Memorial University of Newfoundland
Teaching and Learning Framework

Student-Centred Learning
Advisory Committee Report

April 1, 2011
Student-Centred Learning Advisory Committee Report

April 1, 2011

Committee Membership

Joyce Fewer, Instructional Development Office (Chair)

Shawn Anctil, Graduate Student Representative
Faith Balisch, Department of English
Vernon Curran, Faculty of Medicine
Heidi Janes, Academic and Student Affairs, Marine Institute
Louise McGillis, Ferriss Hodgett Library, Grenfell Campus
Erika Merschrod, Department of Chemistry
Ryan Murphy, Undergraduate Student Representative
Geoff Rayner-Canham, Division of Science, Grenfell Campus
Janna Rosales, Faculty of Engineering and Applied Science
Steve Shorlin, Medical Education Scholarship Centre
Mark Stoddart, Department of Sociology
Student-centred learning is an approach that places students at the heart of educational practices (Attard et al. 2010). In recent decades of research on effective pedagogical approaches in post-secondary education, there has been a significant shift of focus away from what instructors do to what students are learning. As opposed to viewing students as vessels for the transmission of information by instructors, student-centred learning is premised on the notion that students are able to actively participate in the construction of knowledge with the facilitation of teachers. Robert Barr and John Tagg’s 1995 landmark article “From Teaching to Learning-A New Paradigm for Undergraduate Education” emphasizes the need for post-secondary education to shift towards a “learning paradigm” that encourages agency to be shared between the teacher and the student. This shift comes as a response not only to cognitive and educational research on factors that contribute to effective learning but also as a response to the need for institutional resilience in the face of increasing pressures from rising university costs, declining public investments, expanding enrollments, and a shifting landscape from which to draw faculty (Zundel & Deane, 2011). In the midst of these pressures, Barr and Tagg argue that the university has come to mistake its means for an end, operating on the assumption that the university exists to provide instruction. By contrast, they assert that the real purpose of a university is to produce learning.

In the learning paradigm, learning is viewed as an active process in which students learn how to think, not what to think. Built upon a constructivist philosophy of education which posits that the learner creates knowledge from experience, student-centred learning uses collaboration, assessment, respect for varied learning styles, and interpersonal relationships to encourage students to construct knowledge, make meaning, and develop skills while making connections with prior knowledge. As student-centred learning is process-oriented, students develop valuable skills to be lifelong learners, which mean they will be much more adaptable and resilient in a world now defined by constantly changing work and learning environments.

Because learning is considered an active process in the learning paradigm, a new relationship develops between the university’s traditional pillars of teaching and research. No longer can they be considered separate undertakings. In the learning paradigm, research and scholarship are key and integral components of teaching and learning, whether in undergraduate, graduate or professional schools and faculties. While teaching and research have sometimes been viewed as competing interests in the university, the learning paradigm bridges that terrain more effectively because it views them as related components of an integrated learning environment.

But beyond adopting new teaching practices and pedagogical techniques, a focus on learning entails a fundamental paradigm shift and the adoption of a new mindset. Recently, growing interest in student-centred learning has translated into a wider focus on learner-centred institutions (Harris and Cullen 2010). The learner-centred classroom is viewed as a microcosm of the institution itself where there is a plethora of practices, resources and supports aligned with the learner-centred paradigm. In her book, Learner-Centred Teaching, Maryellen Weimer (2002) identifies five key changes in practice that materialize when instructors move to operating within a learner-centred paradigm. Harris and Cullen further maintain that the administrative application of these principles of learner-centredness throughout the institution is equally as relevant. A learner-centred institution will strive to attend keenly to how well its structures, practices, and policies uphold and respond to these principles.
To shift from the instructional paradigm to the learning paradigm, we need a clearly defined vision and strategy to advance a learner-centred agenda. Just as the practices that constitute student-centred education demand flexibility of teachers and students, so, too, our definition of the term itself requires a degree of flexibility. Memorial University now has the opportunity to define some hallmarks of student-centred learning. What follows are a set of examples, characteristics, guidelines, and recommendations that value and support students and learning.

