

Contributors

Pranshu Adhikari was born in Nepal and moved to the United States when she was 10 years old. Since then, she has been attending school in Norman, Oklahoma, where she is actively involved in many organizations, such as Global Awareness Club, Student Congress, National Honor Society, College Board Youth Advisory Council, AEGIS Math, AEGIS English, and AP Capstone. She enjoys learning Physics, studying languages, tutoring math and science, and sleeping.

Annie Cao is a student at Freedom High School in Florida. She has cultivated a lifelong passion for science and hopes to devote her career to scientific research and discovery to improve the lives of people all around the world.

Owen Clute attends Royal St. George's College in Toronto, Canada. He is passionate for the Arts and Humanities subjects. Outside of school he invests a lot of time in photography and sports.

William Deo is a grade 12 student from St. Andrew's College in Aurora, Ontario. Born in Toronto, he has always had an interest in energy and improving the efficiency of systems. This passion has led him to participate in numerous programs such as the SHAD Program, Yale Young Global Scholars (ASE) and the Harvard Science Research Conference. William is an AP Scholar, Captain of his Varsity Swimming Team. He serves as a band leader and trumpet section leader in his school's wind ensemble and participates in district honour bands (CISMF). Looking forward, William looks to pursue studies and a career in Engineering where he sees his purpose as being a change agent in today's and tomorrow's society.

Elizabeth Grace Dickens is a senior at Mabank High School. Her interests are primarily centered around environmental sustainability, governmental policy, and writing. She plans to attend the University of Texas at Austin to study journalism, and hopes to pursue a career in digital journalism focusing on international environmental policy.

Jensen Ghidella is a junior at Gig Harbor High School in Gig Harbor, Washington. She wrote this paper over the course of seven months and whilst in the process discovered a passion for research. Ghidella hopes to become a professional biological researcher when she is older, preferably in a field under neuroscience.

As a researcher at Norman High, **Margaret Goodin** joined the AP Capstone program because she loved to research new topics. She really enjoyed the atmosphere and skills that AP Research provided her for her future. The class has given her valuable skills that she plans to use in college next year and the workforce. She is very proud of the work she has done and was very interested in the topic she chose to pursue.

Ethan Kelly is a Grade 12 AP Research student at Royal St. George's College in Toronto, Ontario.

Sergio Lozano is a High School senior at Colegio Nueva Granada, an American school in Bogota, Colombia. He was born and raised in Colombia, although he lived in Colorado for two years. He has always been passionate about topics within the humanities and the social sciences, such as the relationship between the United States and Latin America. He is also a big fan of film and television, even though enjoys reading novels and plays, going to concerts, and exploring pieces of art.

Lia Martin is a senior at Norman High School in Oklahoma. She will be attending Rice University in the fall. Lia is an accomplished singer and a member of her local Young Democrats club. Her interests include music, social policy, and women's rights.

Leanne Olona is a senior at Norman High School, located in Norman, OK. She will be attending the University of Michigan in Fall of 2017 but is undecided on what she will be studying. She hopes to continue conducting research in the future. Leanne also is a founder of the first recorder club at Norman High School. She plans on growing the club across various high schools as well as universities.

Elizabeth Phillips is a senior at Norman High School, she will be attending the University of Oklahoma in the fall of 2017. While attending this university she plans to major in biomedical engineering, with a pre-med track. Elizabeth spends most of her time on the tennis courts, and hanging out with friends.

Calla Reed is a rising senior at duPont Manual Magnet High School in Louisville, Kentucky. She enjoys writing papers examining various social injustices, such as welfare discrimination, the lack of indigenous rights, aspects of racism and racial discrimination, and educational inequality. This summer she also plans to conduct a research project within the National Institute of Health. She plans to attend a 4-year university as a pre-med and biochemistry major, in high hopes of attending medical school and becoming a trauma surgeon, who will work with the United Nations in order to assist in the pursuit to a higher standard of global health. In her free time, she enjoys playing varsity tennis, tutoring middle school students, volunteering at various hospitals, and being co-president of her school's mental health awareness club and feminism club.

Hollyn Saliga is a rising Senior at Lake Howell High School in Winter Park, Florida who takes interest in Psychology and History.

Greg Schwartz is a junior in duPont Manual High School's MST magnet. He stays busy competing in debate, robotics, and tennis. In his free time Greg enjoys programming, discussing philosophy, and rock climbing.

Brooke Shapiro is a junior in high school. She is the founder and editor-in-chief of a female empowerment collaborative blog called The F-Word. She is interested in film, journalism, and feminism.

Palmer Short is a high school student with an interest in science. He hopes to begin his academic portfolio by publishing a paper this summer.

