PSYNOPSIS

CANADA'S PSYCHOLOGY MAGAZINE

EDUCATION ISSUE

LAURIE FORD, PHD & HARRIS WONG, BA GUEST EDITORS

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PSYNOPSIS
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THE OFFICIAL MAGAZINE OF THE CANADIAN PSYCHOLOGICAL ASSOCIATION

Psynopsis is proud to announce that as of Vol 42.4 we have switched to using more environmentally-friendly vegetable-based ink, 100% recycled material for the pages, and 10% recycled content for the cover pages.

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EDUCATION ISSUE

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MESSAGE FROM THE GUEST EDITORS

HARRIS WONG

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After the initial excitement of being asked to guest edit this special issue of *Psynopsis* with a focus on Education, it then hit us…education, that is *a lot* to cover. Then the journey of how to focus the issue began. We knew we wanted to provide a diversity of perspectives on contemporary issues, innovations, and practices in education today. Given that education is life-long, that schooling may occur in both traditional and non-traditional settings, and that education is not just about students K-12 or in universities, we have tried to highlight a diversity of current issues and practices in Canadian education today.

Albert Einstein said "Education is what remains after one has forgotten everything they learned in school". In the past 18 months, education has been in the news more than ever. School closures due to the pandemic resulting in remote instruction; a push for for social justice; demands for equity, greater attention to diversity, and inclusivity; greater recognition of the atrocities in the residential schools; are all issues influencing education today. Education is life-long, it begins at birth and continues throughout our lives. Education is ever changing. A few of the education trends gaining attention in 2021 include:

- **Moving away from letter grades**. Many believe that traditional ways of assessing student learning do not do a good job of measuring the skills needed for life success in the 21st century.[1] Greater focus should be on mastery-based or competency-based learning, with its focus on learners becoming proficient in specific skill areas, is at the heart of a move away from traditional letter grades.

- **Maker learning**. The maker education is gaining attention.[2] Focused on learning instead of teaching, maker learning is a problem-based approach with a focus on hands-on, often collaborative, experiences addressing real-world problems.

- **Flipped classrooms**. In flipped classrooms, the focus of class time is on understanding and not lectures. Students watch lecture videos or read material on their own with class time devoted to completing projects in class with the instructor present to support the students when there are questions.[3]

- **Social-emotional learning**. Built on the belief that people with strong social-emotional skills are better able to face life challenges socially, academically, and socially, social-emotional learning (SEL) has been an integral part of Pre-K to 12 education in recent years. A widely adopted framework for SEL addresses five board interrelated areas of competence: self-awareness, self-management, social awareness, relationship skills, and responsible decision making.[4]

We have included perspectives from early childhood into adulthood, recognizing we could have easily added more on even earlier years and adult learning into the senior years. As we organized the issue, we had discussions with people in schools about their thoughts on what was important to include in this edition. We received some of the ideas from teachers and students and decided that it would be important to share some of their perspectives on education and schools in 2021. Their thoughts on what psycholo-

gists should know about education and schools provide valuable insight into what is important to those working in and attending schools today.

This issue highlights building foundation skills needed throughout life in the articles on self-regulated learning, written expression, and the role of technology. We hope that the articles on the informal curriculum, land-based learning, play, and engaging Indigenous students in psychology open the readers to aspects of education not often considered. The article on virtual learning provides us with an opportunity to reflect on what we have learned after over 18 months of virtual learning and perspectives on where we might be going. Students and teachers share valuable perspectives on their experiences and what psychologists working in schools should know about education today. A fitting addition to this issue are the highlights from the 2021 CPA Virtual Convention, which has provided us all with an opportunity for life long education and learning. The Member Spotlight and the work of the Educational and School Psychology section is another important reminder of the work our CPA members are doing in Education.

Nelson Mandela once said, "Education is the most powerful weapon which you can use to change the world." There were more topics we could have covered than we had space. We have tried to share diverse perspectives on education today that you will find interesting and helpful and hope you enjoy the snapshots of Canadian education in 2021 in this issue of *Psynopsis*. ■

Harris Wong is currently completing his MA in School and Applied Child Psychology at the University of British Columbia. His research interests include issues that concern social justice and culturally sensitive psychoeducational assessments. He is currently under the supervision of Dr. Laurie Ford and his research looks at the experiences of Asian-Canadian Youth with COVID-19 related racism. Harris has also published work from his BA relating to the relationship between the Approximate Number Sense (ANS) and individual differences in math performance. Education, schools, and schooling, the topic of this issue, is an area that Harris is passionate about and hopes to have his research centre around in the future.

Laurie Ford is an Associate Professor at the University of British Columbia where she is the Director of Training for the PhD program in School and Applied Child Psychology and the Director of the Faculty-wide program in Early Childhood Education. A former special education teacher and practicing school and pediatric psychologist, Laurie has a strong interest in cross disciplinary and community focused approaches to addressing the learning and mental health needs of children and their families across family, school, and community settings. She strives to take a focus that is culturally responsive and uses a social justice lens to educational and psychological services. Laurie has enjoyed her work with CPA in a number of different capacities including, chair and now past chair of the Educational and School Psychology section, past member of the Accreditation Panel, and she is currently on the CPA Board of Directors as the Chair of the Council of Sections. When she is not working, she enjoys time with her dogs Cooper and Gracie Belle and time at her community garden with friends.

PSYNOPSIS
CANADA'S PSYCHOLOGY MAGAZINE

Psynopsis is the official magazine of the Canadian Psychological Association. Its purpose is to bring the practice, study and science of psychology to bear upon topics of concern and interest to the Canadian public. Each issue is themed and most often guest edited by a psychologist member of CPA with expertise in the issue's theme. The magazine's goal isn't so much the transfer of knowledge from one psychologist to another, but the mobilization of psychological knowledge to partners, stakeholders, funders, decision-makers and the public at large, all of whom have interest in the topical focus of the issue. Psychology is the study, practice and science of how people think, feel and behave. Be it human rights, health care innovation, climate change, or medical assistance in dying, how people think, feel and behave is directly relevant to almost any issue, policy, funding decision, or regulation facing individuals, families, workplaces and society. Through *Psynopsis*, our hope is to inform discussion, decisions and policies that affect the people of Canada. Each issue is shared openly with the public and specifically with government departments, funders, partners and decision-makers whose work and interests, in a particular issue's focus, might be informed by psychologists' work. CPA's organizational vision is a society where understanding of diverse human needs, behaviours and aspirations drive legislation, policies and programs for individuals, organizations and communities. *Psynopsis* is one important way that the CPA endeavours to realize this vision.

CANADIAN PSYCHOLOGICAL ASSOCIATION

SOCIÉTÉ CANADIENNE DE PSYCHOLOGIE

WHAT SKILLS DO LEARNERS NEED FOR SUCCESS IN THE 21ST CENTURY?

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Acquiring foundational academic skills (e.g., literacy and numeracy) before entering school has been shown to provide children with an achievement advantage in school.[1] However, learners' capacities to engage in self-regulation are vitally important for school success from kindergarten through to university.[2,3,4] Generally, *self-regulation for learning* in school describes how learners recognize and respond to challenges in their academic surroundings (e.g., classrooms) by adapting their thinking and behaviour to meet classroom goals. To be self-regulating, learners need to be able to focus their attention (e.g., on an assigned task), control their behaviour (e.g., wait for a turn to speak), and keep track of important information using their memory (e.g., a short set of instructions). In addition, they need to be able to generate metacognition (e.g., to plan work), harness motivation (e.g., persistence to follow through on academic work), and recognize when and how to apply strategies during their learning at school (e.g., choosing effective interpersonal or academic strategies to solve classroom problems).[5] Classrooms are dynamic places where students learn and grow, so they may attempt to apply self-regulation strategies to manage emotions (e.g., disappointment when a peer or teacher gives constructive feedback), social interactions (e.g., helping peers or teachers by sharing information or resources that support learning), and academic learning (e.g., thinking carefully to choose peers for group work whose skills complement theirs).

However, not all learners are equal in their abilities for self-regulation in school, and individual differences can impact the kinds of learning experiences students have.[6] Some learners may struggle to manage negative emotions (e.g., anger), and some may have trouble managing the amount of time they spend on academic tasks. Other learners may struggle with self-and other awareness and may not recognize when their feedback negatively impacts a peer's willingness to seek their input in the future. Learner differences in self-regulation have been related to individual factors such as biological sex, temperament, and genetics. Studies also show that students' classrooms play an important role, too.[7]

Self-regulation for learning in school is likely to develop in classroom contexts where there are rich and meaningful opportunities for learners to engage in it.[5,8] Learners' development of self-regulation occurs through co-regulation, which describes a warm, responsive, and emotionally secure relationship between a child/learner and teacher. Co-regulation happens when a more skilled or knowledgeable individual (usually a teacher) provides a novice individual (usually a child/learner) with guidance that supports that learner to move towards more independent functioning in the future.[9,10] In a classroom, teachers may engage in co-regulation with students by modelling their thinking aloud and by communicating how they approach difficult tasks.

Given the amount of time students spend in classrooms, an important question is, "what kinds of instructional practices can teachers employ to foster self-regulation for learning in school?" Teachers can design project-based learning tasks that include learning themes or units of study (e.g., lifecycles, water cycle), integrate curricular goals (e.g., math and language arts), and which usually take place over an extended period of time (e.g., a week, month).[5,7,11,12] Such tasks can be used to provide a general framework for supporting self-regulation for learning, and are likely to provide students with optimal levels of challenge to support learners' academic motivation and engagement.[13] Such tasks are likely to provide students with some choices and control over their learning (e.g., working independently or in a small group). Also, teachers can embed opportunities for learners to make meaningful choices and control the level of challenge they experience (e.g., giving a choice of what topic to write a story about from three topics or a choice about who to work with and asking learners to choose carefully). Classroom teachers may also support self-regulation for learning by using assessments (e.g., self-assessment) that include them in the process.[5] Teachers who employ these instructional features are likely to foster children's self-regulation for learning in school.

Future research that focuses on understanding the role that temperamental characteristics, learning profiles, and demographic factors may play in placing students "at-risk" in their self-regulation in school, over time, is needed.[6,14,15] Studies that examine these factors may reveal how classrooms may serve to protect children so that their development of self-regulation in school can move in a more positive direction. These studies may also support teachers so they can foster these vital skills for school success in the 21st century.

THE (*UN*)CHANGING ROLE OF TECHNOLOGY IN EDUCATION

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The technologies available to students and teachers constantly change and are believed to redefine the teaching practices in classrooms. Despite the rapid changes seen since the digital revolution, current practices are not, in fact, unprecedented.

The early 1900s were shaped by the 'visual instruction movement' and saw new 'technologies' like mass-produced maps, illustrations, and charts introduced into classrooms. The aim was to enrich instruction through the 'seeing experience' and bring the outside world 'into' the classroom.[1,2,3] This movement was informed by Edgar Dale's now debunked, but not abandoned, 'Cone of Experience' that privileged learning via concrete hands-on activities over reading or listening (e.g., the unsubstantiated, yet highly cited idea that people only remember 10% of what they read but 90% of what they do).[4,5,6]

The mid 1900s brought more modern concepts. The behaviourists envisioned 'teaching machines' that would replace instruction with repeated, reinforced practice; picture a low-rent iPad math game that rewards each correct answer, but made of wood, paper, and a buzzer.[7] For Skinner and others, teaching machines would deliver education to the masses and lower the instructional burden on teachers. Largely, the impetus behind the 'instructional technologies' of this era was to create more effective (i.e., efficient) instruction and to solve educational problems.

In the 1990s, the term 'educational technology' was popularized and redefined by the Association for Educational Communications and Technology.[8] The goal was to not only look at the 'stuff' in use (i.e., the device: computer, tablet, etc.,) but also at the teaching and learning processes they afford (e.g., greater learner control) as well as the broader ethical implications associated with their adoption (i.e., the digital divide).[9]

As such, views on technology's role in the classroom has shifted and broadened over the years, but more residue remains than one might think.

Modern Tech Trends

With this context in mind, we can now look at recent technology 'trends' in K-12 education. Marten and colleagues conducted a trend analysis of the early 2000s.[10] This was done using the Horizon Reports, a yearly set of educational technology predictions made by a panel of educators and researchers, and validating their predictions via bibliometric analysis (i.e., was the predicted tech trend reflected in the level of public and academic discourse). Marten and colleagues concluded that the social web (i.e., interactive websites and social media), the semantic web (i.e., what enables search engines like Google), and learning objects (websites like Wikipedia) drove the discussion in the 2000s.

So, why these technologies? Essentially, most of them represent the underpinnings of the modern internet and one could argue that the internet was the real game changer for education at the turn of the century. Instead of students only learning to use a computer (i.e., the 1980s and 90s), the average student was, for the first time en masse, using the internet to find information online. Yet again, the internet brought the world to the learner; now, through the 'surfing' experience.

