



SALTISE

Supporting Active Learning & Technological
Innovation in Studies of Education

CONCORDIA UNIVERSITY

Hall Building, 1455 de Maisonneuve Blvd. W

5 JUNE 2017

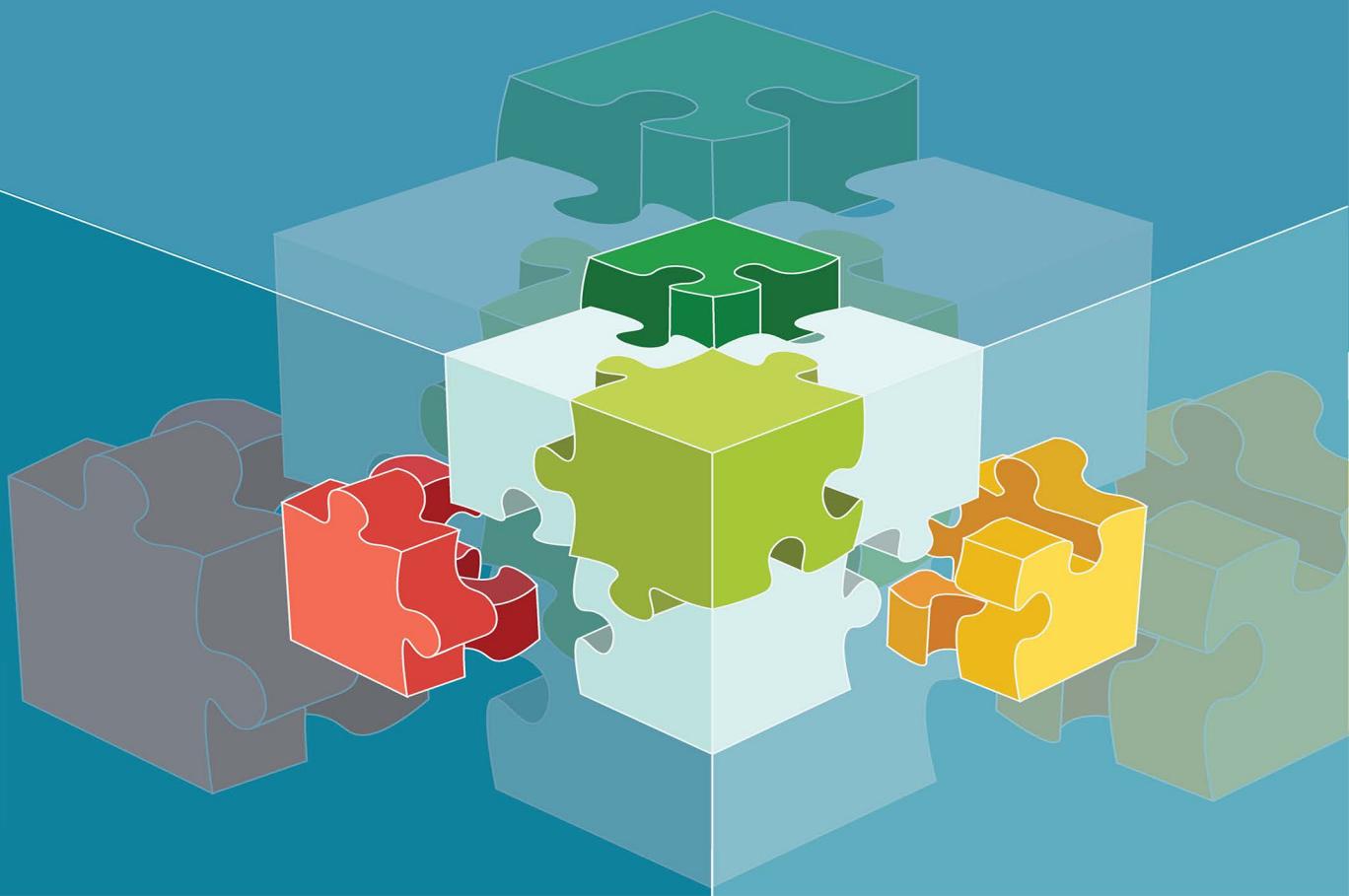
6TH ANNUAL CONFERENCE

SALTISE

6^E CONFERENCE ANNUELLE

Nouvelles pistes pour stimuler
l'engagement de l'apprenant :
l'intersection du design et de
l'évaluation

New Frontiers for Engaging
the Learner: Interconnecting
design and assessment



WWW.SALTISE.CA



INFO@SALTISE.COM

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(aucune utilisation confidentielle n'est recommandée)
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Retrouvez-nous sur 

Visit our new website at: www.saltise.ca



Welcome

On behalf of the Concordia University community, I warmly welcome you to our campus and to the 6th annual SALTISE Conference "New Frontiers for Engaging the Learner: Interconnecting design and assessment".

At Concordia, we continually strive to provide our students with a next-generation education that's connected, transformative and fit for the times. As you know, to get there often involves connection, transformation and innovation for our faculty as well. Concordia is therefore proud and honored to host this year's SALTISE conference: such a vibrant and innovative forum for exchange among the researcher and practitioner communities.

Today and tomorrow, you will witness exemplars of teaching practices that emerge when teachers and education researchers come together to bridge the innovation gap. It is through this style of progress that we educators of all stripes hope to transform our students' learning environments.

A heartfelt thank you is also due to all of the conference organizers on the SALTISE team and our team at the Centre for Teaching and Learning for helping bring this exciting and innovative project in pedagogical innovation to Concordia.

I hope you find Concordia an engaging environment for the exchanges to come. I wish you an inspiring and productive conference.

Enjoy!

Graham Carr

Provost and Vice-President Academic Affairs
Concordia University

Bievenue

Au nom de la communauté universitaire de l'Université Concordia, je vous souhaite la bienvenue à notre campus et à la 6^e conférence annuelle de SALTISE, intitulée : « Nouvelles pistes pour stimuler l'engagement de l'apprenant : l'intersection du design et de l'évaluation ».

À l'Université Concordia, nous nous efforçons continuellement d'offrir à nos étudiants une éducation avant-gardiste qui est axée sur les besoins de notre société, transformatrice et adaptée à l'époque à laquelle nous vivons. Comme vous le savez, pour y arriver, notre faculté doit elle-même être axée sur les besoins, se transformer et faire preuve d'innovation. L'Université Concordia est donc fière et honorée d'accueillir, cette année, la conférence SALTISE : une tribune vraiment dynamique et novatrice permettant aux communautés de chercheurs et de praticiens d'échanger entre elles.

Aujourd'hui et demain, vous obtiendrez des exemples de pratiques d'enseignement qui surgissent lorsque les enseignants et les chercheurs dans le domaine de l'éducation collaborent pour combler l'écart en matière d'innovation. C'est grâce à ce genre de progrès que nous, les éducateurs provenant de tous les horizons, espérons transformer les milieux d'apprentissage des étudiants.

Un grand merci aussi à tous les organisateurs de la conférence de l'équipe SALTISE et à notre équipe du Centre d'enseignement et d'apprentissage pour leur contribution à ce projet passionnant et novateur portant sur l'innovation pédagogique à l'Université Concordia.

J'espère que vous constaterez que l'Université Concordia est un milieu stimulant pour les échanges à venir. Je vous souhaite une conférence productive et inspirante.

Profitez-en bien!

Graham Carr

Doyen et vice-président des affaires académiques
Université Concordia



Welcome from CTL

We at the Centre for Teaching and Learning (CTL) are so happy that Concordia is hosting this year's gathering of the SALTISE community. This 6th annual conference is a special opportunity to collectively reflect on the challenges of linking pedagogical design with assessment, a critical piece of the overall active learning approach.

The CTL especially appreciates our connections with the SALTISE community as a special way of supporting evidence-based pedagogical innovations, such as active learning and its technological supports. We value our close work with SALTISE to bring its cutting-edge researcher-practitioner partnership model to the forefront of how we support pedagogical innovation here at Concordia. In doing so, we hope to be active contributors to the network and its human and pedagogical resources.

We look forward to another great conference this year and to enhancing our collaborations with the SALTISE network over the many years to come.

Enjoy!

Robert Cassidy

Director, Centre for Teaching & Learning

Bievenue du CTL

Nous, au Centre d'enseignement et d'apprentissage (CTL), sommes vraiment très heureux que l'Université Concordia soit l'hôte, cette année, du rassemblement de la communauté SALTISE. Cette 6^e conférence annuelle se veut une occasion spéciale de réfléchir collectivement sur les défis consistant à associer la conception pédagogique à l'évaluation, un élément essentiel de la démarche d'apprentissage actif générale.



Pour le CEA, ses liens avec la communauté SALTISE, en particulier, constituent un excellent moyen de soutenir les innovations pédagogiques fondées sur des données probantes, comme l'apprentissage actif et ses supports technologiques. Nous accordons beaucoup d'importance à notre étroite collaboration avec SALTISE qui vise à promouvoir son modèle de partenariat chercheur-praticien avant-gardiste afin de soutenir l'innovation pédagogique ici, à l'Université Concordia. Ce faisant, nous espérons être des collaborateurs actifs au sein du réseau et de ses ressources pédagogiques et humaines.

Nous attendons avec intérêt une autre grande conférence, cette année, et nous espérons renforcer nos collaborations avec le réseau SALTISE au cours des nombreuses années à venir.

Profitez-en bien!

Robert Cassidy

Directeur du Centre d'enseignement et apprentissage



Information about SALTISE

SALTISE - SUPPORTING ACTIVE LEARNING & TECHNOLOGICAL INNOVATION IN STUDIES OF EDUCATION is a community of instructors, researchers and professional development staff from English and French educational institutions within the Greater Montreal region, as well as other regions of Quebec. This learning community is brought together because of the shared goals of supporting efforts to implement pedagogical change involving evidence-based innovations in instruction and leveraging the use of educational technology to promote learning.

