop materials and identify donors whose interests are aligned with specific strategic enhancement initiatives. Further, a subcommittee could be formed to identify potential sources of research funding from both research and educational foundations to support some of the activities in these recommendations.

GLOSSARY

Some of the keywords that underpin this document have a variety of meanings in common usage. In order to ensure effective communication, the **Task Force** provides an explanation of how these words are understood in this context:

Assessment: Educational assessment involves measuring and documenting the change in knowledge, skills, attitudes and behaviours of students as a result of a learning opportunity; assessment can be at the level of the student, the course, program or educational institution or specific strategic initiative. There is a growing interest in assessment of learning, or learning environments and learning objects to ensure evidence-based decision-making around improvement initiatives. Ontario's quality assurance framework promotes program-wide assessment.

Cost-effective: Improvement initiatives should be prioritized in part based on the relative costs to outcomes; in other words, resource implications should be weighed against benefit to students and the longevity of the initiative.

eLearning: A 2013 Educause Report, "The State of E-Learning in Higher Education: An Eye Toward Growth and Increased Access," defines E-Learning as "learning that involves a web-based component, enabling collaboration and access to content that extends beyond the classroom" (5). A recent HEQCO report, *How Online Learning Affects Productivity* defines online learning as "a course of instruction that is carried out over the internet" and hybrid learning as "a course of instruction that is carried out partly on the internet and partly in a face-to-face setting such as a classroom."

Evidence-based: Evidence-based approaches to teaching and learning means that instructional methodologies, curricular design and policy development is grounded in statistically significant and reliable evidence gathered from assessment of teaching and learning and institutional initiatives and interventions.

High-impact: High-impact practices in teaching and learning are a instructional methodologies and curricular design that have been shown to maximize student learning and increase student engagement (Kuh 2008). High-impact also means that initiatives must be prioritized in accordance with their ability to impact a large number of students. This will ensure effective use of resources.

Learning analytics: Learning analytics is commonly understood as the collection and analysis of data about learners and their learning patterns and behaviours in order to make improvements to curricula, learning environments, and student supports, as well as for institutional decision-making purposes.

Sustainable: In order to ensure that improvements to teaching and learning are investments rather than expenditures, priority will be given to initiatives that have longevity. For example, strategic enhancement projects should be designed to be repeatable, such that a course will be offered in the redesigned format for a number of years, independent of individual instructor availability.

The Senate Academic Planning Task Force on Virtualization and Online Learning provides the following definitions that relate to technology-enhanced learning (p.13):

> In a **Traditional Course** students attend class sessions in an assigned face-to-face environment and complete reading, practice and review in unstructured private time outside class. Such a course may use online technologies for simple support purposes, such as email exchanges with students, student notifications, and posting of course notes. Technology may also be used as a supplement to engage the students with the curriculum and learning process (optional discussion boards, electronic repository of readings, lecture slides, etc.).
>
> In a **Blended Course**, both in-class and online resources are used to transmit information, promote application and practice, and obtain feedback.
>
> In a **Flexible Course**, students can choose to learn in one of two ways: in an assigned face-to-face environment or in an online environment. Technology is primarily used to provide the students with flexibility in their choice of educational experience.
>
> In an **Online Course**, online technology is used to deliver all course material, learning activities and feedback. The nature of this type of course permits students to take classes while in residence or as distance learners, but there is no face-to-face experience.

APPENDIX: MANDATE AND PROCESS

Mandate

The mandate of the **Student Learning Experience Task Force** is to recommend specific sustainable initiatives and processes that would enhance the student learning experience, to make recommendations for academic and learning support units, to support the Queen's University Quality Assurance Processes, and to propose infrastructure, policy, and resource requirements related to teaching and learning. The SLE **Task Force** will create a robust Teaching and Learning Action Plan for the Provost's consideration; specific recommendations will be sent for approval to governance bodies as appropriate.

This initiative builds upon the university's recent strategic planning processes, including Principal Woolf's vision document, *Where Next?* (2010), the Academic Writing Team's *Imagining the Future* (2010), and the Senate Academic Planning Task Force's *Academic Plan* (2011). The SLE **Task Force** will align itself with the *Academic Plan*, focusing specifically on the Student Learning Experience pillar, and will seek to complement the work of the current Senate Academic Planning Task Force. Where appropriate, the SLE **Task Force** will also consider the *Institutional Vision, Proposed Mandate Statement and Priority Objectives* report submitted to the Ministry of Training, Colleges and Universities in October 2012.

The specific mandates of the **Task Force** are to

i Recommend specific and clear goals to foster an environment of innovative and effective teaching and learning, including:

   a) recommendations for academic and learning support units;

   b) recommended initiatives to support Queen's University Quality Assurance Processes;

   c) recommended processes to assess student learning outcomes and use them to improve quality;

   d) recommendations on how to recognize and reward innovative and effective teaching;

ii propose infrastructure, policy, and resource requirements related to teaching and learning;

iii identify mechanisms and processes to reach the recommended goals;

iv identify key steps, targets, and a timeline for the realization of these goals, and identify ways of measuring progress toward those goals.

