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EDITORIAL

We want to open this issue by singing the unsung, celebrating Managing Editors, whose work largely goes unseen yet is absolutely vital to journal publishing. We name our own: Ann Keenan (who was the journal's ballast when we were a subscription-based, print journal), Stephen Peters (2010-2015), Sylvia Wald (2015-2019), Philippe Paquin-Goulet (2019-2021), Marianne Filion (2019-2021), Catherine Bienvenu (2021-2022), Rahema Imtiaz (2022/23), and presently, Emma Dollery (2022-) and Isabel Meadowcroft (2023-). Managing Editors are a main (often, first) point of contact with the journal—its authors, reviewers, and editors/guest editors—even as they are responsible for what happens in the shadows, at the back-end of the journal and, critically, the moving of manuscripts through editing to PDF and HTML formats into publication. Their expert eye needs to range widely, from keeping a synoptic view on manuscripts as they move through the peer review and publishing process, to being well-versed in the minutiae of details tied to editing and formatting and becoming skilled in training copyeditors in the same. They are often tech-savvy, poised on the journal's digital edge and are instrumental in operationalizing workflows. They become custodians of the journal's archive while also teaching the next generation. Since 2011, we have largely engaged graduate students in this role; they are people keenly interested in writing and/or publishing. In recent years, they have been helped in their own part-time work at the MJE by part-time English and French copyeditors. They keep the journal's cogs moving, even when it is most challenging to do so. The shortening years of their tenure (detailed above) tells its own story of the times we have been living, speaking especially to the effects of the pandemic on journal publishing. For their support of the journal and its Managing Editors, especially during this tumultuous time, we extend a huge thank-you to Jessica Lange and Jennifer Innes of Scholarly Communications in McGill Library. Our present post-pandemic Managing Editors, Emma Dollery and Isabel Meadowcroft, comprise a formidable team. We welcome Emma, who started in August 2022 and has done absolutely stellar work; we look forward to more. And now too, we welcome Isabel, who promises the same. Isabel also brings skills and knowledge developed as a MJE editorial assistant and copyeditor. So, it bears repeating! We acknowledge your indispensable place in journal publishing. A huge thank you to Managing Editors!

We slip in a few more thank-yous, a first grateful one to our copyeditors: Zachary Kay, Vanessa Zamora, Rianna Pain-Andrejin, and Charles Dagenais. For their service and contributions to the journal, we thank Melissa McGuire (Copyeditor, 2022-23) and Rahema Imtiaz (Managing Editor, 2022/23). We gratefully acknowledge our supporters—Dean Rassier in the Faculty of Education, Lisa Starr, who has been Chair of the Department of Integrated Studies in Education (DISE), as well as Simona Lupu and those who assist with hiring in the Faculty of Education and DISE. SSHRC's Aid to Scholarly Journals helps sustain, indeed makes possible, the work of academic journals in Canada. We are very grateful for SSHRC's support, which funds our vitally important Managing Editors.

It is with great pleasure that we introduce this general issue, which offers an especially eclectic array of ten articles along with a bilingual MJE Forum on being a Cegep teacher and one MJE Note from the Field which invites reflection (in art education) on the contents of the junk drawer. Exceptionally in this issue the articles are all in English even as, exceptionally, all the articles in the general issue to follow (57:3) will be in French. Topics in the present issue range over: mental health and teacher burn-out, especially in the wake of the pandemic (Sokal & Eblie Trudel; the effects of systemic racism and discrimination (Nartey & James; Alvarez); addressing dropout through refining our knowledge of student engagement (Lessard); secondary Math teaching—self-regulatory behaviours (Buzza, Fitzgerald & Avitzur) and "proximities" (Horoks); promoting proactive approaches to classroom behaviour in preschool and elementary classrooms (Nadeau, Massé, Verret, Gaudreau & Leblanc); an epistemological approach to pre-service teacher education (Hill); the practice of action research in the Nigerian educational context (Olayiwola); and re-opening the question of the relationship between grading and learning, here in the post-secondary classroom (Brook). We introduce each in turn.

Research on teacher burnout, accelerated by the pandemic, prompted Sokal and Eblie Trudel to revisit the construct of teacher burnout. Returning to the work of Santoro (2011), Sokal and Eblie Trudel compared burnout with demoralization. Whereas burnt-out teachers tend to withdraw from teaching, Santoro argued, demoralized teachers remain, but agonize, denied the 'moral rewards' of feeling 'good' about teaching. On closer examination, Sokal and Eblie Trudel argue that demoralization is already integral to the construct of teacher burnout; however, attention to one within the other can yield a more nuanced set of implications: beyond self-regulation to creating environments that conduce to a healthy teaching working force.

Based on interviews with twenty Black Canadian student-athletes from ten Ontario universities (research that comprised part of a larger study), Nartey and James found that the student-athletes showed how they were both athletes as well as academically-successful students. The students thus resisted as well as challenged the stereotypes being foisted upon them as athletes and in particular,

as Black athletes. While a combination of factors—social, cultural, historical and socioeconomic—ultimately contributed to their success, Nartey and James attribute the greater part to the student-athletes' exercising of agency in navigating the educational system, this even as they faced racism and discrimination.

Alvarez provides a fascinating case study of Native-speakerism—covert discrimination against non-Native English-speaking teachers (NNEST) in the hiring practices of online English language schools. Alvarez, from Argentina, is a multilingual speaker of English, Spanish, French, and Chinese with extensive expertise in English language teaching. He studied the online practices of iTutor group (one of the largest education online platforms, based in China), interested to find out how applicant profile influences offer of salary. He found evidence of discrimination and racism and suggests that TESOL International Association (which is committed to non-discriminatory practices) re-examine its partnerships with companies like iTutor.

How can the high incidence of student dropout in Quebec be proactively addressed? Lessard engaged in cross-cultural validation of a self-reporting instrument called the Student Engagement Instrument (SEI) (Appleton et al., 2006), which assesses cognitive and psychological/affective engagement along six factors. The instrument was translated into French then independently reviewed before being administered to 919 French-speaking secondary students in an urban public school. Subjected to Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA), the instrument's validity and reliability were confirmed and, too, its usefulness as a preventative tool against dropout among French-speaking secondary students in Quebec.

Self-regulatory behaviours are strong predictors of academic success. Buzza, Fitzgerald and Avitzur studied the important role that teachers play in developing supports, honing in on a secondary Math teacher's scaffolding of fifteen low-achieving Grade 9 students in a Canadian classroom. Pre- and post-tests were conducted, looking at variables like metacognition and motivation. Among the most effective support strategies were self-assessment, feedback, and the students' own creations of study sheets. Buzza et al. suggest that further research is needed on how to balance whole-class teaching with individualized coaching—the how, when, and why of targeted support—so as to achieve the desired changes in behaviours.

"Teacher telling in the mathematics classroom" provides a fascinating analysis of "moments of teacher telling" (MTT) in a mathematics classroom. Horoks' study looked at the potential impact of teachers' discourse on students' mathematical activity and learning. Drawing on Vygotsky's zone of proximal development (ZPD) as a theoretical lens, this study analyzed how teachers scaffold students' learning. Horoks constructed a specific tool, called "proximities," to analyze how teachers explained a new mathematical concept and the ways in which they connected students' prior knowledge and activities to new knowledge. The study offers a useful tool to operationalize ZPD in a whole-class setting.

To what degree do preschool and elementary teachers in Quebec promote proactive/positive behaviours in their students? Evidence-based practices favour the use of proactive strategies. Or do teachers rely on coercive and punitive, otherwise known as reductive, practices, this in response to disruptive behaviours? Nadeau, Massé, Verret, Gaudreau and Leblanc surveyed 1373 teachers. The study is the first of its kind in providing such a wide portrait of behavioural practices in preschool and elementary Quebec classrooms. The research found that teachers preferred proactive over reductive practices, establishing clear rules and routines and using positive reinforcement; student self-regulation strategies would be an area for improvement.

Interested in how pre-service teachers develop a sense of self as teachers, Hill investigated their patterned ways of knowing. Baxter Magolda theorized four patterned ways of epistemological knowing: absolute, transitional, independent, and contextual, this based on her research with undergraduates. These four ways of knowing manifest across five domains, which Hill adapted to the 'learning how to be a teacher' context, considering the roles of: self, peers, instructors, the practicum experience, and beliefs about teaching. Using Baxter Magolda's theory as a lens, this small-scale study yielded important findings about becoming a teacher. Hill suggests teacher education programs should take a more explicit approach to developing epistemological beliefs.

Olayiwola revisited knowledge co-construction within the Nigerian educational context by analysing issues related to the distribution of power in educational change. Olayiwola argues that action research can be truly participatory only when researchers and participants collaborate equally. The point of departure for the analysis is Nigerian secondary education, which has undergone reforms since 1969, when Nigerians first deliberated on education's future for a newly independent nation. Policy outcomes resulting from the latest reform still reflect primarily the views of Nigerian researchers. Olayiwola has proposed that if co-operative inquiry with participants had been used, some of the gaps between policy intent and implementation could have been prevented.

What are the relations between grading and learning? This is far being a new question; however, Brook invests it with renewed urgency, tying the issue to the rise of the neoliberal university, which the pandemic has made more acute with its deleterious effects on student mental health. Brook provides a useful perspective on the extant literature related to postsecondary education, including harnessing examples from ungrading or gradeless assessment while weighing the pros and cons. Brook concludes with strategies for effective assessment: detailed narrative feedback unaccompanied (initially) by a grade; guided metacognitive reflection, with pathways identified for improvement; or creating a dialogical context for the sharing of feedback. The strategies may not work for all, or all subjects, but provide effective starting places for re-thinking the relations between grading and learning.

This issue also features a MJE Forum on the subject of being (and becoming) a Cegep teacher. The Forum was initiated by Maggie McDonnell's thought-provoking piece in which, reflecting on her close to two decades in Cegep teaching, she asked: "Who am I, really?" Cegep, short for "collège d'enseignement général et professionnel," is the level of higher education in Quebec that follows on secondary school (which concludes with Grade 11) and precedes university. The Cegep system is both an outcome and a legacy of the Quiet Revolution in Quebec in which, after la grande noirceure (the 'Dark Ages') under Maurice Duplessis, who was premier for almost two decades between 1936 and 1939 and 1944 to 1959, society and education opened up to new ideas and social change. Cegep teaching is thus quite distinct from both secondary and university teaching, even as it shares characteristics with both. McDonnell uses this occasion to critically reflect on what she has learned as well as what she believes the future holds for Cegep teachers.

We posted a pre-print version of McDonnell's piece on our website, along with a call inviting others to respond. We were especially interested to hear from Cegep teachers. We include two responses. In "On In-ness: What Cegep Teaching Keeps Teaching Me," Olszanowski (writing in English) reflects on an abrupt entry followed by a "deep dive" into the openness of the Cegep classroom, while Provost (writing in French) considers what it feels like to try to decolonize the curriculum: « derrière le lutrin—place de pouvoir, de vulnérabilité, d'humilité et de transcendance, je me sens quelque peu déséquilibrée, assumant le triple rôle de professeure, d'animatrice et d'apprenante. » A common thread across the three pieces is the emphasis on Cegep teaching as a flexible space—one in which students learn but teachers do, too.

We all have junk drawers. They are places where odds and ends of various less-used or about-to-be-discarded things accumulate. In a Note from the Field, Stendel brilliantly uses the metaphor of the junk drawer to point towards an ethically- and socially-responsible art education. In the interests of climate change, Stendel asks, how might we move beyond "creative reuse" to consider what the junk drawer's string, elastics, and Styrofoam balls can teach us about our "petrocultural" practices? In other words, how might we instead imagine an "art for art's sake"?

We hope you enjoy reading!

TERESA STRONG-WILSON, ANILA ASGHAR, AND VANDER TAVARES

ÉDITORIAL

Nous voulons ouvrir ce numéro en célébrant les rédacteurs en chef, dont le travail reste largement invisible, mais un travail qui est absolument vital pour la publication de revues. Nous nommons les nôtres : Ann Keenan (qui était largement responsable de notre stabilité lorsque nous étions une revue imprimée par abonnement), Stephen Peters (2010-2015), Sylvia Wald (2015-2019), Philippe Paquin-Goulet (2019-2021), Marianne Filion (2019-2021), Catherine Bienvenu (2021-2022), Rahema Imtiaz (2022/23), et actuellement, Emma Dollery (2022 —) et Isabel Meadowcroft (2023 —). Les rédacteurs en chef sont le principal (souvent, le premier) point de contact avec la revue — ses auteurs, ses critiques et ses rédacteurs/rédacteurs invités — même lorsqu'ils sont responsables de ce qui se passe dans l'ombre, à l'arrière de la revue et, surtout, le progrès des manuscrits à travers l'édition, à la mise en page PDF et HTML jusqu'à la publication. Leur œil d'expert doit être très varié, allant de la tenue d'une vue synoptique sur les manuscrits au fur et à mesure qu'ils progressent dans le processus d'évaluation par les pairs et de publication, à une bonne connaissance des détails minutieux liés à l'édition, à la mise en page et à la formation de réviseurs de copies dans les mêmes compétences. Ils sont souvent férus de la technologie, en équilibre sur la pointe numérique de la revue et ils jouent un rôle déterminant dans l'opérationnalisation des flux de travail. Ils deviennent les gardiens des archives de la revue tout en enseignant la prochaine génération. Depuis 2011, nous avons largement engagé des étudiants diplômés dans ce rôle; ce sont des personnes vivement intéressées par l'écriture et/ou la publication. Ces dernières années, ils ont été aidés dans leur propre travail à temps partiel au RSEM par des réviseurs de copies anglais et français à temps partiel. Ils font avancer les rouages de la revue, même lorsque c'est le plus difficile à faire. Le raccourcissement des années de leur mandat (détaillé ci-dessus) raconte l'histoire des temps difficiles que nous avons vécue, en particulier les effets de la pandémie sur la publication de revues. Pour leur soutien à la revue et à ses rédacteurs en chef, en particulier pendant cette période tumultueuse, nous adressons un immense merci à Jessica Lange et Jennifer Innes de Scholarly Communications à la Bibliothèque de McGill. Nos rédactrices en chef post-pandémie actuelle, Emma Dollery et Isabel Meadowcroft, forment une équipe formidable. Nous accueillons Emma,

qui a commencé en août 2022 et a fait un travail absolument remarquable ; nous attendons avec impatience encore plus de cette même qualité de travail. Et maintenant aussi, nous accueillons Isabel, qui promet la même chose. Isabel apporte également des compétences et des connaissances développées en tant qu'assistante éditoriale et réviseuse de copie RSEM. Alors, ça mérite d'être répété! Nous reconnaissons votre place indispensable dans l'édition de revues. Un grand merci aux rédacteurs en chef!