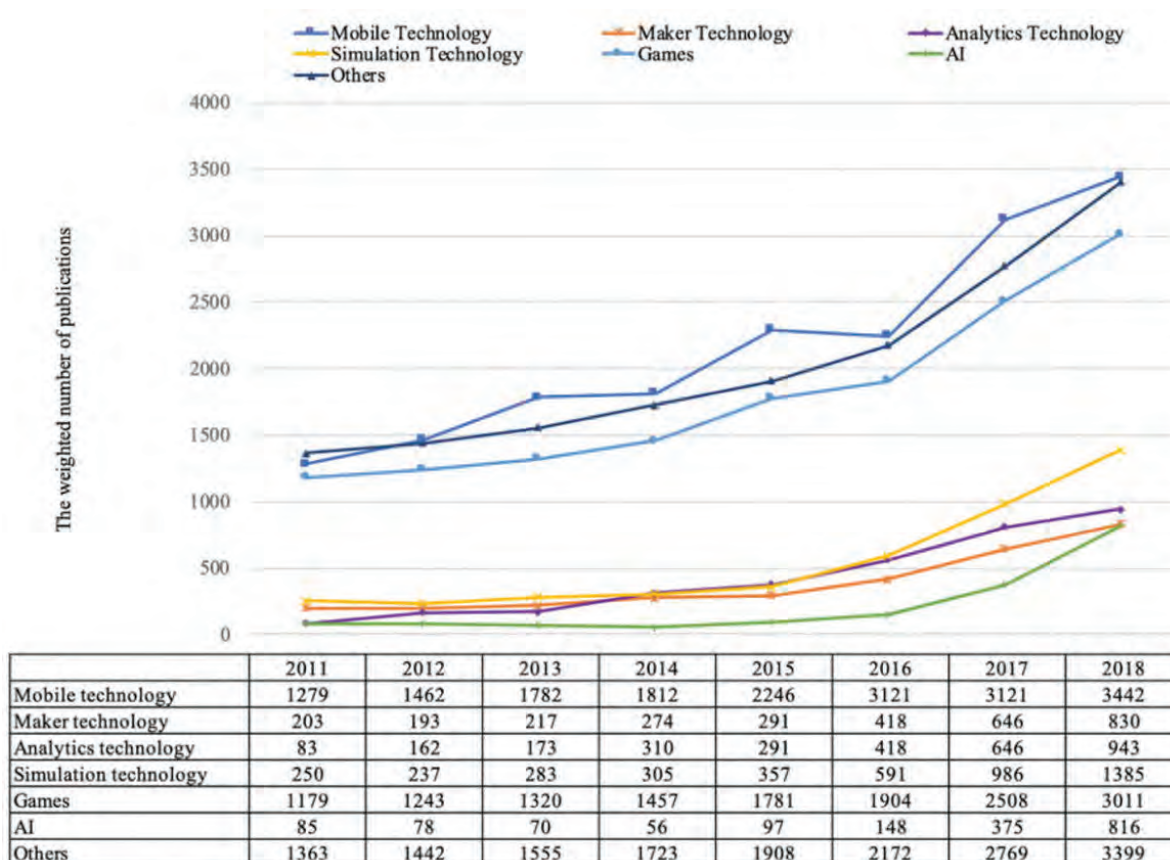|	2011	2012	2013	2014	2015	2016	2017	2018
Mobile technology	1279	1462	1782	1812	2246	3121	3121	3442
Maker technology	203	193	217	274	291	418	646	830
Analytics technology	83	162	173	310	291	418	646	943
Simulation technology	250	237	283	305	357	591	986	1385
Games	1179	1243	1320	1457	1781	1904	2508	3011
AI	85	78	70	56	97	148	375	816
Others	1363	1442	1555	1723	1908	2172	2769	3399

Figure 1. Academic and Public Discourse for Each Educational Technology Trend in the Past Decade

We conducted a trend analysis of 2011 to 2021 (see Figure) and saw that three technologies dominated the conversation: mobile (driven by modern smartphones and tablets), educational games, and online learning (contained in the 'other' category).[11] Again, why these technologies?

The mobile trend reflects the broader 'appification' of all technology; basically, there was an absorption of most digital tools into smartphone and tablet form factors. As a result, educational apps were the second most downloaded app in the Apple store, starting in 2012, and there are now over 200,000 of them.[12] Further, the One-to-One and Bring Your Own Device movements in education practically necessitated the use of portable, connected, and affordable devices.[13]

Online learning, which accounts for 90% of publications in the 'Other' category in the Figure, was a trend that was largely overlooked by the experts from the Horizon Reports. Only 1 of their 49 predictions concerned online learning. This shows the continued influence of the internet as a core infrastructure for other educational technologies; and can we really blame the Horizon Reports for ignoring 'infrastructure'? After all, who pays attention to the road below a Tesla?

The educational games trend largely reflects the gamification of the majority of learning software (i.e., inserting rewards and other game-like features into traditional academic tasks). This is driven by a pedagogical desire to make practicing difficult subjects like math fun and by the commercial desire for companies to enter the $1 billion educational software market with a relatively low-stakes product.[14] Gamification has come under considerable scrutiny ("gamification is bullshit" p. 1) but has recently shown promising outcomes when used as deliberate practice.[15]

The remaining trends include emerging tools paired with familiar pedagogical promises. Learning dashboards (i.e., learning analytics) enable student-centered teaching by making it easier for educators to tailor lessons based on a student's past performance.[16] Virtual reality (simulation) could provide more authentic learning environments for practicing complex real-world skills (cf., 'book knowledge').[17] The maker movement would have students use modern design tools to learn by doing.[18,19] Finally, AI could be used to identify larger trends within educational institutions as to more efficiently direct resources and inform policy.

Future of EdTech: Reformation or Recapitulation

From maps on a wall to virtual tours in VR, the 'stuff' of educational technology has simultaneously reshaped how we picture the classroom but not fundamentally redefined what happens within it. This occurs because the tools might change but good pedagogy is paramount (see Clark's media debate).[20]

Now, we glimpse an educational future reformed in the wake of the pandemic. How will our joint experience of remote instruction shape our schools? As always, it will likely be more a recapitulation than a reformation; bringing the classroom to the student through the 'remote experience', 'scaling-up' teaching for the masses, and addressing 'modern' problems via the latest tools.

EFFECTIVE INSTRUCTION AND INTERVENTION IN WRITTEN EXPRESSION

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Psychologists who work with school-age youth need to have an understanding of academic intervention approaches to effectively consult on the prevention and remediation of academic difficulties. Despite the importance of written expression skills for student success in school and the workplace, many students have difficulties generating ideas and language for compositions, converting these ideas into written text through keyboarding or handwriting, and regulating the writing process. By building knowledge of Self-Regulated Strategy Development (SRSD), an extensively researched intervention framework, psychologists can have a powerful option to recommend when confronting these sorts of difficulties.

SRSD has been evaluated in over 100 experimental, quasi-experimental, and single-case design studies, spanning a wide range of delivery formats (whole class, small group, and individual students) and grade levels (Grades 2-12, plus post-secondary). Meta-analyses of these studies have found large positive effects on writing quality, with an overall characterization of SRSD as an evidence-based practice for students with learning difficulties.[1,2,3] Although the majority of studies on SRSD have been conducted in the United States, studies in British Columbia have also found SRSD to be effective.[4]

SRSD includes instruction in genre-specific writing strategies, general writing strategies, and strategies to help students self-regulate the writing process.[5] These strategies are taught in a flexible series of stages that gradually give the students more responsibility by: (a) developing background knowledge of the writing strategy, (b) reviewing and discussing the writing strategy, (c) modeling the strategy, (d) ensuring students' memorization of the strategy, (e) scaffolding students' application of the strategy with immediate feedback, and (f) encouraging students' independent use of the strategy.

Integrated instruction in genre-specific and general writing strategies is included in SRSD lessons. For example, the general POW strategy (Pick an idea, Organize my notes, Write and say more) can be combined with the genre-specific TREE strategy for opinion and persuasive writing. Using TREE, students include a Topic sentence to concisely state their idea, provide three Reasons to support their opinion, restate their opinion in an Ending, and then Examine their writing to make sure each of these components is included in the composition. Throughout instruction, students work on self-regulation through collaborative practice in goal-setting, self-instruction, self-monitoring, and self-reinforcement. The breadth and depth of self-regulation instruction can be adjusted depending on students' needs.

As with any academic intervention approach, the extensive research support for SRSD does not guarantee that SRSD will work for specific students or groups of students. For this reason, it is important to monitor student response when implementing academic interventions like SRSD. Simple ways to track progress over time include monitoring the length of compositions (word count) and the time students engage in writing when asked to complete a writing task (duration in minutes). Also, when teaching genre-specific strategies like TREE, counts of elements present in student compositions over time can be recorded; for example, including a topic sentence and one supporting reason would be considered two writing elements. More complex monitoring approaches can also be used, such as repeated evaluation of writing samples with analytic rubrics[6] or with calculated metrics like correct word sequences (the number of adjacent words that are spelled correctly and make sense in the context of the sentence). Some of our recent work has focused on the development of automated tools to facilitate these more complex scoring approaches.[7,8]

Because SRSD is an intervention framework rather than a packaged, commercial intervention program, training options on SRSD tend to be free[9] or low cost.[10] Similarly, resources to support lesson planning are low cost[5], with many sample lessons available for free on the internet. In combination with the research evidence for SRSD supporting its use across a wide range of writing difficulties and skill levels, the availability of low-cost training and implementation materials makes SRSD a great approach for psychologists to learn about and recommend when working with school-age youth.

THE SERIOUS ROLE OF PLAY IN EARLY CHILDHOOD EDUCATION

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When out with some friends recently we saw a group of young children playing in a community garden. The friends commented that a garden did not seem like a good playground for the children. I shared that I suspected that this was an outdoor preschool where there are no indoor classrooms. The garden was the classroom that day and that playing is an important element of early childhood curricula, helping prepare children for their school years. They questioned, "when do they learn what they need to know to be ready for school?" I again shared that playing is exactly what they need to be doing to be ready for school. It was hard for me to understand their perspective, although over the years I have come to realize that their perspectives are not unusual. Many people, including many parents, may recognize that play holds a central space in the world of children, but they question if play is learning and see play, education, and learning as distinct. It raises the question, "does play have a place in early education?"

Some would say no, that early education is a preparatory endeavor for life success that requires concentrated focus memorizing information, mastering skillsets, and following directions to successfully meet or surpass pre-determined learning outcomes. Learning is serious and there is no place for the distracting frivolities of play. In this view, play and learning are separate concepts that do not meet. Yet, what happens when the dichotomy of play and learning is challenged? What if we take the courage to step outside traditional pedagogical approaches and lean into the view of early education as a dynamic, living, inquiry-centred process? A process where learning is thought to be a fluid, rhizomatic, and interactive experience emerging from children's curiosities and children are seen as strong, capable, active agents in their own learning. In this perspective, play both grounds and informs curriculum and is understood as an approach to learning, inquiry and an opportunity to research the world. The notion of play existing in a reciprocally beneficial relationship with learning throws open the doors and windows to exciting new educational opportunities. Education being housed in play is akin to meeting children where they live.

Across Canada, play is central to provincial early learning frameworks, the principles that guide early learning and education programs (e.g., Alberta, British Columbia, Ontario). As the value of play in education is accepted, educator roles and practices are being re-envisioned with renewed intentionality holding play at the heart of curriculum choices. The role of play in promoting healthy child development across multiple domains is well documented.[1,2] Play is helpful in strengthening parent-child relationships[3] and is important in developing ones identify giving children opportunities to explore many different roles and interests[4]. Planning time for play, designing thoughtful responsive spaces, and choosing intelligent materials that encourage play and inquiry is a valuable in a child's education. Play is also an inviting and reinforcing way for parents to engage in learning activities with their children.

Early education is indeed serious and has an important role in laying the foundation for children's lives. Play in turn plays a serious role in early education. Once central to early education, play was something that was part of schooling at many levels. Overtime, somewhere along the path between childhood and adulthood, the significance and value of play has become lost within our experiences of rote learning and heavy demands for educational accountability. It has been replaced with the mindset of 'getting further, faster', and using school readiness skill checklists as the sole practice and evidence of children's learning.