SALTISE was created as a consortium composed of science faculty and educational researchers from five Montreal area educational institutions: Dawson College, John Abbott College, Vanier College and McGill University; and was funded by a Chantier 3 institutional grant from Quebec's Ministry of Education (Ministère de l'Enseignement supérieur, de la Recherche, de la Science et de la Technologie). It acknowledges and owes its continuation to the financial support of the Entente Canada Québec, the 3-year grant, ALPIC, held by Dawson College; with a special grant for this year's SALTISE Conference, held by John Abbott College. SALTISE also

acknowledges its members, from the post-secondary institutions on the island of Montreal, who have contributed and continue to contribute to its growth.

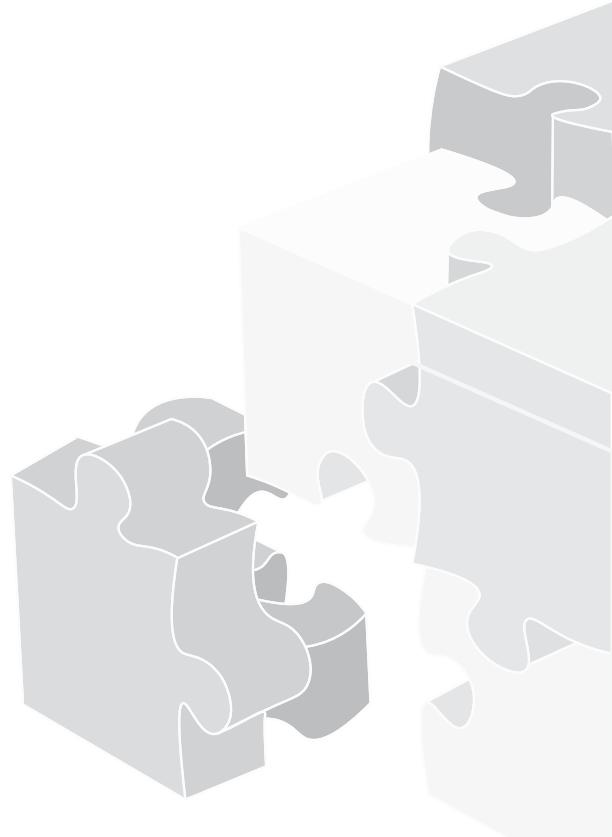
Currently, SALTISE extends its knowledge mobilization innovations and community-based efforts to over 1300 educators, primarily from Quebec colleges and universities, including English and French institutions. It organizes events and workshops designed to inform and share research results and emerging practices. Through its Mini-Grants Program, it supports educational practitioners who wish to develop methods and technologies to increase students' learning. Its redesigned website is intended as both a repository of information, and includes tools and inspirational ways to implement instructional innovations. Importantly, the SALTISE website aims to provide a venue for our community to make connections and engage in conversations around topics of educational research and practice. Finally, SALTISE hosts international and national scholars, and provides opportunities for local experts to share best practices in the area of active learning pedagogy and the use of technology through the annual conference.

SALTISE FOUNDING MEMBERS:

- Roger Azevedo (now at North Carolina State University)
- Marielle Beauchemin (Vanier College)
- Robert Bracewell (McGill University)
- Murray Bronet (John Abbott College)
- Elizabeth S. Charles (Dawson College)
- Silvia d'Apollonia (Dawson College)
- Nathaniel Lasry (John Abbott College)
- Kevin Lenton (Vanier College)
- Ken Ragan (McGill University)
- Gale Seiler (now at Iowa State University)
- Chris Whittaker (Dawson College)

SALTISE EXTERNAL ADVISORY BOARD

- Thérèse Laferrière (Laval University)
- Jim Slotta (Boston College)



À propos de SALTISE

SALTISE : SUPPORTING ACTIVE LEARNING & TECHNOLOGICAL INNOVATION IN STUDIES OF EDUCATION (SOUTENIR L'APPRENTISSAGE ACTIF ET L'INNOVATION TECHNOLOGIQUE PAR DES ÉTUDES DANS LE DOMAINE DE L'ÉDUCATION) est une communauté composée d'enseignants et de chercheurs dans le domaine du perfectionnement professionnel provenant d'établissements d'enseignement post-secondaires francophones et anglophones de la grande région de Montréal, ainsi que d'autres régions du Québec. Cette communauté d'apprentissage a pour objectifs communs de soutenir les efforts visant à mettre en œuvre des changements pédagogiques portant sur des innovations fondées sur des données probantes dans l'enseignement et de tirer parti de l'utilisation des technologies dans le domaine de l'éducation pour promouvoir l'apprentissage.

SALTISE a été conçu comme un consortium composé d'enseignants en sciences et de chercheurs dans le domaine de l'éducation provenant de cinq établissements d'enseignement de la région de Montréal : le Collège Dawson, le Collège John Abbott, le Collège Vanier et l'Université McGill. Il doit aussi son existence à une subvention institutionnelle « Chantier 3 » du ministère de l'Enseignement supérieur, de la Recherche, de la Science et de la Technologie (MESRS). Il poursuit ses activités grâce au soutien financier provenant de l'Entente Canada-Québec, une subvention de 3 ans (ALPIC) détenue par Collège Dawson, ainsi qu'une subvention spéciale pour la conférence SALTISE, détenue cette année par le Collège John Abbott.

SALTISE tient aussi à souligner le travail de ses membres provenant des établissements publics d'enseignement postsecondaire de l'île de Montréal, qui ont contribué et contribuent toujours à sa croissance.

À l'heure actuelle, les innovations de SALTISE en matière de mobilisation des connaissances et ses efforts communautaires rejoignent plus de 1300 éducateurs provenant principalement d'universités et de collèges québécois, y compris d'établissements anglophones et francophones. Il organise des activités et des ateliers conçus pour informer et partager les résultats de la recherche et les pratiques émergentes. Grâce à son programme de mini-subventions, il soutient les praticiens de l'éducation qui souhaitent développer des méthodes et des technologies pour accroître l'apprentissage des élèves. Son site web réaménagé constitue une source d'informations et comprend des outils et des méthodes inspirantes pour mettre en œuvre des innovations pédagogiques. Il est important de noter que le site web de SALTISE a pour but de créer un lieu d'échange et de partage au sein de notre communauté permettant d'établir des liens et d'entreprendre des discussions sur des sujets de recherche et de pratique en matière d'éducation. Enfin, SALTISE accueille des chercheurs internationaux et nationaux et offre aux experts locaux des occasions de partager les meilleures pratiques dans le domaine de la pédagogie de l'apprentissage actif et de l'utilisation de la technologie dans le cadre de la conférence annuelle.



LE COMITÉ FONDATEURS :

- Roger Azevedo (maintenant à North Carolina State University)
- Marielle Beauchemin (Collège Vanier)
- Robert Bracewell (Université McGill)
- Murray Bronet (Collège John Abbott)
- Elizabeth Charles (Collège Dawson)
- Silvia d'Apollonia (Collège Dawson)
- Nathaniel Lasry (Collège John Abbott)
- Kevin Lenton (Collège Vanier)
- Ken Ragan (Université McGill)
- Gale Seiler (maintenant à Iowa State University)
- Chris Whittaker (Collège Dawson)

CONSULTANTS EXTERNES

- Thérèse Laferrière (Université Laval)
- Jim Slotta (Boston College)



Welcome from the 2017 SALTISE Conference committee

The SALTISE Conference Committee welcomes you to the 6th Annual Conference, **"New Frontiers for Engaging the Learner: Interconnecting design and assessment"**.

We wish to express our sincere appreciation to our host, Concordia University, and the many individuals who have worked to make this year's conference possible. We acknowledge the financial contributions from the Entente Canada Québec funding agency for this year's SALTISE Conference grant, held by John Abbott College. We would also like to thank the following partners for their donations: from Concordia, the Centre for Teaching and Learning (CTL); from McGill, the Teaching and Learning Services (TLS), Tomlinson Project in University-Level Science Education (T-PULSE), Faculty of Science, Office of Student Life and Learning and the Faculty of Engineering; from John Abbott College, the Academic Dean's Office; and, from Dawson College, the Direct General's Office. Importantly, SALTISE acknowledges the support from our many colleagues who have contributed both in kind and financially to allow us to once again hold this annual event. We thank you all!

The Committee has put together an exciting program of distinguished speakers, local and international, including educational researchers and practitioners, reporting on principled practices and research results. In total, the program consists of over 50 thoughtful presentations, ranging from symposia, to individual talks, to interactive sessions and posters.

We wish you a productive day of thinking about your practice and its relationship to educational research; as well as discussing and sharing your thoughts on this growing field – its practices and theories. Above all, we hope you will enjoy this opportunity to come together once again, to learn from each other, to celebrate our collective successes and strengthen our network.

Sincerely,

Elizabeth (Liz) Charles
SALTISE Co-Director

Enjoy the Conference!

Mot de bienvenue du comité organisateur de la conférence SALTISE de 2017

Le comité organisateur de la conférence SALTISE vous souhaite la bienvenue à la 6^e conférence annuelle intitulée : « **Nouvelles pistes pour stimuler l'engagement de l'apprenant : l'intersection du design et de l'évaluation** ».

Nous souhaitons exprimer nos plus sincères remerciements à notre hôte, l'Université Concordia, et à toutes les personnes qui ont travaillé à rendre possible la conférence de cette année. Nous sommes aussi très reconnaissants pour la contribution financière versée dans le cadre de l'Entente Canada Québec, détenue par le Collège John Abbott, qui a permis que la conférence SALTISE ait lieu. Nous souhaitons également remercier les partenaires suivants pour leur don : le Centre d'enseignement et d'apprentissage (CEA) de l'Université Concordia; les Services d'enseignement et d'apprentissage (SEA) de l'Université McGill; le projet Tomlinson dans l'enseignement des sciences à l'université (T-PULSE) de la faculté de sciences, du bureau de la vie étudiante et de l'apprentissage étudiant et de la Faculté de génie; le bureau du doyen académique du Collège John Abbott; et le bureau de la direction générale du Collège Dawson. SALTISE tient enfin à souligner le soutien de nos nombreux collègues qui ont contribué à la fois par leur implication et financièrement pour nous permettre de tenir, une fois de plus, cet événement annuel. Merci à vous tous!