Nous ajoutons encore quelques remerciements, un premier merci à nos réviseurs de copies : Zachary Kay, Vanessa Zamora, Rianna Pain-Andrejin et Charles Dagenais. Pour leurs services et contributions à la revue, nous remercions Melissa McGuire (réviseuse de copies, 2022-23) et Rahema Imtiaz (rédacteurs en chef, 2022/23). Nous tenons à remercier nos partisans — Doyen Rassier de la Faculté d'éducation, Lisa Starr, qui a été présidente du Département d'études intégrées en éducation (DISE), ainsi que Simona Lupu et ceux qui ont aidé à l'embauche à la Faculté d'éducation et DISE. L'Aide aux revues savantes du CRSH contribue à soutenir, voire rend possible, le travail des revues savantes au Canada. Nous sommes très reconnaissants du soutien du CRSH qui finance nos rédacteurs en chef d'une importance vitale.

C'est avec un grand plaisir que nous vous présentons ce numéro général qui propose une sélection particulièrement éclectique de dix articles ainsi qu'un Forum RSEM bilingue sur le métier d'enseignant au cégep et un relevé de recherches RSEM qui invite à la réflexion (en éducation de l'art) sur les contenus du tiroir à ordures. Exceptionnellement dans ce numéro les articles sont tous en anglais alors même que, exceptionnellement, tous les articles du numéro général à suivre (57:3) seront en français. Les sujets abordés dans le présent numéro portent sur : la santé mentale et l'épuisement professionnel des enseignants, en particulier à la suite de la pandémie (Sokal et Eblie Trudel; les effets du racisme et de la discrimination systémiques (Nartey et James; Alvarez); lutter contre le décrochage en affinant nos connaissances sur l'engagement étudiant (Lessard); enseignement des mathématiques au secondaire — comportements d'autorégulation (Buzza, Fitzgerald et Avitzur) et « proximités » (Horoks); promouvoir des approches proactives du comportement en classe dans les classes du préscolaire et du primaire (Nadeau, Massé, Verret, Gaudreau et Leblanc); une approche épistémologique de la formation initiale, préservice, des enseignants (Hill); la pratique de la recherche-action dans le contexte éducationnel nigérian (Olayiwola); et rouvrir la question de la relation entre la correction, la notation et l'apprentissage, ici dans les classes postsecondaires (Brook). Laissez-nous vous présenter tour à tour chaque article.

Les recherches sur l'épuisement professionnel des enseignants, accélérées par la pandémie, ont incité Sokal et Eblie Trudel à revoir le concept d'épuisement professionnel. Revenant aux travaux de Santoro (2011), Sokal et Eblie Trudel ont comparé l'épuisement professionnel à la démoralisation. Alors que les enseignants

épuisés ont tendance à se retirer de l'enseignement, a expliqué Santoro, les enseignants démoralisés restent, mais agonisent, privés des « récompenses morales » de se sentir « bien » dans l'enseignement. En y regardant de plus près, Sokal et Eblie Trudel soutiennent que la démoralisation fait déjà partie intégrante du concept d'épuisement professionnel des enseignants ; cependant, porter attention à l'un tout en considérant l'autre peut produire un ensemble d'implications plus nuancées : au-delà de l'autorégulation pour créer des environnements propices à une force de travail enseignant en bonne santé.

Basées sur des entrevues avec vingt étudiants-athlètes noirs canadiens de dix universités ontariennes (recherche faisant partie d'une étude plus vaste), Nartey et James ont découvert que les étudiants-athlètes démontraient qu'ils étaient à la fois des athlètes et des étudiants qui réussissaient sur le plan scolaire. Les étudiants ont donc résisté et défié les stéréotypes qui leur étaient imposés en tant qu'athlètes et en particulier en tant qu'athlètes noirs. Alors qu'une combinaison de facteurs — sociaux, culturels, historiques et socio-économiques — a finalement contribué à leur succès, Nartey et James attribuent la plus grande part de leur succès à l'exercice d'agence des étudiants-athlètes dans la navigation du système éducatif, même s'ils ont été confrontés au racisme et à la discrimination.

Alvarez fournit une étude de cas fascinante sur le locuteur natif ; précisément, sur la discrimination secrète contre les enseignants anglophones non natifs (NNEST) dans les pratiques d'embauche des écoles de langue anglaise en ligne. Alvarez, d'Argentine, est un locuteur multilingue de l'anglais, de l'espagnol, du français et du chinois avec une vaste expertise dans l'enseignement de l'anglais. Il a étudié les pratiques en ligne de l'iTutorGroup, (l'une des plus grandes plateformes d'éducation en ligne, basée en Chine), et souhaite savoir comment le profil du candidat influence l'offre de salaire. Il a trouvé des preuves de discrimination et de racisme et suggère que l'association internationale TESOL (qui s'engage pour des pratiques non discriminatoires) réexamine ses partenariats avec des entreprises comme iTutor.

Comment s'attaquer de manière proactive à la forte incidence du décrochage scolaire au Québec? Lessard s'est engagé dans la validation interculturelle d'un instrument d'auto-évaluation appelé Student Engagement Instrument (SEI) (Appleton et al., 2006), qui évalue l'engagement cognitif et psychologique/affectif selon six facteurs. L'instrument a été traduit en français puis revu de manière indépendante avant d'être administré à 919 élèves francophones du secondaire dans une école publique urbaine. Soumis à une analyse factorielle exploratoire (AFE) et à une analyse factorielle confirmatrice (AFC), la validité et la fiabilité de l'instrument ont été confirmées ainsi que son utilité comme outil de prévention contre le décrochage chez les élèves francophones du secondaire au Québec.

Les comportements d'autorégulation sont de puissants prédicteurs de la réussite scolaire. Buzza, Fitzgerald et Avitzur ont étudié le rôle important que jouent les enseignants dans le développement de soutiens, en se concentrant

sur l'échafaudage d'un enseignant de mathématiques du secondaire de quinze élèves de 9e année peu performants dans une classe canadienne. Des prétests et des post-tests ont été effectués, en examinant des variables telles que la métacognition et la motivation. Parmi les stratégies de soutien les plus efficaces figuraient l'auto-évaluation, la rétroaction et la création de fiches d'étude par les élèves. Buzza et al. suggèrent que des recherches supplémentaires sont nécessaires sur comment équilibrer l'enseignement en classe entière avec l'encadrement individualisé — le comment, le quand et le pourquoi du soutien ciblé — afin d'obtenir les changements de comportement souhaités.

« Teacher telling in the mathematics classroom » offre une analyse passionnante de « moments of teacher telling » (MTT). L'étude d'Horoks a examiné l'impact potentiel du discours des enseignants sur l'activité et l'apprentissage mathématiques des élèves. S'appuyant sur la zone de développement proximale (ZPD) de Vygotsky comme perspective théorique, cette étude a analysé la façon dont les enseignants échafaudent l'apprentissage des élèves. Horoks a construit un outil spécifique, nommé « proximities», afin d'analyser la façon dont les enseignants ont expliqué un nouveau concept mathématique et la manière dont ils ont lié les connaissances et les activités antérieures des élèves à de nouvelles connaissances. L'étude offre un outil utile pour opérationnaliser ZPD dans un cadre de classe entière.

Dans quelle mesure les enseignants du préscolaire et du primaire du Québec encouragent-ils des comportements proactifs/positifs chez leurs élèves? Les pratiques fondées sur les données favorisent l'utilisation de stratégies proactives. Ou bien, les enseignants s'appuient-ils sur des pratiques coercitives et punitives, autrement connues sous le nom de pratiques réductrices, ceci en réponse à des comportements dérangeants? Nasdeau, Massé, Verret, Gaudreau et Leblanc ont effectué un sondage de 1373 enseignants. L'étude est la première du genre à fournir un portrait aussi extensif des pratiques comportementales en classe au préscolaire et au primaire au Québec. La recherche a découvert que les enseignants préféraient les pratiques proactives aux pratiques réductrices, établissant des règles et des routines claires et utilisant le renforcement positif; les stratégies d'autorégulation des élèves seraient un domaine à améliorer.

Intéressé par la façon dont les enseignants en formation (préservice) développent un sens de soi en tant qu'enseignants, Hill a étudié leurs modes de connaissance structurés. Baxter Magolda a théorisé quatre modes de connaissance épistémologique : absolu, transitionnel, indépendant et contextuel, ceci basé sur ses recherches avec des étudiants au baccalauréat. Ces quatre modes de connaissance se manifestent dans cinq domaines, que Hill a adaptés au contexte d'apprentissage à l'enseignement, en tenant compte des rôles de : soi, les pairs, les instructeurs, l'expérience de stage et les croyances sur l'enseignement. En utilisant la théorie de Baxter Magolda comme perspective, cette étude à petite échelle a produit des résultats importants sur les façons de devenir enseignant.

Hill suggère que les programmes de formation des enseignants devraient adopter une approche plus explicite au développement des croyances épistémologiques.

Olayiwola a revisité la co-construction des connaissances dans le contexte éducatif nigérian en analysant les questions liées à la répartition du pouvoir dans le changement éducatif. Olayiwola soutient que la recherche-action ne peut être véritablement participative que lorsque les chercheurs et les participants collaborent de manière équivalente. Le point de départ de l'analyse est l'enseignement secondaire nigérian, qui a subi des réformes depuis 1969, lorsque les Nigérians ont délibéré pour la première fois sur l'avenir de l'éducation pour une nation nouvellement indépendante. Les résultats politiques provenant de la dernière réforme reflètent toujours principalement la perspective des chercheurs nigérians. Olayiwola a proposé que si une enquête coopérative avec les participants avait été utilisée, certains des écarts entre l'intention de la politique et sa mise en œuvre auraient pu être évités.

Quelles sont les relations entre la notation et l'apprentissage? C'est loin d'être une nouvelle question; cependant, Brook l'investit avec une urgence renouvelée, liant la question à la montée de l'université néolibérale, que la pandémie a rendue plus importante avec ses effets délétères sur la santé mentale des étudiants. Brook fournit une perspective utile sur le montant de littérature existant liée à l'éducation postsecondaire, y compris en utilisant des exemples d'évaluation non corrigée ou sans note tout en considérant les effets négatifs et positifs. Brook conclu avec des stratégies pour une évaluation efficace comme des commentaires narratifs détaillés non accompagnés (initialement) d'une note, une réflexion métacognitive guidée avec des pistes d'amélioration identifiées, ou la création d'un contexte dialogique pour le partage de commentaires. Les stratégies peuvent ne pas fonctionner pour tous ni dans toutes les matières, mais ils fournissent des points de départ efficaces pour revisiter les liens entre la notation et l'apprentissage.

Ce numéro présente également un forum MJE sur le thème d'être (et de devenir) enseignant au cégep. Le forum a été lancé par l'article stimulant de Maggie McDonnell dans lequel, réfléchissant à ses près de deux décennies d'enseignement au cégep, elle a demandé : « Qui suis-je, vraiment? » Le cégep, l'abréviation de « collège d'enseignement général et professionnel », est le niveau d'enseignement supérieur au Québec qui suit l'école secondaire (qui se termine avec la 11e année) et précède l'université. Le système des cégeps est à la fois un résultat et un héritage de la Révolution tranquille au Québec au cours duquel, après la grande noirceur sous Maurice Duplessis, premier ministre pendant près de deux décennies de 1936 à 1939 et 1944 à 1959, la société et l'éducation s'ouvrent aux nouvelles idées et au changement social. L'enseignement collégial est donc bien distinct de l'enseignement secondaire et universitaire, même s'il partage des caractéristiques avec ces deux établissements d'enseignement. McDonnell profite de cette occasion pour réfléchir de manière critique sur ce qu'elle a appris ainsi que sur ce qu'elle croit que l'avenir réserve aux enseignants du cégep.

Nous avons publié une version préimprimée de l'article de McDonnell sur notre site web, ainsi qu'un appel invitant les autres à répondre. Nous étions particulièrement intéressés d'obtenir l'opinion des enseignants du cégep. Nous incluons deux réponses. Dans « On In-ness : ce que l'enseignement au cégep continue de m'apprendre », Olszanowski (écrit en anglais) réfléchit sur une entrée abrupte suivie d'une « plongée profonde » dans le niveau d'ouverture des salles de classe du cégep, tandis que Provost (écrit en français) considère le ressentit d'essayer de décoloniser le curriculum : « derrière le lutrin — place de pouvoir, de vulnérabilité, d'humilité et de transcendance, je me sens quelque peu déséquilibrée, assumant le triple rôle de professeure, d'animatrice et d'apprenante. » Un aspect commun entre les trois pièces nommé ci-dessus est l'accent mis sur l'enseignement au cégep en tant qu'espace flexible — un espace dans lequel les étudiants, et également les enseignants, apprennent.

Nous avons tous des tiroirs à ordures. Ce sont des endroits où s'accumulent divers objets moins utilisés ou sur le point d'être jetés. Dans un relevé de recherche, Stendel utilise avec brio la métaphore du tiroir à ordure afin d'accorder l'importance à l'éducation artistique éthiquement et socialement responsable. Dans l'intérêt du changement climatique, Stendel demande : comment pourrions-nous aller au-delà de la « réutilisation créative » afin d'envisager ce que la ficelle, les élastiques et les boules de polystyrène du tiroir à ordures peuvent nous apprendre sur nos pratiques « pétroculturelles » ? Autrement dit, comment peut-on plutôt imaginer l'idée de « l'art pour l'art »?

Nous espérons que la lecture du numéro vous fera plaisir!