It is understandable that many educators and parents have become comfortable within these accumulated educational experiences and ways of thinking about both play and education. At times it seems we have forgotten to think of play as learning and central to education, to the point of believing that they do not belong together. Yet, if we take a moment to remember our own childhood play, understand and re-value it again from an adult perspective, it is easier to prioritize and situate play as a learning foundation in early learning settings. A vision of early education that considers play seriously. That recognizes each day is filled with children's wonder, innovation and cultivating a lifelong love for learning. There is hope that we remember the serious role of play in student learning.
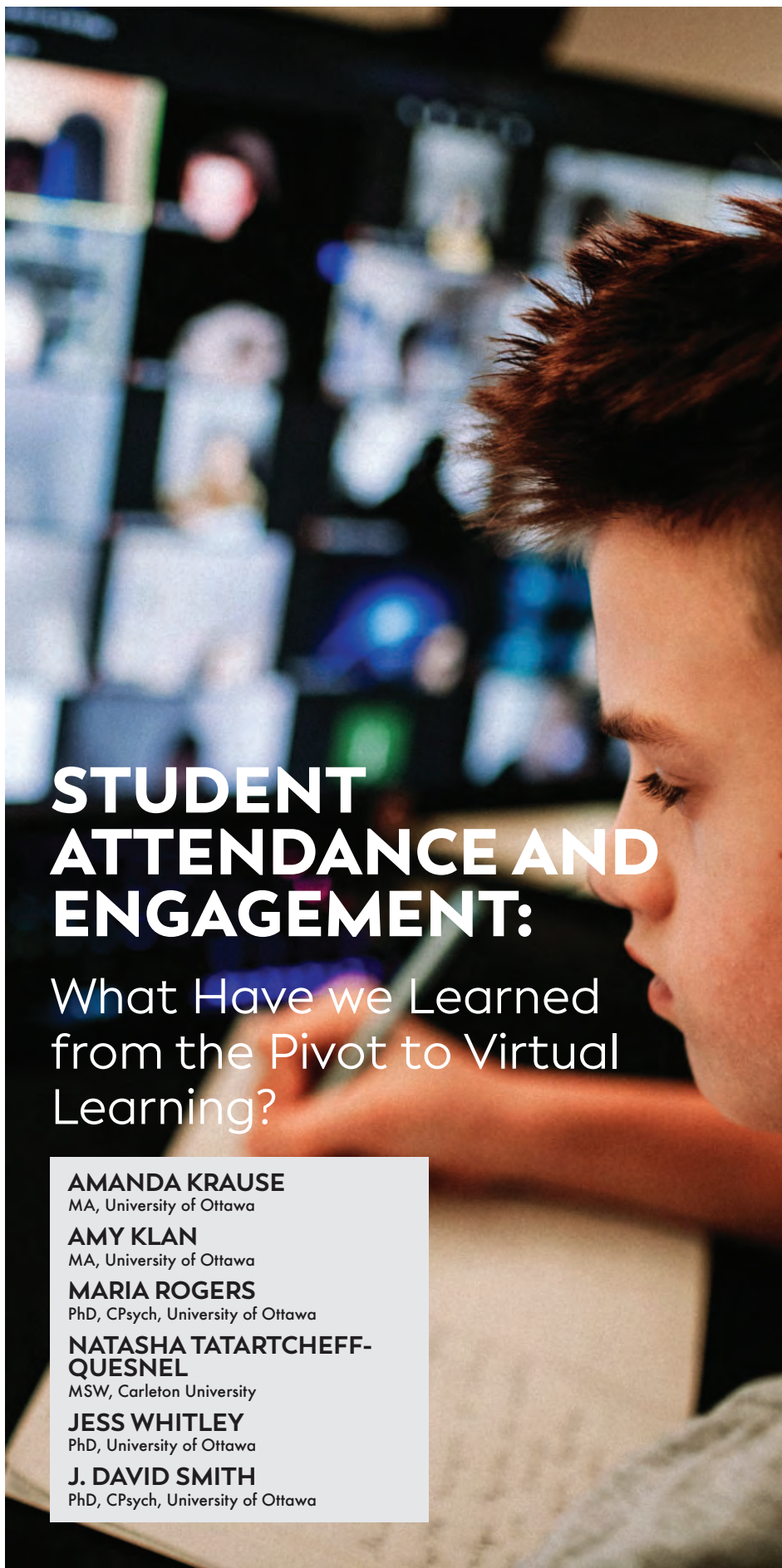
STUDENT ATTENDANCE AND ENGAGEMENT:

What Have we Learned from the Pivot to Virtual Learning?

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An elementary teacher begins their virtual grade 5 class each morning by greeting thirty-three students—a mixture of smiling faces and display photos—as they click onto the Google Meet. The teacher takes attendance by having students complete a wellness check-in, knowing how vital social-emotional learning activities are in the absence of face-to-face connections.

The day continues with a host of activities that aim to engage students in rich and meaningful learning: learning that is more relevant and interesting than the newest YouTube video that is a simple click away and that is also equitable, inclusive and recognizes that students are coming from diverse backgrounds. Establishing a classroom community where students feel safe, represented, and included has never seemed more important.

What does attendance and engagement look like in the virtual classroom?

The attendance and engagement of some students has flourished in the virtual classroom because it has a greater capacity to meet their unique needs. Students who have difficulty getting to their brick-and-mortar school in the morning now have greater accessibility to their education by being able to join class with the click of a button. Other students who experience anxiety surrounding the social and environmental elements of in-person learning now have the opportunity to attend and engage from the comfort of their own homes, and with their camera turned off.

However, at the same time, virtual learning has posed barriers that have hindered the attendance and engagement of other learners.[1] Technological problems, limited hands-on learning, and the lack of social interaction has made it more challenging for some students to engage. As a result, the pivot to virtual learning has required educators across the globe to think critically and creatively about ways to engage learners. What does this engagement look like? Sound like? Feel like? How do we engage learners sitting behind that display picture on the computer screen?

Why is attendance and engagement so important?

Decades of research has revealed the adverse effects of absenteeism and disengagement.[2,3] It tells us that, generally speaking, healthy development in multiple domains is fostered and nurtured in the school environment. Students who struggle to attend school regularly, or may be mentally and emotionally disengaged despite being physically present, do not experience the same positive development as their peers. Indeed, research across fields tells us that disengaged and chronically absent students are more likely to lack social-emotional skills,[4] to experience poorer academic achievement[5], and to participate in delinquent behaviour when they reach adolescence.[6] The COVID-19 pandemic and the commonality of virtual learning has made the already complicated problem of attendance and engagement more complex. However, engaging students is perhaps even more important at this time to help support students as they cope with and navigate this difficult pandemic. As such, fostering attendance and engagement in the virtual learning environment has, and should, remain at the forefront of the educational agenda.[7]

What can virtual learning teach us about supporting student attendance and engagement?

In essence, the shift of teaching modalities has demonstrated that evidence-based strategies used to promote attendance and engagement within in-person classrooms remain just as important, if not even more important, within virtual learning settings. It may be less about creating novel interventions and more about leveraging what we already know works well in our schools to engage students virtually. Yes, certain adaptations must be made; however, good teaching practices—informed by decades of literature and practice proving their efficacy—should not get thrown out the moment we lose the walls of our brick-and-mortar classrooms.

What are these evidence-based strategies?

At the core, the principles and elements that work for in-person education and for virtual learning are the same.[8] We must tap into all three prongs of student engagement[9] – cognitive engagement (i.e., flexibility in academic standards to meet child's needs), affective engagement (i.e., warm and supportive teacher-student relationships), and behavioural engagement (i.e., additional supports and resources where needed). Research with teachers who are working virtually highlights the importance of including all three components in their efforts to engage students.

Strategies found in the literature (and echoed by practicing teachers) include daily check-ins with students about how they are doing, flexibility in what curriculum content is covered and which evaluation strategies are used, and using online resources such as interactive apps and Zoom/Google Meet functions for diverse forms of engagement (e.g., chat option, anonymous poll activity, breakout rooms).[10,11] Ensuring that students' social relationships (i.e., student-peer and student-teacher) are nurtured is also important in fostering attendance and engagement, particularly in a virtual environment where human interaction is limited.[12] As with in-person schooling, this includes engaging students in collaborative activities (e.g., in breakout rooms or virtual clubs) where they can develop meaningful relationships with others. Overall, what seems to be most important is offering an accepting and equitable classroom community that fosters belongingness and choice for all students.

Where do we go from here?

It is likely that some aspects of virtual learning will continue to be a part of schooling in the post-pandemic future. Regardless of the modality, evidence-based strategies and principles should remain at the forefront of our teaching practice. This pandemic has placed unparalleled pressures on our Canadian education systems. However, the voices of educators, school personnel, and other key stakeholders speak of success in their creative pursuits of engaging students. The pandemic can provide important lessons about what student engagement can look like as we move forward. What can we take with us? What methods of engagement are most successful in reaching children, particularly those that face increased barriers? While the past calendar year has presented many challenges for students, their teachers and families, it has also encouraged 'out-of-the box' thinking informed by the core, evidenced-based principles surrounding student engagement. This thinking can only foster even more effective engagement strategies moving forward.

FOR A COMPLETE LIST OF REFERENCES, PLEASE GO TO CPA.CA/PSYNOPSIS

(RE)CONNECTING TO THE LAND:

An Educational Approach to Support the Health and Well-being of All Canadians

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This work was created on the traditional, ancestral, and unceded territory of the Musqueam people.

"The land is the "classroom" and the mud, insects, and trees are the "teachers"

(James, Dragon-Smith, & Lahey, 2019, p. 2)[1]

Over the past year, the global COVID-19 pandemic has shown that spending time outdoors is more important than ever for physical and mental health and well-being across the lifespan. When following public health guidelines (such as maintaining physical distancing), time outdoors has been promoted as an important and necessary health and wellness strategy. For example, urban green space provides the opportunity to be physically active, improve fitness levels, reduce stress, improve sleep, increase Vitamin D levels, and improve immune function.[2] The global pandemic has also served as a catalyst in the school setting for taking the classroom outdoors regardless of the weather. For children who are attending in-person schooling, there has been an increased usage of outdoor classrooms that support interdisciplinary learning activities for delivery of curriculum while adhering to social distancing guidelines.

Outdoors and land-based activities provide a variety of learning opportunities. The outdoors is distinct from other learning environments and provides opportunities that are not available indoors. For example, the outdoors is an open system that is dynamic and constantly changing, providing the possibility of unstructured freedom in movement; the opportunity to be animated, noisy, or even rowdy in voice; and to build a relationship with the natural world[3]. For children, being in the outdoors provides a wide range of play possibilities and opportunities for sensory exploration. Learning through play is so important to the healthy development of the child, it is identified as a human right (in Article 31 of the United Nations Convention on the Human Rights of the Child, https://www.ohchr.org/en/professionalinterest/pages/crc.aspx). From a behavioural perspective, we often cite the importance of outdoor play for the opportunity to be physically active (active play), to learn about the world around us (exploratory play), to encounter challenging experiences with elements of risk and adventure (risky play), and to engage in playful contact (rough and tumble play), often while learning to interact with others (social play), to name a few.

Outdoor play provides an opportunity to connect to the land around us, which affords a number of important benefits for schooling. For example, when children spend time in and interact with nature, they show increased levels of attention and concentration (including children with ADHD)[4], their social behaviour becomes less aggressive,[4] they exhibit greater sense of place and social interaction[5], and the effect of life stress is reduced.[6] The impact of play in the outdoors and in naturalized settings is also critical for the development of the eco-psychological self (the extent one identifies with nature).[4,7] Opportunities to connect with and play daily in naturalized environments in the early childhood years are instrumental in developing knowledge about, an interest in, an empathy for, and an affiliation with the environment.[4,8] Unfortunately, children who have little exposure to the natural world may develop a sense of disconnection to the land, and view nature as something to be feared and controlled instead of developing a sense of stewardship.[4, 9]

Despite the established benefits, literature suggests that time for being outdoors, and the type of play experiences that children have access to, has greatly diminished.[4-5,8,10] A variety of reasons have been provided for the shift in behaviour, such as the proliferation of indoor-friendly technologies, urbanization, and fears and anxieties around children's vulnerability to perceived risks and dangers in the outdoors.[3,10] For example, in outdoor school spaces, a modern response to increasing safety and decreasing risk on playgrounds has been to carefully select and design play spaces using human-made physical equipment. While such playgrounds can provide a variety of implicit learning benefits (e.g., gaining an understanding of the mechanical principles inherent in our environment and in our movement), there are limitations to equipment-based playgrounds. The rules of the playground tend to be prescriptive in nature (e.g., slide in a seated position, do not slide head first) and often adult monitored.[11] In contrast, an important strength of natural playscapes is the facilitation of more unstructured play and the encouragement of the usage of natural play elements in a greater number of ways (e.g., jump, climb, sit, scale… the boulder).[11] As such, there has been a call to naturalize playgrounds in schools and community settings.[4]

Nature or land-based approaches suggest that humans need nature, especially in the childhood years, just as one needs good nutrition, adequate sleep, and physical activity for optimal health and well-being.[12] However, the importance of nature to human development and learning is not a new concept. Nature has been a part of Indigenous knowledge systems since time immemorial, wherein,

"Indigenous worldviews tend to place humans as part of nature, in reciprocal relationship with other animals, plants, rocks, water, and ecosystems. When time spent in nature is part of everyday living and learning, it becomes a wide-ranging and inclusive experience - as diverse as life itself." (James et al., 2019, p. 1-2)[1]

Increasingly, colonial-based institutions are recognizing the important lessons learned from Indigenous ways of understanding and doing. The interconnectedness to land is a central tenet to Indigenous worldviews, of which Western systems can learn to view the land as a classroom and all of the animals, plants, rocks, water, air, and trees as the teachers.[1] Importantly, the connection to land shapes and balances one's physical, mental, emotional, and spiritual well-being (i.e., wholistic wellness).