Le Comité a élaboré un programme passionnant de conférenciers émérites, locaux et internationaux, y compris des chercheurs et des praticiens dans le domaine de l'éducation, qui viendront vous parler des pratiques fondées sur des principes et des résultats de recherche. Au total, le programme comprend plus de 50 présentations, notamment des symposiums, des conférences individuelles, des séances interactives et des présentations par affiches.

Nous vous souhaitons une bonne journée de réflexion sur votre pratique et votre relation avec la recherche dans le domaine de l'éducation et nous vous encourageons à discuter et partager vos idées sur ce domaine en pleine croissance – ses pratiques et ses théories. Surtout, nous espérons que vous apprécierez cette occasion de vous réunir une fois de plus, d'apprendre les uns des autres, de célébrer nos succès collectifs et de renforcer notre réseau.

Cordialement,

Elizabeth (Liz) Charles
Codirectrice de SALTISE

Profitez de la Conférence !

2017 SALTISE Conference Committee

2017 Conference Coordinators

Cathy Giulietti, Joanne Rankin, John Bentley and Rob Cassidy

2017 Conference Assistants

Chao Zhang and Lorraine Chiarelli

2017 Conference Planning Committee

John Bentley (Concordia University CTL), Michael Dugdale (John Abbott College), Anastassis Kozanitis (UQAM), Brenda Lamb (John Abbott College), Maria Orjuela-Laverde (McGill University – TLS), Claude Zananiri, Éric Francoeur (ÉTS) & the SALTISE executive

SALTISE Executive

Co-Directors: Elizabeth (Liz) Charles (Dawson College) & Nathaniel Lasry (John Abbott College)

Members: Marielle Beauchemin (Vanier College), Murray Bronet (John Abbott College), Kevin Lenton (Vanier College), Ken Regan (McGill University), Rob Cassidy (Concordia University CTL)

SALTISE Advisory Board

Thérèse Laferrière (Laval University), Jim Slotta (Boston College)

Associate Members

Dawson ALC - Active Learning Community (Chris Whittaker - Co-Coordinator, Magda Mlek, Jocelyn Parr, Yann Brouillette, Julie Wong)

PÉRISCOPE - Thérèse Laferrière (Université de Laval)

CLAAC project - CLasses d'Apprentissage Actif: Bruno Poellhuber, Principal (Université de Montréal), Samuel Fournier St-Laurent (Collège Ahunstic), Louis Normand (Cégep Rosemont)

Technical and Logistics Support

Graphic Designer (Program): Isabelle Kalekas

Graphic Designer (Conference logo and poster): Julie Palnychenko

Web support at Dawson College: Jonathan Pearlman
Communications and Support Staff at Concordia: James Roach, Dominique Bourcier

Awards Committee

Jim Sparks (Champlain College), Teresa Hackett (John Abbott College) & Azra Khan (Dawson College)

Proposals Selection Committee

Uzma Jamil (Dawson College), Chao Zhang (Dawson College), Magda Mlek (Dawson College) & Éric Francoeur (ETS)

Location of Events

EVENTS WILL BE HELD AT:

Concordia University
Hall Building
1455 de Maisonneuve Boulevard West
H3G 2E9

PARKING:

There will be no parking available on campus. Using public transportation is highly encouraged.

Concordia is located in the heart of downtown Montreal and is accessible by public transit – Metro Station "Guy-Concordia"

NAME TAGS & REGISTRATION:

Available on the day of the Conference in front of the DB Clarke Theatre, Hall Building

KEYNOTES (MORNING AND AFTERNOON): DB Clarke Theatre, Hall Building

AWARDS CEREMONY: DB Clarke Theatre

CONFERENCE SESSIONS: Hall Building, 5th and 7th floor (see schedule for room assignments)

POSTER SESSIONS: Hall Building, 7th floor

KIOSKS: Hall Building, 7th floor

HEALTH BREAKS: Hall Building, 5th floor landing

LUNCH: Hall Building, 7th floor

WINE AND CHEESE RECEPTION: Hall Building, 7th floor

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2017 SALTISE Best Practices & Pedagogical Innovators Award

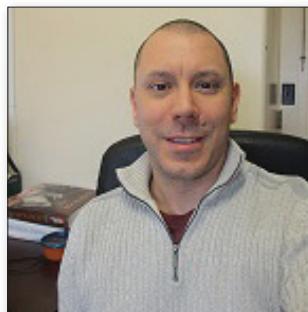
It gives us great pleasure to announce the names of the following instructors who will be presented with the SALTISE Teaching Award for 2017. These individuals were selected from an impressive list of instructors who were nominated by their peers and students. We are delighted that they are part of the SALTISE community and look forward to their continued pedagogical innovations and inspirational mentorship of students and peers alike.



Michael Dugdale
Physics Dept., John Abbott College

Michael is described as a leader in promoting student-centered learning and a staunch supporter of his colleagues. Here is a quote from his colleagues: "There are people who preach and people who do. Michael is the undoubtedly the latter... His dedication and constant innovation surrounding pedagogical growth is a model to be followed by those who strive to foster deeper learning in their classroom...His interest in pedagogy is not merely academic, it is driven by a genuine desire to help and teach students as effectively as possible."

His list of department initiatives and of his pioneering software are impressive: LON-CAPA, DALITE, peerceptive, LateK, GRASP, OCLaRE (future), etc. "The environment in [Michael's] classroom is lively, friendly, supportive, and interactive. I was truly inspired by [him]..."



Karl Laroche
Biology Dept., Vanier College

Karl is described as an excellent teacher who excels at using active learning approaches and finding solutions to its implementation. Here is what his students wrote:

"Although [some] students have been critical of active learning, I have found that no one has perfected this method as much as Mr. Laroche... he has found a remarkable solution... Students who have already taken his class and are familiar with the material, come back as full-time teacher's assistants... Somehow, on top of all of his responsibilities, in and outside of [teaching], we still feel that our success is at the top of his priority list."



Ann-Louise Davidson
Dept. of Education, Concordia University

Ann-Louise is described as an excellent instructor, and internationally recognized scholar, because of her use of innovative pedagogical approaches. In particular, her exemplary use of problem-based learning (PBL) and collaborative learning approaches. Here is a quote from her students: "The mentorship she provides to students and colleagues is inspiring because we deeply feel respected as we grow into engaged researchers. Through her leadership she builds communities of practice with students and teachers, where we become better as we work together on social innovation. She designs pedagogical innovations and technology-based activities using the cutting-edge knowledge she has about experiential learning, maker culture and action-research."

Past recipients of the SALTISE Best Practices & Pedagogical Innovators Award

2013

- Murray Bronet (John Abbott College)
- Edward Awad (Vanier College)
- Chris Buddle (McGill University)

2014

- Kevin Lenton (Vanier College)
- Sean Hughes (John Abbott College)

2015

- Rhys Adams (Vanier College)
- Samantha Gruenheid (McGill University)
- Lawrence Chen (McGill University)

2016

- Jean-François Brière (Dawson College)
- Lynda Gelston (John Abbott College)
- Marielle Beauchemin (Vanier College)
- Rosemary Reily (Concordia University)

SALTISE Special Awards 2017

This year, for the first time, the SALTISE community has selected two individuals to receive its **Lifetime Achievement Award – Richard Filion** (General Director of Dawson College) and **Erich Schmedt** (Academic Dean of John Abbott College). It gives us great pleasure to honour both Administrators at the same time because each has supported SALTISE and its efforts in exceptional ways that have been complementary and timely.



Richard Filion, has been the Director General of Dawson College since 2005. Long before the 2011 Chantier 3 grant that led to the formation of the community, Mr. Filion actively supported the ideals and the precursor projects that led to the birth of SALTISE. For over 10 years he has welcomed our small

group of educational innovators with nascent ideas of bringing together practitioners and educational researchers. SALTISE wishes to honour Mr. Filion because of his sustained willingness to listen, actively participate and support our efforts from a burgeoning group to a mature community. Most of all, we are indebted to Mr. Filion for his constant moral support and unwavering belief in the promise of our community of practice.



Erich Schmedt, has been at John Abbott College for over 30 years, as Biology teacher, Department Chair, Science Dean, and finally Academic Dean, position from which he is retiring this term. Mr. Schmedt fully appreciates the challenges classroom teachers face in attempting to engage, inspire

and motivate their students to learn. As Academic Dean, Mr Schmedt has been instrumental in supporting and promoting SALTISE since its inception. He has been a champion of the annual Conference and the Community at John Abbott; and, instrumental in making our annual conference in 2015, hosted at John Abbott, an enormous success. Lastly, and importantly, he has been one of our greatest advocates within the college network. His unwavering support for all our initiatives has allowed all those involved in the SALTISE community to find a home at John Abbott and take root among its faculty.

What makes these administrators particularly special to SALTISE is their openness to those from outside their own institutions. This willingness to entertain ideas that extend beyond their College has made it possible for SALTISE to grow within the provincial network. Over and over again, both men have demonstrated their support of the SALTISE vision. For this, we are forever grateful!

Keynote Speakers

GEORG RIEGER

University of British Columbia

Location and time: DB Clarke Theatre @ 8h45



DR. RIEGER is a tenure-track Instructor in Physics & Astronomy in Vantage College at the University of British Columbia. He is also a long-time member of the Carl Wieman Science Education Initiative (since 2009) and served as the CWSEI department director for Physics & Astronomy from 2011 to 2015.

He received a Dipl. Phys. (diploma) from the Ruhr-

Universitaet Bochum, Germany in 1990 and a Dr. rer. nat. (Ph.D.) in physics also from the Ruhr-Universitaet Bochum in 1993. After spending many years in experimental physics, he became increasingly interested in teaching and learning and finally switched to full-time teaching and physics education research in 2012. Dr. Rieger mostly teaches large first-year introductory physics courses and he is particularly interested in active learning methods to engage all students in such large classes. He uses a worksheet-based approach and small-group work, supported by clicker questions that he describes in a CWSEI video¹. The active learning approach in class is matched by using two-stage exams, where part two of the exam is written collaboratively in small groups. The two-stage format and its implementation in large physics courses is described in two of his publications.^{2,3} Georg is also actively engaged in blended learning where he explores the use of an edX edge (edge.edx.org) platform to support student learning outside of class. In his latest project he uses animated worked examples on edX to support conceptual understanding and problem-solving in an introductory physics course.

