

• Annual Report • 2014

Gilles Comeau, Director Yuanyuan Lu, Research Coordinator Mikael Swirp, Research Coordinator University of Ottawa - Pérez Hall 50 University - Room 204 Ottawa, Ontario K1N 6N5 613-562-5800, ext. 2704 www.piano.uOttawa.ca

Staff



Edana Higham

Technical Assistants

Mikael Swirp (Engineering) Yixiao Chen (Engineering) Jan Pachla (Engineering)

Mikael Swirp



Kimberly Pereira

Administrative Assistants

Yuanyuan Lu (Music) Edana Higham (Music)

Work-Study Students

Erin Dempsey (Music) Marie-Josée Charette (Sciences)



Marie-Josée Charette

2014 Volunteers

Eva Nadon (Psychology) Evgeniya Nazarnaya (Psychology) Kimberly Pereira (Psychology)



Yixiao Chen



Gabriel Nascimento, Nathalia Canabarro, Rodrigo Tolio

Research Internships

Nathalia Canabarro (Medicine) Rodrigo Tolio (Medicine) Gabriel Nascimento (Engineering)

Ann Southam Multi-Media Control Centre

Analog and digital video equipment

Records piano lessons directly on DVD and generates picture-inpicture display and instant video replay

Video conferencing capacity

Connects international research teams via overseas MIDI transfer and facilitates two-way piano teaching between the laboratory and distant locations

Production centre

Enables timely and cost-effective management of all audio and visual files-recording, editing, formatting, transferring

Sylva M. Gelber Studio

Equipment

Two 7'6" acoustic pianos with optical sensors and integrated MIDI operating systems (Disklaviers); analog and digital video cameras capture piano lessons for distance teaching and large LCD screens allow for picture-in-picture display and instant replay

Recording studio acoustics

Moveable acoustic panels allow the customization of spatial resonance within the room and soundproof walls impede sound pollution from exterior sources







Conference Room

Multi-purpose environment

Ideal for seminars, lectures, workshops, video conferencing and distance education



Resource Centre

Large reference collection for researchers

Piano method books, research literature, theses and dissertations, piano scores, audiovisual materials and teaching materials



Master's Students

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Jillian Beacon – Master of Arts in Music

Thesis Project: Assessing and measuring changes in playing postures of pianists in response to Feldenkrais training





Jillian is conducting her thesis project

Erin recruited over 40 participants from local ORMTA piano teachers for her research project

Erin Dempsey – Master of Arts in Music

Thesis Project: Music performance anxiety in children and teenagers: Effects of perfectionism, self-efficacy and gender



Grace Wong - Master of Arts in Music

Thesis Project: The immediate effects of somatic approach workshops on the body usage and musical quality of pianists



May Claire received her Piano Pedagogy Graduate Diploma 6 years ago. She is back from US for her master study under Professor Comeau's supervision

> Sandra's participant is doing the Pitch Test in the Audiology Lab







Grace is observing the somatic training from Corey Arnold

Sandra Markovic - Master of Arts in Music

Thesis Project: Music recognition and performance reproduction abilities of prelingually deaf children with cochlear implants after six months of formal music instruction

Master's Students

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Susan Mielke – Master of Arts in Music

Thesis Project: *Mental practice in music* performance: A literature-based terminology and taxonomy



Susan received her Undergraduate Certificate in Piano Pedagogy Research and now she is pursuing her MA in Piano Pedagogy

Meganne Woronchak – Master of Arts in Music

Thesis Project: Exploring the reflective learning journal: Does journaling benefit undergraduate piano students' elements of reflection and reflective learning?

Meir Sung – Master of Arts in Music

Thesis Project: A survey of technique elements in beginner plano method books and technique books

> Meir received her Graduate **Diploma in Piano Pedagogy Research via long-distance** learning. She is still a long-distance student from Hong Kong for her MA study



Meganne visited the Piano Lab before applying her MA study in September. She was one of the participants in Grace's research project



Karen King – Master of Arts in Music

Thesis Project: Parting ways with piano lessons: Declining motivation and piano student drop outs



Karen King is a long-distance student from Calgary. She provided valuable comments for the Motivation project after her research practicum

Joanna Phua (left) and Andrea Yau (right) -Graduate Diploma in Piano Pedagogy Research

Welcome Joanna and Andrea to join the graduate studies this Fall!