The primary aim of the **Student Learning Experience Task Force** is not to create a document but to identify specific mechanisms by which to enhance the student learning experience at Queen's, with a particular emphasis on undergraduate education. Recent and on-going strategic planning processes have engaged faculty, staff and students in broad consultation, and here the emphasis will be on creating a Teaching and Learning Action Plan for the implementation of the recommendations in the *Academic Plan*. The SLE **Task Force** will consult with stakeholders across the university in regard to specific initiatives, but will heavily draw on the recommendations from the broad consultation described in *Imagining the Future* and the *Academic Plan*.

Process

PHASE ONE:

In the first phase of our work, the **Task Force** focused on four areas:

1 Academic and learning support units

2 Initiatives to support Queen's University Quality Assurance Processes

3 Processes to assess student learning outcomes and use them to improve quality

4 Recognizing and rewarding innovative and effective teaching

The **Task Force** members include individuals representing

i each faculty, as nominated by respective deans;

ii the libraries, nominated by the Head Librarian;

iii academic support units; and

iv undergraduate and graduate students bodies.

The **Task Force** members were provided some recent reports and references to inform the work. The list included:

Hattie, J. (2009). *The Black Box of Tertiary Assessment: An Impending Revolution*. In L. H. Meyer, S. Davidson, H. Anderson, R. Fletcher, P.M. Johnston, & M. Rees (Eds.), Tertiary Assessment & Higher Education Student Outcomes: Policy, Practice & Research (pp.259-275). Wellington, New Zealand: Ako Aotearoa http://akoaotearoa.ac.nz/mi/download/ng/file/group-4/n3469-the-black-box-of-tertiary-assessment—-john-hattiepdf.pdf

Kuh, G. (2008) High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter, AAC&U.

Richard Arum, Josipa Roksa, and Esther Cho (2011), *Improving Undergraduate Learning: Findings and Policy Recommendations from the SSRC-CLA Longitudinal Project*, SSRC

Baker, G. R., Jankowski, N. A., Provezis, S. & Kinzie, J. *Using Assessment Results: Promising Practices of Institutions That Do It Well*. (2012). http://www.learningoutcomeassessment.org/documents/CrossCase_FINAL.pdf

Charles Henderson, Andrea Beach, and Noah Finkelstein (2011), *Facilitating Change in Undergraduate STEM Instructional Practices: An Analytic Review of the Literature*, Journal of Research in Science Teaching, VOL. 48, NO. 8, PP. 952–984

Hattie, J. (2009), *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement*, Taylor & Francis.

Bransford, J. et al. (2000), "How people learn: Brain, Mind, Experience, and School", National Research Council

Ramsden (2003), *Learning to teach in higher education*, New York: Routledge.

Biggs, J. and Tang, C. (2011) *Teaching for quality learning in higher education*, McGraw-Hill.

Ambrose, S., et al. (2010), "How Learning Works: Seven Research-Based Principles for Smart Teaching", Jossey-Bass.

AAC&U Liberal Arts Education and America's Promise Project

In January the group participated in a facilitated session offered by the Executive Decision Centre to identify key issues and ideas within the four areas of focus. The group was then divided into four subcommittees that largely mapped to the four areas of focus:

1 Academic support units

2 Learning outcomes and QUQAP process

3 Recognizing and rewarding teaching

4 General teaching and learning environment

The subgroups met independently to work on key issues and specific recommendations in their areas. Subgroup 4 had a broad focus, examining issues not specifically captured by the other three groups.

The groups reviewed literature and data from Institutional Research and Planning, consulted with stakeholders on campus, and undertook two trips in the month of April, including travelling to the University of Guelph to consult with colleagues there about creating institutional supports for teaching and learning, and attending the Council of Ontario Universities Outcomes Assessment Conference in Toronto.

The **Task Force** also identified a list of issues related to the learning environment at Queen's. All of the recommendations respond to one or more of these issues, including the need:

- for better information about learning and more consistent methods of assessment to inform planning and delivery. For example, are students developing better skills in generic learning outcomes, such as critical thinking, problem solving, communication, and collaborative work? How well are knowledge and skills being retained between courses? (Queen's *Academic Plan* recommends that Queen's make the teaching and learning of the Fundamental Academic Skills (FAS) a high priority (p.10));
- to better articulate what we expect students to be able to do in order to drive strategic planning and collaborative development;
- to provide effective institutional support for a variety of learning experiences and assessment approaches;
- to have integrated support structures to strategically enhance programs; and
- to ensure that the approach for evaluating and rewarding faculty performance encourages faculty to continue to improve their teaching

At a half-day retreat on May 2, each subgroup identified 5-6 key recommendations for discussion. Each subgroup prioritized the proposals and identified those that should receive immediate attention. The group then collectively divided the recommendations into two groups:

1 those which will be actively pursued by the **Task Force**, recommendations 1-5 above.

2 those which the **Task Force** deems equally important but which will require a longer timeframe or which require input from specialized groups, recommendations 6-12 above.