TERESA STRONG-WILSON, ANILA ASGHAR ET VANDER TAVARES

DEMORALIZATION AS A FORM OF TEACHER BURNOUT

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ABSTRACT. Over fifty years of research investigating teacher burnout has resulted in a well-accepted model of burnout that involves three dimensions: exhaustion, depersonalization, and loss of accomplishment. Recently, a new cause of teacher attrition has been proposed called "demoralization," on the argument that demoralization is a distinct phenomenon from burnout. In light of new research methodologies that allow for examination of unique pathways or "profiles" of teacher burnout, we explore the question, providing an analysis that suggests instead that depersonalization can be fairly represented as one profile of burnout.

LA DÉMORALISATION COMME FORME D'ÉPUISEMENT PROFESSIONNEL CHEZ LES ENSEIGNANTS

RÉSUMÉ. Plus de cinquante ans de recherche sur l'épuisement professionnel des enseignants ont abouti à un modèle d'épuisement professionnel bien accepté qui implique trois dimensions : l'épuisement, la dépersonnalisation et la perte d'accomplissement. Récemment, une nouvelle cause d'attrition des enseignants a été proposée appelée « démoralisation », basée sur l'argument que la démoralisation est un phénomène distinct de l'épuisement professionnel. À la lumière des nouvelles méthodologies de recherche qui permettent d'examiner les parcours ou « profils » uniques de l'épuisement professionnel des enseignants, nous explorons la question, en fournissant une analyse qui suggère plutôt que la dépersonnalisation peut être représentée de manière juste comme un profil d'épuisement professionnel.

Early in the COVID-19 pandemic, educational leaders warned UNESCO that attention to the well-being of teachers would be essential to minimize collateral damage from the worldwide virus (Dorcet et al., 2020). They suggested that neglecting teacher welfare would precipitate "a wave of mental health issues and

result in disruptions in learning" (Dorcet et al., 2020, p. 10). As a Canadian educational research team, we quickly began working on a multiple-methods research program that would focus on the phenomenon of teacher burnout, new job demands, as well as personal and employment resources, that could be helpful within these new and untested conditions. Over the course of our work, we refined our understanding of teacher burnout through reviewing the published literature. We came to appreciate how the accepted, current conceptualization of teacher burnout came about — even as we identified questions that remained unanswered.

It was over the course of our investigations of teacher burnout during the COVID-19 pandemic that we were introduced to the concept of teacher "demoralization" (Santoro, 2011, 2018). According to Santoro (2011), demoralization is a separate component of teacher attrition distinct from teacher burnout: the distinction rests on the fact that while *burnt-out* teachers withdraw from their work and students — this as a coping mechanism to address the lack of adequate resources to meet job demands — *demoralized* teachers anguish over their decision to leave the profession but choose not to remain due to "moral dimensions" (Santoro, 2011, p. 2). That is, demoralized teachers perceive that their current teaching conditions do not allow them to do "good work" and feel that they are therefore denied the moral rewards of teaching (Santoro, 2011). Meeting Torraco's (2005) call for integrated literature reviews with real-life relevance that can be applied across contexts, we present in this article the most commonly accepted three-component definition of burnout, this as it relates to teachers; it is followed by a detailed conceptualization of demoralization as presented by Santoro. Next, we provide an overview that tracks the evolution of the current understanding of burnout, exploring its expansions and variations across teaching contexts. We consider the possibility that demoralization is a component that is already captured within current conceptualizations of teacher burnout rather than being a distinct construct as proposed by Santoro (2011, 2018, 2020). Finally, we discuss policy and practical implications of including teacher demoralization *within* the three-dimensional model of teacher burnout.

BACKGROUND: THE RESEARCH INFORMING OUR INQUIRY INTO TEACHER BURNOUT

For reader context, our research program began with three quantitative national surveys of a total of 2200 Canadian teachers in April, June, and September 2020 (Babb et al., 2022; Davies & Sokal, 2021; Sokal et al., 2020a, 2020e, 2020f), followed by qualitative analysis of interviews conducted with a sample of these teachers selected to proportionally represent provincial distribution, level of teaching, teacher gender, and subjects taught within the larger national sample (Eblie Trudel et al., 2021; Sokal et al, 2020b). The next phase included teacher surveys using some of the same measures as the national study, as well as semi-monthly telephone interviews of 21 teachers, combined with four focus groups of 20 other teachers conducted at two different time points, as well as

surveys and interviews with 16 principals and two divisional leaders (Sokal et al., 2020c, 2020d). Through these studies, we came to appreciate the dynamic nature of burnout as described by our participants. We returned to the research literature to resolve conceptual and theoretical questions related to burnout and demoralization. This return gave rise to the present article.

Following the advice of Snyder (2019) and Torraco (2005), we elected to conduct an integrative review process. An integrative review process selectively pursues research related to theoretical models with the goal of reconceptualization (Snyder, 2019; Torraco, 2005). This process is the preferred review methodology when the research goals are synthesis and critique respecting a narrow research question (Snyder, 2019). In our case, we wanted to know whether demoralization was captured within the current model of teacher burnout. Furthermore, "the purpose of using an integrative review method is to overview the knowledge base, to critically review and potentially reconceptualize, and to expand on the theoretical foundation of the specific topic as it develops" (Snyder, 2019, p. 357). This approach is recommended by Snyder (2019) when the existing research is disparate, as is the case with the conceptualizations of burnout and demoralization, which address two different sets of literature. Integrative review methodology promised to yield an overview of the knowledge base, which would allow us to consider its alignment with Santoro's claims (2011, 2018).

Our process involved conducting separate literature reviews for each of our published studies and incorporating a snowballing technique, following the publications cited in each article to gather a more in-depth understanding of the phenomenon of burnout. When confronted by research about depersonalization, we isolated and investigated its key claims, analyzing additional work by Santoro. We then tracked the development of burnout research to gain an understanding of how the work of Santoro was supported or refuted, beginning with the nascent 1970's thinking of Maslach and Pines and following the research trail related to burnout up until its present-day understandings. According to Torraco (2005), "An integrative literature review of a mature topic addresses the need for a review, critique, and the potential reconceptualization of the expanded and more diversified knowledge base of the topic it continues to develop" (p. 357). Given that more than 50 years of research have contributed to a continually refined conceptualization of burnout, this approach proved a good fit for our purpose. Throughout the review process, and up until we experienced saturation in terms of repeated themes and developments without new incoming knowledge, we discussed our ideas and questions as a group, using a critical lens to synthesize the research literature.

LITERATURE REVIEW

What is burnout?

In differentiating between actual burnout and sustained periods of high stress commonly experienced by teachers, one teacher at a workshop on burnout said:

> We shouldn't throw the word 'burnout' around. It's like having a diagnosis of some sort. That's how we should treat it. We should respect the word a little more and understand that when a teacher gets to the point of being burned out, there could have been so many steps we could have taken to support them. (Walden University, n.d., para 13)

In over 50 years of research, more than 50 different definitions of burnout have been offered, but the most accepted definition has come from Maslach and Jackson (1981), according to Manzano-Garcia and Ayala-Convo (2013). When Maslach and her colleagues first coined the term *burnout*, it was to describe a distinct, three-component, work-related, psychological syndrome. Dimensions of burnout included "emotional exhaustion, depersonalization, and reduced personal accomplishment" (Maslach & Jackson, 1984, p. 134) resulting from the stress of interactions between a worker and the recipient of the work (Maslach, 2003); for teachers, the recipient is typically the student. Subsequent researchers such as Feldt et al. (2014) have contributed to the development of the burnout model, upholding its three dimensions. The first component, *emotional exhaustion,* resulting from the mismatch between job demands and resources, is characterized by a depletion of emotional energy (Larsen et al., 2017); it is an *individual state* (Schaufeli & Taris, 2005). Although exhaustion is the most easily identified dimension of burnout, on its own it is insufficient to capture the construct (Maslach et al., 2001). The second dimension, *depersonalization,* refers to an employee's emotional detachment and distancing from the recipient of the emotional work — in the case of teaching, a distancing of teachers from their students — and functions as a *strategy for coping* (Larsen et al., 2017; Schaufeli & Taris, 2005). Finally, the consequence of both exhaustion and depersonalization is loss of *personal accomplishment*, manifested in self-evaluation of inefficacy, lack of achievement, and reduced productivity at work (Maslach et al., 2001); this component is an *effect* of burnout (Schaufeli & Taris, 2005).

Maslach (2003) has emphasized that teacher stress and teacher dissatisfaction are distinct from burnout as described within the three-dimension model – an important delineation, as not all people respond to stress in the same ways, and people can be dissatisfied with specific job characteristics without burning out (Farber, 2000). While stress and dissatisfaction may lead to the three dimensions of burnout — exhaustion, depersonalization, and lack of accomplishment — stress and dissatisfaction alone do not meet the three-dimensional definition of burnout as described by Maslach. Moreover, burnout is not the same as attrition. Although burnout can lead to absences (Schaufeli et al., 2009) and teacher attrition (Brunsting et al., 2014; Shen et al., 2015), it can also manifest in 'presenteeism',

where burnt-out teachers stay in their roles but erode school morale, diminishing the resilience of their colleagues, and contributing to poor academic and social outcomes in their students (Ford et al., 2019; Maslach et al., 2001)

What is demoralization?

In her research based on 23 teachers' experiences in the American school system, Santoro (2011, 2018) premised her argument on the claim that "for many teachers, their work is rather a vocation or calling, replete with notions of moral and ethical commitment to their practice and to the students with whom they work" (2011, p. 4). Santoro (2011) described teachers being prevented from accessing the moral rewards of doing "good work" (Gardner et al., 2001, p. 6) when they were required to act in ways they viewed as unethical in their teaching behaviours, a situation she called *demoralization*. Scott et al. (2001) further showed that teachers understand that "good work" results in making a difference in the lives of their students. According to Santoro (2011), good work is captured in the agency of teachers as professional decision-makers, rather than in the individual teachers themselves. Santoro (2011) demarcated demoralization from burnout, explaining that while burnout focuses on the psychology of the teacher, demoralization addresses the state of the profession; burnout is "when a teacher's *personal* resources cannot meet the difficulties presented by work" (p. 3), whereas demoralization is indicated in "situations where the conditions of teaching change so dramatically that they are now inaccessible" and "teachers can no longer do 'good work' or teach 'right'" (Santoro, 2011, p. 3). Porter (2018) has summarized: "Demoralization means you still have resources, but you cannot do the work under the [sic] conditions you find yourself in" (para. 9). Santoro (2018) claimed further that demoralization suggests the problem is a mismatch between the values of the teacher and the policies and practices within schools. In calling for a distinction between attrition as a result of burnout and attrition due to demoralization, Santoro (2011) argued that teacher attrition does not necessarily reflect a lack of hardiness (which can be equated with Maslach's concept of *exhaustion*), a lack of commitment (which can be equated with Maslach's concept of *depersonalization*), nor a lack of competence (which can be equated with Maslach's concept of *loss of accomplishment*). Attrition could be present instead in the form of demoralization when teachers feel as if they are prevented from fulfilling their ethical duties and thus denied the moral rewards of making a difference in students' lives (Scott et al., 2001), i.e., that come from good work. Attribution of teaching quality, Santoro (2011) has suggested, has focused too much on characteristics of teachers rather than on the conditions that either support or inhibit good work.

Studies of burnout have focused on the "strains and demands of the work of teaching, and the kinds of institutional supports and leadership that can attenuate work pressure" (Santoro, 2011, p. 10). However, Santoro (2018) argued, this approach is fundamentally premised on the belief that teachers are charged with

the responsibility to conserve their energy through self-care in order to meet their job demands. For Santoro (2011), preventing demoralization rests on "structuring the work to enable practitioners to do good within its domain" (p. 19).

Elaborating the burnout model components

While our interest is specific to teacher burnout, Maslach and her colleagues also developed a subsequent, more general scale called the Maslach Burnout Inventory-General Survey (MBI-GS) (Maslach & Jackson, 1981), a useful comparative scale for illuminating the nuances of burnout. This scale also utilized a three-dimensional construct, although it used different terms to describe them. Conceptual conflation and confusion have therefore resulted with respect to whether the terms in the Maslach Burnout Inventor-Educators Survey (MBI-ES) and the MBI-GS refer to the same three components within different contexts or to three qualitatively different components. Given our interest in the construct of demoralization of *teachers* (Santoro, 2018), we will focus on the differences in the Maslach scales that measure the "depersonalization" component of burnout. Recall that this component recognizes a teacher's distancing from students as a means of coping with an emotional resource deficit and is viewed as a key distinction between burnout and demoralization (Santoro, 2011).

It should be noted that the MBI-ES was a response to evidence of the importance of relationships in teaching and used the term "depersonalization" to describe a distancing from the emotional relationship with students as a means of distancing oneself from the work (Maslach et al., 2001). In the later version of the Maslach Burnout Inventory (MBI) intended for general use, the term "depersonalization" was changed to "cynicism", which referred to the attempt to distance oneself from the work itself, rather than from the recipients of the work (the students). Larsen et al. (2017) differentiated depersonalization from cynicism and stated that while depersonalization was defined as "callousness, indifference and objectification of [students]" (p. 162), cynicism meant "lack of work interest and belief in the importance and contribution of one's work" (Larsen et al., 2017, p. 162). Thus, while both depersonalization and cynicism indicate withdrawal, the object of that withdrawal differs. Figure 1 illustrates the three components of burnout, including both types of withdrawal — from work (cynicism) and from students (depersonalization).