Connecting to the land brings a sense of belonging to family and community, which is a concept critical for success in the learning environment from the earliest years of childhood across the lifespan. Indigenous ties to land also connect to the past seven generations of history, culture, and traditions. Creating an awareness and new ties to land for all learners may create a sense of belonging in a way that supports lifelong learning and a connection to one's family, community, and ancestors. For example, an important aspect of achievement and success of university students is sense of belonging, where one's experiences to geographic location (e.g., references to specific places), the natural environment (e.g., rainforest), and the cultural context increases feelings of attachment and sense of belonging.[13] Therefore, an important educational strategy for post-secondary learning is developing initiatives that encourage students' engagement with their geographical, natural, and cultural surroundings.[13] Given the central tenet of land-based teachings to Indigenous knowledge systems, we would argue that Western educational systems need to honour and pay greater attention to Indigenous ways of knowing to guide land-based pedagogy, practice, and policy. Educational strategies that establish a stronger connection to the land and nature are critical for a wholistic approach to human development and lifelong learning.

In summary, there are various benefits associated with connecting to land across the life course of learning. Indigenous peoples have recognized the importance of interconnectedness to the land since time immemorial. Increasing research has also demonstrated diverse educational, health, and wholistic wellness benefits. It could be argued that the connection to nature is as important to learning as engaging in healthy lifestyle behaviours like healthy eating, being physically active, and getting adequate sleep.
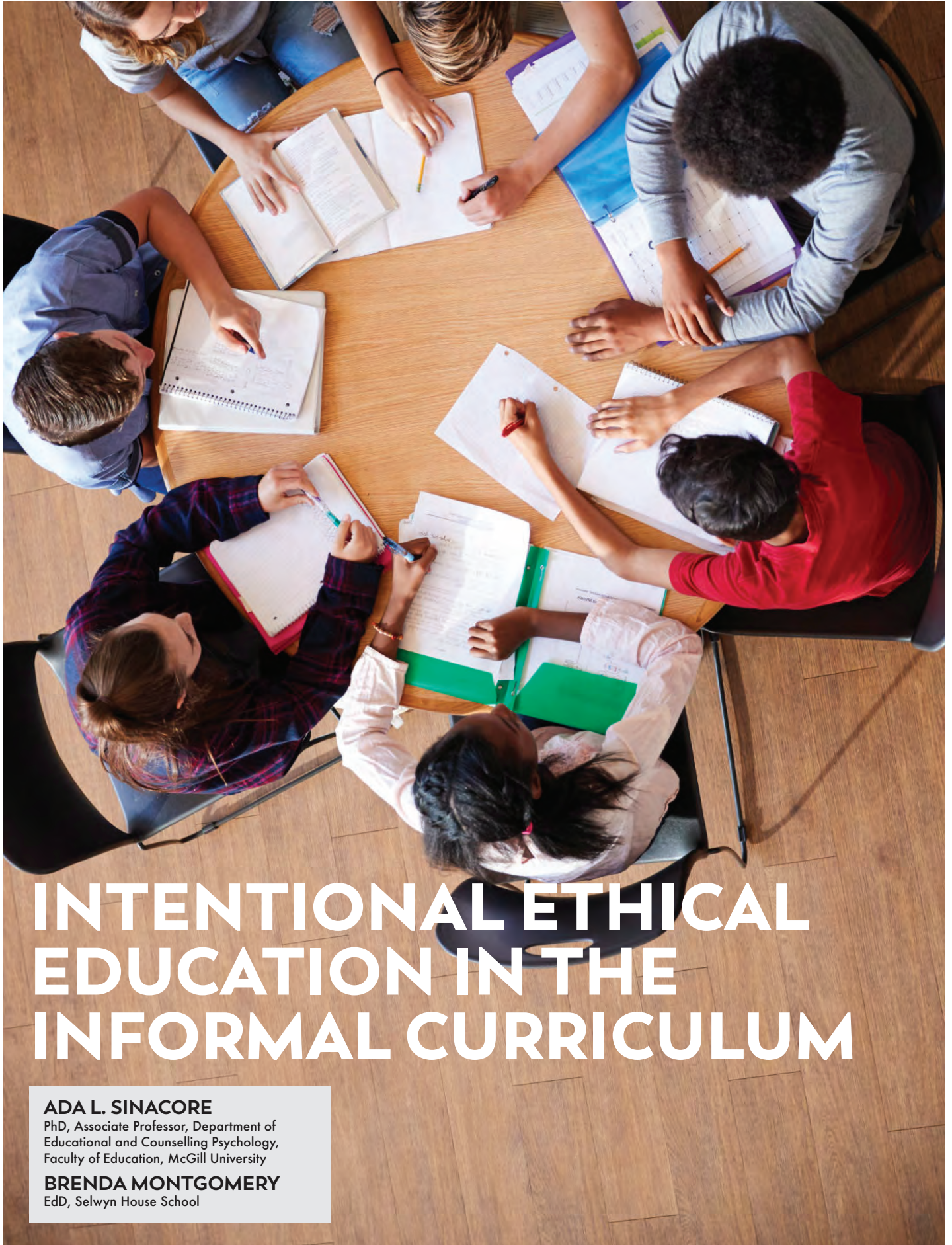
INTENTIONAL ETHICAL EDUCATION IN THE INFORMAL CURRICULUM

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Education serves many roles in students' lives beyond the formal curriculum and career development. Schools are a microcosm of society where the challenges that exist within society are reflected in the school culture in both positive and negative ways.[1] Societal inequities and discriminatory attitudes (e.g., racism, misogyny, homophobia) are oftentimes present in the educational environment and can result in certain students and groups being marginalized, bullied, or mistreated. Thus, it is important to educate students, both formally and informally, about how social norms, attitudes and behaviors are influenced by power dynamics. According to the Public Health Agency of Canada (PHAC) (2019) guidelines[2], it is important to infuse the value of human rights into education that encourages action and advocacy. Schools can provide an ethical framework that empowers students to become aware of and responsive to inequity and injustice. Students can develop the skills to be proactive in addressing discrimination and biased treatment wherein acting ethically, with compassion and kindness, results in an increase in social capital versus being viewed as a "snitch" or "backstabber".[3] That is, students participate in a process of moral disengagement which refers to rationalizing behaviours perceived to be wrong in order to absolve oneself of guilt and responsibility.[4] In order to address moral disengagement, schools need to shift away from a punishment or corrections model to an ethical model, which incorporates compassion into the school's informal and formal curriculum.

Although it would be impossible to assign a ratio of learning from the informal vs formal curricula, adults in schools must understand that students learn more unintentionally than one may expect.[5] As such, integrating an ethical model into the informal curriculum will serve to deconstruct moral disengagement and reward upstanding behaviors and ethical engagement. Using an ethical framework will help students understand their responsibility in creating a just society, which begins in school. Schools can empower students to be active agents in creating safe and inclusive school environments with the central tenet of working with students to make decisions based on doing the "right thing"—ethically and compassionately—versus making decisions to avoid punishment.

The informal curricula are both intentional and unintentional. Intentionally, schools organize extra-curricula activities, theme weeks, special assemblies, and guest speakers to emphasize a concept not covered in a scheduled class. Such concepts may include motivational speakers, Black History month, LGBTQ+ alliance clubs, Orange Shirt Day, etc. While there is no syllabus, another part of the informal curricula, both intentional and unintentional, includes modeling behaviours as well as developing and implementing policies with an orientation towards ethics, compassion and social justice. How students' missteps are addressed serves an important role in ethical development. For example, using sarcasm in class to address students' behaviors teaches students that sarcasm versus direct communication is an acceptable way of addressing conflict. This type of communication can perpetuate power differentials between members of the school community. The misuse of power can exist at all levels of the school and are multi-directional (e.g., vertical, horizontal, top-down and bottom up).[6] As such, identifying power inequities is essential.

To ensure all members of the school community understand power dynamics, social inequities, and discriminatory behaviors, systems of restorative justice can be put in place.[7] For example, if students are not given the opportunity to make amends after mistreating someone, they may not comprehend the effect of their actions on others. Thus, the opportunity to instill empathy is lost. Moreover, how incidents of bullying, marginalization, and disagreements are addressed can influence how students understand their ethical and citizenship responsibilities to the school and broader community. As such teachers, administrators, and school personnel all need to understand the positive and negative effect the unintentional curriculum can have on students' development and consider ways to integrate more intentional approaches. The key is that informal interactions are intentional and global such that all members of the school community model ethics, kindness, empathy, and restorative justice in their behaviours and interactions with each other.

The informal curriculum can be supported by the formal classroom curriculum where themes of ethics, empathy, and restorative justice are integrated into the teachers' selection of resources. In many units, specific content is not prescribed and teachers can choose to address themes related to the informal curriculum. For example, an English teachers' choice of novels or poems can echo the school's themes of ethics, empathy, and restorative justice. As well, the school can establish a shared vocabulary, which clearly communicates the concepts addressed regardless of language of instruction. Further, instructors can consider how content related to human rights, social inequities, and histories of discrimination can be a vehicle for teaching concepts that reflect the school's priorities and model ethical decision making.

Educational and school psychologists can play a significant role in facilitating the development of ethical, compassionate, and restorative processes in schools. First, they are uniquely positioned to identify the unintentional informal curriculum and where it serves to promote social justice or reinforces inequities. Once the strengths and challenges are identified, school and educational psychologists can raise awareness about the unintentional informal curriculum and provide professional development to members of the community. As well, in their work with students they can facilitate the development of skills related to ethical behavior, decision making, empathy, and restorative justice.

TOWARDS INCLUSIVITY

Pathways for Indigenous Students into Clinical Psychology

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On October 8, 2020, the University of Manitoba's (UofM's) Departments of Psychology, Clinical Health Psychology, and Ongomiizwin (Indigenous Institute of Health and Healing) held a faculty development initiative, funded by the UofM's Office of the Vice-Provost (Academic Affairs) with the aim of reducing barriers and inspiring Indigenous students to pursue careers in clinical psychology. The impetus for this event was in response to CPA's Response to the Truth and Reconciliation Commission of Canada's Report.[1] This report acknowledged the harms psychology has caused to Indigenous Peoples and communities, noted that Indigenous Peoples are underrepresented among Canadian clinical psychologists, and argued that correcting this issue is important for our profession to better serve Indigenous Peoples.

Our goal was to develop actionable steps towards encouraging more Indigenous students into clinical psychology. The event began with a grand rounds presentation by three renowned experts on Indigenous health and education. Dr. David Danto presented on CPA's response to the TRC, reviewing and expanding on the main themes from his 2018 report. Next, Dr. Doug McDonald discussed his experiences and knowledge learned from his many years as Director of the INPSYDE program at the University of North Dakota, which has been successful in recruiting and training Indigenous clinical psychologists. Finally, Dr. Karla Tait shared her experiences in the UofM's residency program, and as the Mental Wellness Manager for the Northern Region with the First Nations Health Authority and Volunteer Director of Clinical Programming for the Unist'ot'en Healing Centre, to highlight how psychology can best serve Indigenous communities by integrating Indigenous knowledge and perspectives with the scientist-practitioner model.

The grand rounds presentation was followed by a workshop with faculty, administrators, and students from the three local universities; Indigenous mental health providers from health, government, and school systems; and staff from community organizations. Attendees were combined in eight working groups and discussed questions that were unique to each group (e.g., how to engage Indigenous youth to consider mental health professions, create safe learning environments, and incorporate Indigenous ways of knowing into clinical training). Each working group took notes and shared their ideas in a large group discussion that we transcribed. The following five key themes emerged from these discussions.

Indigenous mentorship within clinical training programs. Ideally, clinical training programs will hire Indigenous faculty, and CPA may need to reconsider accreditation standards to allow Indigenous faculty who are not registered clinical psychologists to become core members of academic training programs. Additional ideas for ensuring that Indigenous students see themselves represented and have opportunities for culturally sensitive mentorship might include recruiting Knowledge Keepers or Elders, and having Indigenous adjunct faculty supervise practica.