Before joining the University of British Columbia in 2001, he did research as a post-doctoral fellow in Caen, France and at the University of Alberta.

¹<http://blogs.ubc.ca/wpvc/intro-physics-active-class/>

²G. W. Rieger and C. E. Heiner, "Examinations that support collaborative learning: The students' perspective." *J. Coll. Scie. Teach.* 43 (4) 41-47 (2014).

³Carl E. Wieman, Georg W. Rieger, and Cynthia E. Heiner, "Physics exams that promote collaborative learning", *The Phys. Teach.* 52, 51 (2014);

SUSAN MCKENNEY

University of Twente

Location and time: DB Clarke Theatre @ 14h30



PROF. DR. SUSAN MCKENNEY co-leads ELAN¹, the teacher education program within the Faculty of Behavioral and Management Sciences² at the University of Twente³. Additionally, she holds appointments in the Department of Instructional Technology⁴, at the same university, and in the Learning Sciences & Policy⁵ Group at the University of Pittsburgh⁶.

Her research focuses on understanding and facilitating the interplay between curriculum development and teacher professional development, and often emphasizes the supportive role of technology in these processes. As such, she also studies processes of design that can be applied in the field of education, and synergistic research-practice interactions. Susan is committed to exploring how educational research can serve the development of scientific understanding while also developing sustainable solutions to real problems in educational practice. Since design-based (implementation) research lends itself to these dual aims, her writing and teaching often provide ideas about how to conduct this exciting form of inquiry. In addition to authoring numerous articles, she co-edited the book, *Educational Design Research*⁷ and, together with Tom Reeves, wrote the book, *Conducting Educational Design Research*⁸. She has previously served as executive chair of the International Society for Design and Development in Education⁹.

<http://www.educationaldesignresearch.org>

¹www.utwente.nl/nl/bms/elan/

²www.utwente.nl/en/bms/

³www.utwente.nl/en/

⁴www.utwente.nl/en/bms/ist/

⁵www.education.pitt.edu/AcademicDepartments/LearningSciencesPolicy.aspx

⁶www.pitt.edu/

⁷www.amazon.com/Educational-Design-Research-Jan-Akker/dp/0415396352/

⁸www.amazon.com/Conducting-Educational-Design-Research-McKenney/dp/0415618045/

⁹<http://www.isdde.org/isdde/index.htm>

2017 SALTISE CONFERENCE SCHEDULE

Morning Keynote Speaker (DB Clarke Theatre) - GEORG RIEGER						
8h30	Professional Development Session 1.1 (room H-507)	Finding Solutions Session 1.2 (room H-553)	Engaging the Learner Session 1.3 (room H-520)	Al & the Learner Session 1.4 (room H-557)	Special Topic Session 1.5 (room H-509)	Al Practice: Writing Session 1.6 (room H-561)
SESSION 1 9h45 to 11h	<i>"Two sides of the coin: Effect of digital learning environment on teacher motivation</i> John Lofarco (Concordia)	<i>Case-based learning in a physiology laboratory fosters enhanced student engagement and collaboration</i> Armin Yazdani (McGill)	<i>Le portfolio d'apprentissage pour évaluer le processus</i> Hélène Meunier (UQAM)	<i>Centering students in discussions of student-centered learning</i> Claire Trottier Joanna Li Ali Mohammed Chalan Ranasinghe (McGill)	<i>Increasing interactions with course-related materials in an interactive learning space</i> Gary M. Pavleschko Angela Nickoli Sue Paul Trena Whiteman (Ball State)	<i>Writing Across the Curriculum (WAC) / Writing in the Disciplines (WID): Meaning methods and making learning active</i> John Bentley Graham Dodds Theresa Bianco Stuart MacMillan M.J. Thompson (Concordia)
	<i>"You need to be that source of information": Conflicting discourses that impact novice elementary teachers' enactments of ambitious science pedagogies.</i> Allison Gonzales (McGill)	<i>Technology-supported active learning in two engineering courses: A two-year case study</i> Emily Sheepy (Concordia)	<i>Des pratiques inspirantes pour l'enseignement d'un contenu difficile en chimie</i> Christine Marquis (Cégep St.)	<i>L'engagement cognitif élève à l'intersection des pédagogies actives et méthodes d'évaluation authentiques</i> Anastasis Kozanitis (UQAM) Chantal Tremblay (UdeM)	<i>Julius Su</i> (CIT)	<i>YOU CAN DO IT TOO: Making your teaching more inclusive</i> Alice Hawel Catherine Fichet (Dawson, Adaptech Research Network)
11h – 11h15 Break & Refreshments (5 th floor)						
SESSION 2 11h15 to 12h30	<i>Sustaining and scaling professional learning communities to support pedagogical change</i> Chris Whittaker Ian McKenzie (Dawson) Alain Beuleux Marcy Slapoff (McGill University)	<i>Problem-based learning in a Ph.D. qualitative methods course: More than meets the eye</i> Ann-Louise Davidson Nadia Naffi David Price Nathalie Duponcel Bojana Kramanovic Ivan Ruby Rhonda Chung Ayaz Naqeeb Emily Sheepy Yang Gao Jennica Grimshaw (Concordia)	<i>e-évaluation dynamique et engagement cognitif</i> Isabelle Lepage (UQAM)	<i>The everyday world as problematic: The challenges and benefits of bridging classroom and community in course design</i> Anna-Lilja Junio Costanza Graiani Aisha Nafees (Dawson)	<i>L'enseignement collégial et le numérique : cinq perspectives, une vision!</i> Pierre-Julien Guay (VTE)	<i>Educational technology meets the real world: Real implementations</i> Saul Carliner (Concordia)
	<i>Professional Development Session 2.1 (room H-507)</i>	<i>Finding Solutions Session 2.2 (room H-553)</i>	<i>Engaging the Learner Session 2.3 (room H-520)</i>	<i>Al & the Learner Session 2.4 (room H-557)</i>	<i>Special Topic Session 2.5 (room H-509)</i>	<i>Al Practice: Ed Tech Session 2.6 (room H-561)</i>
						<i>Innovative Methods Session 2.7 (room H-763)</i>
						<i>How new social annotation software improves pre-class reading compliance and student learning in large, college science classes</i> Kelly Miller (Harvard)
						<i>Instructional design for role-play scenarios: THE RESEARCH COMPETITION website</i> Lynda Gelston (JAC)
						<i>Assessment practices and students' approaches to learning</i> Jihan Rabah Manasvini Narayana Rob Cassidy (Concordia)
						<i>OCLaRE: Developing a platform for improved lab reporting</i> Michael Dugdale , Murray Bronet (JAC)
						<i>Petra Turkewitsch</i> (Cégep GIM)

14h		Award Presentations (DB Clarke Theatre) - SUSAN MCKENNEY					
14h30		Afternoon Keynote Speaker (DB Clarke Theatre) - SUSAN MCKENNEY					
	Professional Development Session 3.1 (room H-507)	Finding Solutions Session 3.2 (room H-553)	AL Practice: UDL Session 3.3 (room H-520)	AL & the Learner Session 3.4 (room H-557)	Special Topic Session 3.6 (room H-509)	AL Practice: Ed Tech Session 3.5 (room H-767)	
SESSION 3 15h45 to 17h	<i>How to get your colleagues to discover and use active learning pedagogy in their classrooms? Peer observation initiatives at Dawson and Marianopolis Colleges</i> Magdalena Milek Chao Zhang (Dawson) Andrew Burton (Marianopolis)	<i>Walking the walk, talking the talk: applying real-world public relations practices to teach PR</i> Nicolette Papastefanou Shaun Lynch Amy Creighton Elizabeth Hirst (McGill)	<i>CLAAC et CUA: deux pédagogies qui travaillent ensemble pour répondre à la diversité en salle de classe! Un compagnonnage naturel, début de conversation...</i> Victoria Pickering Laure Galipeau Catherine Soleil (Dawson)	<i>Exploring college instructors' perspectives on barriers experienced by students with LD in CEGEP science classrooms: A qualitative case-study</i> Neenusha Gokool Bauthoo (McGill)	<i>This changes everything: Cégep Science Program - Revision 2018</i> Bruce Tracy Chris Whittaker (Dawson)	<i>Using robotics for mathematics learning in low SES schools</i> Nathalie Duponse (Concordia)	
	<i>Modules d'autoformation en pédagogie universitaire</i> Hélène Meunier Maina Françoise Caplain (UQAM)	<i>ClaAAc et CUA: deux pédagogies qui travaillent ensemble pour répondre à la diversité en salle de classe! Un compagnonnage naturel, début de conversation...</i> Victoria Pickering Laure Galipeau Catherine Soleil (Dawson)	<i>A small village to introduce cégep students to research</i> Hélène Nadeau Silvia d'Apollonia (Dawson)	<i>Teaching the history survey course in an interactive learning space to better engage the learner and assess learning</i> Douglas Saelekt (Ball State)	<i>Discussant: Claire Trotter</i> Silvia d'Apollonia (Dawson)	<i>UDL at your fingertips: from understanding the science behind UDL to implementing it successfully in your classroom</i> Ioana Constantinescu Susie Willman (Dawson) Brenda Rowe (JAC)	<i>The potential of mobile sensor technology in physics education</i> Chris Lammer (JAC)
				<i>The use of active learning strategies enhances participant engagement during a one-day teaching workshop</i> Suellen C. Coelho (McGill)		<i>Effect of digital learning environment on learning outcomes</i> Alicia Gundell Emily Sheehey John Lofarco Laura Dunbar (Concordia)	
							Wine & Cheese (7th floor – H-701)
							17h

Posters:

1. *Identity as a Research Lens in Physics and Science Education Research* - **Christopher Gosling** (McGill)
2. *Using Rehearsals to Support Preservice Teachers' Learning How to Notice and Mobilize Students' Funds of Knowledge during Ambitious Science Teaching* - **Ebenazar M. Mbachu** (McGill)
3. *Active Learning for Design Thinking - Tim Miller, Fabienne Cyrus (Dawson)*
4. *Virtual Reality For Training - Sophie CALLIES (UQAM)* Jean-Philippe Bradette (Ellicom)
5. *Flipping and active learning in college mechanics classes* - Margaret Livingstone, Baharak Farholahzadeh, Rachel Faust, Oscar Hernandez, Andrew Lefcoe, Dominique Paradis, Patrick Rogers (Marianopolis)
6. *Observatoire sur les pratiques innovantes d'évaluation des apprenants* - Diane Leduc, Isabelle Lepage, Carla Barroso da Costa, Johanne Grenier (UQAM), Sébastien Beland (UdeMtl), Éric Dionne (UdeOttawa)

Legend:

- ARC = Association pour la recherche au collégial
APOP = Association pour les applications de l'ordinateur au postsecondaire
Ball State = Ball State University
CCDM = Centre collégial de développement du matériel didactique
CDC = Centre de documentation collégiale
CIT = California Institute of Technology
Cégep BB = Cégep de Bois de Boulogne
Cégep à distance = Cégep à distance
Cégep GM = Cégep de la Gaspésie et des Îles
Cégep SJ = Cégep Saint-Jérôme
Cégep SI = Cégep de Sept-Îles
Champlain = Champlain Regional College, Longueuil
Concordia = Concordia University
- Dawson = Dawson College
Ellicom = Ellicom
ETS = École de technologie supérieure
Harvard = Harvard University
JAC = John Abbott College
Marianopolis = Marianopolis College
McGill = McGill University
Perusal = Perusal LLC
Réseau PÉRISCOPE = Réseau PÉRISCOPE
UdeLaval = Université de Laval
UdeMtl = Université de Montréal
UdeOttawa = Université d'Ottawa
UQAM = Université du Québec à Montréal
VTÉ = Vitrine technologie-éducation

SALTISE PROGRAM

MORNING KEYNOTE (8h45 – 9h25)

GEORG RIEGER (University of British Columbia) - *Examinations that support learning – How two-stage assessment became common practice at the University of British Columbia*

Traditional midterm or final examinations in science are intended to be summative assessments of individual performance. Working collaboratively in small groups of two to five learners, which is common in active learning classrooms, does not seem to fit into these high stakes tests. The two-stage exam, on the other hand, is an approach that integrates collaborative learning while still assessing the students' individual performance. In a two-stage exam students first complete and turn in the exam individually, and then, working in small groups, answer (part of) the exam questions again. Since its first implementation at the University of British Columbia in 2011, the format has become widely used at our institution and now more than fifty science courses have adopted two-stage exams. Instructors in other faculties are increasingly making use of this kind of assessment as well, sometimes with modifications. Two major factors have contributed to the success of the two-stage format: its benefits that are evident to instructors and students alike, as well as its relatively straightforward application.

I will present the benefits and challenges of two-stage exams, provide a description of how this format is commonly used in science courses, discuss which factors contributed to the widespread adoption of this approach, show its versatility and speculate about the future of two-stage assessments at our institution and beyond.

MORNING SESSIONS

SESSION 1: 9h30 – 11h00

1.1 Professional Development

JOHN LOFRANCO, LAURA DUNBAR, ALICIA CUNDELL (Concordia University) - *Two sides of the coin: Effect of digital learning environment on teacher motivation*

In a study that compared the learning outcomes of students from two different sections of an English composition course taught in different formats (digital, traditional) by the same instructor in the same term, the instructor kept an informal journal and noted the effect of the two environments on his own teaching practice, motivation and experience. The instructor will share his experiences with this study.

ALLISON GONSALVES (McGill University) - *You need to be that source of information": Conflicting discourses that impact novice elementary teachers' enactments of ambitious science pedagogies*

An emerging practice called ambitious science teaching offers students opportunities to engage in specific strategies designed to elicit science-related talk in the classroom. This study explores the learning and identity trajectories of 4 novice teachers as they learn to construct opportunities for science talk while co-teaching 7 science lessons in two different elementary classrooms.

ANILA ASGHAR, YING SYUAN HUANG, MELANIE SLEEP, KATHERINE DAVEY (McGill University) - *Supporting teachers to diagnose and develop students' conceptual understanding of science through a community of practice*

Our research explores the potential of developing a community of practice (CoP) to support and sustain professional development of high school science teachers in Quebec. These teachers developed a shared repertoire of tools and interventions to enhance their students' understandings of scientific concepts. We will discuss this experience suggesting that a community of practice can inspire and transform pedagogical practice through ongoing support and collaboration among its members.

SHARON COYLE (Cégep de Sept-Îles) - *Making learning active: Attributes of effective active learning scenarios*

Using Winter Term 2017 examples from Cégep de Sept-Îles' new active learning classroom we will look at features that promote success, such as building prior knowledge; creating common ground; encouraging social presence; orchestrating puzzles to be solved; creation of artefacts to be manipulated; demanding creative representations; making thinking visible; appreciating new solutions; considering the role of assessment and sharing/comparing small group responses with the larger group.

1.2 Finding Solutions

ARMIN YAZDANI, JUDITH MANDI (McGill University) - *Case-based learning in a physiology laboratory fosters enhanced student engagement and collaboration*

Case-based learning (CBL) is an effective strategy that can utilize real-case scenarios to guide students through learning objectives. CBL has been consistently shown to be an effective instructional strategy in diverse landscapes. Here, we aimed to incorporate CBL into a second year undergraduate laboratory course offered by the Department of Physiology to students at McGill University.

EMILY SHEEPY (Concordia University) **JEREMY COOPERSTOCK, MARIA ORJUELA-LAVERDE** (McGill University) - *Technology-supported active learning in two engineering courses: A two-year case study*

This presentation provides lessons learned from the second year of a case study on the redesign of two senior engineering courses—human-computer interaction and artificial intelligence—at McGill University. We switched these traditionally lecture-based courses to a flipped model, implemented Peer Instruction using a student response system, and introduced peer- and self-assessment of assignments. We will contrast responses over the two-year span of the project from student questionnaires and focus groups.

YANN BROUILLETTE (Dawson College) - *Using comic book characters and collaborative technologies to actively teach chemistry*

The linking of superhero abilities with recent scientific developments is a new interesting angle for teaching and engaging students. Chemistry themes inspired by fictional icons provides students with a relatable introduction to complex concepts. From Iron Man's plasma and the Smurfs' blue skin to the Invisible Woman's force fields, crucial chemical facts can be extracted from uncanny tales. By discerning magic from scientific, any comic book fan can be a chemistry enthusiast.

JOEL TRUDEAU (Dawson College) - *Prototyping course design for STEAM curriculum*

This presentation features explorations of creative problem solving with examples from S.P.A.C.E., a Dawson College initiative to foster discussion and collaboration beyond the classroom and across disciplines. Lessons from frontier science, engineering, design-thinking and maker culture are blended with those of inquiry and passion-based learning to demonstrate how student learning can be enhanced. A new course at Dawson that is part of an integrated curricular and co-curricular learning community is presented for rapid prototyping feedback.

1.3 Engaging the Learner (bilingual session)

HÉLÈNE MEUNIER, NATHALIE MICHAUD (Université du Québec à Montréal) - *Le portfolio d'apprentissage pour évaluer le processus*

Dans le cadre d'une formation à l'enseignement, le portfolio d'apprentissage se présente comme un outil d'évaluation pertinent pour soutenir la démarche d'élaboration et de création d'une tâche complexe, permettant à la fois d'évaluer le processus et le propos. En quoi le portfolio répond-il à des critères d'authenticité propres à l'évaluation des compétences?

CHRISTINE MARQUIS (Cégep Saint-Jérôme) - *Des pratiques inspirantes pour l'enseignement d'un contenu difficile en chimie*

Notre recherche s'intéresse aux pratiques d'enseignants(es) de chimie pour transformer et enseigner les savoirs liés aux modèle probabiliste de l'atome, un contenu difficile pour les étudiants. Au terme d'une collecte impliquant 6 enseignants de chimie et leurs étudiants, nous discuterons de la diversité et des points communs des différentes pratiques de transformation des savoirs et d'enseignement observées et ferons un lien avec les différents types de changements dénotés relativement à comment les étudiants conçoivent l'atome avant et après l'enseignement.

ANASTASSIS KOZANITIS (Université du Québec à Montréal), **CHANTAL TREMBLAY** (Université de Montréal) - *L'engagement cognitif élevé à l'intersection des pédagogies actives et méthodes d'évaluation authentiques*

Les résultats préliminaires d'une recherche portant sur l'engagement cognitif élevé montrent que l'apprentissage actif et l'évaluation en situation authentique sont davantage associés aux stratégies cognitives en profondeur, à la persévérance, à l'expérience de « flow » lors des tâches réalisées en classe et à l'effort intellectuel déployé par les étudiants.

THÉRÈSE LAFERRIÈRE (Université de Laval) **SÉVERINE PARENT, CHRISTIAN PERREAU** (Réseau PÉRISCOPE) - *Collaborative problem solving: A new target for assessing the learner*

The first PISA report on the assessment of collaborative problem solving will be out next November. In parallel with all the preparation that led to 15 year old students from around the world being assessed on this key skill, in the United States, NAEP pursued its own interest in the matter, including design and assessment. What are we waiting for in Quebec?

1.4 Active Learning & The Learner (panel discussion)

CLAIRE TROTTIER, JOANNA LI, YUN HSUAN LIN, ALI MOHAMMED, CHALANI RANASINGHE (McGill University) - *Centering students in discussions of student-centered learning*

This panel will centre students in a discussion of student-centred learning and engagement in STEM education. Our Microbiology and Immunology department has been undergoing curriculum reform, involving students in many aspects of these changes. Students have increasingly started initiatives of their own in STEM education. This panel will highlight the ways students can contribute to curriculum reform and will include student perspectives on teaching styles, types of assessments and student engagement.

1.5 Special Topic (symposium)

GARY M. PAVLECHKO, ANGELA NICKOLI, SUE PAUL, TRENTA WHITEMAN (Ball State University) JULIUS SU (California Institute of Technology) - *Increasing interactions with course-related materials in an interactive learning space*

Interactive learning spaces in the 21st Century offer both instructors and learners environments in which to collaborate. Some see this as an opportunity, some as a challenge. This presentation will share how one innovation – Su-Kam Intelligent Education Systems (SKIES) instigates engagement and positive behavioral change by supporting connectedness between people and content through technology.