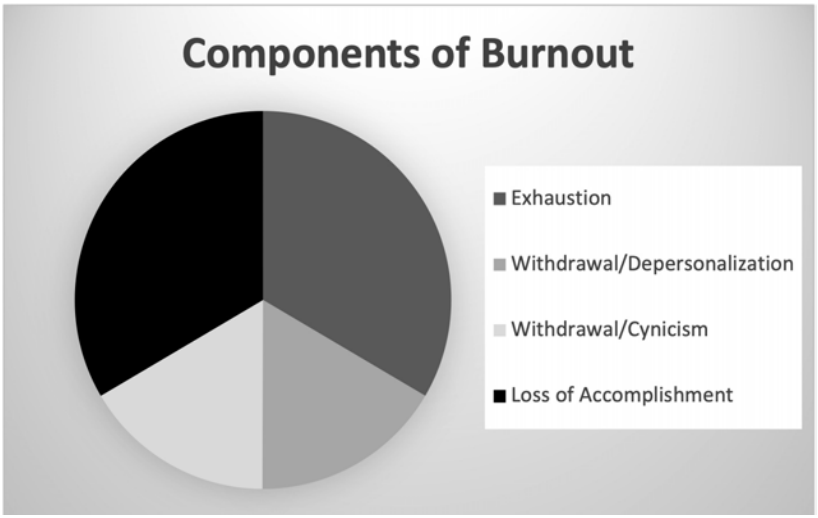

FIGURE 1. *Our conceptualization of the components of burnout, 1981 to present (based on literature from 1981to 2021)*

Larsen et al. (2017) further investigated the relationship between cynicism and depersonalization to determine whether they were the same construct represented in different job settings or were actually two different constructs. Based on a large study of professionals from eight fields, and where more than 25% were teachers, Larsen et al.'s (2017) confirmatory factor analyses supported their contention that the components of depersonalization and cynicism should be viewed as two separate dimensions of burnout.

Schaufeli and Taris (2005) also defended the need for two different types of instruments to address job demands in the helping professions versus other professions, as the MBI-ES focused on the students while the MBI-GS focused on the teacher's work itself. They concluded that the three dimensions measured by the educators' version constituted special cases of the constructs accounted for by the more general version of the MBI.

Schaufeli and Taris (2005) further cautioned that adding more characteristics to the measurement of burnout should be avoided, as it leads to a "laundry-list of dimensions" instead of respecting the "principle of parsimony" (p. 259). However, they also warned against a simplistic view of burnout as encompassing only fatigue. They considered burnout as having at least two dimensions—exhaustion and withdrawal. Specifically, exhaustion is the "inability" to exert more effort whereas depersonalization and cynicism are the "unwillingness" to exert effort as a means of self-protection from depletion (Schaufeli & Taris, 2005, p. 261). They concluded that both the MBI for educators and the more general MBI would be useful in "human service work" — one to measure burnout as a manifestation of

work with *recipients* and one to measure the manifestations of burnout resulting from the *work* in general. This is an important observation, as it suggests that teachers may withdraw from either their work, their students, OR both — again suggesting that there is a degree of individuality and specificity to processes of burnout in teachers.

The importance of context in burnout

Another important development from Maslach and her colleagues was their consideration of context. Burnout is not solely a psychological construct, something that happens to a teacher alone; rather, it is an interaction between an individual and their job context. Ongoing empirical research has begun to emphasize how burnout can be understood within an industrial-organizational framework as a mismatch (Maslach & Leiter, 1997; Maslach et al., 2001). Maslach and Leiter (1997) have defined mismatch as a situation where a teacher's psychological contract with their employment situation leaves unresolved issues or where the "working relationship changes to something the worker finds unacceptable" (p. 413) — a context that parallels Santoro's (2011) description of demoralization as "situations where the conditions of teaching change so dramatically that the moral rewards are now inaccessible" (p. 3). Maslach and Leiter (1997) outlined six domains in which these mismatches can occur: workload, control, reward, community, fairness, and values, which we here apply to burnout in teaching. *Workload* can be understood as the energy necessary to fulfil the work demands (Leiter & Maslach, 2004); for example, planning and implementing effective learning. It can also refer to the emotional workload of teaching students (Bodenheimer & Shuster, 2020) who may be struggling, traumatized, or unmotivated. Workload can be further exacerbated by the energy required to display emotions inconsistent with feelings, this as an expectation of the professional teaching role (Maslach et al., 2001). *Control* issues arise when a teacher is expected to take responsibility for aspects that exceed their authority, as Maslach et al. (2001) explain: "It is distressing for people to feel responsible for producing results to which they are deeply committed while lacking the capacity to deliver that mandate" (p. 414). *Reward* involves a mismatch of financial incentives and recognition commensurate with job demands. *Community* refers to the loss of important relationships in the workplace where employees feel they belong and share common values with peers. *Fairness* mismatch occurs when an individual perceives a lack of impartiality in their workplace that erodes their self-worth and the sense that they are respected. Lack of fairness results in emotional costs due to distress, but also in cynicism about the workplace. Finally, *values* mismatch occurs when employees are required to act in ways that they view as immoral or unethical, when personal aspirations conflict with organizational needs, or when mission statements and mandates do not match actual job demands.

Within such a framework, burnout is not conceptualized as the "fault" of the teacher, but rather the result of a mismatch between individual and organizational

needs and values. A sustainable, viable teaching position would be a "matched profile [that] would include a sustainable workload, feelings of choice and control, appropriate recognition and reward, a supportive community, fairness and justice, and meaningful valued work" (Maslach et al., 2001, p. 417). However, burnout can occur when even one of these domains is in conflict between the individual and the organization.

If we return to the issue of withdrawal as depersonalization in teachers and cynicism in other professions, we can appreciate how both dimensions of burnout fit easily within the six domains of worklife (Leiter & Maslach, 1999, 2004). For example, within the domain of workload, we can consider the actual time and effort required for teaching tasks, and the emotional work of meeting students' needs. Whereas withdrawal (or unwillingness) within the context of cynicism might take the form of teachers' giving minimal planning efforts (Jennings & Greenberg, 2009) and increased absenteeism (Swider & Zimmerman, 2010), withdrawal in the context of depersonalization could look like a suppressing of care or concern for students or failing to present a professional, caring persona especially when feeling angry, upset, tired, or stressed. This is just one example of how both types of withdrawal (depersonalization and cynicism) could affect the mismatch between a teacher and their role context.

Faced with the dynamic nature of burnout across individuals and context, we must conclude that "one size does not fit all" when understanding the personal and organizational resources, demands, and contexts that lead to teacher burnout. How then can we capture these different manifestations of teacher burnout in ways that can usefully guide us in preventing or reversing teacher burnout? If we could develop tools that helped us differentiate between the different manifestations or "profiles" of teacher burnout, perhaps we could tailor interventions to be more responsive to teachers within specific contexts.

Capturing variance in teachers' burnout experiences

Throughout the evolution of our understanding of burnout, a constant theme has been the tension between capturing individual variations while developing a comprehensive model of burnout (Bianchi et al., 2015). Researchers have cited the need for longitudinal research (Maslach et al., 2001) to determine the antecedents of burnout and the results of attempts to adjust demands and resources on burnout progression (Mäkikangas & Kinnunen, 2016). Research has been hampered by design constraints as well as by limitations in the data analyses used. Statistical approaches that examine differences in teacher burnout based in pre-determined non-latent characteristics such as gender and age do little to capture the dynamic relationship between the individual and their context as it relates to burnout, demoralization, and possibly attrition. Moreover, research has shown that burnout is "contagious" (Herman et al., 2018; Maslach et al., 2001); that a small group of burnt-out teachers can adversely affect the collective morale of faculty and the social and academic outcomes of students (Ford et al.,

2019; Maslach et al., 2001). Again, tensions arise between a normalized model or theory and the practical needs generated from individual variation.

Recent developments in statistical practices have offered a new approach to this old, recurring problem in the form of latent profile analysis (LPA) (Mäkikangas & Kinnunen, 2016; Pyhalto et al., 2020). While traditional cluster analysis looks for relationships between variables based on the analyst's preconceived hypotheses, LPA is a person-centered approach that begins with each participant's collective latent variables and then evaluates models to find groups of recurring patterns or "profiles." Through using these procedures, each sample or population generates its own number and types of profiles that capture similarities and differences in subgroups from that specific occupation. LPA is relatively new, but some initial research related to teacher burnout has generated promising findings, specifically in pinpointing job demands and resources that are salient as responses to different groups of teachers (Meyer et al., 2013; Babb et al., 2022).

Moeller et al. (2018) have suggested that this type of modeling would allow us to understand patterns of seemingly discordant combinations of factors within individuals, such as teachers who remain engaged even as they burn out; or teachers who perceive high accomplishment concurrent with exhaustion and depersonalization (Sokal et al., 2020f). While it is to be expected that there would be a group of teachers with high exhaustion, high depersonalization, and high loss of accomplishment as well as a group with low levels in each of these dimensions, LPA allows researchers to uncover the less anticipated groups, such as those with high levels in only one or two dimensions. Several studies have verified not only that various profiles of teacher burnout exist within a given population but also that the number and nature of these groups differ by population, therefore capturing the unique interplay between the individuals and the context in each study. For example, whereas Pyhalto et al. (2020) identified five distinct profiles that differed in both burnout symptoms and proactive strategy use, Salmela-Aro et al. (2019) found only two: Engaged (30%) and Engaged-Burnout (70%). The Engaged group had access to greater job resources and personal resources, whereas the Engaged-Burnout group had greater job demands.

LPA is now being recommended by the some of the authors of the Maslach Burnout Inventory (Leiter & Maslach, 2016). When combined with longitudinal study designs, this procedure has the capacity to reveal whether individuals with high scores in only one dimension of burnout are moving *toward* or *away* from burnout based on changing conditions related to job resources and demands. Combined with results from their measure of mismatch within the six domains (Leiter & Maslach, 1999, 2004), LPA has the capacity to capture not only the psychological characteristics of teacher burnout and the job resources and demands of a specific context, but also the match or mismatch between them in terms of workload, control, reward, community, fairness, and values (Maslach & Leiter,

1997). Like Leiter and Maslach (2016), Herman et al. (2018) have highlighted the practical application of identifying the meaningful and salient features of each profile group and their uniqueness in terms of differentiated responses to mitigate teacher burnout.

CRITICAL ANALYSIS AND FINDINGS: IS DEMORALIZATION A PROFILE OF BURNOUT?

Santoro posited that responding to teacher demoralization begins with recognizing that the issue of demoralization should not be categorized as burnout (as cited in Porter, 2018), on the grounds that each condition requires a different response. With an intent to inform interventions that minimize attrition and maximize instructional quality, we return to the question that provoked this exploration of the evolution of our understanding of burnout: Is demoralization an additional component of burnout or a condition separate from burnout?

To answer this question, we need to examine the two main claims regarding distinctions between burnout and demoralization. First, Santoro (2011) claimed that burnout focuses mainly on the *psychological* processes of the individual at the *expense of a systems focus*. Second, she claimed that the main distinction between cynicism / depersonalization and demoralization was the emotional *withdrawal* characteristic of burnout, which is not necessarily the case with demoralization (Santoro, 2011). Let us address each in turn.

First, copious evidence refutes the claim that burnout research and theorizing has focused on psychological processes of teachers at the expense of systemic critical analysis. While it is true that the MBI scales measure psychological processes and are the most commonly used scales in burnout research, they serve only as a beginning for understanding teachers' burnout within the context of their broader educational setting, pointing to areas where systemic modification could be made. Prior to the 21st century, interventions to prevent or reverse burnout had mainly focused on the individual. Personal characteristics such as younger age, less work experience, low sense of control, and negative attitudes toward change were found to predict higher levels of burnout (Maslach et al., 2001). Therefore, addressing burnout interventions at an individual level appeared pragmatic in two respects: (1) it respected the agency of the individual; (2) it was recognized that it was easier to change individuals than it was to change organizations (Maslach et al., 2001). However, even at that time, both practically and theoretically, researchers including Maslach were overt in stating that:

> a focus on the job environment, as well as on the person in it, is essential for interventions to deal with burnout. Neither changing the individual or changing the environment is enough; effective change occurs when both develop in an integrated fashion. (Maslach et al., 2001, p. 419)

Even at its most nascent stages, Pines and Maslach (1978) focused their understanding of burnout on an interaction between the individual and the environment. Indeed, as we have discussed, Maslach and her team developed

their theorizing since the late 1990's to capture this dynamic relationship within the worklife model (via six possible domains of mismatch; Leiter & Maslach, 1999, 2004), supporting in practice their theoretical claims that *interactions* between individuals and contexts precipitate or inhibit burnout.

Theories and models have not only addressed psychological processes of burnout, but have also addressed moral and existential issues related to teacher burnout and attrition in ways similar to those proposed by Santoro (2011). For example, work by Schaufeli and Enzmann (1998) explored the tensions between teacher expectations and ideals versus demands of the reality of teaching. Maslach and Leiter (1997) likewise acknowledged that "burnout directly affects the values and hopes of people, causing vocational and existential questioning" (p. 415). Pines (1993) developed a model that examined highly motivated teachers who strongly identified as teachers and focused on their increased frustrations when their teaching did not make a meaningful contribution. Based on large cross-cultural samples using both qualitative and quantitative methods, she linked teachers' inability to garner the existential rewards of teaching with burnout (Pines, 2002). Her main argument was that the most emotionally demanding aspect of a work situation is its lack of existential significance (Pines, 1993). Furthermore, she linked causes of this lack of fulfillment with an interchange between the individual and the context based on a "denial of the significance of one's efforts" (Pines, 2002, p. 124) and feelings "that they cannot do the work the way it should be done" (Pines, 2002, p. 125). This observation mirrors Santoro's (2011) conceptualization of "good work". Gil-Monte et al. (1995) similarly addressed existential meaning in teachers' work that is challenged by organizational structure and climate. Furthermore, the worklife model of burnout explicitly stated that values are "at the heart of people's relationships with their work" (Leiter & Maslach, 2004, p. 99) and that a mismatch in the domain of control can result "when workers are unable to shape their work environment to be consistent with their values" (Leiter & Maslach, 2004, p. 96). Thus, neither the claim of a focus solely on psychology at the expense of contextual factors nor lack of attention to existential factors related to burnout are empirically supported in the literature we reviewed.

In terms of Santoro's (2011) second claim that demoralization is distinct from burnout due to the focus on teacher withdrawal in conceptualizations of burnout, the key issue appears to be the distinction between emotional *withdrawal* from work (cynicism) and from people (depersonalization) that is essential to burnout but not to demoralization. However, if we consider the cynicism / depersonalization dimension as an *unwillingness* (as opposed to *inability* characterized by exhaustion), we can see that cynicism / depersonalization and demoralization are both captured in this dimension. As mentioned previously, cynicism is an unwillingness to exert emotional energy toward the *work* of teaching; depersonalization is the unwillingness to expend emotional energy toward the *recipients* of teaching; while demoralization is the unwillingness to

exert energy toward the perceived corruption of an unethical *system* of teaching. Whereas teachers who leave the profession due to high levels of cynicism or depersonalization do so because they are no longer willing to expend resources toward work or students, demoralized teachers leave because they no longer wish to expend energy fighting a system that does not support their ideals of good work. In each case, the individual is making a decision to withdraw their efforts as a way of self-preservation. The key difference between demoralization and burnout characterized by cynicism and depersonalization lies not in the absence of withdrawal, but in the object of that withdrawal, suggesting that — as with the difference between depersonalization in human services setting and cynicism in other settings — the setting and context are key factors in determining the *type* of withdrawal that occurs.