More flexible and funded educational opportunities. Greater flexibility may be needed within training programs that could allow Indigenous students to attend university while also staying connected to their families, their lands, and support systems while completing their education (e.g., distance learning). Funding for graduate students in general is an important issue, but workshop members emphasized the importance of financially supporting Indigenous students throughout their education to whatever degree possible. Finally, discussants recommended that graduate programs re-evaluate admission criteria that currently emphasize exceptionally high GPA and GRE scores to also consider traditional knowledge/cultural expertise, and to acknowledge systemic barriers that make it difficult for bright and talented Indigenous students to be competitive for admission.

National collaboration between Canadian universities for didactic leaning. There are currently very few Indigenous clinical psychologists in Canada, and even fewer clinical psychology faculty members. As a result, it might be necessary and important to share resources and Indigenous knowledge course offerings, perhaps virtually, across clinical psychology programs. An example of this is a Massive Open Online Course (MOOC) on Indigenous histories and contemporary issues (https://www.coursera.org/learn/indigenous-canada). Canadian universities could also consider developing and offering Doctor of Psychology (PsyD) training programs with a focus on Indigenous ways of knowing.

Culturally safe and celebratory curricula. Bringing Indigenous students into clinical psychology programs will not be successful unless these programs make space for Indigenous perspectives in their curricula and ensure that there are anti-racism goals and perspectives built into clinical training. This could involve examining whether training curricula discuss resiliency versus pathology with respect to the ongoing negative impacts of colonialism, working with Indigenous communities to elicit advice on what they need from our profession, and building that into our curricula.

Building alliances and awareness of the need for Indigenous clinical psychologists. Workshop attendees emphasized the importance of building alliances with Indigenous communities. Such alliances would support recruitment of students into our profession by bringing awareness to Indigenous youth and their parents about potential future careers in psychology, and better support Indigenous communities.

To address these themes in our own training and residency programs we have formed an advisory/working group comprised of faculty, students, and Indigenous supports at the UofM. Since this event, the Manitoba Psychological Society has announced an Indigenous Student Award beginning in 2021. There are clear inter-related benefits to Indigenous Peoples and to our profession in achieving the goal of increasing the number of Indigenous clinical psychologists. Our hope is that other universities may also benefit from our learning and share our eagerness to strengthen the clinical psychology community by addressing harms of the past and moving forward with Indigenous Peoples in the spirit of reconciliation and health.

VOICES OF TEACHERS AND STUDENTS

Perspectives on Schools in 2021

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As we were discussing ideas for the content of this special issue of *Psynopsis* and reviewing the perspectives from the various contributors, it soon became apparent that two important voices were missing from the issue: teachers and students. Yes, their voice is included as participants in several of the studies in this issue but we had nothing that was directly from them in their voice. As we worked on this issue, we asked several students and teachers in British Columbia and Quebec their perceptions of what Canadian psychologists should know about schools today. We recognize that this issue of *Psynopsis* comes out a unique time for us all. The COVID-19 pandemic has brought with it changes to everything. No place is that more true for those working in (educators) and attending (students) school.

Teachers have been working hard on the frontlines and both teachers and students have endured very unusual approaches and challenges to their school experiences during this pandemic. We believe it is always valuable to pause and ask our clients and consumers what they want or need from us as psychologists to help us understand the best ways to help them and their students.

TEACHER REFLECTIONS

We asked the teachers what they perceived psychologists need to know about the current challenges schools are facing and ways that psychologists can better support their work. Upon review, we grouped the teacher reflections under three themes.

Teachers are supporting children with much more than just academics

Colleen Gagnon
Montreal, Quebec (Grades 3, 5, 6, 7, 11 Math)
&
Lauren Aslin
Montreal, Quebec (Head, K-11 School)

Caring for the whole hurting student, not just subject content, has taken its toll on us. Diplomatically managing the manifestations of anxious-love from overtaxed parents has taken its toll on us. Creatively transforming events according to the current science of viral transmission, we take calculated risks with our own safety every day to educate effectively. And we witness our grieving Senior students whose longstanding social dreams of dances, prom and graduation are shattered. Worse than shattered – fluctuating between remote hope and despair depending on the COVID-alert level in our city. School has become our 'extended family'; yet, all the while, we are also caring for our own families, our own wellbeing. COVID has 'taught' the most basic and most important anthropological lesson: The meaning and critical role of school in young life; the importance of teachers and teacher wellbeing. As teachers and teacher leaders, we are on the front lines of the pandemic dangers every day, fighting for the cognitive, emotional and mental health of our students – and ourselves.

Grade 5 Math, English, Ethics, & Religious Culture Teacher
(name withheld upon request),
Montreal, Quebec

The issues that children are coming into school with like aggressive behaviours, bullying tendencies, underdeveloped problem-solving skills, etc. have increased over my 10-year career as a teacher. I think psychologists need to know that teachers are supporting children in much more than just academics. In my opinion, academics is a very small piece of my work as an educator. Daily, teachers need to deal with complex mental health issues and there is limited training in most teacher's colleges in this area. Teachers need much more support, guidance, and training when it comes to the complex needs of the students in their classrooms. Students look to teachers as trusted adults; they confide in us. That takes a toll on teachers, especially when it happens very frequently, and we feel like we give temporary fixes instead of being able to help our students to improve in the areas they most need to improve. We do our best with the tools that we have like empathy, listening to their stories, giving hugs, and creating solutions to recess quarrels. But we need to give them more. This feels especially true during this pandemic. The role of teachers has swung heavily into the transactional versus the transformative. We spend much of our time just trying to make sure that our students are safe, sanitized, spaced and masked. Many more issues are arising as children are under a lot of stress and do not have their usual outlets after school. This pandemic has been especially hard on the little ones.

Psychologists need to take broad considerations in how the pandemic has affected students' lives

Edie Chang
(Grade 3 teacher), North Vancouver,
British Columbia

A murder of a 15-year-old teenage boy happened this weekend in Vancouver. What is even more shocking is that his murderer is a 14-year-old. A child. It happened in a nice area of Vancouver, in a park surrounded with homes that are in the multimillion-dollar range. On social media, children are reading posts and warnings not to go to the park as there will be trouble if they go; they will be a witness to something bad. As I talk to my teens and reflect on this child's death, I look at my own career as an elementary school teacher and wonder where children are learning to behave in this way. Sure, socio economic factors play a part, but I feel that fundamentally something 'happened' along the way. As I reflect and think of my kids and students, I realize that more and more children are growing up unable to regulate their emotions. They are lacking the executive functioning skills they need

to navigate through an ever evolving and complicated world. They are not learning how to properly communicate, socialize and empathize with others. School psychologists come in and test and try to find out what is going on with children academically, but they really need to know that life is hard for kids these days. Many are being raised in broken homes, in homes that have been hit hard by the Covid pandemic, in homes where there is a single struggling parent, or in a home with both parents exhaustively working to make ends meet. They are being raised by parents, grandparents, aunties, uncles, cousins, foster parents, who themselves are struggling. Many children have parents who have their own learning disabilities, or they lack the cognitive abilities to understand the technicalities of something as simple as language. Psychologists need to know that as teachers, we are trying to do EVERYTHING for our students. When you think about it, we really should not be. We are sometimes their parent, we are their friend, we are their teacher, their counsellor, their coach, their cheerleader, their therapist. If things are so complicated now, I wonder how things will be in the next half my career.

Psychologists have to work with teachers to implement feasible and effective ways to help student's build valuable skills

Colleen Gagnon
Montreal, Quebec
&
Lauren Aslin,
Montreal, Quebec

We teach and lead persons, not just curriculum. School is vital for young people and gives them a sense of purpose and belonging. As for curriculum, our lesson plans now have a plan A, B and C and sometimes this is not enough as we pivot and problem solve on the spot at all levels. We need you to know what this feels like. We need your expert help to understand how we can build much more than math and science and language skills; we need practical psychology with research-based, teacher-usable resources that will help us to be more resilient and compassionate so that we may model this for our students. In so doing we will be able to foster resilience and compassion in our students. And as we slowly emerge from this global clench of the pandemic, we need to know the resources that are available as well as to whom we may turn for expertise and support. From the trauma recovery research, we would like to know what to expect and how to reach and teach as we rediscover the path back to our 'new normal.' We understand

that this new path will be a joint venture for all the stakeholders in our school's learning community – leaders, teachers, students, and parents.

Caryl Cude Mullin
(English Language Arts, Grades 7-11),
Montreal, Quebec

The lack of regular attendance at school, and the disengagement resulting from frequent distance education, has resulted in minimal academic progress for many of my students. I know that when we return to regular studies the senior students, in particular, will struggle both with the rigorous demands of their program and the physical grind of attending school on a daily basis. I also anticipate that a return to routine will be somewhat grueling for myself. I hope for a year in which stability and security can be established for teachers and students, but I work in a school that is always eager to adopt new educational initiatives. I will be expected to innovate when I want to simply re-establish norms, and I feel tired and cross before I begin. I want to be able to assess the needs of my students organically, not according to some top-down new pedagogical theory and provide them with the instruction they require. If I am permitted to do so, I will be content. If I am required to ring new administrative bells, I will suffer under the burden of serving contradictory professional demands.

That being said, I know that my professional chops have also taken a hit after a year of minimal accountability. Without the pressure of preparing students for provincial exams, I fear my own practices have grown lax. I will need to sharpen my game again, and no doubt there will be setbacks and missteps along the way. I will need to deal with all of this in a tempered, professional manner, and I worry that I will not be able to do so.

Marie-Eve Thériault
(History & French, Grade 10)
Montreal, Quebec

Although some are afraid to say so, sometimes teachers should come first. Happy teachers who feel safe and supported in an environment that encourages them to thrive are better prepared to help their students feel the same. Negative experiences lived by teachers percolate down to their classroom and into their students' experiences. Teachers are victims of bullying – from students, parents, and colleagues – just as much as students are. How can a teacher help guide and protect a student who is intimidated if they themselves do not feel safe? Teachers struggle with

mental health issues and personal challenges just as frequently as their students. How can they be in a state of mind to detect and intervene when they notice mental health or personal issues affecting one of their students if they do not feel strong enough to do so? When teachers come first, we are placing students in the best possible environment for them to thrive. Strong, healthy, motivated, supported and passionate teachers are the best models for our students. They also possess enough energy and commitment to be the best they can be – master teachers who put their students' needs first.

Samantha Mastromonaco
(English Language Arts, Grades 7, 8, 9, 10), Montréal, Quebec

After a year of great instability and uncertainty for the world at large, schools have proven to be a pillar of strength and compassion. Schools have and will always be a grounding force for the emotional, intellectual, and social development of our children and adolescents, stepping in when there is a space that has been left unfilled. Teachers must be given the resources and space to provide students with what has been proven time and time again to be their most basic psychological necessities: structure, predictability, and challenging expectations. Teachers must be able to impart to students that everything their school does for them, whether it is encouraging them when they fall short or disciplining them when they have acted inappropriately, is to help them become citizens that will make our society and world a better, more democratic place. A valuable lesson for our students during a time of crisis is that compassion and accountability are not mutually exclusive; in fact, to demand the very best from our students will enable them to develop the resilience to continually strive for excellence and the empathy to understand that every person has struggles that are unseen. Moreover, ensuring students have a voice or an avenue by which they can express their needs, especially in terms of their emotional and psychological well-being is imperative, whether it be by having a guidance counselor available to them, by enforcing codes of conduct that encourage cooperation and collaboration, or by emphasizing values school-wide by example.

STUDENT REFLECTIONS

Much like the teachers, the students also provided valuable insight into the experiences of many students today. We were touched by the care and insight in the student reflections and their experiences in schools during the COVID-19 pandemic addressing both academic and mental needs.

Romy Nissan, Zahraa Alhashemi, Gunes Gumus
(Grade 10) Montreal, Quebec

Focus on bigger dreams, become bigger, kinder people. What we think about in school matters. If we think about disasters and loss with self-pity, we will always be miserable. If we think about big ideas, our dreams, crazy solutions and how to be a better community - then COVID-19 is just a situation in which we do what we would do every day anyway. Rather than treating COVID-19 like something that has 'prevented' us from doing many things, and frankly, completely changed our lives, we simply treat it as a part of our lives to which we adapt. We redefine our 'life' to include COVID-19 in it, and nonetheless persevere and do things that we would have done had there not been a pandemic. COVID-19 has made us cherish school and being together in the classroom. COVID-19 has taught us big life lessons. If we focus on big ideas, we become bigger, kinder people. For that reason, we believe that school must incorporate activities that bring awareness about different hardships and global issues as 'the why' for us to learn any of our subjects in the first place. In order to do that, we believe that students should be given the opportunity to gravitate towards the issues in which they are most interested in order to learn about new aspects of our growing world, based in global issues. Although it is important to focus on the basic school subjects such as math, literature, and science, we do believe that it is vital as the younger generation to have that greater sense of awareness, responsibility, and a deeper understanding about the problems in our world. We believe that students should be given opportunities for our voice and for our choice to branch out into paths that align with our own passions and interests, while living actively within the realm of solving current global issues.