Faculty and Advisors to Contributors

Sarah DeWitt is a teacher at Norman High School in Norman, Oklahoma where she leads the school's AP Capstone program and also teaches world history. She currently is pursuing a Master of Education degree at the University of Oklahoma in Instructional Leadership and Academic Curriculum. Her academic research interests include inquiry-based learning and culturally-responsive practices. She has presented at the Oklahoma Council for Social Studies State Conference and received the Spriesterbach Award from the Oklahoma Library Association. Sarah builds her teaching practice around her students' innate curiosities and the development of student agency in the learning process.

Jessica Hupper teaches at Gig Harbor High School in Gig Harbour, Washington.

Megan Lewandowski teaches at Freedom High School in Tampa, FL

Stacey Marten teaches at Gig Harbor High School in Gig Harbour, Washington.

Lauren Oliva is a Social Studies and AP Capstone teacher at Lake Howell High School and their 2017 Teacher of the Year. She has taught at Lake Howell for six years and was instrumental in the development and implementation of the AP Capstone program. She has also grown the AP Art History program and inspires young people to travel the world and explore different cultures. She is proud to be a Silver Hawk alumna and to continue the tradition of Lake Howell excellence. Recently, she participated in a scholarship program to study History and Politics at the University of Oxford's Exeter College in the summer of 2016 and is a consultant for College Board's AP Seminar summer institutes. A dedicated educator, she is always seeking new opportunities to better education either with her own students or through mentoring new teachers.

Samantha Scheepers is an Upper School English and AP Research teacher at St. Andrew's College. She is also the chair of school's Standing Committee for Excellence in Teaching and Learning. She holds a Master's of Teaching, specializing in metacognition and reading comprehension, as well as a BA (Hons.) with high distinction in English and Renaissance Studies from the University of Toronto. She has recently completed a teaching fellowship focused on leadership in independent schools at Columbia University and has presented her research on cooperative learning through the International Boys' School Coalition

Dr. Sal Severe has been a school psychologist for over thirty years. He was formerly the Director of Flor del Sol alternative school in the Cartwright School District in Phoenix, where he was also the Chairman of the Psychological Services Department. He has provided field supervision for school psychology internships for Arizona State University and Northern Arizona University. He has taught graduate courses in research methods. He has provided consultation for the University of Arizona, the Arizona Department of Education and the Arizona Department of Corrections. The Executive Board of the Arizona Association of School Psychologists named Dr. Severe the Arizona School Psychologist of the Year 2001. Dr. Severe served on the Board of Advisors for *Parents* magazine for ten years. His *New York Times* best-selling book, *How To Behave So Your Children Will, Too!* has sold over 800,000 copies and has been translated into twenty-one languages. He is currently semi-retired in Gig Harbor, WA. where he provides consultation to the Peninsula School District.

Lindsay Tait is a teacher at H. B. Plant High School in Tampa, Florida.

Bryan E. Wilk holds both a bachelors and masters of science from the University at Buffalo in the field of exercise science with a concentration in biomechanics. He is a former bioengineer who worked at the Texas Scottish Rite Hospital for Children. He currently teaches chemistry and research design at Lake Howell High School.

Aaron M. Williams is the Dean of Academics at Mabank High School in Mabank, Texas. He coordinates academic activities on the High School campus in addition to working with students in AP Research. Mr. Williams is from Rio Vista, Texas and attended Northwestern State University of Louisiana, graduating with a degree in Music Education in 2009. He began work as a band director in Mabank, Texas in 2009, and upon completing his Master's degree in Educational Leadership from Stephen F. Austin State University, launched the Mabank Scholars' Institute in 2013 to meet the needs of advanced and G/T students at the high school level. AP Capstone was an integral part of that effort. In addition to his duties at Mabank High School, he also serves as the Vice President of Development for the Mabank Independent School District Education Foundation. He is currently working towards a doctoral degree in Entrepreneurial Leadership in Education through Johns Hopkins University in Baltimore, MD. Mr. Williams is passionate about his profession, dedicated to his students, and obsessed with learning..

Alesia Williams has a background in the humanities. She has a BA in art history from Berea College and has completed coursework for a MA from the University of Cincinnati. She has a MAT with a focus on English from Spalding University. She has been teaching in the public school system in Louisville, KY for sixteen years. Thirteen of those years have been at duPont Manual High School which has five magnets and is typically ranked as the best high school in Kentucky. She has been teaching AP English Language and Composition for ten years and AP Research for one year. She is focused on helping her students achieve at the highest levels especially in regards to academic writing. She encourages her students to think of themselves as writers and to pursue writing competitions and publication. Her students have been recognized with top honors from the NCTE and KCTE writing competitions, the Scholastic Art and Writing competition, and the MIT INSPIRE research competition.