Audrey Mo - Master of Arts in Music

Research Paper: Pedagogical implications for piano teachers and students: Addressing negative cognition in MPA with sports psychology principles





Student Involvement





Sean Done



Sylvain Wellman-Frenette

Marketing Lina Ji **Information Studies Mathematics** Jada Watson Daniel de Repentigny Engineering Huthaifa Abderahman Houman Khamseh-Tanveer Ali Zadeh Caroline Andison Michel Khoury Baruyr Baghdasarian Daniyal Khurram Silvain Bériault Joshua Kotwas

Nimieesh Kaushal

Mathieu Kühn

Jonathan Lam

Jonathon Neva

Allyshia Sewdat

Mihir Sharma Junaid Oosman Thair

Christy Vant Arjun Yogeswaran

Samira Zabhi

Xi Zhang

Javier Mora

Zacharie Brunet

Dharmesh Dhakan

Pei Cao Martin Côté

Caio Elias

Bowei Han

Ali Khanafer Hanieh Khamseh-

Zadeh

Nikhil Enmudi

Christophe Herry Nimeesh Kaushal



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Megan Johnson, Kimberley Sundell

Research Partners

Music

Denyse Blondin (Université du Québec à Montréal) William Budai (Indiana University-Purdue University at Indianapolis, IUPUI) Philip Donner (Virtuosi, Finland) Francis Dubé (Université Laval) Elaine Keillor (Carleton University)* Daniel Landes (Belmont University, Tennessee) Louise Mathieu (Université Laval)* Jaruno Perttunen (Pirkanmaa University of Applied Sciences, Finland) Kathleen Riley (New York University) Matti Ruippo (Pirkanmaa University of Applied Sciences, Finland)* Lauri Väinmaa (Pirkanmaa University of Applied Sciences, Finland)



Amineh Koravand

Pg. 07

Psychology Alain Desrochers (University of Ottawa) Isabelle Green-Demers (Université du Quék

Isabelle Green-Demers (Université du Québec en Outaouais) Veronika Huta (University of Ottawa)* Virginia Penhune (Concordia University)* Isabelle Peretz (Université de Montréal)* Laurel Trainor (McMaster University)*

Cognitive Sciences

Bruno Emond (National Research Council)*



Isabelle Peretz

Elaine Keillor

Engineering

Health Sciences

Nadine Bressler (Epidemiology, Toronto) Isabelle Cossette (McGill University)* Ursula Stuber (Université Laval)* Martin Brooks (National Research Council)* Abdulmotaleb El Saddik (University of Ottawa)* Monique Frize (University of Ottawa)* Christophe Herry (Carleton University) WonSook Lee (University of Ottawa) Pierre Payeur (University of Ottawa)* Donald Russell (Carleton University)* Shervin Shirmohammadi (University of Ottawa)*



Veronika Huta

Neurosciences

Ramesh Balasubramaniam (University of California, Merced) Amineh Koravand (University of Ottawa)*

Communications

John Spence (Communications Research Centre)

Library Network

Cécile Prud'homme (University of Ottawa)



*Currently working on projects

Health Issues

Performance Anxiety among Piano Students

Performance anxiety affects musicians of all ages and all levels. It is believed that children begin to experience anxiety related to performing as early as 9 years old and adolescents are particularly vulnerable as a consequence of increasing self-awareness. This study examines the nervous signs exhibited by piano students 6 to 17 years of age and investigates whether perfection-ism and self-efficacy could be contributing factors.

The Role of Tension in Pedagogical Approaches to Piano Technique

Playing without tension is considered an important key to technical freedom, but conflicting advice on the role and management of tension abounds. This study shows that authors view tension either as an impediment to motion, and thus a quality that must be banished, or as an essential component of control that must be carefully managed. These differences are due to an inaccurate understanding of the anatomical and biomechanical principles of the role of tension in piano technique and to the challenges of describing the fine degree of muscular control needed to play the piano freely.

Pianists' Breathing Patterns

Researchers have taken an interest in the breathing of various instrumentalists but little is known about pianists' breathing patterns. Our goal was to study how pianists' breathing is affected by various elements such as tempo, metre, rhythm, accentuated notes, melodic complexity and phrasing, and it enabled us to establish a methodology for measuring breathing during performance while maintaining playing conditions closest to normal. A new study will examine the breathing patterns of beginning and experienced pianists in relation to the stress of public performance.