Isabella Downing-King
(Grade 11), Vancouver, British Columbia

As soon as the COVID system was put into place at schools many students, including me, right off the bat were enjoying the extra sleep we could get. I felt more energized and awake; I enjoyed the amount of free time I had to decompress and relax. Pre-Covid, the social life and the regularity in our schedules was a burden. Truthfully, these were the only things I could think of as successes. With this new school system in BC, we are getting more sleep, which has been great, but it pains me to think about going back to the old system. Myself and my friends were all stuck up late at night to complete all the assignments given to us only to wake up really early in the morning to get to class. This takes a big toll on mental health, everyone's mental health is tanking, even pre-Covid. I personally know three people who have attempted to commit suicide in the past few years, one of whom was successful, I feel as if schools aren't teaching students proper ways to manage mental health in a healthy way. Many of my friends have turned to unhealthy coping mechanisms, some of which are rather self-destructive, many of them don't have any way to access mental health professionals whether this be because of family, finances or other personal reasons.

Julianna Mercer Blettner
(Grade 8), Burnaby, British Columbia

A lot of times the way they teach in schools you learn and forget easily because it is so focused on memorizing. Many teachers are doing things to help the things they want you to learn to stick in your brain. Teachers need to remember it's more important to teach about what they want you to learn about rather than just memorizing things that you will soon forget. I have a great teacher this year who gives activities and projects and allows us different ways to show our learning in different ways and not just jot it down on a test. We are not just showing what we know at the moment but we are showing what we are actually learning. He teaches concepts we need to learn and lets us tie it to something we like, which helps a lot and is more helpful and interesting. This year my socials and art teacher are working together to tie concepts and ideas together. We can demonstrate what we are learning in socials in our art projects and this is great. I wish more teachers would do this. It is a very helpful way to learn.

Antoine Frappier-Temcheff
(Secondary Student), Montreal, Quebec

This year, there were many changes made to school life. This pandemic has made me think more and more about the role that schools play in our life and how we can improve the institutions that students and teachers spend so much of their time in. The modern school system has remained the same since the beginning of the industrial revolution. The majority of workers worked in very monotonous jobs that required very little autonomy and initiative. This can be clearly seen today in our school system; students have little to no input into what they can do during the day.

While these are only a few snapshots and voices from educators and students, their messages are important and not unlike the experiences we hear about from educators and students in our work in schools today. Their perspectives serve as important reminders of the value of listening to our clients. As psychologists, educators, and other consultants we may think we know what students and teachers need as we approach our research, interventions, and consultations—but what we believe is needed or should be the focus may not be what is needed. As we do our work in schools, I hope we take time to consider the context of the school, the students, the educators, and the staff. Recognize that context changes over time for the students and educators in the schools as does the climate and culture of the schools themselves. Questions as simple as "what do you need?", "how can we help?", or "what should we know about you, your students/teachers, school?" are helpful. If more professionals working in schools take more time to ask simple questions such as these of those with whom we work, hopefully we will better support their needs.

CPA HIG

A list of our top activities since the last issue of Psynopsis.

Be sure to contact membership@cpa.ca to sign up for our monthly CPA News e-newsletter to stay abreast of all the things we are doing for you!

1. CANADA'S DISABILITY ADVISORY COMMITTEE SECOND ANNUAL REPORT

CPA's CEO Dr. Karen Cohen co-chairs Canada's Disability Advisory Committee (DAC), appointed by the Minister of Revenue. The DAC released its second annual report on Friday April 9, 2021.

2. CPA SURVEY ON TRAINING PSYCHOLOGISTS IN PAIN AND PAIN MANAGEMENT

A CPA survey of doctoral programs and internships on the training of psychologists in the area of pain and pain management was launched in April,2021. The survey was done in response to an invitation to present on this topic at a meeting of the Canadian Pain Care Forum Meeting on April 23, 2021. Further information available at executiveoffice@cpa.ca

3. BEST JOURNAL ARTICLE AWARD WINNERS

Congratulations to this year's best journal article award winners:

- *Canadian Journal of Behavioural Science:* Hall, V., Eastwood, J., & Clow, K. A. (2020). An exploration of laypeople's perceptions of confession evidence and interrogation tactics [2020, 52(4), 299–313].
- *Canadian Psychology:* Shaw, M., Cloos, L. J. R., Luong, R., Elbaz, S., & Flake, J. K. Measurement practices in large-scale replications: Insights from Many Labs 2 [2020, 61(4), 289–298].
- *Canadian Journal of Experimental Psychology:* Ensor, T., Guitard, D., Bireta, T., Hockley, W., & Surprenant, A. The list-length effect occurs in cued recall with the retroactive design but not the proactive design [2020, 74(1), 12–24].

4. CPA STATEMENT ON NEW BRUNSWICK'S BILL 35

"The Canadian Psychological Association's guidance paper on psychological test safety describes the training necessary to use psychological tests as part of an assessment of an individual's cognitive, emotional and behavioural functioning. It is the CPA's position that psychologists are uniquely

HLIGHTS

trained to undertake psychological assessments, which include, but are not limited to the administration of a single test. The CPA opposes any diagnostic, treatment or remedial decisions made on the basis of the results of a single psychological test alone."

CPA submitted a letter to the New Brunswick government detailing our position on psychological test use and opposing the sections of the Bill which proposes that qualified teachers be able to administer level C tests.

5. CPA ADVOCACY IN ACTION!

To provide members with a clearer understanding of the CPA's advocacy activities, we have recently updated the advocacy section of the website (cpa.ca/advocacy/). Our advocacy activities, aligned with our strategic plan, have been captured in 7 key areas:

1. Impact of COVID-19
2. Federal Government-Mental Health (Funding, Policy, Legislation, Research)
3. Psychology and Mental Health System Innovation
4. Psychology and Employer-Based Health Benefits
5. Working with Provincial-Territorial Psychological Associations
6. Developing Members' Advocacy Skills
7. Public Speaking

6. CPA YOUTUBE DISCUSSION ON MENTAL HEALTH PARITY WITH CO-CHAIR, PARLIAMENTARY MENTAL HEALTH CAUCUS (MAY 2021)

As part of mental health awareness week, Glenn Brimacombe (CPA Director, Policy and Public Affairs) engaged in a 30-minute conversation about mental health parity with Majid Jowhari (Member of Parliament, Richmond Hill) and Co-Chair of the Parliamentary Mental Health Caucus, which includes members from all political parties. The interview speaks to the need for the federal government to address mental health and substance use parity, and can be found at the following YouTube link: youtube.com/watch?v=4pb5N7y7USM

7. NEW LICENSING AGREEMENT WITH AMERICAN PSYCHOLOGICAL ASSOCIATION

Our Education and Professional Development will be rolling out the first 21 courses under a new licensing agreement with the American Psychological Association. Check out the Professional Development section of the CPA website for new courses like Applying Hope to Couple Therapy, Trauma-Informed Culturally Competent Care in an Integrated Health Setting, and much more.

8. NEW PSYCHOLOGY WORKS FACT SHEET

Our most recent Fact Sheet is on how psychology can help manage asthma in children. It was prepared by Jason Isaacs (PhD student at Dalhousie University), in consultation with Dr. Dimas Mateos (MD at IWK Health Centre) and Martha Greechan. Read the Fact Sheet here: cpa.ca/docs/File/Publications/FactSheets/ChildhoodAsthma_EN_2021.pdf

9. CAREER-RELATED WEBINARS FOR STUDENT AFFILIATES

In May, we were pleased to host three career-related webinars for student affiliates of the CPA. The webinars were prepared and delivered by members of the CPA's Industrial/Organizational Section: creating a CV (Dr. Blake Jelley), preparing for an interview (Dr. Nicolas Roulin), and negotiating a salary/employment agreement (Dr. Wendi Adair). Recordings from the webinars will be used to create fact sheets and resources to add to the CPA's Career Hub.

10. CPA'S 82ND ANNUAL NATIONAL CONVENTION

The CPA's 82nd Annual National Convention was held virtually from June 7th-25th, with pre-convention workshops from May 31st-June 5th. The Convention featured 9 plenary addresses, the CPA's Annual Awards Ceremony and Annual General Meeting, almost 1,000 presentations of varying types (section featured programming, live posters, snapshots, workshops, panel discussions). Many thanks to the over 1,200 delegates who took in the content. Content is available to registered delegates on-demand through to the end of December 2021.

CPA MEMBER SPOTLIGHT

MARIA ROGERS

PhD, CPsych,
University of Ottawa

ERIC BOLLMAN
Communications Specialist,
Canadian Psychological Association

Between March 13th and March 17th, 2020, every province closed its schools. Some announced the closures were indefinite, others announced that students would return in two weeks' time. Few students in Canada would return to in-person classes until September. Since then, students have attended school in cohorts, done hybrid learning both online and in the classroom, and have navigated the school year with individual schools intermittently shutting down due to COVID outbreaks.

As of the writing of this article, Canadian schools are still being shut down, then opened on a regional basis, then shut down again somewhere else. This uncertainty has been part of the reason kids are having a tough time, but it's just a tile in a much larger mosaic that includes the closure of school-based services, the difficulty acknowledging and celebrating important milestones, and just being able to get outside with other children to – you know – be a kid.

It was right as this first wave of school closures hit Canada that Dr. Maria Rogers was settling into her new role as the Chair of the Educational and School Psychology Section of the CPA. There were big plans for the section in February of 2020. A call had gone out to section members asking them to join one of five committees that had just been created. Convention, Equity Diversity and Inclusion, Advocacy, Social Media, and Awards were the committees being formed, were all ready to hit the ground running.

Then COVID hit, and Dr. Rogers was faced with a drastic change in the Section's agenda. She, and outgoing chair Dr. Laurie Ford, created a survey for members asking how the section could help – the overwhelming top answer was to provide some support in transitioning to a virtual world.

"For school psychologists that were doing a lot of assessment work, all of a sudden they were unable to do those psychoeducational assessments. They wanted some professional development around virtual assessment. That's when we reached out to Dr. Ryan Farmer, an expert in tele-assessment from Alabama. He did a webinar for us and he was great."

The Dr. Farmer webinar was a great starting point – but because there has been such a spike in mental health issues among children over the past year, school psychologists found themselves doing less assessment and more therapy, case consultation, and professional development. Even now, therapy and mental health support is all still happening for the most part online. Therefore, Dr. Maria Kokai, Chair Elect for the Section, lined up another webinar for Section members, this one with Dr. Todd Cunningham on virtual therapy in May.

As school psychologists are doing more and more online, shifting their work toward therapy and case consultation, the scarcity of those professionals is even more glaring than before. The Advocacy Committee, led by Dr. Maria Kokai, is determined to make that a central part of their mandate, as they look to increase the number of school psychologists in Canada, and remove as many of the barriers as possible to marginalized communities who have always been under-represented in school psychology.

There has been a lot of research done on how students and children in general are doing during this pandemic, but what of school psychologists themselves? They are going through the same ups and downs as the students they serve, experiencing the same upheaval. And now, of course, they find themselves increasingly overworked as the shortage of school psychologists converges with the rise in mental health issues among students. Maria says this has affected them in a big way as well.

"In the survey we did in May-June of last year, we had school psychologists do very general ratings of their mental well-being. Well over three quarters reported a decline in their mental health from pre-pandemic levels. We're planning a follow-up survey a year in to see what coping strategies helped those who were having a harder time last year, or what predicts their outcomes a year later. Dr. Laurie Ford, some graduate students and I are working on this to look at the trajectory of the pandemic and the effects on school psychologists."

Tough as this year has been, Maria says it has created new opportunities for the Educational and School Psychology Section. Collaborations that likely wouldn't have taken place otherwise are making a real difference. The literature suggests that virtual therapy is comparable in its effectiveness to in-person therapy and offers a way to remove some of the barriers to access for people. But for Maria, as for many others, doing all this virtually just isn't the same.

Maria was really looking forward to meeting her section in person last year…and this year…but it looks as though her time as Chair of the Educational and School Psychology Section will pass without any of those in-person gatherings that become the highlights at the CPA Convention and elsewhere. But as with everything else, she is able to find a silver lining. Without all those virtual meetings and Zoom calls, she would not be on a first-name basis with Laurie Ford's dogs. A bonus for which we at the CPA are grateful as well!