Santoro's (2011) development of the concept of demoralization seeks to understand burnout as a dynamic relationship between individuals and their responses to their contexts. Just as LPA suggests that teachers within different profile groupings will experience demands and resources (both internal and external) differently, so will teachers experiencing what Santoro (2011) calls demoralization. Building on Maslach's early recognition (Maslach & Jackson, 1981) of differences between withdrawing energy exerted towards work (cynicism) and withdrawing emotional energy expended towards students (depersonalization), perhaps it is important to examine whether withdrawal of energy exerted toward systems is a third form of withdrawal, which can be captured within theorizing about teacher burnout (see Figure 2). Indeed, Schaufeli and Taris (2005) have suggested that, although the MBI-ES measures depersonalization, and the Maslach Burnout Inventory-Human Services Survey (MBI-HSS) measures cynicism, either or both depersonalization or cynicism could contribute to teacher burnout — depending on the job context, including demands and resources. Likewise, it would be prudent to measure demoralization alongside cynicism and depersonalization as a means of uncovering the mismatch between teachers and contexts to decrease attrition and improve schools. In this way, we can respond to an underlying tension that has followed burnout research for almost 50 years — that of capturing individual variation of experiences of burnout within broader contexts of educational structures.

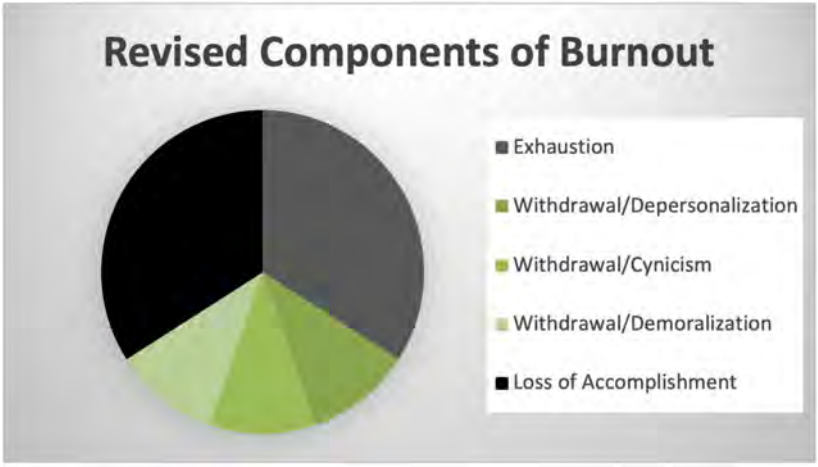

FIGURE 2. *Our reconceptualization of the components of burnout*

POLICY AND PRACTICE IMPLICATIONS OF DEMORALIZATION AS TEACHER BURNOUT

While the discourse on burnout might well be influenced by psychological approaches, the concept of demoralization is clearly socially constructed (Tsang & Liu, 2016). In addition to factors such as individual personality, coping strategies, or mental health, social factors such as occupational context, systemic practices, and organizational hierarchy can ultimately contribute to negative experiences for teachers, as seen through a lens of demoralization. A study by Lau et al. (2008) noted the importance of administrative support for the instructional work of teachers, the influence of school administration on teacher morale, the salience of consultation and open communication during decision-making processes, as well as trust for and consideration of the difficulties encountered in classrooms. By ensuring that these systemic practices were in place, school administrators were able to empower teachers to positively interpret instructional values and make a difference in students' lives. Administrative support enabled teachers to perceive that their work and their instructional settings matched their goals in teaching. Demoralization was effectively averted, and teacher well-being and instructional quality was enhanced through processes of transformational leadership (Bass, 1990; Dworkin et al., 2003; Leithwood, 2004; Leithwood & Beatty, 2008). Santoro (2018) has noted that teachers could mobilize their power and reengage with the profession if they could locate an authentic professional learning community. Santoro (2018) concluded counterintuitively that while the typical advice to avoid burnout would suggest teachers do less, it was rather about doing more, but under the correct conditions.

Recognition of demoralization as a form of burnout has policy and practice implications. Herman et al. (2018) have highlighted the practical applications of

identifying the meaningful and salient features of each profile group by using latent profile analysis, and Bakker and Devries (2021) have recommended a multi-level response to burnout that is supportive to individual, school-based, and systemic causes of burnout. LPA recognizes that different causes and manifestations of burnout require differentiated responses, addressing Santoro's unfounded concern that burnout mitigation cannot address the conditions that promote demoralization (Porter, 2018). Likewise, the World Health Organization (2018) redefinition of burnout has recognized that mitigating burnout is a joint and mutual responsibility of both individuals and organizations in terms of managing chronic workplace stress. In capturing demoralization as a component of burnout, we recognize that addressing teacher burnout must extend beyond an individual teacher's self-regulation and beyond simple recalibration of on-site job demands and resources. In addition, recognition of the demoralization of teachers as a form of burnout asks administrators to take steps to ensure a better match between educational policy, system practices, and the moral values of educators. Indeed, in a time of global pedagogical reform prompted by the pandemic, philosophical questions about the desired roles and purposes of education have been highlighted in compelling ways. Reconciliation of the mismatches between government directives, administrative practices, and teachers' values and morals related to education will be necessary to ensure that a healthy teaching force is maintained and that healthy school environments are supported. If not, it is likely that the pandemic-related warning expressed to UNESCO by Dorcet et al. (2020) will be realized, and education will continue to be disrupted, at great cost to students, teachers, families, and society.

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"BREAKING THE MOULD": RESISTING THE STEREOTYPES OF BEING A BLACK CANADIAN STUDENT-ATHLETE

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ABSTRACT. This article examines how stereotypes operate in the social construction of Black Canadian male student-athletes and how those stereotypes frame these students' lived experiences in relation to race, athletic ability, and academic performance. From qualitative interviews with twenty current and former Black Canadian student-athletes, we found that they largely resisted and challenged the stereotypes of being primarily athletes and less students. In various ways, they sought to demonstrate that they possessed the skills needed to be academically successful students with the ability to balance their athletic and academic responsibilities and commitments. This was evident in their having obtained the required grades to enter university, receiving athletic scholarships, maintaining playing eligibility, graduating from university, and going on to pursue graduate studies.

«SORTIR DU MOULE» : RÉSISTER AUX STÉRÉOTYPES D'ÊTRE UN ÉTUDIANT-ATHLÈTE CANADIEN NOIR

RÉSUMÉ. Cet article examine comment les stéréotypes opèrent dans la construction sociale des étudiants-athlètes masculins noirs canadiens et comment ces stéréotypes encadrent les expériences vécues de ces étudiants en relation de leur race, leur athlétisme et leur performance scolaire. À partir d'entrevues avec vingt étudiants-athlètes noirs canadiens actuels et anciens, nous avons constaté qu'ils défiaient les stéréotypes d'être plus athlètes qu'étudiants. De diverses manières, ils ont cherché à démontrer qu'ils possédaient les compétences nécessaires pour réussir sur le plan scolaire avec la capacité d'équilibrer leurs engagements sportifs et académiques. Cela était évident vu qu'ils avaient obtenu les notes requises par les universités, reçu des bourses d'études, maintenu leurs admissibilités au sport, obtenu leurs diplômes universitaires et ont pu poursuivre leurs études.

The prevailing stereotype of Black student-athletes is that they are athletes first and students second. This notion is often fueled by the belief that Black people are physically gifted, possessing genes that enable them to run faster and jump higher than other races, all without having to work as hard to achieve such performances (Edwards, 2000; Harrison et al., 2004; Harrison et al., 2011). Despite evidence to the contrary, this myth of Black genetic advantage has sustained assumptions about Black athletic superiority and intellectual inferiority that are proving difficult to dispel (Coakley, 2006; Graves, 2004). This use of stereotypes, comprised of knowledge and assumptions about certain attributes and behaviours, is an oversimplification of a complex social reality. It is a process known as social formation or stereotype formation, which is the perspectives and impressions people create about social groups (Hinton, 2019). This article explores the impact that race-based stereotyping has on the university experiences of Black Canadian male student-athletes and, in turn, on their academic performance and educational outcomes. We acknowledge the heterogeneity of the Black population, but for ease and simplicity, this article uses the term *Black*[1] to refer to Black Canadians, regardless of their African or Caribbean heritage. We also note the differences in practices and outcomes in Canadian and American contexts.

The literature on the university experiences of student-athletes — especially males — tells of how stereotypes operate to position them as athletes more than as students (James 2010, 2021). Our focus here is on how Black Canadian university student-athletes navigate, negotiate, and act against the stereotypes that teachers, coaches, peers, the media, and even parents wittingly and unwittingly re-enforce about the value and viability of athletic ambitions, this at the expense of the students' academic interests. This is particularly worrisome and problematic for Black Canadian student-athletes since the Canadian educational system does not value and support student-athletics in the same way as in the United States. In the Canadian university sport system — formerly known as Canadian Interuniversity Sport (CIS), and now referred to as University Sports (U SPORTS) — access, quality, and funding differ from the situation in the National Collegiate Athletic Association (NCAA) of the United States of America (Geiger, 2013). And, despite valiant efforts to address this situation and recognize the athletic skills and abilities of Black youth, athletic participation actually has the potential to limit their success since upward social mobility is primarily obtained through education, not athletics.

James (2010) suggests that pushing Black students into athletic endeavours at the expense of academic pursuits helps to perpetuate the stereotype that Black youth are supposed to excel athletically. This myth is informed by the success of Black Americans in sport along with the media images, ideas, and social practices that are used to construct Black youth as superior athletes and inferior students (Conyers, 2014). Many Black Canadian youth come to believe that sport

offers them the greatest educational, and hence career, opportunities that they might not otherwise attain. Exposure to these images, messages, and practices through television and other media sources entices these young people with the dream of attending American universities on sport scholarships where they will be recognized as accomplished athletes in the highly competitive arena of American intercollegiate sports, regardless of their accomplishments as students (Dyck, 2006; James, 2012). However, the odds of Canadian high school athletes receiving an NCAA athletic scholarship, or of Canadian university athletes entering the professional sport ranks, are exceedingly remote (Dyck, 2006). In accordance with the stereotype, some Black Canadian student-athletes continue to participate in athletics at a high level with the expectation that they will beat the odds. Other Black Canadian student-athletes understand and resist the stereotypes, thereby challenging the notion that their only means of achieving success and social mobility is through athletic competition.

Before discussing the findings of our study, we first present a brief literature review focussing primarily on what is said about Black student-athletes and the stereotypes pertaining to them. This is followed by a discussion of our conceptual framework, built on Critical Race Theory (CRT), which informed our analyses. In the findings that follow, we build on the themes that emerge from what we heard from participants.

LITERATURE REVIEW: STEREOTYPES OF THE BLACK CANADIAN MALE STUDENT-ATHLETE

Black Canadian culture is often imagined as a reproduction of Black American culture. As a consequence, representations in media often meld young Black Canadian identity with that of Black America (Joseph & Kuo, 2009; May, 2009). Walcott (2001) highlights this mindset by arguing that, in Canada, there is a tendency to categorize Black people into one group and ignore their ethnic differences. For instance, in the case of continental Africans, along with identifying with their ethnic group, they use other adjectives to describe themselves, such as religion and/or the region of the countries in which they lived prior to coming to North America (Ibrahim, 2004, p.78). The descriptor "Black" strips away the variations between the various Black communities, leaving them to be imagined, constructed, and grouped based solely on skin colour. It is this racialization of North American Black peoples as a homogenous group that invites a deeper examination of Blackness (Crenshaw, 2002). Both past and present circumstances of Black male students in North America are associated with a greater probability of failing to obtain desirable life outcomes. This is because, in addition to the youths themselves, these desirable life outcomes are also viewed as being at-risk through the behaviours and dispositions of the youths and their families (Kelly, 2000; Ladson-Billings, 2011).

The construction of Black athletic superiority in fact constitutes another, more subtle form of racism which masks the idea that Black people are intellectually inferior with a purportedly positive generalization (Winant, 2000). This stereotype has led some American educators to conclude that Black males are uninterested, and even unable, to learn and thus *only* capable of engaging in sport (Parsons, 2013). For their part, Canadian educators have encouraged Black students to take non-university path programs, believing that they either do not have the capacity for university education or that their best opportunity for social mobility resides in college education or athletics rather than in the formal educational setting of university (James, 2021). Moreover, when Black students display academic potential by taking their education seriously, it gives the impression that they are different from their Black peers — something white teachers might find especially appealing in constructing those Black students as the exception rather than the rule (James, 2010).

Although it is argued that a lack of experience with the Eurocentric curriculum is the leading cause of the academic struggles of African-Canadians (Codjoe, 2006), Thiessen (2009) asserts that the Eurocentric curriculum in the Canadian school system does not necessarily hinder Black educational success, evidenced by the academic efforts and successes of Black immigrant students compared to their Black peers — many of whom are third-plus generation Canadians. However, those who claim that it is not the educational system that is failing to be responsive to the needs and interests of Black students often attribute poor educational outcomes of third-plus generation students to laziness and disinterest in school, rather than recognizing the Eurocentric bias of the school curriculum and the fact that Black students are more likely to benefit from a school curriculum that is relevant to them (James 2021).