1. Characteristics of Student-Centred Learning

   The hallmark of a student-centred environment is one that places the student at the center of policies, practices, and decision-making. However, student-centred learning is more than a set of specific practices or techniques; it has become an entire approach or philosophy regarding the learning enterprise and represents a paradigm shift occurring in many institutions of higher learning. As an integrative approach to learning, it exhibits certain core characteristics, regardless of discipline or content:

   **Emphasis on Active Learning**

   - Student-centred learning employs active learning techniques, which include team learning, problem-based learning, peer evaluation, and self-directed learning.
   - Active learning operates in an environment of mutual respect between instructor and student, and contributes to building a sense of community amongst participants.
   - Instructors recognize that there are a variety of learning styles, and they employ techniques that effectively respond to that variety.
   - Effort is put into building consensus rather than assuming consensus in class decisions.
   - Course objectives take into account the need for interactivity.
   - Active learning communicates a sense of participants’ personal excitement, passion and commitment toward the material.
   - Relevant and interesting aspects of course material are emphasized, especially at introductory levels, to improve learning and retention.
   - The instructor is regarded more as a facilitator, coach, or resource person, rather than a ‘sage on the stage’.

   **Balance of Power:** Creating community through sharing power and control

   **Function of Content:** Creating relevance by focusing on what the learner learns as opposed to what the knowledge is to be disseminated.

   **Role of the Teacher:** Leaders assuming roles akin to the learner-centered teacher who is described as a facilitator, designer, or guide

   **Responsibility for Learning:** Fostering a climate for learning by creating community

   **Assessment and Evaluation:** Using assessment to monitor ongoing learning and gauge effectiveness

   – Harris and Cullen 2010

   My 3rd-level Psychology course studying Learning uses a unique combination of learning principles and assessment practices. The right kinds of notes (we need to fill in keywords and examples throughout the course slides) and constant evaluation (e.g., small quizzes at the beginning of every class) – combined with a professor who is engaging and down-to-earth – enables students to want to attend and learn every time.

   - R. Murphy

With the Human Patient Simulator, medical residents and students have a hands-on opportunity to practice individual and team-based skills. Faculty members and senior residents provide feedback throughout sessions and ask additional questions to deepen learning.

- S. Shorlin, Medicine
Emphasis on Learning Outcomes and Assessment

- Learning is the focus of all course and program activities, rather than covering content.
- Clearly defined learning outcomes provide both instructor and students with goals and expectations against which to measure progress.
- Prior knowledge and experiences of students are used to decide on appropriate learning activities to facilitate the meeting of learning outcomes.
- Learning outcomes connect content with student experience and with relevance to the world outside of academics.
- Learning outcomes focus on practical application as well as a sense of deep learning and understanding.
- Instructors ensure that methods of assessment align with learning outcomes.
- Students are assessed for achievement of specific learning outcomes throughout a course, both formally on assigned work and informally as part of each class.
- Assessment practices are as authentic as possible, incorporating real-world tasks and meaningful application of knowledge and skills.
- Students are given opportunities to examine their own cognitive development, focusing first on learning rather than grades.
- The learner has an opportunity to view himself/herself differently as a result of the learning experience (i.e. the student experiences transformative learning). Students assume more ownership of the learning process, with increased confidence and self-awareness.

Emphasis on Curricular Flexibility

- In order to attend to the various needs and learning styles of students, a certain amount of curricular flexibility may be required. Curricular flexibility may take a variety of forms, depending on what is appropriate to the situation. Instructors may incorporate flexibility in scheduling the day’s agenda or in class meeting times and places; students may be able to exercise some choice in how they are assessed, and may even have meaningful input into the course development, content, pace, and assessment criteria.
- Course design and outcomes are enriched when they draw on a diversity of disciplinary experiences.
- Overall, flexibility is a balance between structure and openness.
Emphasis on Student Empowerment and Responsibility

The Harlow trip works as a catalyst for four years of a BFA (Theatre) degree, in which students can bring all their training (in performance, criticism, dramatic literature and history) to bear on a uniquely personal experience that sees the instructor as guide, as hub.