The Choice of Intrinsic or Extrinsic Muscles

In playing, the musician may choose to use the powerful extrinsic muscles in the forearm, or the small intrinsic muscles in the palm of the hand. Now in its fifth year, this study will continue for another two years because of its importance in clarifying the biomechanical issues involved and their possible medical implications.

Thermal Imaging

Infrared video technology is used to monitor the temperature of a performer's hands, arms, shoulders, neck and face during piano playing, thereby enabling researchers to pinpoint underlying muscle tension and inflammation.

Wrist Stiffness

Stiffness, relaxation, co-contraction and multi-joint issues are key concepts in piano pedagogy that also have specific meaning in biomechanics. In a pilot project earlier this year, we examined the wrist movement of experienced pianists in reaction to small, short-duration forces acting on the wrist.





Health Issues



Studying Piano Technique with Motion-Visualizing Software

Specialized motion-visualizing software, which graphically represents movement, is used to analyze piano technique.

The Effects of Somatic Approaches on the Physiology of Pianists

With a growing awareness of playing-related problems, many musicians have tried various injury prevention and rehabilitative measures to reduce the effects of pain and injuries or to prevent the onset of problems: physiotherapy, the Feldenkrais Method, Body Mapping training, and the Alexander Technique. Previous research relied mostly on self-reports based on the perception of teachers or the testimonies of the musicians themselves. The purpose of this project is to study whether the perceived effectiveness of somatic approaches affects the pianist's physiology and can be accounted for by external observation in terms of posture and movement at the instrument as well as tone quality and expressiveness of the performance.

Researchers:

Gilles Comeau—Music, University of Ottawa Donald Russell—Mechanical Engineering, Carleton University Isabelle Cossette—Music, McGill University Monique Frize—Biomedical Engineering, Carleton University Erin Dempsey—Music, University of Ottawa Flora Nassrallah—Audiology, University of Ottawa

Papers in refereed journals:

Piano Playing-Related Health Problems

New technological resources allow us to apply scientific research methods to diagnose, treat, and prevent injuries related to piano performance.

The Effects of Piano Lessons on the Central Auditory System in Hearing-Impaired Children

This project is studying the brain response of children with hearing loss before and after a series of piano lessons. More specifically, we are interested in the effect of piano lessons on the brain development of children with cochlear implants.



Hearing Sensitivity among Student Musicians

The purpose of the study is to examine the hearing sensitivity in music students and compare with the average population within that age group. The objective is to determine if there is greater incidence of hearing loss among music students as compared to the average population.

Saffa Mohamed—Computer Engineering, Carleton University Caroline Andison—Mechanical Engineering, Carleton University Karen McCarthy—Biomedical Engineering, Carleton University Amineh Koravand—Audiology, University of Ottawa Pascale Martel-Lamothe—Audiology, University of Ottawa Audrey Mo—Music, University of Ottawa Sandra Markovic—Music, University of Ottawa

Nassrallah, F., Comeau, G., Russell, D., Cossette, I. (2013). Coordination between breathing and different movement markers during pianists' performance tasks. *Perceptual & Motor Skills*, 116(1), 1-20.

Methods

Method Book Analysis

The piano method book plays a central role in the acquisition of music reading. This study investigates how music reading is being introduced through an inventory of musical signs and reading concepts found in most common method books.





Suzuki Method

The mother-tongue approach, the corner-stone of the Suzuki method, is based on the assumption that a child can learn to play a musical instrument following the same principles as learning a first language. Considering the popularity of this method, this study investigates whether there should be concerns about the impact of a teaching approach that focuses on ear playing in the initial stages.

Repertoire in Piano Method Books

This project provides an inventory of the different categories of repertoire found in piano method books, calculates the proportion of repertoire belonging to each category and identifies the categories that are most often included, as well as the method books that contain the widest variety of repertoire.

Comprehensive Musicianship

The Comprehensive Musicianship approach evolved as an attempt to create a more well-rounded music education for students. Are piano method books including types of activities central to Comprehensive Musicianship and are those activities integrated within the main curriculum, or are they activities that are presented in parallel?

Researchers:

Gilles Comeau—Music, University of Ottawa Yuanyuan Lu—Music, University of Ottawa Kimberley Sundell—Music, University of Ottawa Susan Mielke—Music, University of Ottawa Caio Elias—Electrical Engineering, University of Ottawa, Exchange student from Brazil

Papers in refereed journals:

Comeau, G. (2014). Colorful illustrations in piano method books: A pilot project investigating eye focus. *Music Teachers National Association e-Journal*, 25 p.