Glenn Zwanzig teaches at duPont Manual High School in Louisville, Kentucky.

Editors of the Journal

Barrie Bennett
BPE, MEd, PhD

Barrie Bennett is professor emeritus at the Ontario Institute for Studies in Education at the University of Toronto (OISE/UT). His research work focuses primarily on the design of powerful learning environments for students and teachers through the process of systemic change. He is currently working in districts in three countries on long-term projects related to instructional intelligence and systemic change (Australia, Ireland and Canada). Instructional intelligence involves intersecting the current research on curriculum, assessment, and instruction guided by what is known about how students and teachers learn. That intersection being driven by what is known about change and systemic change. He also assists teachers, schools, and districts with issues related to classroom management and school wide-discipline. Barrie has taught at the elementary and secondary levels, as well as, having worked in group homes, prisons, and security units for juvenile offenders. He has written six books: *Cooperative Learning: Where Heart Meet Mind*; *Classroom Management: A Thinking and Caring Approach*; *Beyond Monet: The Artful Science of Instructional Integration*; *Graphic Intelligence: Playing With Possibilities* and most recently *Power Plays*. Currently he is just finishing a text titled, *Effective Group Work: Beyond Cooperative Learning*.

Anthony
Campbell
BA, MA, PhD

Anthony Campbell established Grow for Good Urban Teaching Farm in 2013 as a business model innovation laboratory and learning centre for young entrepreneurs. He spent time working throughout North America, Europe, Australia, Asia and now resides in his hometown of Toronto. Examples of Anthony's work are documented in *The Innovator's Field Guide* (2014), co-authored by David Crosswhite and Peter Skarzynski, as well as multiple Harvard Business School and Corporate Executive Board case studies chronicling the innovation and capability-building efforts of companies such as Samsung, Whirlpool, Best Buy and McDonald's. Previously, Anthony taught Film Studies, Writing and English Literature at The University of Western Ontario.

Jeremy B. Caplan
ScB, PhD

Jeremy Caplan is an Associate Professor in Psychology Department at the University of Alberta, where he is also the Principal Investigator at the University of Alberta Computational Memory Lab. The lab is focused on human verbal memory behaviour and its basis in cognitive and neural processes. The team takes several approaches towards research, including mathematical modeling, measures of behaviour in the cognitive psychology tradition, and measures of brain activity using electroencephalography (event-related potentials and oscillations) and functional magnetic resonance imaging. He has been a referee for 38 academic journals.

- Hance Clarke
BSc, MSc, MD,
PhD, FRCPC
- Dr. Clarke is the director of Pain Services and the medical director of the Pain Research Unit at the Toronto General Hospital. He is appointed to the Institute of Medical Sciences at the University of Toronto and is a graduate of the Royal College Clinician Scientist Program. His research interests include identifying novel acute pain treatments following major surgery, identifying the factors involved in the transition of acute postsurgical pain to chronic pain, studying the genetics of acute and chronic pain after surgery, and identifying risk factors associated with continued opioid use and poor health related quality of life after major surgery as well as the efficacy of hyperbaric medicine. Over the past five years he has authored 47 peer reviewed manuscripts.
- Will Fripp
BA, MA
- Will Fripp is a public affairs and political risk analyst for Canadian and international clients and a historian specializing in intelligence and espionage. A B.A. in History and Political Science from Victoria University at the University of Toronto, and an M.A. in Intelligence and International Relations from the University of Salford in Manchester, England, Will was the historian for the high school history curriculum www.Spiesintheshadows.com, reviewing Canada's intelligence history with its influences on Canada's national development. An occasional lecturer, Will's writings and review articles have appeared in the peer-reviewed academic journal *Intelligence and National Security* and elsewhere.
- Michael Gemar
BSc, BA, PhD
- Michael Gemar received undergraduate degrees in Psychology and Philosophy from Rice University, and a PhD in experimental psychology from the University of Toronto. He has worked as a researcher at the Centre for Addiction and Mental Health, examining the cognitive and neural correlates of mood disorders, and was involved in a landmark study demonstrating the efficacy of mindfulness meditation to prevent depressive relapse. He has co-authored numerous journal articles, and taught for over a decade at U of T. More recently, he has worked in the area of health policy, and is currently at a Canadian non-profit.
- Jennifer Goldberg
BA, BEd, MA
- Jennifer Goldberg holds an M.A. in History from the University of Toronto. Her graduate studies focused on teacher misconduct in 19th century Ontario, and her research is published in *Historical Studies in Education*. She currently teaches at Havergal College, where she has also served as Chair of Teaching and Learning. In this capacity, she has explored the role of feedback in student learning, and has presented on this work at the National Coalition of Girls' Schools and Conference of Independent Teachers of English.