- T. Hennessey, Chair, Grenfell Theatre Department

- Through flexible curricula design and active learning techniques, students are empowered to make their own decisions about how to achieve the expected learning outcomes.
- Student empowerment also instills a sense of responsibility and accountability because they feel ownership in their work and of the course agenda.
- Partnering empowerment with responsibility provides students the skills they need to be lifelong learners.
- Students are more successful when held to high standards and challenged to succeed.
- In general, students are more intrinsically than extrinsically motivated.

Emphasis on Community, Communication, and Collaboration

At The Edge, an online, open-access journal that was launched in fall 2010, involves graduate students in the process of peer review and academic publication in a new, innovative manner.

- J. Lokash, English

I allocate six hours of my Digital Signal Processing (DSP) graduate course to seminar discussion on “reading, doing, and communicating DSP.” Students can explicitly situate themselves within the otherwise highly technical and abstract content of the course, and reflect upon the “who”, and “why” as well as the “what” and “how” of DSP.

- C. Moloney, Electrical and Computer Engineering

- Learning is understood as a communal and collaborative process where students have opportunities to learn with and from each other.
- Collaborative learning involves dialogue and deliberation between students and among students and teachers.
- Learning involves facilitation and discussion as much as expert instruction.
- Where appropriate, students are organized into flexible, cooperative groupings to demonstrate understanding of a task or concept through multiple perspectives.
- Class sizes and format are designed to maximize learning.
- Students are supported in meeting their personal goals by a strong array of services.

Emphasis on Developing Appropriate Thinking Skills

By bringing undergraduate students into our research labs, we bring the two parts of the learning experience (the “theory” and the “practice”) together. With formalized teaching students sometimes miss the opportunity to learn to look for the unexpected. Research is all about studying the unexpected and coming up with a reason for it!

- C. Kozak, Chemistry

- Student-centred learning cultivates critical thinking as well as divergent thinking.
- Student-centred learning encourages participants to question in ways that critically assess theory and experience.
- Critical thinking connects and engages abstract concepts with practice, and enables learners to construct meaningful interpretations.
- Good thinking practice also requires time to reflect together in conversation as well as in silence.
- Catalytic experiences for student engagement lead to transformative learning in which the learner is changed and empowered.
Emphasis on Process-Oriented Skills

Instead of walking them through a procedure step by step, laboratory experiments are designed to give students tools to study physical laws more independently. Lab staff act as facilitators of the learning process, giving advice on solving problems rather than instructions.

- K. Shorlin, Physics

- Successful student-centred learning enables students to apply their understanding/knowledge to new situations.
- Student progress is informed by the model: Think, Reflect, Apply, Critique, Repeat.
- Students are provided ample timely, constructive, and focused feedback.
- Students have sufficient opportunities to practice their skills in light of continual feedback, and to engage in continual self-reflection about their progress.

2. The Memorial University Context

Universities are uniquely suited to and responsible for transformation through education. As a public university, and indeed the only university in the province, we have an ethical responsibility to our community to provide a high-quality educational environment. That responsibility is outlined in the university mission statement, with references to “public engagement and service” and “our special obligation to the citizens of Newfoundland and Labrador.” Committing to a student-centred learning philosophy therefore directly promotes and supports our ethical obligations as educators at Memorial University.

Although student-centred and teacher-centred learning environments should not be considered binary opposites (O’Neill and McMahon 2005) or conflicting modes, at its foundation, student-centred learning reflects a deeper desire to re-shape traditional relationships between teachers and students, in order to provide students with more responsibility and power to construct their educational experiences. As members of a student-centred community we strive to provide teaching and learning supports to enable students to achieve their academic and personal goals within the context of the university’s mission. Students are inspired to grow and develop knowledge, skills and attitudes that will auger well for them as life-long learners, leaders, and productive and valued community members.

This picture of student-centred learning may seem very idealistic. Nonetheless, a university focused on student-centred learning is both possible and necessary. There are already examples of student-centred learning at Memorial, by which we mean educational practices which present many of the characteristics identified in the previous section. Memorial also already has units which are well-poised to support the continuing transition to a student-centred learning environment. The University Libraries in particular have a special role to play in supporting student learning, and they are central to the success of student-centred learning. They offer access to the world of scholarly resources in digital and print formats, expertise in information seeking and evaluation methodologies, innovative spaces and technology, and opportunities to engage in unique research and learning.