1.6 Active Learning Practice: Writing (symposium)

JOHN BENTLEY, GRAHAM DODDS, THERESA BIANCO, STUART MACMILLAN, M.J. THOMPSON (Concordia University) IAN MACKENZIE (Dawson College) MARK BEERS (John Abbott College) - *Writing Across the Curriculum (WAC) / Writing in the Disciplines (WID): Meaning, methods and making learning active*

The use of the writing process in teaching as an explicit strategy to make student learning more meaningful and active is the essence of the writing across the curriculum (WAC) and writing in the disciplines (WID) movements in education. Drawing on a range of college and university disciplinary expertise this panel discussion will examine the benefits of writing to learn and learning to write within a discipline and ways these approaches are being used today.

1.7 Assessments & Alternatives

ANN-LOUISE DAVIDSON, DAVID PRICE, GIULIANA CUCINELLI, NATHALIE DUPONSEL, HIROKO PRICE (Concordia University) - *Developing a rubric for maker competencies from a grassroots perspective*

This presentation will reveal the results of our research on maker culture that we conducted within workshops, maker jams and maker faires. While documenting maker experiences during these events, we are also developing the foundations of a rubric for developing maker competencies.

ALICE HAVEL, CATHERINE FICHTEN (Dawson College, Adaptech Research Network), MARY JORGENSEN (Adaptech Research Network), LAURA KING (Cégep André Laurendeau) - *YOU CAN DO-IT TOO: Making your teaching more inclusive*

DO-IT, an organization dedicated to the inclusion and success of students with disabilities through technology and education,

has an extensive collection of disability related resources for post-secondary faculty available on its website. Members of the Adaptech Research Network will highlight some of these winning resources for you.

STÉPHANIE FACCHIN (Cégep à distance) - *E-feedback, is it worth it?*

Achievement and persistence are important issues for our educational institutions, especially distance education. Feedback in education plays a significant role. ICT tools offer flexible ways to deliver feedback and allow more possibilities than simply grading and writing comments on student work. This quasi-experimental study analyzes data from 400 learners. We will provide a complete list of good practices for e-feedback derived from the literature and the use of e-feedback tools.

NADIA NAFFI, ANN-LOUISE DAVIDSON (Concordia University) - *Assessment and evaluation of students in online courses designed in a Problem-Based Learning approach*

Have you ever assessed and evaluated student learning in an online Problem-Based Learning course on social media platforms? Well... we did! In this presentation, we will share the challenges we faced, the assessment and evaluation model we created, along with the strategies and rubrics we designed. Our goal was to ensure iterative constructive peer and instructor formative assessment to enable student success and authentic/experiential learning.

11h00 – 11h15 Break & Refreshments

SESSION 2: 11h15 – 12h30

2.1 Professional Development (panel discussion)

CHRIS WHITTAKER, IAN MCKENZIE (Dawson College), ALAIN BREULEUX, MARCY SLAPCOFF (McGill University) - *Sustaining and scaling professional learning communities to support pedagogical change*

As faculty and institutions seek to adopt active learning pedagogies the task of supporting and sustaining change becomes critical to success. Professional Learning Communities (PLCs) are an effective mechanism for pedagogical capacity building and sustainable improvement, however, making them work and scaling them over time is not easy. This symposium will explore several PLC efforts at Dawson College and McGill University, and will explore the challenges and opportunities to scale them over time.

2.2 Finding Solutions (symposium)

ANN-LOUISE DAVIDSON, NADIA NAFFI, DAVID PRICE, NATHALIE DUPONSEL, BOJANA KRSMANOVIC, IVAN RUBY, RHONDA CHUNG, KIM TAYLOR, AYAZ NASEEM, EMILY SHEEPY, YANG GAO, JENNICA GRIMSHAW (Concordia University) - *Problem-based learning in a Ph.D. qualitative methods course: More than meets the eye*

This symposium discusses the design of a PhD qualitative methods course using a problem-based learning approach in the Department of Education at Concordia University. Our team and our students will reflect on four guiding pedagogical questions: How to design a PhD course using a PBL approach? What do students learn? How do we evaluate students? What do we learn as a teaching team?

2.3 Engaging the Learner (French session)

ISABELLE LEPAGE, DIANE LEDUC, ALAIN STOCKLESS (Université du Québec à Montréal) - *E-évaluation dynamique et engagement cognitif*

L'efficacité de la e-évaluation formative commence à être démontrée et, selon plusieurs, elle permet d'engager cognitive-ment l'étudiant de façon considérable (Elliott, 2007; Gikandi, Morrow et Davis, 2011; Shute et Kim, 2010; Stöberg, 2012). Ce projet de recherche concerne l'élaboration et l'implémentation d'une e-évaluation dynamique dans l'environnement numérique d'apprentissage Moodle dans un contexte de grand groupe à l'université dans le but d'en examiner l'influence sur l'engagement cognitif des étudiants.

ERIC FRANCOEUR, MARC-ANDRÉ LÉONARD (École de technologie supérieure) - *Mesure de l'engagement des étudiants dans une formation hybride*

Cette présentation porte sur les résultats préliminaires de l'analyse des données de trace d'une formation hybride offerte à l'École de technologie supérieure afin de mesurer l'engagement des étudiants. Au cœur de la discussion seront l'utilité et les limites de cette analyse de l'engagement pour améliorer la formation.

DOMINIQUE PIOTTE, MARLÈNE CLISSON (École de technologie supérieure) - *Adapter la classe au profil de l'étudiant : une expérience d'enseignement des sciences à l'ÉTS*

Pour stimuler l'engagement des étudiants en misant sur l'adaptation des méthodes d'enseignement à leur profil technique, les séances d'exercices du cours de chimie, cours obligatoire au baccalauréat en génie à l'ÉTS, ont été remplacées par les activités d'apprentissage actives réalisées en travail collaboratif avec rétroaction immédiate. Les activités

comportent des micro-laboratoires faits en classe avec un matériel simple et peu coûteux. Cette approche commence à être déployée en physique également.

2.4 Active Learning & The Learner (symposium)

ANNA-LIISA AUNIO, COSTANZA GRAZIANI, AISHA NAFEES (Dawson College) - *The everyday world as problematic: The challenges and benefits of bridging classroom and community in course design*

Student engagement is enriched through well-organized and effective active learning strategies. Yet designing courses that implicate students in their own learning during class time as well as outside of and after the course ends is both daunting in theory and in practice. This session takes the everyday world as problematic in an environmental studies course to demonstrate lessons learned for faculty and students in bringing environmental and sustainability challenges to life through student-led research projects.

CHRIS ADAM (Dawson College) - *Student engagement and success: Can sustainability be another way to consider these goals?*

Student action research projects based on sustainability objectives and Living Campus initiatives have changed Dawson's ecological footprint and helped define a core College value of well-being for all, sustainably. What is the potential for these authentic projects to bridge disciplines and create positive social experiences that multiplies student engagement? The significance of first-hand experience and contact with nature will be discussed.

2.5 Special Topic (French panel)

PIERRE-JULIEN GUAY (VTÉ), LYNN LAPOSTOLLE (ARC), CATHIE DUGAS (CCDM), ISABELLE LAPLANTE (CDC), HÉLÈNE MARTINEAU (APOP) - *L'enseignement collégial et le numérique : cinq perspectives, une vision!*

À partir de leurs perspectives respectives, la VTÉ, l'ARC, le CCDMD, le CDC et l'APOP exposent les enjeux susceptibles de contribuer au positionnement des collèges à l'ère numérique. Leur vision comprend cinq dimensions : l'apprentissage, l'enseignement et le perfectionnement, l'évaluation et la responsabilité, le leadership et la culture, et l'infrastructure. Chacune s'appuie sur des principes, rendant possible l'élaboration d'une feuille de route reposant sur trois stades de développement.

2.6 Active Learning Practice: Educational Technology

SAUL CARLINER (Concordia University) - *Educational Technology meets the real world: Real stories of real implementations*

Advocates of educational technology promote its potential to transform education, one of its biggest challenges is getting faculty to use it. Focus has been on building attitudes towards acceptance of technology; less effort on the more practical challenges that arise. This presentation describes practical challenges that arose in recent implementations of lecture capture, blended learning and Moodle, and suggests ways faculty development specialists can apply the lessons learned when promoting technology in the future.

GABRIEL FLACKS (Champlain College) - *Cross-Campus collaboration: Who, what, when, where, why?*

Opportunities for cross-campus collaboration are more accessible than ever. Choosing the right tools and partners for collaboration involves many factors, such as deciding how to integrate synchronous and asynchronous collaborations into coursework. Using case studies from 2016-2017 to ground the discussion, this presentation will help attendees determine if and how collaborative distance learning activities can fit into their teaching.

STUART SPENCE (Concordia University) - *Open source and open data in education*

What is open source? How can open data be used in education? How do these ideas impact reproducibility, transparency, and peer review in education research? How can educators in Montreal get involved? Explore these ideas alongside two action research projects developed by the speaker: an education website with open data from real students, and the results and feedback from technology workshops.

MICHAEL DUGDALE, MURRAY BRONET (John Abbott College) **PETRA TURKEWITSCH** (Cégep de la Gaspésie et des Îles) - *OCLaRE: Developing a platform for improved lab reporting*

Modern theories of education view learning as a process of enculturation that occurs through participation in authentic practice. Instruction, however, tends to widen the epistemological gap between students and their communities of practice. To better bridge this gap, we are developing an Online Collaborative Lab Reporting Environment (OCLaRE), an online tool to allow students to focus on critical analysis, rather than on the trivial aspects of lab-reporting (e.g. format, section length).

2.7 Innovative Methods

KELLY MILLER, GARY KING (Harvard University), **BRIAN LUKOFF** (Perusall LLC) - *How new social annotation software improves pre-class reading compliance and student learning in large college science classes*

We will present a study on Perusall, a social annotation software tool, to promote conceptual understanding and out-of-class engagement in two large introductory college science classes. Perusall allows instructors to assign, manage and monitor students' who are assigned out-of-class readings. Research shows that students using Perusall engage with their readings more, and complete their reading assignments at a higher rate. The platform also promotes active reading producing learning interactions between students outside of class.