EMERGING RESEARCH IN INDUSTRIAL-ORGANIZATIONAL PSYCHOLOGY IN CANADA

AN UPDATE FROM CANADIAN JOURNAL OF BEHAVIOURAL SCIENCE / REVUE CANADIENNE DES SCIENCES DU COMPORTEMENT

ALLISON J. OUIMET
PhD, CPsych, Journal Editor

NICOLAS ROULIN
PhD, Lead Guest Editor

Industrial-Organizational (I-O) Psychology refers to the science and practice of understanding and optimizing human behaviour in the workplace.[1] In the April 2021 special issue of *Canadian Journal of Behavioural Science / Revue canadienne des sciences du comportement*, researchers at the forefront of I-O psychology in Canada highlight the current status of the field, outline key challenges, and present perspectives on the path forward in Canada and worldwide. The open call resulted in over 20 submissions, eight of which were ultimately accepted along with two invited commentaries from early career and established scholars. Together, these ten articles and the Editorial provide a thought-provoking snapshot of the field and exciting avenues for future research.

The Guest Editors (Nicolas Roulin, Saint-Mary's University; Joshua S. Bourdage, University of Calgary; Leah K. Hamilton, Mount Royal University; Thomas A. O'Neill, University of Calgary; Winny Shen, York University) were exceptionally qualified to steer the special issue, given their extensive research contributions to the field and experience as members of the Executive Committee of the Canadian Society for Industrial and Organizational Psychology (CSIOP), an official section of CPA.

Across the special issue, multiple timely and important themes emerged, including equity, diversity, and inclusion; organizational justice; accommodation in the workplace; personnel selection; leadership; virtual teams; and pro-environmental behaviour. Moreover, rigorous research methods and practical application are at the forefront of each article, emphasizing the role that researchers and professionals alike can play in moving evidence-based I-O psychology forward. Knowledge syntheses (literature reviews, rapid evidence assessments, meta-analyses) and original empirical studies (surveys, experiments, longitudinal designs) converge to paint a picture of a vibrant research domain that functions to improve the well-being and success of people and organizations.

Read the open access editorial to learn more:

Roulin, N., Bourdage, J. S., Hamilton, L. K., O'Neill, T. A., & Shen, W. (2021). Emerging research in industrial–organizational psychology in Canada. *Canadian Journal of Behavioural Science / Revue canadienne des Sciences du Comportement*, *53*(2), 91–97. fghhdoi.org/10.1037/cbs0000274

And stay tuned for an APA Article Spotlight coming in late June on one of the special issue articles, authored by Blake Jelley, describing a Rapid Evidence Assessment of the usefulness of personality feedback for work-related development and improvement!

FOR A COMPLETE LIST OF REFERENCES, PLEASE GO TO CPA.CA/PSYNOPSIS

2021 ROBERT SOMMER MEMORIAL AWARD FOR BEST GRADUATE STUDENT PAPER IN ENVIRONMENTAL PSYCHOLOGY

*The Environmental Psychology section sends congratulations to Jenn Leckey (graduate student in psychology at Dalhousie University) for winning the section's annual Robert Sommer Memorial Award! Her paper, "**Understanding Nature Disconnection Among Children: An Application of the Behaviour Change Wheel**," is outlined in a summary below (references available upon request).*

"Recent trends to urbanization (United Nations, 2019), indoor sedentary behaviours, and excessive screen time (Rideout & Robb, 2019) have been associated with a global decline in mental health, particularly for children (Carson et al., 2016). In contrast, time in nature leads to physical and mental restoration (Velarde et al., 2007), and improved mental health, cognitive functioning (Berman et al., 2012; McCormick, 2017), and overall well-being (Burls, 2007). Despite the benefits, people's, especially children's, engagement with nature is minimal and declining (Rainham et al., 2019; Soga & Gaston, 2016).

Parent-report survey studies have indicated that interest in other activities (Larson et al., 2011), urbanization, limited access to nature, and lack of free time (Skar et al., 2016; Soga et al., 2018) are primary barriers to children's time in nature. However, families' nature-oriented attitudes, experiences with nature (Soga et al., 2018), access to nature, and environmental education (McAllister et al., 2012) have been suggested to promote children's time in nature. In focus groups, children (ages 9-14) in Ontario described that technology, parenting styles, social aspects, and seasonality influenced their time in nature (Tillmann et al., 2019). Given the benefits of spending time in nature and the influence of family in the development of this behaviour (Cheng & Munroe, 2012), the focus of the current study was to understand children's time in nature from their and their parents' perspectives.

The Behaviour Change Wheel (BCW; Michie et al., 2011) is a set of methods derived from the integration of multiple evidenced-based behaviour-change frameworks and has been implemented to motivate health-based behaviour change in various disciplines (e.g., Stienmo et al., 2015). At the core of the BCW is the Capability, Opportunity, and Motivation model of Behaviour (COM-B model) – a system for understanding facilitators and barriers that influence a specific behaviour. We implemented the COM-B model to develop a semi-structured interview to gather qualitative data from Nova Scotian children and parents regarding facilitators and barriers to engaging with nature. The findings can be systematically mapped to the BCW to identify relevant strategies that promote increased time in nature.

Thirty parent-child dyads from the general Halifax area independently completed (one at a time in a private location) semi-structured interviews. Participation occurred between November, 2019 and September, 2020. Nine boys and 21 girls (age range: 8–15, *Mdn*: 10) participated. Six men and 24 women (age range: 31–53, *Mdn*: 43) participated. There were 18 mother-daughter pairs, six mother-son pairs, three father-daughter pairs, and three father-son pairs. Fifteen families lived in an urban area, 12 lived in a suburban area, and three lived in a rural area.

The interview addressed perceived facilitators and barriers in the domains of capability, opportunity, and motivation (Michie et al., 2011) for spending time in nature, desires to spend time in nature, and satisfaction with the amount of time spent in nature. Three variations of the interview were developed: one for children ages 8–11, a second for youth ages 12–15, and a third for parents. The child/youth interviews addressed personal experiences with nature whereas the parent interview had two parts, addressing personal and familial

experiences with nature. Interview questions were adapted following the COVID-19 shutdown (March, 2020) to specifically address participants' typical experiences with nature prior to the shutdown.

Interviews were audio-recorded, transcribed verbatim and separated into child, parent (personal), and parent (family) documents. Two coders interpreted the interviews using NVivo12 (QSR International, 1999). A directed content analysis (Hsieh & Shannon, 2005), according to categories of the COM-B model (i.e., capability, opportunity, and motivation), was employed, followed by inductive thematic analysis (Braun & Clarke, 2006) to label emerging themes within the COM-B categories.

Parents and children reported multiple barriers and facilitators to spending time in nature and considerable overlap was observed across the child, parent, and family interviews. Overall, participants described being physically able, having sufficient knowl-

2021 UNDERGRADUATE STUDENT RESEARCH AWARD FOR BEST PAPER IN ENVIRONMENTAL PSYCHOLOGY

The Environmental Psychology section sends congratulations to Tish Lewis (who recently graduated with an honours degree in psychology from Vancouver Island University) for winning the section's inaugural Undergraduate Student Research Award! Her paper, "Climate Change Anxiety: An Exploratory Analysis," is outlined in a summary below (references available upon request).

"This research examines the psychological construct of climate change anxiety by investigating potential relationship with factors like place attachment and climate change awareness. Researchers use various labels to describe the psychological effects of climate change: climate change distress, solastalgia, and eco-grief, to name a few (Albrecht, 2007; Cunsolo et al., 2012; Searle & Gow, 2009). Broadly, these concepts denote a negative emotional response to a changing environment. Specifically, each term describes a slightly diverse range of emotions and they each have unique implications. Prior literature has linked solastalgia and eco-grief to place attachment (the emotional bond one feels with their valued place) however, both solastalgia and eco-grief are dependent on lived experience (Albrecht, 2007; Cunsolo et al., 2012). Climate change anxiety is the most comprehensive of the climate distress concepts because it can encompass but does not require lived experience. Climate change anxiety is a future oriented distress that has not yet been linked to place attachment or vicarious experiences of climate change. Clayton and Karazsia's (2020) Climate Change Anxiety Scale (CCAS) does not assess a specific emotion, instead it focuses on the impairments in everyday life that the negative feelings produce. As the number of people experiencing distress unrelated to lived experience increases (Doherty & Clayton, 2011; Reser & Swim, 2011), there is a growing need for a measurement tool with the capacity of measuring negative responses to lived and vicarious experiences.

Correlational analysis was conducted in two studies to investigate the relationship between climate change anxiety, place attachment and awareness of climate change. Study 1 (N = 347) was comprised of 81% females, 33% were between 19-35-years, and 62% completed a bachelor's degree or some university level education. In study 2 (N = 156), an almost even number of males and females responded, 65% of the sample were between 18-35 years; and 64% completed a bachelor's degree or some university level education. Residents of Ontario made up 54% of the responses while British Columbians comprised 17%, and Albertans accounted for 12%.

Study 1 administered the climate change anxiety scale (CCAS) and the place attachment scale (PA) to residents of Vancouver Island that were 19 years of age or older. Recruitment occurred via Facebook groups and Vancouver Island University student newsletters. Study 2 administered the same PA and CCAS questionnaires and added an additional scale to measure awareness of climate change. The questionnaire was open to all Canadian residents 18 years or older. Recruitment was conducted using Prolific, an online crowdsourcing website, and participants were paid $0.65 upon completion.

Used in Study 1 and 2, the CCAS (Clayton & Karazsia, 2020) is comprised of four subscales: cognitive and emotional impairment, functional impairment, experience of climate change, and behavioural engagement. Raymond et al., (2010) Place Attachment Scale (PAS) was also used in study 1 and 2, and is compromised of 5 subscales: place identity, place dependence, nature bonding, family bonding and friend bonding. The awareness of climate change scale (ACCS) was created by the primary investigator to measure the level of exposure to climate change issues one accumulates through vicarious experiences like the media, education, social interactions and by engaging in social media.

A series of t-tests and ANOVA's identified gender and age differences in the Vancouver Island and Canadian samples. Pearson correlational analysis explored relationships between the scales and subscales of each construct, and linear regression determined the strongest predictor of climate anxiety. In study 1, CCAS corelated significantly with PAS but CCAS had the strongest association with the nature bonding subscale. Nature bonding also correlated significantly with all CCAS subscales: cognitive/emotional impairment; functional impairment; experience of climate change; and behavioural engagement. A series of simple linear regression models determined that nature bonding is a better predictor of CCAS scores than place attachment. The nature bonding regression model accounted for 5% more of the variance in CCAS scores than the place attachment model.

NEW RESEARCHER AWARDS

Introducing the 2021 winners of the CPA President's New Researcher Award (PNRA). This award recognizes the exceptional quality of the work of new researchers in psychology in Canada.

Mark Wade
PhD, CPsych

Assistant Professor,
Department of Applied Psychology and Human Development,
University of Toronto

How do experiences of early-life adversity impact mental health and neurodevelopment; and, what experiences enable children and youth to demonstrate resilience and recover from such negative experiences? These questions have been at the heart of my research program for nearly a decade. Lately, much of my work has focused on adolescence as a period of pronounced sociobiological change that may both increase vulnerability to mental health difficulties, and also facilitate resilience and recovery in the context of supportive environments. One project through which I have contributed to this field is the Bucharest Early Intervention Project (BEIP), which is the first and only randomized controlled trial of family-based foster care as an alternative to institutional care. In a series of recent studies, my colleagues and I have shown that foster care (relative to continued institutional care) helps to promote recovery in mental health from age 8 to 16 years. Some evidence for recovery in neurocognitive functioning over this period is also observed. In addition to facilitating recovery, we see that family-based care increases resilience against later stress. In particular, as stress during adolescence increases, so too do mental health difficulties and markers of inflammation, while neurocognitive functioning declines. However, this effect is only observed for youth who experienced prolonged institutional care, not those who were randomly assigned to family care in early childhood. These results provide strong evidence for the resilience-enhancing and recovery-promoting effects of family care following severe early adversity and suggest that adolescence may be a "second chance in the second decade" to recover from the effects of early-life adversity.