Emerging from the relationship between stereotypes of athletic pursuit and of academic achievement is the "dumb jock" stereotype which suggests that those with greater athletic ability have less intellectual ability (Harrison et al., 2011; Wininger & White, 2015). Jameson et al. (2007) found that an athlete's intellectual performance is likely to be negatively affected by this stereotype, particularly if the stereotype further implies that they have been given preferential treatment during the American college admission process. In the Canadian university sport system, there is little evidence to suggest that preferential treatment exists for Canadian student-athletes to the same degree as it exists for American student-athletes (Miller & Kerr, 2002). According to its policies and procedures, U SPORTS promotes education along with athletics. As such, there is the expectation that entry into a Canadian university is strictly based on merit, which is illustrated through the need to earn the requisite grades to warrant acceptance into a post-secondary institution, regardless of athletic potential. This expectation is emphasized by the fact that student-athletes are eligible to receive an athletic scholarship at the beginning of the school year

(September) only if they enter university with at least an 80% (B average[2]) high school average (U SPORTS, 2018).

In fact, in Ontario, student-athletes are eligible to receive an athletic scholarship each year if they receive at least a 70% (C average) university average the previous school year. Moreover, those student-athletes in Canada attending universities outside of Ontario are eligible to receive scholarships at the beginning of the school year if they achieve a minimum of 65% (C- average) university average the previous school year (U SPORTS, 2018).

Although the "dumb jock" stereotype is often used to refer to student-athletes generally, there is also a racialization aspect particular to stereotypes of Black student-athletes. This racialization is premised on the idea that they — in this case Black young men — are naturally more athletic than white men due to Western society's increased focus on the physicality of the Black body. Depictions of the Black athlete as possessing genetic advantages, aggressive prowess, increased physical power, and hypersexuality reinforce the stereotype of the superior Black athlete (Coakley, 2006; Graves, 2004), one who is incapable of achieving success outside of the athletic domain (Conyers, 2014).

Conceptual framework

Critical Race Theory (CRT) is used to inform the analysis of stereotypes employed in this study. In this framing, race is understood as a central component in one's identification, but it operates in relation to other identity factors such as gender, ethnicity, sexuality, and immigrant status (Zamudio, Russell, Rios & Bridgeman, 2011). At the same time, racism, which is inherent in society, is recognized as intersecting with other forms of subordination and oppression, such as sexism and classism, that undermine the well-being of racialized people (Gillborn, 2015; Ladson-Billings, 1998). CRT also challenges dominant ideologies and conventions associated with whiteness that work to foster inequities (Huber, 2008; Nebeker, 1998). Moreover, the theory describes how dominant ideologies inform claims of objectivity, meritocracy, colour-blindness, and equal opportunity that, in practice, serve to maintain social, educational, and athletic systems of racialization and racism that disenfranchise Black students (Ladson-Billings & Tate, 1995). It is through these systems that stereotypes of Black students having genetic advantages in athletics are sustained and the students' lack of academic success is attributed to inherent physical abilities and skills. Hence, preferential treatment is given to Black youth in the area of athletics.

Within the framework of CRT, the voices of marginalized people are understood to be central to any messaging about them (Solorzano & Yosso, 2001). Delgado (1989) argues that disadvantaged individuals need to have their voices heard. In this regard, counter-storytelling is an important and essential tool in CRT because of its emphasis on the unspoken voice which often contradicts the same stories told by white people or other majority group members (Hylton, 2005).

Thus, engaging in direct dialogue with Black students about their experiences with racism is a useful and appropriate way to make sense of their racialized experiences (James, 2021; Ladson-Billings, 2011), particularly when those experiences are influenced by stereotypes.

METHODOLOGY

This article focuses on the stereotypes that impacted the educational and athletic trajectory of student-athletes who had attended, as well as those attending, Canadian universities. It is based on research from a larger project on the university experiences of Black Canadian student-athletes. Questions pertaining to race were not initially introduced into the interviews. It was purposely left to participants to introduce race on their own and, if they did not, the topic was introduced toward the end of interview. For the most part, with no prompting, participants did mention the ways in which race was operating in their educational and athletic experiences, both in high school and university. A common reference was to how the "dumb jock" stereotype influenced their experiences as a Black student-athlete.

The student-athletes interviewed for this study were basketball, gridiron football, track-and-field, and soccer athletes. Initially, the idea was only to interview gridiron football, basketball, and track-and-field athletes because the athletes of those sports were thought to be the most valued by Black youth (Sheldon et al., 2007; Spaaij et al., 2015). However, during the recruitment process, other student-athletes expressed interest in participating, so the criteria were amended to include soccer players. Additionally, participants needed to have completed high school in Canada so that any experiences of racialization and marginalization would be within the Canadian educational context. Participants were recruited using a snowball sampling method and needed to be no more than two years removed from university sport competition or, for those currently in university, two years away from graduating. This criterion was employed to ensure that those who had already graduated could recall past events, and those who were yet to graduate had been in university for a significant amount of time.

Twenty Black student-athletes aged 20 to 26 years old participated in this study; 12 of the 20 were still in university at the time of the interviews. All participants attended a post-secondary institution in Ontario except one student who attended university in Alberta. All the participants were recruited through university websites, Facebook, and by referrals from other participants, athletes, and/or their friends. By relying on the universities' athletic web pages, the photographs of players' faces, whose skin colour[3] signaled that they might be Black, became a recruitment tool. The web pages also provided players' names, the sport in which they participated, their year of playing eligibility, and their program of study. The pseudonyms used in this study were chosen by each participant.

Table 1 provides a breakdown of the participants in the study, organized by university attended, sport played, place of birth, age, and whether the participants were in university or out of university at the time of the interview.

TABLE 1. *Student-athlete demographic breakdown*

	U of O	UW	Carleton	WLU	McMaster	UWO	York	U of T	MacEwen	Queen's	Totals
Sport											
(Gridiron) Football	1		2	2			1	1		1	8
Basketball	1	2			2						5
Track and Field	4										4
Soccer		1				1			1		3
Place of Birth											
Canada	3	3	2	2	2	1	1		1	1	16
Nigeria	1							1			2
Congo	1										1
Senegal	1										1
Ages											
20		1									1
21	2				1				1		4
22			1	2	1			1		1	6
23	1										1
24	2	1	1				1				5
25	1					1					2
26		1									1
In University	3	2	2	2	2				1		12
Out of University	3	1				1	1	1		1	8

NOTE. U of O = University of Ottawa; UW = University of Waterloo; Carleton = Carleton University; WLU = Wilfred Laurier University; McMaster = McMaster University; UWO = University of Western Ontario; York = York University; U of T = University of Toronto; MacEwen = MacEwen University; Queen's = Queen's University.

Table 2 provides a more detailed description of each participant, broken down by ethnicity and race of participants' parents, the sport that the participants played, participants' ages, their university program, how long they had been in or out of university, their place of birth, and their parents' place of origin.

TABLE 2. *List of participants at time of interview*

Participant	Sport	Age	Program (ordered by most recent)	U SPORTS Eligibility	Participant's Birthplace	Parents' Origin
Nicholas (Black mother, Black father)	Track and Field	25	Sport Management (graduate) Education (undergraduate) Human Kinetics (undergraduate)	1 year out	Canada	Haiti
Denzel (Black mother, Black father)	Track and Field	24	Social Sciences	1 year out	Canada	Trinidad (mother) Jamaica (father)
Flash (white mother, Black father)	Soccer	25	Law (professional degree) Political Science (undergraduate)	2 years out	Canada	Canada
Fred (Black mother, Black father)	Football (Gridiron)	22	Kinesiology (graduate) Kinesiology (undergraduate)	1 year out	Nigeria	Nigeria
Victor (Black mother, Black father)	Basketball	26	Political Science (undergraduate)	1 year out	Canada	Jamaica
John (Black mother, Black father)	Basketball	22	Economics (undergraduate)	4th year	Canada	Grenada
Kenny (Black mother, Black father)	Track and Field	21	Criminology (undergraduate)	4th year	Canada	Congo
Carter (Black mother, Black father)	Basketball	21	Economics (undergraduate)	5th year	Nigeria	Nigeria

Mike (Black mother, Black father)	Football (Gridiron)	22	Computing (undergraduate)	1 year out	Canada	Canada (mother) Nigeria (father)
Bob (Black mother, Black father)	Track and Field	23	Psychology (undergraduate)	1 year out	Congo	Congo
William (Black mother, Black father)	Basketball	24	English (undergraduate)	5th year	Canada	Jamaica
Riley (Black mother, Black father)	Soccer	20	Accounting & Finance (undergraduate)	4th year	Canada	Ghana
Yusuf (Black mother, Black father)	Soccer	21	Criminology (undergraduate)	4th year	Canada	Congo
Kevin (Black mother, Black father)	Football (Gridiron)	24	Psychology (undergraduate)	4th year	Canada	Canada (mother) USA (father)
Jamal (Middle Eastern mother, Black father)	Football (Gridiron)	22	Communications (undergraduate)	4th year	Canada	Israel (mother) Jamaica (father)
Gordon (Black mother, Black father)	Football (Gridiron)	24	Sociology (undergraduate)	1 year out	Canada	Jamaica
James (Black mother, Black father)	Football (Gridiron)	24	History (undergraduate)	3rd year	Senegal	Senegal
Mark (Black mother, white father)	Basketball	21	Kinesiology (undergraduate)	3rd year	Canada	Jamaica (mother) Canada (father)

Jay (Black mother, Black father)	Football (Gridiron)	22	Environmental Studies (undergraduate)	4th year	Canada	Canada (mother) USA (father)
Frank (Black mother, Black father)	Football (Gridiron)	22	Communications (undergraduate)	4th year	Canada	Congo

Interviews were conducted in a place preferred by the participant, typically in a quiet area such as a library, university office, or other university meeting room. In some cases, the interviews were by telephone. The average length of each interview was 2 hours, with the shortest interview being about 1:15 minutes and the longest being about 2:30 minutes. The interviewer sought to interview the participants for at least 1 hour with no maximum time limit set. The idea was, as much as possible, to engage the participants in conversation in order to obtain as much information from them as they were willing to share on the subject of the research. Some participants were more talkative than others, allowing for longer, more free-flowing conversations, while those who were more reserved produced shorter interviews and necessitated more probing questions. In analyzing the interviews, a strong emphasis was placed on understanding the participants' experiences, which made the process of creating themes and linking the interviews to broader concepts easier. Furthermore, the clustering of participants' responses to the questions helped with the identification of themes and pointed to a similarity of ideas presented by the participants.

In what follows, we discuss the findings, which are organized by those themes that emerged from the participants' narratives about their sense of identity as Black student-athletes playing sport while in university, how they responded when confronted with stereotypes, and their efforts to assert their academic acuity. The narratives indicate that while similarities do exist among the participants, there are also differences that help to shape their unique sense of self and how they interpret their academic and university sport trajectories. All names of the student-athletes are pseudonyms.

Further, our insights into these findings are informed by our lived experiences as well as our work with student-athletes. Nartey's understanding of, and insights into, the student-athlete experience was informed by his status as a former university student-athlete, doctoral candidate at the time, and an African-born Black male in his 30s. These experiences likely aided in the recruitment of participants and the development of trust; the resulting insider perspective not only helped to influence the types of questions asked during the interviews, but also the issues explored (Nartey, 2019). James, a Black researcher, has been conducting research in this area for more than twenty years. Our joint experiences combined to furnish the insights that we present in this article.

FINDINGS: BEING BLACK STUDENT-ATHLETES IN UNIVERSITY

What does it mean to be Black?

The dual roles of student and athlete were cherished by the participants in this study because, for them, these ascriptions together represented a level of exclusivity that stemmed from having to obtain the necessary high school averages for university admission, achieving a minimum average to be allowed to compete in athletics, maintaining full-time academic status, and honing their athletic skills to earn playing time. As one participant explained:

> It's more exclusive. Like I feel it's something that is a step above because everybody who's at the school is in a program but not everybody who's at the school is in athletics or not everybody who's at the school is in a club. So, it's a way of distinguishing yourself amongst other people. (Victor)

Being a student-athlete in an environment where everyone was just a student added an element of uniqueness to their scholastic experience. All the participants in this study felt that they were members of a select group which set them apart from the rest of the university population (Sefa Dei & James, 1998). They perceived their engagement in university athletics — in the dual role of athlete and student — as helping them to resist the perceived homogeneity that existed of Black students. Thus, their engagement in activities that highlighted their individuality and unique talents was something that they very much relished as it set them apart from the singular image of Black students and illustrated the heterogeneity of Blackness (see also Martis 2020).

"I would never hold back my Blackness …"

The participants also discussed having to engage in behaviours deemed appropriate for Black males as a way of maintaining their Blackness. Jamal, who was being scouted for the CFL draft at the time of the interview, took particular pride in engaging in stereotypical Black behaviours:

> If I walk into class and I see one of my boys, I'm not going to stop myself from saying, "What up nigga, how you doin'?" If I do that and there's a white teacher beside me that's shocked and opens her mouth agape, that makes me smile even more. Because she's going to see my paper and mark it a 90% and think "I guess I shouldn't have judged that guy and anybody else that acts a certain way." Like, on my team, there are a lot of guys from Toronto, from Jane and Finch and I have zero issue with them sagging their pants or doing whatever they want because they're in university. So, I would never hold back my Blackness in any case. The way I want to speak, the way I want to hold myself and behave, and the music I want to listen to, and how loudly, is never going to be impacted by who I am around.

Jamal's brash in-your-face attitude supports the findings of Sefa Dei and James (1998) which suggests that Black students use Blackness as a strategy to challenge the dominant conceptions of identity. Jamal's defiance, as a mixed-raced individual, suggests his acknowledgement of living in a world of racialized identity in which

his actions and attitudes were framed for him to become Black (see Martis, 2020; Sefa Dei, 2018). In this case, he seemed to have been overcompensating for his mixed-raced heritage by engaging in behaviours that some individuals deemed to be inappropriate — or stereotypical.

In addition, Jamal's comments support the old adage of "Don't judge a book by its cover." In other words, his comment points to the pride he felt with having teammates and fellow Black students from the marginalized community of Jane and Finch (Friesen, 2018); for despite fewer resources, they achieved the same academic credentials for university admission as their white counterparts. Their enrollment in university challenged the narrative that Black youth are underachievers, and hence their Blackness was not something about which they should feel ashamed. Specifically, Jamal's attitude and behaviour towards his teacher was not only to dispel doubt about his Blackness and related culture, but exemplify his resistance to the categorization of an inferior Black male. As such, he expected that once others interacted with him on an individual level, they would come to see the error of their ways and appreciate his true abilities and character.