- Margaret S. Herridge
BSc, MSc, MPH,
MD, FRCPC
- Margaret Herridge is a Professor of Medicine and Senior Scientist at the University of Toronto. She is also a senior clinician in Critical Care and Respiratory medicine at University Health Network. Her research focus is on long-term outcomes after critical illness for patients and families and specifically on functional, neuropsychological, healthcare utilization and quality of life metrics. Her graduate studies were in Cell and Molecular Biology at Queen's University where she subsequently obtained her degree in Medicine. After completing her clinical training in Internal Medicine/Respirology and Critical Care at the University of Toronto, she obtained her Master of Public Health in Epidemiology and Statistics from the Harvard School of Public Health.
- Tim Hutton
BA, MLIS
- Tim Hutton is a teacher-librarian at Royal St. George's College. He has a BA in History and American Studies from the University of Toronto and a Masters in Library and Information Science from San Jose State University. At the secondary level, he has taught courses in the social sciences, humanities and communications technology, including a locally designed interdisciplinary course in urban studies.
- John Lambersky
BA, MA, BEd,
PhD
- John Lambersky is a teacher and head of the Canadian and World Studies department at Royal St. George's College in Toronto, where he leads the AP Capstone program. He has presented his work on teaching practice at the conferences of the International Boys' School Coalition, the National Association of Independent Schools, and the Canadian Accredited Independent Schools. His academic research is focused on school culture as a mechanism for school improvement. His work has been featured in *Leadership and Policy in Schools*, *The Dalhousie Review*, and *The Nashwaak Review*.
- Lori Loeb
BA, MMSt, PhD
- Lori Loeb is Associate Professor of Modern British history at the University of Toronto. She has a Masters in Museum Studies and a PhD in History. A specialist in the Victorian period, she is the author of *Consuming Angels: Advertising and Victorian Women*. Generally, she writes about things in nineteenth-century Britain. A past Deputy Chair and Associate Chair (Graduate) of the History Department, she is currently MA Coordinator. She teaches courses in nineteenth and twentieth-century British history, Victorian material culture and the English country house.
- William J. McCausland
BAsC, MEng,
MA, PhD
- William McCausland is an associate professor of economics at the Université de Montréal. His research applies Bayesian statistical methods in two main areas. The first is discrete choice, at the interface of economics and psychology, where researchers study how people make choices from a small menu of available options. The second is time series modelling in economics, which has many applications in macroeconomics and financial economics. His undergraduate studies were in Engineering and he received his Ph.D. degree in economics from the University of Minnesota.

Michael
Simmonds

BPE, M.A., Dip.
Ed., MEd, EdD

Michael Simmonds has worked in independent schools for over two decades. He taught science, biology, chemistry, physics, and math before becoming an administrator and Head of School. He earned graduate degrees from both McGill and Columbia universities respectively before receiving his doctorate from the University of British Columbia in Educational Policy & Leadership. His work on accountability synopticism is published in the peer-reviewed, *The International Education Journal: Comparative Perspectives*. He currently works at Havergal College as the VP School Life, Operations & Student Wellness.

Guidelines for Contributors

The Young Researcher is a peer-reviewed journal dedicated to publishing the best original research from secondary school students.

The journal's mission is to provide a larger audience for the original academic research of ambitious secondary students, provide a forum for peer-review, and create a community of young researchers. In addition, the journal strives to advance the quality of academic writing in secondary schools.

The Young Researcher is edited by secondary school students working closely with scholars and active researchers at universities and in the community. The journal operates a blind peer-reviewed review process, following those found in academic research journals.

The journal encourages submissions of original research (including relevant replication studies) from a wide range of academic disciplines within the social sciences, humanities, and sciences.

Submission Guidance:

- No more than 5,000 words, excluding references and appendices (in English)

- Articles should have the following sections or equivalent:

Introduction

Literature Review

Method, Process, or Approach

Findings or Results

Discussion, Analysis, and/or Evaluation

Conclusion and Future Directions

References

- Papers should be formatted using discipline-appropriate methods (MLA, APA, and Chicago are acceptable).

- Papers should have an abstract (no more than 150 words) and have 4-6 keywords

- All units of measurement should be in metric wherever possible

- All studies involving human participants must have been approved by a Research Ethics Board

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Please direct any questions to:
TheEditors@TheYoungResearcher.com