Poster presentations:

Elias, C., Comeau, G. & Liu, Y. (2013, July). *Effect of pictures in piano method books*. Science without Borders Symposium, University of Ottawa, Ottawa, ON.

Sundell, K. & Comeau, G. (2013, July). Comparing comprehensive musicianship education in piano method books. Canadian Federation of Music Teachers' Associations, Halifax, NS.

Sundell, K. & Comeau, G. (2013, March). Comprehensive musicianship education: How well are piano method books doing? Music Teachers National Association 2013 National Conference, Anaheim, CA.

Music Reading

Music Book Illustrations

Piano method books are among the principal tools for instruction to young beginners. Many of these books have a large number of colourful illustrations raising significant questions from a music-reading perspective: what is the impact of these colourful sketches on music reading and does their presence lower the quality of performance? Eye-tracking technology is used to study the number and duration of fixations on the picture zone relative to the music zone. During sight reading, the number of fixations recorded in the picture zone indicates a cognitive distraction from the musical notation.

Developing a Tool to Measure Music Reading

Music reading is a skill that many music education programs seek to develop. In spite of its recognized importance, no reliable tool exists to measure and quantify this skill. Yet measuring this ability is essential for evaluating the impact of various teaching strategies or the effects of various experimental conditions. Following a rigorous analysis of psychometric tests used in music reading, the Piano Lab has developed a test using original musical stimuli of increasing difficulty, a system for codifying errors and a scoring grid for evaluating the music-reading performance of beginning to advanced-level pianists.

Sight Reading and Perceptual Span

Various studies on music reading have looked at perceptual span, the region around fixation from which useful information is extracted. Reading skills and harmonic difficulties do not seem to affect the span size: good sight readers and poor sight readers share a similar size of perceptual span. However, notational complexity (the amount of visual information within a certain region) does have an impact on eye movement during sight reading, and this effect might influence the perceptual span. This study looks at the effects of notational complexity on the perceptual span of university piano majors during sight playing by using the moving window paradigm: only a portion of the score around the fixation point is available to the reader and the music only appears when the eyes are looking ahead. Results show that notational complexity does not affect the perceptual span but does affect the performance level and patterns of eye movement.

Researchers:

Gilles Comeau—Music, University of Ottawa Bruno Émond—Cognitive Science, National Research Council Sylvie Hébert—Audiology, Université de Montréal Ramesh Balasubramaniam—Neurosciences, University of California, Merced Stephanie Ahken—Sciences, University of Ottawa

Papers in refereed journals:

Yifei Liu—Music, University of Ottawa Kimberley Sundell—Music, University of Ottawa Yuanyuan Lu—Music, University of Ottawa Allyshia Sewdat—Computer Engineering, University of Ottawa Flora Nassrallah—Audiology, University of Ottawa

Émond, B., Comeau, G. (2013). Cognitive modelling of early music-reading skill acquisition for piano: A comparison of the Middle-C and intervallic methods. *Cognitive Systems Research, 24*, 26-34.

Oral Communications:

Émond, B. & Comeau, G. (2013, October). *Cognitive modelling of early music-reading skill acquisition for piano: A comparison of the Middle-C and intervallic methods.* Institute of Cognitive Science (ICS), Carleton University, Ottawa, ON.

Sundell, K. & Comeau, G. (2013, March). *Comprehensive musicianship education: How well are piano method books doing?* Music Teachers National Association 2013 National Conference, Anaheim, CA.







Motivation

Cross-Cultural Analysis

Asian students learning piano achieve very good results in examinations and competitions. It has been suggested that there must be some link between this success and the motivation levels in these students. This study was designed to measure and compare the motivational level of private piano students in North America and in the People's Republic of China (PRC) using the SMI. The results indicated that Chinese students attribute success to hard work while North American students attribute success and failure to talent or lack of talent.

Asian Ascendance at International Piano Competitions

Asian pianists are known for winning international piano competitions. This analysis revealed that the percentage of Asian winners has gone from 23% in the 1990s to over 35% after 2000. South Korea is in 1st place, Japan in 2nd and China in 3rd, but the Chinese had the greatest percentage increase over the last two decades.