Furthermore, our ethical responsibilities require us to look beyond what is and move toward continuous enhancement of our present reality to ensure what should be. The guidelines developed by the Society for Teaching and Learning in Higher Education, in their essay “Ethical Principles in University Teaching” state that student-centred learning is an ethical principle of university teaching.
3. Recommendations

As stated in its Strategic Plan “students are the central focus of Memorial University”. To provide a high quality education and to fully develop students’ potential to reach the institution’s goals for students and the graduate attributes as defined through the creation of a Teaching and Learning Framework we are challenged as a university community to fully embrace students and their learning. The following are recommendations to enhance and support student-centred learning at Memorial.

3.1 The Institution

Memorial University should

- Reflect that it values high-quality teaching at least as much as it values research through hiring, promotion and tenure and award practices.
- Promote scholarly research around teaching as a valid avenue of research for all faculty.
- Create and maintain an infrastructure in support of learning through a sustained capital outlay of funds for appropriate classrooms, learning spaces, technologies, staffing levels and other appropriate resources.
- Continue to support and/or establish a strong array of student support services to support students in meeting their personal goals.
- Evaluate institutional practices and programs and use evidence to improve them for student learning.
- Provide increased supports and resources for the professional development and training of instructors and staff.
- Align faculty orientation within the learner-centred paradigm with a focus on mentoring and cross-disciplinary support and collaboration.
- Emphasize the educational value of research in the intellectual development of both students and faculty, and include this as a prime consideration for university research goals.

3.2 Academic Departments and Faculties

Academic departments and faculties should

- Design courses and programs, with appropriate class sizes, to maximize learning.
- Continually evaluate and improve teaching, courses, academic programs, and student services.
- Engage in regular program and curriculum review to decide what their graduates need to know, value and be able to do, and align course activities and assessment practices with those intended learning outcomes.
- Create academic programs which engage undergraduate students at all levels in active research.
- Facilitate discussions of pedagogy and faculty development which reflect a focus on student learning, collaboration and teamwork, and which model learner-centred practices.
- Engage students in active and real research from the first year and throughout the undergraduate experience.

3.3 The Library

The Library should

- Link the learner and teacher to the body of research available (digital or print) at the point of need. This includes components of both discovery and delivery.
- Embed subject liaison librarians into all academic programs (i.e. physically located in the faculty and teaching portions of the course curriculum at relevant times).
Create a first year course such as one that was previously proposed (Critical Inquiry in the Arts) which would be a collaborative effort of units such as the Library, Counseling Centre, Instructional Development Office and Writing Centre. The course would provide all first year students with the same exposure to university expectations around student success.

- Provide opportunities for faculty and students to share ideas and disseminate research in the library by hosting seminars and lecture series.
- Provide faculty and students with virtual platforms to enhance scholarly communications (e.g. open access publications and a research repository).
- Provide space to accommodate all learning styles: collaborative learning spaces, individual study rooms, open areas for group work, audio-visual and digital viewing rooms and quiet study space.
- Expand the research, computing, writing and tutoring support currently available in the Commons.

### 3.4 Instructors

Instructors should

- Involve students, where possible, in decision-making processes about course content, pace, assessment criteria and daily agendas.
- At all levels and with all class sizes, teach using a variety of instructional strategies, including active learning strategies.
- Make students aware of specific learning objectives at the lesson level and the course level, and align teaching and assessment practices with those objectives.
- Engage students in a variety of activities, including group work and experiential, service and project-based learning.
- Participate in professional development, training and discussion around good teaching practices and engage in scholarly research about teaching and learning.
- Constantly reflect on and evaluate the process and outcomes of their teaching practices.

### 3.5 Students

Students should

- Exercise personal responsibility for their learning as individuals and within learning communities.
- Be prepared for and engaged in their classes and assignments.
- Participate in class/course decision-making.
- Engage in self-advocacy and informal learning through learning communities, student clubs, societies, and associations.
- Be active participants and collaborators in decision-making and committee work within the university community.