LYNDA GELSTON (John Abbott College) - *Instructional Design for role-play scenarios: THE RESEARCH COMPETITION website*

The recently released THE RESEARCH COMPETITION website (CCDM) aims to promote the use of role-play scenario-based learning in Social Science research method courses. Scenarios, scripts and innovative tools were designed to encourage deep embodied forms of learning.

JIHAN RABAH, MANASVINI NARAYANA, ROB CASSIDY (Concordia University) - *Assessment practices and students' approaches to learning*

Student Approaches to Learning (SAL) differentiates between student learning objectives/behaviours that are focused on the memorization of course content (surface approach) or the construction of meaning and comprehension (deep approach). Here we present the results of a systematic review of the literature describing how deep and surface approaches to learning are associated with different summative assessment practices.

12h30 – 14h	Lunch
12h30 – 13h45	Poster Session
12h30 – 14h	Live demonstration of new SALTISE website
14h – 14h30	Award Presentations

AFTERNOON KEYNOTE (14h30 – 15h30)

SUSAN MCKENNEY (University of Twente) - *Teacher learning in design-centric partnerships*

The last decade has witnessed a strong increase in mutually-beneficial collaboration between researchers and practitioners. This presentation focuses on one such form of collaboration: Design-centric partnerships. Design-centric partnerships between researchers and practitioners typically aim to: Create resources to support active pedagogies; contribute to the professional development of those involved; and advance theoretical understanding. This is because design-centric partnerships are highly ambitious and realizing their potential can be quite challenging. This presentation discusses the risks and the warrants of design centric partnerships for teacher learning. It begins by outlining key mechanisms for teacher learning, and then discusses how teachers can grow professionally from engaging in the processes of creating and supporting active pedagogies. It then discusses considerations for shaping design-centric partnerships specifically to foster those processes. Examples of design-centric partnerships for science education will be given, along with recommendations for teachers, researchers and policy makers.

AFTERNOON SESSION SESSION 3: 15h45 – 17h00

3.1 Professional Development (symposium)

MAGDALENA MLEK, CHAO ZHANG (Dawson College)
ANDREW BURTON (Marianopolis College) - *How to get your colleagues to discover and use active learning pedagogy in their classrooms? Peer observation initiatives at Dawson and Marianopolis Colleges*

Peer observation of teaching is a great way for teachers to improve their educational practice. Voluntarily observing or being observed by a peer provides a teacher with many benefits: Learning about and/or sharing AL strategies and how to implement them; reflecting on and getting motivated to change their own practice; and developing collegial relationships.

HÉLÈNE MEUNIER, MARINA FRANÇOISE CAPLAIN (Université du Québec à Montréal) - *Modules d'autoformation en pédagogie universitaire*

Après une recherche terrain sur les besoins des nouveaux enseignants, une équipe formée de conseillers pédagogiques, de professeurs, de gestionnaires, de maître d'enseignement et de chargés de cours ont choisi de développer des modules de formation courts, en ligne, autoportants et basés sur la recherche en sciences de l'éducation. Ces modules qui se veulent des outils complémentaires aux activités déjà en place dans les établissements, seront présentés et explicités.

3.2 Finding Solutions

VICTORIA PICKERING, NICOLETTE PAPASTEFANOU, SHAUN LYNCH, AMY CREIGHTON, ELIZABETH HIRST (McGill University) - *Walking the walk, talking the talk: Applying real-world public relations practices to teach PR*

Discover how current communication practices and instructional theories, such as cognitive apprenticeship, can be brought together to engage students in deeper learning. This interactive symposium will feature both examples and demonstrations of lessons learned by three experienced faculty from the Public Relations and Communications Management Programs at McGill. Using examples from their courses, specific instructional strategies such as case studies, jigsaw and role-play will be illustrated and discussed. The symposium will also explore how these approaches can be applied to other disciplines.

3.3 Active Learning Practice: UDL (French session)

LAURE GALIPEAU, CATHERINE SOLEIL, EFFIE KONSTANTINOPoulos (Dawson College) - *CLAAC et CUA: deux pédagogies qui travaillent ensemble pour répondre à la diversité en salle de classe! Un compagnonnage naturel, début de conversation...*

La classe d'apprentissage actif (CLAAC) rencontre encore certaines barrières pour rejoindre tous les étudiants. La conception universelle de l'apprentissage (CUA) propose des lignes directrices pour structurer une réponse pédagogique inclusive. Comment les principes de la CUA peuvent-ils apporter leur soutien à la CLAAC et rejoindre un plus large spectre d'étudiants? L'atelier se veut une introduction aux principes de la CUA, et propose un moment d'échange entre les deux modèles.

3.4 Active Learning & The Learner

NEERUSHA GOKOOL BAURHOO (McGill University) - *Exploring college instructors' perspectives on barriers experienced by students with LD in CEGEP science classrooms: A qualitative case-study*

This qualitative study explores the perspectives of 18 college science instructors on challenges that their students with learning disabilities (LD) experience in understanding science. Stemming from the study, the key challenge areas for students with LD included: cognitive deficits, nature of science courses, pace of instruction, unfavourable learning and testing environments. These findings have direct implications in enacting support mechanisms in favouring learning for science students with LD.

HÉLÈNE NADEAU, MARIA DIKEAKOS (Dawson College), SILVIA D'APOLLONIA (Dawson College emeritus) - *A small village to introduce Cégep students to research*

Our talk will present how a small village approach to guiding cégep students through their first experience in conducting scientific research was very successful. The community of practice provided an ideal environment in which to develop various skills necessary for future careers in research. The size of our group was unusually large for a cégep setting and was instrumental to our achievement.

DOUGLAS SEEFELDT (Ball State University) - *Teaching the History survey course in an interactive learning space to better engage the learner and assess learning.*

An analysis of the redesign of a blended learning United States History survey course from a typical instructor-centered and lecture-based course held in a fixed-seat classroom, to one that is student-centered, small group discussion-based, and held in an interactive learning space. The opportunities afforded by employing a blended learning approach to teaching a large (70+) lower-division survey course and the challenges that the physical classroom space presented are examined.

SUELLEN C. COELHO, WAGNER SOUZA, ARMIN YAZDANI, FAYGIE COVENS, DAVID N. HARPP (McGill University) - *The use of active learning strategies enhances participant engagement during a one-day teaching workshop*

Active learning strategies (ALS) aim to enhance the learner's engagement with the material, skills and knowledge being taught. The structure of this educational approach is tailored according to the group size, time and available resources. However, proper class planning using ALS demands a considerable amount of preparation. To emphasize the importance of ALS inclusion in class planning, we will demonstrate its effectiveness during teaching workshops aimed at science graduate students at McGill University.

3.5 Special Topic

BRUCE TRACY (John Abbott College), CHRIS WHITTAKER (Dawson College) - *This changes everything: cégep science program revision 2018*

A ministry-funded working group has been tasked with rewriting the Cégep Science Program by January 2018 that will affect all Cégep Science grads by 2022. The bulk of this rewrite will occur in Fall 2017. This symposium will first briefly review the motivations underlying this rewrite and to briefly present the studies and consultations that have occurred to date. The lion's share of the symposium will be devoted to engaging stakeholders (teachers, researchers and administrators) in discussion and debate, with the goal of establishing

common recommendations and concerns of those attending SALTISE that will be forwarded to the writing committee for consideration.

3.6 Active Learning Practice: Educational Technology (interactive session)

NATHALIE DUPONSEL, ANN-LOUISE DAVIDSON (Concordia University) - *Using robotics for mathematics learning in low SES schools*

Schools in low socioeconomic environments face challenges incorporating technology and active learning activities in their classrooms. This presentation discusses the design of a sequence of collaborative active learning activities for low SES 5th to 8th grade students in making simple, programmable robots out of affordable open-source and recycled materials with the aim of developing mathematic concepts and skills, and its potential for evaluating competencies and interdisciplinary elements of the QEP.

CHRIS LARNDER, MICHAEL PAGANO (John Abbott College) - *The potential of mobile sensor technology in physics education*

Today's students are immersed in a technological landscape. Accelerometers, have become a standard element within their rapidly-evolving digital communications. By working directly with the same class of sensors that are embedded in these devices, students are likely to discover that mastery of fundamental physics has become, today, not less but more relevant to their techno-literacy. The challenges and opportunities of this approach will be discussed, and a number of potential scenarios will be described.

SONIA GOUNAR (Cégep de Bois de Boulogne) - *Atelier FashionTech – Musée McCord*

Projet commun entre Bois de Boulgone et marie-Victorin pour connecter des vêtements de mode des années 60 en les rendant "intelligents". Les étudiantes de marie-Victorin font le design et la confection des vêtements et ceux de Bois de Boulogne vont utiliser des objets Connectés pour activer des parties du vêtements.

IOANA CONSTANTINESCU (Marianopolis College), SUSIE WILEMAN (Dawson College), BRENDAN ROWE (John Abbott College) - *UDL at your fingertips: from understanding the science behind UDL to implementing it successfully in your classroom*

Presenting a collaboration between five Montreal based institutions funded by a MEER (Ministère de l'éducation et de l'enseignement supérieur) grant, resulting in a user-friendly

toolkit for post-secondary instructors based on the principles of Universal Design for Learning (UDL). Seventy-seven guided interviews revealed facilitators and stressors experienced by faculty in their understanding and implementation of UDL strategies. This session will provide an overview of the project and a hands-on introduction to the website.

ALICIA CUNDELL, EMILY SHEEPY, JOHN LOFRANCO, LAURA DUNBAR (Concordia University) - *Effect of digital learning environment on learning outcomes*

This study compared the learning outcomes of students from two different sections of an English composition course taught in different formats (digital, traditional) by the same instructor in the same term. The traditional format involved textbook-based lectures and writing exercises. The digital format involved computer-based readings and exercises. Learning outcomes for students in the different sections of the course compared. The results of the study will be presented and discussed.