Nicole Racine
PhD, RPsych

Post-doctoral Research Fellow,
University of Calgary

Childhood Adversity and Resilience: Connecting Science and Practice through Community Partnership

Exposure to child maltreatment, including physical, sexual, and emotional abuse, neglect, and exposure to interpersonal violence, is a major threat to child well-being in Canada. According to nationally representative data, more than one third (32.1%) of Canadian children experience child maltreatment prior to 18 years of age. This is particularly concerning as child maltreatment is associated with a host of health and mental health difficulties across the lifespan. Yet not all children exposed to maltreatment experience deleterious outcomes, and many go on to adapt in the face of significant adversity. Thus, the goal of the current project was to elucidate risk and protective factors associated with resilience following exposure to childhood maltreatment. Using community-based participatory research as a guiding framework, we partnered with the Child Abuse Service, a mental health treatment clinic within the Calgary and Area Child Advocacy Centre CACAC) to undertake this project. Findings from this project demonstrate that protective factors, such as emotional support from caregivers, strong interpersonal skills, and educational support, can mitigate the role of maltreatment on children's trauma symptoms. We also demonstrated that cumulative protective factors at the individual child, family, and community levels, were associated with an increased likelihood of trauma treatment completion. These findings suggest that the identification of protective factors at the outset of trauma treatment for children can inform areas where families could benefit from additional support. Given our close working collaboration with the CACAC, these findings have been rapidly disseminated and integrated into clinical practice and have catalyzed future collaborative projects.

Joshua Rash
PhD, RPsych

Assistant Professor,
Department of Psychology,
Memorial University
of Newfoundland

The ultimate goal of my research is to improve the lives of individuals who suffer with chronic disease, such as cardiovascular disease, obesity, pain and cancer. The clinician-scientist that I am today is a direct result of the training and mentorship received from international experts. I developed expertise in cardiovascular psychophysiology while training with Dr's Kyle Matsuba and Kenneth Prkachin at the University of Northern British Columbia (UNBC) when exploring the psychophysiological effects of positive[1] and negative emotions.[2] I became proficient in conducting systematic reviews and knowledge syntheses while collaborating with Dr. Henry Harder at UNBC to better understand suicide among indigenous youth.[3] My passion for pain management was sparked while working with Dr. Prkachin and further cultivated while completing doctoral studies at the University of Calgary under the supervision of Dr. Tavis Campbell where we evaluated the impact of a training program designed to improve the detection of facial expressions of pain.[4] Dr. Campbell also instilled an appreciation within me for the nuances associated with conducting clinical trials while we investigated the effect of intranasal oxytocin on the perception of pain,[5] and the impact of motivational communication on adherence to medication.[6] My thinking around behaviour change among healthcare providers was further informed by mentorship from Dr. Kim Lavoie at UQAM.[7] During my doctoral studies, I also had the opportunity to become proficient in salivary bioscience and investigate the developmental origins of the human stress response systems while working under the mentorship of Dr. Gerald Giesbrecht.[8] Finally, I began to appreciate the importance of pragmatic clinical investigations while working under the supervision of Dr. Patricia Poulin during pre-doctoral clinical internship at The Ottawa Hospital during the evaluation of a multidisciplinary program to improve pain and function among individuals with chronic pain who frequently visit the emergency department.[9] These formative experiences have been enhanced further through guidance from exceptional colleagues at MUN, including Dr. Sheila Garland.

I feel privileged to pay these experiences forward and provide mentorship and supervision to exceptional trainees who are working on projects in my laboratory that are funded by the Canadian Institutes of Health Research, including: 1) a knowledge synthesis that quantified healthcare provider adherence to recommendations made by clinical practice guidelines for opioids for chronic non-cancer pain, and interventions to improve adherence;[10,11] 2) a multi-site pan-Canadian clinical trial evaluating the effect of oxytocin across chronic neuromusculoskeletal presentations;[12] and 3) an evaluation of the implementation of stepped mental healthcare across several Atlantic Canadian provinces that is Co-led by the founder of Stepped Care 2.0, Dr. Peter Cornish at the University of California at Berkeley.[13] In sum, I believe that it takes a village to mentor exceptional clinician-scientists who are well poised to advance the field, and that together we can make a meaningful difference that permeates throughout society.

Mark Wade

Nicole Racine

Joshua Rash

HUMAN RIGHTS, DIGNITY, AND JUSTICE:

78TH ANNUAL CONFERENCE OF THE INTERNATIONAL COUNCIL OF PSYCHOLOGISTS

NAOMI KOERNER
PhD, CPsych, Ryerson University; Member, International Relations Committee

JOSEPHINE TAN
PhD, CPsych, Lakehead University; President, International Council of Psychologists

The International Council of Psychologists (ICP; https://icpweb.org/) is an international organization of psychologists and students that supports exchange, discussion and collaboration. Its current focus is on human rights, justice and dignity. The ICP started in the US in 1941 as the National Council of Women Psychologists and evolved to become the ICP in 1959 to reflect the broadening of its mission and activities and the internationalization and diversity of its membership. In 1981, it was granted non-governmental consultative status to the United Nations Economic and Social Council.

Together with the Human Rights Board of the European Federation of Psychological Associations, the ICP co-founded the Global Network of Psychologists for Human Rights (http://humanrightspsychology.org/) to provide a forum for individuals interested in psychology and human rights. The ICP is part of the Global Psychology Alliance of 60+ psychology associations across the world that seeks to strengthen the role of psychology in addressing global societal issues, is an affiliate organization of the International Union of Psychological Science (IUPsyS), and is a member of the World Federation for Mental Health.

The 78th ICP conference (December 11–13, 2020) highlighted the ways in which psychologists are uniquely positioned to address human rights challenges. The virtual conference had 181 attendees from 33 countries and featured plenary talks, invited symposia, breakout sessions, and 5-minute "lightning" talks addressing women's health, psychological effects of abuse and victimization, and racism. In Networking Cafés, attendees learned about ways to become engaged in international psychology work, including advocacy and research. ICP's ongoing and planned initiatives were shared, and attendees were invited to propose ideas. Board members honoured Dr. Jean Lau Chin, former ICP President, who died of COVID-19. Dr. Chin was a trailblazing leader who championed equity, diversity and inclusion throughout her career.

Erinn Cameron, Clinical Psychology student (Fielding Graduate University) and ICP Student Representative, led a human rights observation that included poetry, commissioned live music by choral director David Edwards, a collective reading of the 1948 Universal Declaration of Human Rights by ICP members from around the world, and a vigil for the murdered and missing Indigenous women and girls of North America. Clinical Psychology student Heather Sorensen (Fielding Graduate University) gave a presentation about her work and personal experience as an Indigenous woman as part of the vigil.

Dr. Saths Cooper, founder and President of the Pan African Psychology Union and former President of the IUPsyS delivered a keynote address about the need for a psychol-

ogy that is "consciously underpinned by human rights." As a student in apartheid-era South Africa, Dr. Cooper engaged in non-violent protests and human rights activism—for which he was expelled from university, put under house arrest, and jailed for nine years. Describing the science and profession of psychology as a "massive, transformative influence," Dr. Cooper encouraged psychologists to proclaim their expertise and take their knowledge and skills into communities and the public sphere, in the service of human rights.

Dr. Ellyn Kaschak is a pioneering feminist psychologist and social justice advocate in both the United States and Costa Rica. In the early 1990s, Dr. Kaschak wrote the award-winning *Engendered Lives*, which presented the first integrative psychology of women. Through personal anecdotes, Dr. Kaschak demonstrated in her keynote address the ways in which the question "How does any of us know what we know?" has been essential in addressing the roles of culture and socialization in sex and gender bias, and racism. Dr. Kaschak also discussed the ways in which feminist psychology is a liberation psychology.

Invited symposia were organized around women's rights, climate justice, and the COVID-19 pandemic: Dr. Kalyani Gopal (USA) discussed the global sex-trafficking pandemic; Dr. Sara Jaffree (Pakistan) discussed political sociology and gender disparities in healthcare in South Asia, and Dr. Muhammad Tahir (Germany) discussed women migrants' integration in Europe. Dr. Evelin Lindner (Norway) talked about the

ARE YOU A PSYCHOLOGY GRADUATE STUDENT?

Do you need to complete a history of psychology course for provincial licensing or to get your grad degree?

Or maybe you are just interested in learning how historical concepts are relevant to current issues in psychology?

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The University of Calgary is offering a **HISTORY AND SYSTEMS OF PSYCHOLOGY (PSYC601)** course that examines the history of psychological concepts in Western culture, major theoretical systems of twentieth century psychology and foundational assumptions of theories in contemporary psychology, while putting you one step closer to getting licensed in your province.

📅 **January 3rd to 7th, 2022 from 8:30AM to 12:30PM MST** (Zoom Classes). Recorded lectures and discussion questions available in November 2021.

💲 **$943.32** for domestic students and **$1967.36** for international students. Fees subject to change.

🎓 **10 bursaries of $500 each**, provided by the Canadian Psychological Association, are available to CPA Student Affiliates. To learn more about eligibility and the application process contact education@cpa.ca.

ⓘ Course questions - contact **Dr. Jim Cresswell** at jim.cresswell@ambrose.edu. Application or registration questions - contact **Janelle McConnell** at jmcconne@ucalgary.ca

UNIVERSITY OF CALGARY

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2021 Robert Sommer Memorial Award

edge, and having adequate social supports to spend time in nature. The majority of facilitators and barriers were represented in the physical opportunity and motivation domains of the COM-B model. Every parent and 90% of children stated a desire to spend time in nature. Physical and mental health benefits, spending quality family time, and taking a break from other places and activities were some of the most prominent motivators for parents and families to spend time in nature. Children less often described the health benefits and were more likely than their parents to describe time in nature as a fun activity.

Frequently reported physical opportunity barriers for children, parents, and families included limited access to nature, lack of transportation and time, and inclement weather conditions. Parents and children described challenges in prioritizing or developing a habit of spending time in nature (motivation barriers), which were typically linked to physical opportunity barriers (e.g., time limitations). Interventions that increase accessibility to natural settings, while recognizing families' time constraints, would increase children's and families' opportunities to engage with nature. Given that parent and family time constraints are common and consistent barriers, one strategy for increasing children's engagement with nature is to provide safe nature access without family involvement (e.g., greening of school playgrounds and increasing nature-based educational curriculum).

There is clear evidence that time in nature is one pathway to enhance well-being and resilience beginning in childhood (e.g., McCormick, 2017) in a time of profound urbanization and indoor sedentary lifestyles (Carson et al., 2016). Investigating the disconnection between children's and their families' expressed desires to spend time in nature versus the limited time they do spend in natural environments (e.g., Rainham et al., 2019) is the critical first step in developing practical strategies to increase this time (Michie et al., 2011). Our findings will contribute to the development of relevant interventions and policies that focus on decreasing individual and societal barriers that limit time spent in nature, ultimately benefitting the mental health and well-being of children and their families."

2021 Undergraduate Student Research Award

In Study 2, ACCS correlated moderately with CCAS, as well as all CCAS subscales: cognitive/emotional impairment, functional impairment, experience, and behavioural engagement. CCAS correlated more strongly with nature bonding than PAS. A multiple linear regression model determined ACCS was a stronger predictor of CCAS than nature bonding. This regression model significantly predicted 42% of the variance in CCAS.

Results from this research indicate that there is a significant relationship between place attachment and climate anxiety, however, that relationship is largely influenced by one's emotional attachment to the natural environment. Awareness of climate change is another factor revealed to have a significant influence on levels of climate anxiety. In other words, one's exposure to climate related information through traditional media, social interactions, and social media, combined with their level of attachment to the surrounding natural environment, accounts for almost half the variance in climate anxiety scores. These results are compelling evidence for the validation of an awareness of climate change scale for future research, as well as the inclusion of nature bonding and awareness of climate change subscales in future revisions of the Climate Change Anxiety Scale."

Human Rights, Dignity, and Justice

dominant narrative of "human exceptionality" and its role in eco-cide and socio-cide. Dr. Gonzalo Bacigalupe (USA) spoke about the intersection of climate justice and children's rights and discussed a project wherein children in Chile dialogued with experts about solutions to disaster threats.

Professor Anne Williams-Isom, JD (USA) and Dr. Suzanne Wilson (United Kingdom) discussed the significant impacts of the COVID-19 pandemic on the lives of children living in poverty in New York City and the UK. Drs. Joep Avezaat and Marijke Lutjenhuis (Netherlands), medical volunteers with the Boat Refugee Foundation, brought attention to the urgent health needs of individuals living in Moria, Europe's largest refugee camp.

Distinguished contributions to international psychology were recognized. Among the award recipients were two Canadian psychologists: Dr. Brian Mishara (Université du Québec à Montréal) received the Fukuhara Award for Advanced International Research and Service for his work on suicide prevention. Dr. Anusha Kassan (University of British Columbia) received the Seisoh Sukemune/Bruce Bain Award for Early Career Research for her work on feminist-multi-cultural counselling with girls.

The next conference is scheduled for October 22-24, 2021 and will be held virtually. Its theme is *Psychology in Action: Promoting Equity and Justice in an Age of Uncertainty.* For more information, visit: icpweb.org/icp-annual-conference/icp2021-virtual/

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