### 4. Bibliography


European research study designed to assist policy makers in developing student centre learning approaches. The report is broken down into four main areas. It begins by defining the concept of SCL. It then moves on to a discussion on the conditions necessary to be in place for a SCL approach to be implemented. This is followed by the professional development and training needs required for the academic staff. Finally, an analysis of student understanding of and experience with SCL is provided.

The author discusses her approach in redesigning an introductory sociology course using student-centred learning practices.


This book brings together fifteen years of research looking at teaching in universities and provides humorous and inspirational insights as to what makes a great teacher.


The authors discuss the shift from instruction based to the “learning paradigm” model focusing on the learner and the learning outcomes. The article then details criteria for success, teaching and learning structures, learning theory, productivity and funding, and the changing role for all university employees. The article concludes with some of the challenges faced when making this shift.


Contents: Transforming teaching to be more learner-centred / Understanding the rubrics / Tools for facilitating change and assessment / The five dimensions of learner-centred teaching / The function of content / The role of the instructor / The responsibility for learning / The purposes and processes of assessment / The balance of power / Discussion and conclusion / Can all courses be learner-centred? / Strategies for overcoming obstacles and resistance / Conclusions.


The article presents a discussion of Carl Rogers and the postmodernist approach. The authors argue that his approach to student-centred learning was postmodernist. Examples from nursing and the health sciences are included.


The authors begin with outlining two major philosophical approaches – one based on ideas and the other based on experience. The body of the article reviews the three most influential theories in the Western world: Behaviourism, Cognitivism and Constructivism and demonstrates how current practice relates to these theories.


The author looks at mathematical education by examining the theoretical approaches of the constructivist and sociological perspectives.


Outlines the challenges of adopting a student-centred learning approach, including common faculty concerns and how to address them.


An instructional consultant with 25 years experience, Fink shows how to combine new and traditional techniques to create powerful learning experiences for students. Contents: Creating
Significant Learning Experiences / A Taxonomy of Significant Learning / Designing Significant Learning Experiences I: Getting Started / Designing Significant Learning Experiences II: Shaping the Learning Experience / Changing the Way We Teach / Better Organizational Support for Faculty / The Human Significance of Good Teaching and Learning / Appendix A Planning Your Course: A Decision Guide / Appendix B Suggested Readings.


In their book, the authors provide insight in how to lead institutional change and make the transition to student-centred learning.


A document produced specifically for the educators at the University of Adelaide developing student centred learning practices. All aspects of student-centred learning are covered including sections on strategies, assessment and evaluation. Designed as a working document practical tips and examples are provided.


Describes a methodology for increasing student participation in the learning process at the De Montfort University in Leicester, England between 1990 and 1991. Topics covered include approaches to teaching, engaging students into a more active role, gathering resources and gaining student feedback.


The article describes the experience of the University of Hong Kong with their efforts to promote student-centred learning across the campus.


The article presents the results of two studies to gain insights into perceptions and attitudes of students toward student-centred learning.


Discusses activating instruction (AI), a procedure to enhance effective study skills by stimulating active learning in students.


From the preamble, “the purpose of this document is to provide a set of basic ethical principles that define the professional responsibilities of university professors in their role as teacher”. Principles included are: Content competence / Pedagogical competence / Dealing with sensitive topics /
Student development / Dual relationships with students / Confidentiality / Respect for colleagues / Valid assessment of students / Respect for institution.


This article reviews the shift to student-centred learning for 145 primary teachers in Namibia in the early 1990s.


This book chapter evaluates student-centred learning by looking at the various definitions of this approach in the literature. The article then examines how it can be used for teaching and assessment practices. The effectiveness of the student-centred learning model is also explored as are some critiques with the process.


The author presents the results of two studies to discuss the relationship between learning environments, approaches to study and outcomes.


The author's work presents an overall approach to learner-centred teaching in the college and university classroom. Weimer begins with an overview of the literature on learning and then discusses in detail the five key areas associated with the learner-centred educational approach.


Current article on the need to transform Canadian post secondary education to a student-centred model.