17h – 18h Wine & Cheese

Posters:

1. CHRISTOPHER GOSLING (McGill University) - *Identity as a research lens in physics and science education research*
2. EBENEZAR M. MBACHU (McGill University) - *Using rehearsals to support preservice teachers' learning: How to notice and mobilize students' funds of knowledge during ambitious science teaching*
3. TIM MILLER, FABIENNE CYRIUS (Dawson College) - *Active learning for design thinking*
4. SOPHIE CALLIES (Université du Québec à Montréal), JEAN-PHILIPPE BRADETTE (Ellicom) - *Virtual reality for training*
5. MARGARET LIVINGSTONE, BAHARAK FATHOLAHZA-DEH, RACHEL FAUST, OSCAR HERNANDEZ, ANDREW LEFCOE, DOMINIQUE PARADIS, PATRICK ROGERS (Marianopolis College) - *Flipping and active learning in college mechanics classes*
6. DIANE LEDUC, ISABELLE LEPAGE, CARLA BARROSO DA COSTA, JOHANNE GRENIER (Université du Québec à Montréal), SÉBASTIEN BÉLAND (Université de Montréal), ÉRIC DIONNE (Université d'Ottawa) - *Observatoire sur les pratiques innovantes d'évaluation des apprentissages*



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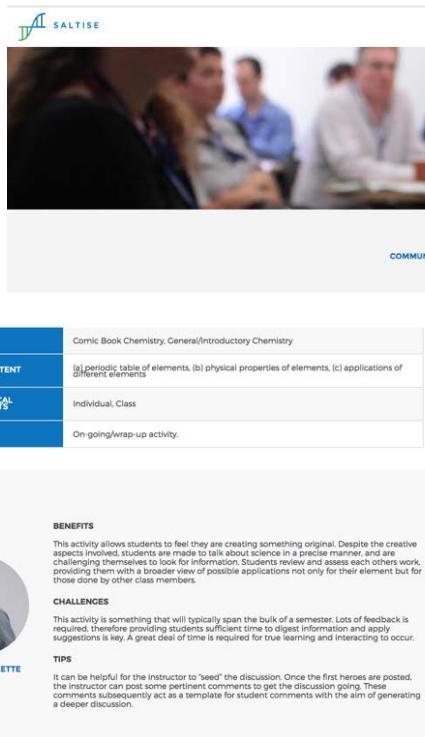
Live Demo of SALTISE Website

12h30 to 13h45

Over the last two years a dedicated team made up of SALTISE members, headed by Cathy Giulietti, Liz Charles and Rob Cassidy, have been working on the complete redesign of the SALTISE website with the expertise of a local web development shop, Littlebox Inc.

The aim of the new website is to provide the SALTISE community with a place to meet, network and collaborate. Importantly, the website is a place for us to share and build new resources and tools that will support each other as we each move further into implementing evidence-based pedagogies. Our new website promises to make SALTISE an even more vibrant and meaningful community of practice.

Come by and see what we've been up to!



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LEARNING COMMUNITIES

COMMUNITY > LEARNING COMMUNITIES

"If professional community in fact fosters instructional change, it does so by creating an environment that supports learning through innovation and experimentation" (Bryk, Camburn & Louis, 1999, p. 77)

Strategies

Strategies are generic templates for active learning which can be tailored to nearly any lesson. Listed below are examples of active learning strategies you may wish to use in your classroom.

RESOURCES > STRATEGIES

Categories
INSTRUCTIONAL GOALS
UNDERSTANDING
CROSS-DISCIPLINARY
CONNECTING IDEAS
CONCEPTUAL CHANGE
DEVELOPING MASTERY
PEER FEEDBACK
EXPERIENTIAL LEARNING
PURPOSE AND TIMING
PREPARING FOR LEARNING
ICE BREAKER
PAIR WORK
REVIEW
CONSOLIDATING LEARNING
CHARACTERISTICS
QUICK & EASY
MODERATELY EASY
EFFECTIVE BUT TAKES TIME
FAQS
ALTERNATIVE TO TRADITIONAL EXAMS
INCLUDES STUDENT SELF-ASSESSMENT
PEER ASSESSMENT
GROUP ASSESSMENT
SUITABLE FOR LARGE CLASSES (> 50 STUDENTS)
PEER ASSESSMENT
Critical thinking and communication
REFLECTIVE WRITING
Formal preparatory reflection
TOOLKIT
Personalized tool and knowledge bank
TWO-STAGE EXAM
Individual assessment, group feedback
ONE MINUTE PAPER
Reflection and summary documentation
JUST IN TIME TEACHING (JITT)
Feedback based instruction
JIGSAW
Distributed expertise and knowledge sharing
GALLERY WALK
Artifact creation, peer review and refinement
DISTRIBUTED PROBLEM SOLVING
Artifact evaluation and completion
DEBATES
Knowledge sharing and analytical reasoning
CONCEPT MAPPING
Visual representation of knowledge
CASE STUDIES
Real-life scenarios
PEER INSTRUCTION
'Think-pair-share' or 'Communication, reflection'

Testimonial

BENEFITS

This activity allows students to feel they are creating something original. Despite the creative aspects involved, students are made to talk about science in a precise manner, and are challenging themselves to look for information. Students review and assess each others work, providing them with a broader view of possible applications not only for their element but for those done by other class members.

CHALLENGES

This activity is something that will typically span the bulk of a semester. Lots of feedback is required, therefore providing students sufficient time to digest information and apply suggestions is key. A great deal of time is required for true learning and interacting to occur.

TIPS

It can be helpful for the instructor to "seed" the discussion. Once the first ideas are posted, the instructor can post some pertinent comments to get the discussion going. These comments subsequently act as a template for student comments with the aim of generating a deeper discussion.

YANN BRUILLIETTE

Activity Pedagogical Components

01 02 03 04 05

GATHERING RESOURCES

INDIVIDUALLY, students select an element from the periodic table and research its physical characteristics. They then create a character that manifests three of the element's physical properties. This preliminary work is posted into an online collaborative platform.

[DOWNLOAD FLOWCHART](#) [DOWNLOAD COMPLETE VERSION](#)

THE SALTISE 6TH ANNUAL CONFERENCE COMMITTEE wishes to thank: the entente Canada-Québec on Minority-Language Education and Second Language Instruction (ECQ), which is managed by Ministère de l'Enseignement supérieur (MESRS), for their contribution towards the funding of this year's conference.

Le comité de programmation de la quatrième édition de la conférence annuelle du SALTISE souhaite remercier pour son appui financier l'Entente Canada-Québec relative à l'enseignement de la langue de la minorité et à l'enseignement de la langue seconde, gérée par le Ministère de l'Enseignement supérieur, de la Recherche et de la Science (MESRS) du Québec.



Finally, we thank our host, Concordia University, for their warm welcome and commitment to ensuring the success of the SALTISE conference.

Enfin, nous remercions l'université Concordia, l'hôte de cette conférence, pour leur chaleureux accueil et leur engagement à assurer le succès de la conférence de SALTISE.

SALTISE thanks the following for their generous support of this conference.



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NOTES

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SALTISE 2017 6th Annual Conference

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Département de didactique

UQAM Faculté d'éducation, Département de didactique - Le Département de didactique s'intéresse aux situations d'apprentissage-enseignement ainsi qu'à la didactique générale. Faisant partie de la Faculté des sciences de l'éducation de l'UQAM, il contribue au développement et à la diffusion des connaissances nécessaires à la formation initiale et continue du personnel enseignant et d'autres professionnels de l'éducation, aux trois cycles d'études. <https://didactique.uqam.ca/>



Association pour la recherche au collégial

L'ARC est un lieu de rencontres et d'échanges sur la recherche collégiale. Comme association, elle travaille au développement de la recherche dans les établissements d'enseignement collégial.
<http://vega.cvm.qc.ca/arc/>



Learning Objects and Inspiring Learning

Profweb supports IT integration in teaching and learning. Profweb - the Quebec College Crossroad for IT integration:
<http://www.profweb.qc.ca/en>



CCDM (Centre collégial de développement de matériel didactique) provides digital and online materials for a number of college disciplines and programs.
<http://www.ccdmd.qc.ca>



Concordia Centre for Teaching and Learning - Our goal is to start conversations with faculty and graduate students about what makes great teaching & learning. We aim to build on and share these ideas through workshops, online resources and university-wide networks.
<http://www.concordia.ca/offices/ctl.html>



ASSOCIATION QUÉBÉCOISE DE PÉDAGOGIE COLLÉGIALE

The mission of the AQPC is to promote, stimulate, and support the development and evolution of college pedagogy. The AQPC strives to be a reflection and a beacon for all who work in education at the college level so as to ensure the quality of learning for all students whether enrolled in regular courses or in continuing education. The AQPC contributes to the development and evolution of pedagogy in conjunction with diverse partners in the field of higher education. <http://aqpc.qc.ca/>



APPRENDRE.
AGIR EN
NUMÉRIQUE.

APOP provides techno-pedagogical training and development services to stakeholders involved in higher education. It offers universities and colleges support by helping them implement pedagogical use of digital tools
<http://apop.qc.ca/>



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Vitrine technologie-éducation (VTÉ) is a nonprofit organization with the mission to guide Quebec post-secondary education institutions in their educational technology choices. VTÉ provides free online laboratories on emerging technologies and new ways to teach, a catalog of teaching and learning resources as well as software group purchases for cégeps and universities. <http://vteducation.org/en>



Teaching and Learning Services

Teaching and Learning Services (TLS) promotes and supports the ongoing development and enhancement of teaching and learning at McGill University. <http://www.mcgill.ca/tls/>



QcAPT
APPQc

The Quebec Association of Physics Teachers is a section of the American Association of Physics teachers (AAPT). Our association regroups over a hundred physics teachers from high schools, Cégeps and Universities. For more information: <http://www.qcapt.ca/>



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The Centre de documentation collégiale manages EDUC.info, an open archive that collects, retains, and disseminates documents about teaching, learning, and institutional development in the Quebec college network. <https://cdc.qc.ca/en/>



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Cégep à distance develops distance education materials for college-level courses and provides on-line courses in many disciplines.
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