This grappling with issues of identity was not only evident among mixed-raced participants. Fred, who was born in Nigeria, and was enrolled in a master's of science in kinesiology program at the time of the interview, indicated that while he might outwardly show support for rap music, inwardly he did not feel connected to the music. He too indicated that his stereotypical behaviours were meant to reassure his Black peers of his Blackness:

> Sometimes, I feel like I have to be better than I am because otherwise you get put into a category. For example, in the locker room, I listen to rap music. But there are certain kinds of rap music that I think are just dumb. But in the locker room you see all the Black dudes and they listen to rap music. So, you kind of have to join that culture in a sense, even if you don't see yourself in it because it makes you more Black.

So, in order to ensure that his Blackness was not questioned, Fred engaged in behaviours that he described as making him "more Black," while also making every effort to demonstrate that he did not fit the stereotype of an academically underperforming Black student — after all, he was "better" for being a graduate student. But what comes through in Fred's statement is that, while he was doing well academically, he did not betray his fellow Black peers by acting white (Ogbu, 2004). His involvement in sport coincides with Durkee et al.'s (2019) suggestion that some Black youth purposely use their participation in sport, particularly basketball or football, as a means of accentuating their Blackness, while at the same time mitigating accusations of acting white. Hence, labels of "sell-out" and the fear of labels contribute to the pressure that many Black student-athletes place on themselves to avoid stereotypes.

Fred's decision to adopt Black cultural practices and conform to the stereotypes and ascribed group norms eliminated questions about his Blackness. His actions, as a result of this decision, were done to appease his peers, solidify his Black identity, and engage in behaviours associated with what a Black male is supposed to be, thereby allowing himself to be seen as a stereotypical Black male. However, Fred's desire to be better raises the question of whether his intellectual ability, demonstrated by the fact that he was a graduate student, was enough to ensure that he was not defined by whatever stereotypical Black behaviours he might engage in. Yet, he seemed disappointed in himself for not resisting the perpetuation of Black stereotypes as his account hints at an apology for simply being Black. This is not uncommon. Despite the image that they present to the world, many Black males who value their Blackness construct a large portion of their identity based on how others perceive their Blackness. Thus, while Fred's feigned affinity for rap music may have perpetuated Black stereotypes, it was also seemingly necessary to reaffirm his sense of Blackness.

"You talk white"

In contrast to Jamal and Fred who might be seen to be perpetuating stereotypes, Flash, who was also of mixed-raced heritage and a student in a faculty of law program, actively resisted Black stereotypes — even though doing so led to increased ridicule and questions about his Black identity. Nevertheless, in discussing his sense of identity, he sought to counter the narrative of Black people as intellectually inferior, believing that such a stereotype degrades Black people while simultaneously uplifting white people:

> It wasn't that rare for people to say that I spoke white. So, when I got to [name of university] and people were saying the same kind of jokes, "Oreo," "You talk white," because I didn't talk like "yo yo yo," etc. It bothered me since being more articulate is to be more white.

Flash acknowledged that his rich vocabulary invited taunts of "Oreo," implying that he was Black on the outside and white on the inside. Such taunts directed at him were not merely because of his mixed-race heritage, but also because his expressions — evident in his language and program of study — were perceived to be characteristic of whiteness. Despite challenging the stereotypes, Flash's efforts seemed not to be enough for him to avoid questions of identity.

Even though the Canadian university sport system emphasizes that its student-athletes maintain a balance between athletic and academic success, the myth of the intellectually inferior Black student-athlete remains (James, 2012; see also Harrison et al., 2011). As Flash recalled, Black students thought he was too white because of his academic success and penchant for speaking with strict grammar, while white students viewed him as definitely Black because of his skin colour and athletic prowess. Caught between being defined by his intellectual ability as white and his athleticism as Black, Flash's efforts to excel academically meant that he was unable to garner the social, cultural, and educational peer

support that he sought during his university career. It is possible that had Flash not been of mixed-race background, he may not have felt the same pressure to excel athletically and academically because there would be fewer questions and subsequently fewer accusations regarding his identity.

Similarly, when asked about the impact that his Blackness had on his academic achievement, Fred had this to say:

> It's not your skin tone, it's your personality, behaviour, and just the way you act in general, in different situations. The way you talk, your intelligence level. Honestly, if you are too smart, I feel like it reduces your level of Blackness — which is actually just ridiculous! It's how people see it though.

In an article entitled "Beyond Test Performance: A Broader View of Stereotype Threat," Lewis and Sekaquaptewa (2016), building on Steele and Aronson's (1995) work on stereotype threat, found that African-Americans are likely to perform negatively on intellectual tests because of the pressure to challenge cultural stereotypes that question their intellectual and academic abilities. Fred's comment indicates that a similar stereotype threat exists in Canada as well. According to Fred, projecting a level of intelligence that does not coincide with the stereotypical standard of Blackness seemingly reduces a person's Blackness. This is a mindset that many Black and non-Black individuals possess which greatly influences how Black youth navigate the educational system in Canada. As a result, many Black youth resort to athletics as validation of their self-worth (Saul & James, 2006), increasing the likelihood of others seeing Black people in athletics. This in turn serves as motivation for more Black youth to excel in this endeavour, to the detriment of their academic success. However, Fred's presence in a master's program meant that he rejected the stereotype threat, demonstrating a strong, yet isolating, act of resistance.

"Everything is easier when you have people who look like you"

William, a basketball player in his final year of undergraduate studies during his interview, lamented the absence of Black role models who had achieved success outside of sport:

> What you see is us dancing on BET[4] or whatever. You're not seeing the doctors, you're not hearing about our history or all that good stuff. You only see the bad stuff. So even if there were a good amount of Black people that were doctors, everything is easier when you have people that look like you and remind you of yourself. And whether it's their race or character traits or whatever, there's just not enough people to look up to. But it's nice when you see Black doctors. It's more inspiring than seeing any other race do it so.

William's assertion likely stems from the fact that BET (Black Entertainment Television) creates an image that Black people are mainly entertainers, and the lack of visible Black role models outside of the entertainment industry likely pushes many Black Canadian youth into thinking that their only, or main, avenue toward upward social mobility is through the sport and entertainment industry.

This thinking is consistent with the views expressed by other participants in this study as well as with authors such as Carrington (1998), Hodge et al. (2008), Martis (2020), and Wilson and Sparks (1999) who have all stressed the importance of Black role models. They all maintain that the invisibility of successful Black people in careers outside of sport and entertainment makes it harder for some Black youth to strive towards careers outside of these fields.

According to William, a Jamaican-Canadian, the lack of relatable role models creates lowered expectations regarding upward social mobility for Black youth since they are regularly bombarded with images of successful Black entertainers—particularly athletes (Harrison et al., 2004, 2011). This not only makes them unaware that they can have successful careers outside of the sporting or entertainment industry, but they come to believe that careers outside of the sport industry are unsuitable. Hence, there is a need for young people, including these student-athletes, to see Black people in professional positions such as doctors, engineers, lawyers, and professors so that when their athletic careers end, they too will have the necessary role models to inspire their continuing education.

Whereas William sought Black role models, Nicholas described the responsibility he himself felt to be a good Black role model for the next generation of Black youth. Coming from a low socio-economic background and growing up in a neighbourhood where he was often exposed to criminal activities, Nicholas, a former track-and-field athlete, rejected the assumption that Black people cannot achieve combined athletic and academic successes:

> At the high school I went to, a lot of the Black student-athletes didn't end up going to university or college or anything. But I feel it's like because I was a Black student-athlete, it's like you know what? Let's make this look really good. Let me be the poster boy for all Black student-athletes. It gave me more of a drive to work harder and succeed better. It just gave me a drive. There was a time when I didn't think I was going to make it in school. I used to think that I was like a gangbanger and stuff. But look at me now. I'm a teacher. I'm a master's candidate. I did it.

The lack of visible Black role models outside of sport motivated Nicholas to become the "poster boy" for overcoming adversity. As such, he saw himself as a role model for young Black students. For him, it was simply not enough to seek the change he wanted to see in the world; he actively strove to be the change that he sought. His experiences as a Black student-athlete and graduate student in a sport management master's program was evidence enough for him to know that Black youth do not have to be limited to careers in sport or entertainment.

"I just want to show the Black professor [and parents] that there are Black academics"

The pursuit of careers in sport or entertainment was challenged by many of the parents of these Black youth. As such, parental support was a crucial component that aided many of these student-athletes to resist the stereotypes associated with being a Black Canadian student-athlete. Participants from both single and two-

parent households had parents who encouraged them to succeed academically. However, the process by which academic success was encouraged varied for both children of immigrant parents and children of non-immigrant parents. As a second-generation Canadian and a child of Congolese parents, Frank was told by his parents that he could be as Canadian as he wanted outside their home, but inside their home, he was a Congolese and parental rules and cultural heritage took precedence. Hence, in keeping with the immigrant aspirations for their children (James, 2021), Frank was strongly encouraged by his parents to pursue academic work at the expense of his athletic endeavours. To this end, his parents prioritized education and stressed the importance of taking advantage of the opportunities presented to him in Canada. According to Frank:

> For me it was, in a sense, knowing that my dad has two master's degrees and a PhD. So, he's always stressed the importance of school and making sure you can get the best education that you can. They always tell us that since we are fortunate enough to be born here, we need to take advantage of all the resources that are given to us.

Frank's pursuit of athletics, while maintaining above-average grades as demanded by his parents, not only challenged the North American expectation that he would excel athletically at the expense of academic success, but also the immigrant expectation that he would excel academically at the expense of athletics. The pressure to appease both groups, with parents valuing academic excellence over athletic endeavours and peers valuing athletic performance over academic pursuits, was overwhelming. However, Frank's ability to maintain an athletic and academic balance as a means of challenging both of these narratives was something that he, and most of the participants, seemed to relish, hence their resistance to the pressures to succeed academically and athletically through conventional methods. This resistance illustrated their ability to break the mould of what seemed to be acceptable Black behavior.

Riley, on the other hand, was actively discouraged from participating in athletics. His parents showed their disregard for athletics by never attending any of his soccer matches. While Ghanaian soccer may be held in high esteem at the national level in Ghana, many Ghanaian parents in Canada firmly believe that education is the best avenue to success, hence their reason for immigrating to Canada. The underlying message in his culturally Ghanaian household was that athletics were a hindrance to academic success. As Riley recalled:

> My parents never attended a single game. They've never seen me play a sport. In high school they've never seen me play. And university they never seen me play. "You want to play sports that's fine, but your academics don't drop, if anything they better go up."

Despite his parents not attending any of his games, Riley understood the sacrifices his parents made for him to obtain an education. As he further stated, his Ghanaian parents' refusal to attend his soccer matches worked to instill in

him the value of education. Whether they acknowledged it or not, some of the participants' parents were the Black role models that they sought. In Riley's case, his parents' careers — both being Chartered Professional Accountants (CPA) — motivated him to pursue accounting as a profession, if only to make his parents proud. Riley's pursuit of the CPA designation demonstrated the influence his parents' education had on him. Furthermore, his parents' position on sport participation supports the claim that Black immigrant parents actively discourage their children from engaging in athletics because they perceive sport to stand in the way of their children's academic success and ultimately their professional career success (James, 2010).

When asked to discuss how his race may have impacted his academic performance, Jay, who has a Canadian mother and American father, stated that part of his motivation to succeed academically was because he felt a responsibility to work harder in the classroom to reject the stereotype of the academically inferior Black male. At the time of the interview, Jay was being scouted by the CFL but indicated that he would pursue a master's degree upon completion of his undergraduate degree if he did not get drafted. Thus, his academic performance was important to him as he sought to achieve the necessary grades to not only maintain his athletic scholarship, but also to pursue graduate studies. Jay also stated that having a Black professor played a significant role in his academic pursuits:

> I can't think of any specific instances when being a Black student has helped me. I know that if I ever have a Black professor, I work harder in those classes. This will be my third time having a Black professor this semester, and I just feel like more is expected out of me. Not necessarily that more is expected out of me, I just want to show the Black professor that there are Black academics.

Jay's comment indicates that he did not wish to subscribe to the thinking that less was expected of him even in classes with Black teachers and educators who shared his cultural background and were able to relate to his circumstances. Instead, he believed that he needed to work even harder when he was taught by a Black professor to show them that he was a good student (see James, 2010). In doing so, Jay felt that he would be providing hope to the professor in knowing that young Black intellectuals do exist. His desire to please his professor could be understood as an extension of pleasing his parents because he was proud to see people who looked like him in a position of authority. Thus, by accepting responsibility and placing the onus on themselves as ambitious young Black men who are able to achieve academic success, these youth are shattering the narrative of the intellectual inferiority of Black student-athletes in university classrooms.

CONCLUSION: CONFORMING TO AND RESISTING STEREOTYPES

In resisting the stereotypes that characterize Black Canadian student-athletes as primarily athletes and less students, these student-athletes demonstrated that they

possess the skills needed to be successful young men regardless of race. Failure to take advantage of the opportunities presented are often criticisms levied against racialized groups in the quest for equity. The ability of these Black student-athletes to balance their athletic and academic responsibilities — evidenced by their graduation from high school, admission to university, maintenance of playing eligibility, receiving athletic scholarships in most cases, and either graduating from university, preparing to graduate from university, or pursuing graduate studies at the time of the interviews — counters the myth associated with Black athletic superiority and intellectual inferiority, showing that it is possible to be both a successful athlete *and* a successful student (see Appendix A for indication of their achievements to date).

The athletic and academic success displayed by these participants is even more impressive when we consider that many of these student-athletes had parents who lacked experience within the Canadian educational system (15 participants had immigrant parents). Only one participant ever became academically ineligible, but at the time of his interview he had regained his playing eligibility and was on track to graduate within the year. As Black youth, it would have been easy to conform to stereotypes that emphasize athletic pursuits at the expense of academic endeavours, yet many of these youth actively resisted such stereotypes, demonstrating their ability to exercise agency, successfully navigate the Canadian educational system on their own, and take advantage of the opportunities presented to them in Canada despite their race. However, the successes of these Black Canadian male student-athletes, and Black Canadian young people in general, cannot, and should not, be attributed to any one characteristic. Instead, their achievements should be examined in relation to the intersection of social, cultural, historical, and socioeconomic factors (Shizha, 2016). Social and educational success does not pertain to specific, individual characteristics, but rather to an amalgamation of a multitude of qualities that embody the whole person, a reality which is most critically exemplified by Black student-athletes in Canada.