Measuring Young Piano Students' Motivation

One of music education's major concerns is the challenge of motivating students to continue learning piano. A high percentage of young students stop piano lessons within the first 18 months, before they begin to master the instrument. A likely correlate of this dropout rate is insufficient motivation. To provide better support for children's piano learning, we developed the Survey of Musical Interest (SMI) to measure young piano students' degree of motivation and their interest in piano-related activities. We now have a version in English, French, Chinese and Finnish. We are currently studying correlations between levels of motivation and various factors like gender, teaching method used and parental involvement. Over the next two years, we will survey a new group of students with a revised questionnaire.



Researchers:

Gilles Comeau—Music, University of Ottawa Veronika Huta—Psychology, University of Ottawa Matti Ruippo—Music, Pirkanmaa University of Applied Sciences, Finland Jaruno Perttunen—Music, Pirkanmaa University of

Applied Sciences, Finland YiFei Liu—Human Kinetics, University of Ottawa Yuanyuan Lu—Music, University of Ottawa Émilie Bertrand-Plouffe—Music, University of Ottawa Paula Croucher—Music, University of Ottawa Nicole Pachla—Music, University of Ottawa Sylvain Wellman-Frenette—Music, University of Ottawa Michelle Iznardo—Psychology, University of Ottawa Karen King—Music, University of Ottawa, Long-distance student Matheus Rocha—Music, University of Ottawa, Exchange Student from Brazil Elizabeth Szczepanski—Music, University of Ottawa

Papers in refereed journals:

Comeau, G., Huta, V., Liu, Y., Smith, J. Relationships between children's motivation for learning piano and parental influences. Manuscript submitted for publication.

Comeau, G., Huta, V., Liu, Y. (2014). Work ethic and motivation in Chinese and North American children learning to play the piano. *International Journal of Music Education*, 14 p.

Poster presentation:

Rocha, M. & Comeau, G. (2013, July). Asian ascendance at international Piano Competitions. Science without Borders Symposium, University of Ottawa, Ottawa, ON.

Physical Aspects of Piano Playing

Assessing and Measuring Changes in the Playing Postures of Pianists in Response to Feldenkrais Training

It is often assumed that somatic training is beneficial for musicians whose misalignment in performance postures and improper playing techniques might cause playingrelated health problems. The main obstacle confronting researchers interested in assessing the impact of Feldenkrais training is the lack of reliable postural measurement tools. This study explores how various qualitative and quantitative techniques could be used to assess postural changes.



Motor Coordination

A sophisticated video-camera system is used to study the finger, hand and arm movements of piano performers. Spatio-temporal and musical constraints in motor coordination during piano performance are also being studied.

3D Visualization of Piano Playing

A specialized motion-capture system provides novice piano students with a 3D representation of a professional performance to help them visualize body posture at the piano.



Researchers:

Gilles Comeau—Music, University of Ottawa Donald Russell—Mechanical Engineering, Carleton University Michèle Wheatley-Brown—Music, University of Ottawa Grace Wong—Music, University of Ottawa Jillian Beacon—Music, University of Ottawa

Papers in refereed journals:

Wheatley-Brown, M., Comeau, G., Russell, D. (2013). An analysis of terminology used to describe tension and relaxation in piano technique. Arts Biomechanics, 2(1), 1-17.

Biomechanics of the Warm-Up

This study considers the possible biomechanical implications of warm-up ranging from changes in joint or muscle properties to changes in the nervous system. This interdisciplinary study, now in its early stages, will compare the descriptions of warm-up in the musical literature with a number of related activities including athletics and typing. Preliminary results suggest that although the activities are clearly different, musicians can benefit from some approaches seen in other disciplines such as athletics.

An Analysis of Terminology Describing the Physical Aspects of Piano Technique

The purpose of this study was to see whether problematic language might contribute to the systemic confusion found in piano technique and to identify the main sources of confusion in the use of language: inconsistent and inaccurate use of terms; wavering between scientific, common, and invented language; challenges in describing opposing qualities that come from tension and relaxation; and failing to differentiate between the individual subjective experience and the mechanics of movement.

Video-Mediated Learning

Video Database Development as a Tool in Piano Pedagogy

Over the last two years, the Piano Lab has developed a resource database for piano students and teachers. More than 700 piano teaching video clips dealing with different teaching strategies, period instruments and the use of technology while teaching are available for research purposes in the Lab's Resource Centre.

Video Monitoring in the Piano Studio

The Piano Lab is examining the use of video cameras as teaching tools and research aids in the study of piano playing and learning.