PHASE TWO:

The Interim Report was presented to administrative bodies, faculty and student groups on campus to elicit comments and feedback on the preliminary recommendations. The **Student Learning Experience Task Force** wishes to thank those members of the Queen's community who wrote with specific comments and suggestions.

The second phase of the work of the **Student Learning Experience Task Force** saw the establishment of five new subgroups, with some additional members to augment their work:

1 Teaching and learning service units

2 Student learning support services

3 Strategic teaching enhancement program

4 Technology-enhanced learning supports

5 Integrated data gathering and dissemination

The subgroups met with key stakeholders, gathered further materials, and began to develop actionable plans for implementation. The **Task Force** continued to meet as a whole on a monthly basis.

In September 2013, Senate referred the Senate Academic Planning Task Force on Virtualization and Online Learning to the **Student Learning Experience Task Force**, which agreed to take into consideration the recommendations in the report. The Technology-enhanced learning subgroup worked to align its recommendations with those of the SAPTF, in particular its important statement that quality is not dependent on medium.

In November 2013, the **Task Force** participated in a half-day facilitated meeting to finalize its recommendations.

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FOOTNOTES

1 Queen's University Quality Assurance Processes, which conform to the guidelines set out by the Ontario Universities Council on Quality Assurance, were ratified by Senate in September 2011.

2 The Academic Plan recommends a better integration of fundamental academic skills into the curriculum. In response to this, Queen's University has joined the HEQCO Learning Outcomes Assessment Consortium, a three-year pilot project involving three universities and three colleges to assess generic learning outcomes, across disciplines at Queen's. The skills to be assessed are critical thinking, problem solving, communication and life-long learning. The results of this study will inform future decision-making around assessment of student learning at Queen's.

3 A 2013 Educause Report, "The State of E-Learning in Higher Education: An Eye Toward Growth and Increased Access," points to E-Learning as a source of major change in higher education, stating that 80% of institutions offer some forms of E-Learning, that its growth is due to demands of students to learn "anytime, anywhere," and because this flexibility suits the new demographic of adult and professional learners. It defines E-Learning as "learning that involves a web-based component, enabling collaboration and access to content that extends beyond the classroom" (5). A recent HEQCO report, *How Online Learning Affects Productivity* defines online learning as "a course of instruction that is carried out over the internet" and hybrid learning as "a course of instruction that is carried out partly on the internet and partly in a face-to-face setting such as a classroom." The New Media Consortium 2013 report highlights key trends including online courses and learning analytics (Johnson et al., 2013), which are addressed later in this report.

4 A Council of Ontario Universities Media Release from 20 January, 2014 cites "extraordinary growth in the number of non-high school applicants" to Ontario universities, up 10% over 2013 numbers and up 35% since 2004. The same Media Release also confirms that overall applications to universities have increased 28% since 2004. Full statistics are available on the Ontario Universities' Application Centre website. The Strategic Enrolment Management Group Report highlights some of the demographic shifts that will inform enrolment planning over the coming years.

5 The **Task Force** recommendations are aligned with those of the IT@Queen's External Review, which recommends that Queen's develop an educational technology strategy, integrate training for educational technology with pedagogy, and develop a learning management system strategy for Queen's.

6 The Principal's Commission on Mental Health report outlines some of the challenges that students face and the ways in which student support services need to adapt.

7 A Higher Education Quality Council of Ontario blog, *"Learning Outcomes: The Game Changer in Higher Education"* (21 January, 2014), affirms the significance of learning outcomes, which provide a lens for quality improvement and determine the value, reputation and competitiveness of post-secondary programs and institutions.

8 Many universities now offer certificate programs in teaching and learning in higher education, for example: University of British Columbia, University of Victoria, University of Guelph, Brock University and University of Manitoba.

9 Some examples include UBC's Science Education Initiative (http://www.cwsei.ubc.ca/about/index.html) (Deslauriers et al., 2011; Hake, 1998; Smith et al., 2009), the National Center for Academic Transformation (NCAT) Program in Course Redesign (PCR), http://www.thencat.org/PCR/Proj_Success.html, Purdue University's *Instruction Matters: Purdue Academic Course Transformation (IMPACT)* program (http://www.purdue.edu/impact/)

10 Association for Experiential Education (AEE) (1994). AEE definition of experiential education. Boulder, CO: Association for Experiential Education.

11 The percentage of students in faculties indicating they have opportunities for experiential learning by faculty are: education (74%), law (87%), nursing (62%), and arts and science (34%). Engineering and commerce undergraduate programs both provide these opportunities for all students.

12 Advising literature often refers to the difference between prescriptive and developmental advising: "Developmental academic advising is defined as a systematic process based on a close student-advisor relationship intended to aid students in achieving educational, career, and personal goals through the utilization of \the full range of institutional and community resources" (Winston et al 1984, p.19). By contrast, prescriptive advising is seen as more advisor directed with the advisor assisting the student to understand what needs to be done to fulfill the requirements of a program rather than with less emphasis on a student's broader educational or career aspirations.

13 As an example, Continuing and Distance Studies in the Faculty of Arts and Science is developing a survey (with Art Bangert, SEOTE) of instruction appropriate for online courses, proposed to be piloted in Summer 2014.