Distance Education



Cross-Border Piano Teaching

The Piano Lab has conducted a research project to explore the methodology for starting young students in piano via distance education. The challenges are many: there is no physical contact, no face-to-face interaction, and parental involvement may take on extra importance when there is no teacher in the room. The participants were two students in Indiana and a third in the Lab's studio. Data gathered is being analyzed using SCRIBE software to compare the behaviours of teacher, students and parents in a traditional studio set-up and a distance environment.

Trans-Atlantic Piano Teaching: The Alliance of Technology & Pedagogy

With research partners in Finland, we have developed computer programs and software that provide the essential technical interface and teaching tools for distance piano teaching.

Inuit Keyboarding Project

As part of an intensive program that explores music teaching in the context of videoconferencing, the Piano Lab provided keyboard lessons via videoconference to a group of young children in Kangiqsualujjuag, Northern Quebec.

Researchers:

Gilles Comeau—Music, University of Ottawa Matti Ruippo—Music, Pirkanmaa University of Applied Sciences, Finland Martin Brooks—Computer Engineering, National Research Council Bruno Émond—Cognitive Science, National Research Council Erin Parkes—Music, McGill University Sean Done—Music, University of Ottawa Yuanyuan Lu—Music, University of Ottawa

Papers in refereed journals:

Parker, E., Comeau, G. (in press). The Inuit keyboarding project: A cross-cultural distance teaching experience. *Journal of Technology in Music Learning*.

Fundraising

Building an Endowment Fund

Our ability to pursue the Laboratory's mission depends on the availability of financial resources. We are very grateful to all the Friends of the Piano Lab who have provided financial support to address the Laboratory's emerging needs and priorities.

The **Sylva M. Gelber Foundation** supports research and training of undergraduate and graduate students in piano pedagogy research.







The naming of the Ann Southam Room is a way of further honouring Ann's continuous support for the Lab.

Ann Southam (1937-2010) was one of the Piano Lab's staunchest supporters over the years. She came to the Lab's official opening ceremonies and became a member of the Friends of the Piano Pedagogy Research Laboratory. Her particular interest in the Lab's research on music reading led her to establish the Ann Southam Music Reading Fund to promote the Lab's research in this area.

Robert Taylor's Musician Health Fund

was established in May 2013 to enable the Piano Lab to respond to the emerging needs and priorities linked to piano playing-related health problems and injury prevention programs.



Research Funding: \$1.44M



Media





Quelle histoire : L'effet Mozart, Radio Canada

September 2013 *La leçon de piano* : Découverte, Radio Canada

March 2008

Entretien avec Gilles Comeau : Le monde selon

Mathieu – CBOF-FM October 2007

Notes on the future - The Sunday Edition – CBC Radio ONE January 2006

Piano revolution - The National – CBC News October 2005

Entretien avec Gilles Comeau : Bernier et Cie – CBOF-FM October 2005



Les samedis du monde : La recherche au Laboratoire de recherche en pédagogie du piano May 2011



Campus : Un Laboratoire de recherche en pédagogie du piano July 2011

1	FO

Blessures chez les artistes - Panorama : TFO May 2007

Le laboratoire de recherche en pédagogie du piano -Panorama : TFO January 2007



Hitting the right notes: New scientific lab keys on piano pedagogy Summer 2006

> *Les mystères de l'apprentissage du piano* : Via TVA February 2006

LE DEVOIR

Le pourquoi des fausses notes March 2006

Un clavier bien mesuré March 2006



Why doesn't every good boy do fine? 2005-2006

OTTAWA CITIZEN

Piano: Thermal imaging cameras December 2005

Young pianist loves his lesson, but really hates to practise December 2005

Professors tune in to musicians' pain: Carpal tunnel syndrome, other conditions could be eased using new imaging system February 2005



Piano "Keys" - Tech Now – CTV News October 2005



Teaching leadership: A laboratory with rhythm August-September 2006

A high note for piano research December 2005

TIME

The finger fixer: Gilles Comeau June 2005

TABARET

Harmony in the laboratory Spring 2005



Inuits au diapason d'Ottawa January 2005



Keys to success November-December 2007

MEDIA COVERAGE

Piano lab takes a multidisciplinary approach to learning and teaching. (2013, October). *University of Ottawa Gazette.*

Quelle histoire : L'effet Mozart. (2013, September). Radio-Canada.