NOTES

1. Consistent with the use of uppercase first letters for the names of ethnic and cultural groups, we have capitalized "B" in "Black." As Harris (1993) writes, echoing Professor Kimberlé Crenshaw, "Blacks like Asians, Latinos and other 'minorities,' constitute a specific cultural group and as such, require denotation as a proper noun" (p. 1710). Similarly, Dumas (2016), who also capitalizes "Black," writes that "Black is understood as a self-determined name of a racialized social group that shares a specific set of histories, cultural processes, and imagined and performed kinships. Black is a synonym (however imperfect) of African American. … White is not capitalized … because it is nothing but a social construct, and does not describe a group with a sense of common experiences or kinship." (pp. 12–13). And Laws (2020) writes that "at the Columbia Journalism Review,

we capitalize *Black*, and not *white*, when referring to groups in racial, ethnic, or cultural terms. For many people, *Black* reflects a shared sense of identity and community. White carries a different set of meanings; capitalizing the word in this context risks following the lead of white supremacists."

2. According to U SPORTS policy and procedures, they have classified an 80% average as equating to a letter grade of "B." It is noteworthy that in the grading schemes of university social sciences classes within U SPORTS, an 80% equates to a letter grade of "A" (U SPORTS, 2018).

3. In this study, it is the case that skin colour was used to construct who was Black. It is possible that individuals might have identified as Black, but if their skin colour did not construct them as Black, it was unlikely that they would have been invited to participate in the study. Thus, all participants in the study not only identified as Black, but their skin colour also constructed them as Black.

4. "BET" stands for "Black Entertainment Television." It is an American television cable and satellite channel that produces entertainment geared towards Black American audiences (https://www.bet.com).

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APPENDIX A: WHERE ARE THEY NOW?

Student-Athlete	Post-Interview Status
Nicholas	Obtained a bachelor's degree. Obtained a bachelor's degree in education. Obtained a master's degree in sport management. Works full time as a high school health and physical education teacher. Helps to coach track and field at the university level.
Denzel	Obtained a bachelor's degree. Works part time. Still running track and field.
Flash	Graduated from a faculty of law. Passed his bar exam and is now a lawyer.
Fred	Obtained a bachelor's degree. Obtained his master's degree.
Victor	Obtained a bachelor's degree. Works full time at an IT company. Continues to maintain his own business.
John	Obtained a bachelor's degree. Works full time. Considering going back to school in about a year if he is not happy with his job at that time.
Kenny	Obtained a bachelor's degree. Currently works part time while setting up his own business.
Carter	Obtained a bachelor's degree. Plays professional basketball in Europe.
Mike	Obtained a bachelor's degree. Started his own tech business. Also works as a fitness instructor and personal trainer.
Bob	Works full time while taking courses to complete his undergraduate degree.
William	Obtained a bachelor's degree.
Riley	Obtained a bachelor's degree. Obtained a master's degree. Pursuing a second master's degree. Passed his CPA exam.
Yusuf	Obtained a bachelor's degree. Works full time in law enforcement. Plans to do more schooling and hopefully pursue a master's degree in the future.
Kevin	Obtained a bachelor's degree. Working manual labour and playing club rugby.
Jamal	Obtained a bachelor's degree. Professional football player in the CFL.
Gordon	Obtained a bachelor's degree. Works as a substitute teacher with aspirations to play football in Europe.
James	Obtained a bachelor's degree.
Mark	Came back for a fifth year of undergraduate studies.
Jay	Obtained a bachelor's degree. Works part time while pursuing a graduate degree.
Frank	Came back for a fifth year of undergraduate studies.

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ITUTORGROUP: A CASE STUDY OF COVERT NATIVE-SPEAKERISM UNDERNEATH A SOCIAL JUSTICE FAÇADE

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ABSTRACT. This article examines the covert native-speakerist strategies iTutorGroup utilizes to discriminate against teachers of nationalities the company appears to deem as undesired. Through content analysis of numerous job application submissions to iTutorGroup's website, results show iTutorGroup's automatic hiring process offers teachers of these nationalities a much lower potential wage and only a video-recorded asynchronous interview, if not complete refusal to an interview. In contrast, British, Australasian, and North American nationals are afforded a much higher potential wage as well as a one-on-one live interview. The company conceals these nuanced discriminatory strategies with a façade of equality since they are one of TESOL International Association's Global Partners. As a Global Partner, iTutorGroup follows suit in pretending to uphold TESOL's nondiscrimination policies.

GROUPE DE TUTEUR : UNE ÉTUDE DE CAS SUR LE PHÉNOMÈNE DE « NATIVE-SPEAKERISM » DISSIMULÉE SOUS UNE FAÇADE DE JUSTICE SOCIALE

RÉSUMÉ. Cet article examine les stratégies clandestines que l'iTutorGroup utilise pour discriminer contre les enseignants de nationalités qu'ils semblent considérer comme indésirables. Grâce à l'analyse du contenu de nombreuses soumissions de candidatures, les résultats montrent que le processus d'embauche automatique offre aux enseignants de ces nationalités perçus comme indésirables un salaire potentiel plus bas et seulement une entrevue asynchrone enregistrée sur vidéo, voire même un refus d'une entrevue. Les ressortissants britanniques, australasiens et nord-américains, bénéficient d'un salaire potentiel plus élevé ainsi que d'une entrevue individuelle en direct. La compagnie dissimule ces stratégies discriminatoires sous une façade d'égalité puisqu'elle est l'un des partenaires globaux de l'association internationale TESOL. En tant que partenaire global, iTutorGroup suit en prétendant respecter les politiques de non-discrimination.

My interest in carrying out this case study stemmed from an experience I had looking for online employment as a language teacher. As I began my job search, I decided to visit the TESOL International Association web page to see if there were any worthwhile job offers. On the site, I noticed that some of the association's Global Partners at the time were online English language schools (e.g., VIPKid, Qkids, GOGOKID, iTutorGroup) and so I decided to apply to one. I visited several websites from the list, but they all had a discriminatory requirement that disqualified me from being a potential applicant (e.g., required to be a native speaker of English, to hold a passport from an anglophone country). Finally, I visited the iTutorGroup website to learn about the company and see whether I could apply for a position. The first thing I did when I accessed the iTutorGroup application website was to check the FAQ section to see whether I was qualified, according to their requirements, to teach for the school. This began what would soon become a research case study to investigate the company's discriminatory hiring practices.

I am from Argentina and am a multilingual speaker of English, Spanish, French, and Chinese. I have a background as an English language teacher. More specifically, I hold a Bachelor of Arts in English Teaching as a Foreign Language, an MA in TESOL, and a Certificate in Teaching English to Speakers of Other Languages (CELTA) from the International House World Organisation. I also have more than ten years of experience in teaching English to a variety of age-groups (children, adolescents, adults) in many different cultural contexts (e.g., Argentina, the United States, China, Canada). I have taught general English, business English, as well as English for specific and academic purposes. I am currently pursuing doctoral studies in Canada, with a research focus on inequitable hiring practices rooted in ideological assumptions about race and native language fluency (otherwise known as *native-speakerism*).

I have found that particularly in Asian countries (e.g., Japan, South Korea, and China), I have often been automatically disqualified from even applying to some job postings as I am not considered a native speaker of English. In the case of the iTutorGroup application, to my relief, there was no explicit native speaker requirement. I was pleased to learn that I already fulfilled several of the eligibility requirements established by the company: "a passion for teaching," a bachelor's degree (or higher), a teaching certificate, a year of teaching experience, a willingness to commit 5 hours a week (or more), and a reliable internet connection (iTutorGroup, 2020b). As I started filling out my application, I noticed the fourth question, which inquired into my nationality. The form (with its drop-down list) gave priority to the British, Australasian, and North American (BANA) countries (the United Kingdom, the United States, Canada, New Zealand, and Australia being on top of the list), which raised some suspicions. Once I completed my profile, I received an automated indication of what my potential wage would be, and I had the option to set up an interview.

Based on my profile, I would receive an hourly wage of up to 13.4 Canadian dollars. This automated result piqued my interest. I started to wonder whether the hourly wage would differ had I indicated a different nationality, perhaps one of the BANA countries, spurring further investigation.

BACKGROUND

In academia, the monolingual bias is fading, slowly but surely, and making way for a multilingual paradigm by which non-native English-speaking teachers (NNESTs) are multilinguals who come with their own set of unique affordances (Calafato, 2019). However, a monolingual bias is still prevalent in the English language teaching (ELT) markets outside of academia, where native-speakerist ideologies often lead to discriminatory hiring practices that significantly reduce employment opportunities for those deemed to be NNESTs (Alvarez, 2020; Braine, 2010). Particularly in Asia (namely, Japan, South Korea, and China), native-speakerist practices can range from enforcement of national policies that dictate which passport holders are considered appropriate to be teachers of English (English Program in Korea, n.d.; State Administration of Foreign Affairs, 2018) to racist practices by school recruiters (Hsu, 2005; Liu, 2018). In the latter case, being a native English-speaking teacher (NEST) is sometimes not as important as being ethnically White (Fithriani, 2018).

Online schools that employ the same practices as the aforementioned Asian countries are not the exception in terms of discriminatory practices. Some outright require applicants to "be an English native speaker from the U.S. or Canada" (Magic Ears, 2019). Other schools, such as Qkids and VIPKid, use requirements such as nationality and/or authorization to work as gatekeeping tools to source their teachers from certain inner circle countries (i.e., countries whose primary native language for their population is English; Kachru, 1992). For example, the VIPKid company prides itself in delivering curriculum "based on Common Core State Standards in the USA" (personal communication, June 11, 2020), which is why they say that they require applicants to have the legal right to work in the United States or Canada. Aside from the inconsistency that Common Core State Standards apply to the United States only (and not in Canada), VIPKid teachers are not necessarily trained Common Core teachers as they are permitted to hold a bachelor's degree in any subject, not just teaching. From the examples just given, it is noticeable how some companies take a more subtle approach to discriminating among, and against, teachers. Taking overt discriminatory stances could jeopardize their relations with TESOL International Association, which has denounced discriminatory hiring practices via two anti-discrimination statements (TESOL International Association, 2001, 2006); Qkids and VIPKid, for example, have been strategic partners of TESOL. With the exception of Ruecker and Ives (2015), studies on covert discriminatory hiring practices in the English as a foreign language (EFL) market are scant. This article, building on Ruecker and Ives, intends to help address that gap.

The following sections detail a case study of the covert native-speakerist strategies that iTutorGroup utilizes to discriminate against teachers of certain nationalities perceived as undesired, which is a proxy for linguistic identities perceived as undesired (i.e., those who are not monolingual English speakers coming from BANA countries). To these teachers, the iTutorGroup automatic hiring process offers a much lower potential wage and only a video-recorded asynchronous interview, if not complete refusal to an interview. In contrast, British, Australasian, and North American nationals are afforded a much higher potential wage as well as a one-on-one scheduled interview with a human interviewer. The implications of these findings are significant in tracking the movement of discriminatory hiring practices from overt to covert. This study shows how one particular recruiting organization, iTutorGroup, has moved from explicit to more indirect and nuanced discriminatory strategies for its teacher recruitment and hiring practices. This recruiter utilizes a façade of equality to carry out their agenda, which materializes in recruitment descriptions such as "iTutorGroup welcomes anyone with a passion for teaching to join us!" Minimum requirements to apply include an idiomatic level in English, a bachelor's degree or higher, a teaching certificate (CELTA-type), recognized teaching experience, a commitment of 6 peak hours per week, and a computer with Windows or macOS (iTutorGroup, 2020b). The company's hiring approach mimics policies upholding equality within the ELT market. Like other organizations, they also number among TESOL International Association's Global Partners. TESOL International Association's nondiscrimination policy includes, but is not limited to, "language background, race, ethnicity, gender, religion, age, sexual orientation, nationality, disability, appearance, or geographic location" (TESOL International Association, n.d.). As a way to protect its own image while still making use of discriminatory hiring practices, iTutorGroup has resorted to concealing these discriminatory practices under a veneer of equality. The case study in the present article exposes these practices through content analysis of the company's wage and interview offers to candidates of different backgrounds.

A BRIEF OVERVIEW OF NATIVE-SPEAKERISM IN ENGLISH LANGUAGE TEACHING

Native-speakerism, as Holliday (2005) argues, implies that "native speaker teachers represent a Western culture from which spring the ideals both of the English language and of English language teaching methodology" (p. 6). In a practical sense, this definition suggests that the native speaker is the most successful teacher of a target language and is attributed superior status. First, as perceived owners of the English language (Widdowson, 1994), NESTs are believed to have superior language skills, skills which conform to the norm of native-speaking models (Kachru, 1992). These norms are understood to indicate an optimal target-language role model (Phillipson, 1992; Rao, 2009), especially with pronunciation teaching (Jenkins, 2005). This conceptualization of the NEST fosters inequality, significantly diminishing NNESTs' chances of successful

employment, as eligibility requirements position place of birth and mother tongue at the forefront, relegating teaching qualifications and experience to secondary requirements. Particularly within countries where English is taught as a foreign language, or what Kachru would call the *expanding circle*[1] (Kachru & Nelson, 1996), native-speakerism materializes in blatant discriminatory hiring practices, with certain discriminatory patterns depending on the region. By "expanding circle," Kachru and Nelson (1996) are referring to countries "in which English has various roles and is widely studied but for more specific purposes than in the outer circle, including (but certainly not limited to) reading knowledge for scientific and technical purposes" (p. 78). For example, within East Asia, the amplified Whiteness factor is present in how teachers might be perceived to be NESTs (or not) regardless of whether they are actually NESTs or NNESTs, which can lead to racist hiring practices when stakeholders seem to idealize the successful teacher as a White Anglo-Saxon NEST (Fithriani, 2018; Kubota & Lin, 2006; Ruecker & Ives, 2015).

It is important to understand recruiters' and students' attitudes towards NESTs and NNESTs since they can influence teacher hiring practices. The biases of recruiters and students, as customers with demands (Holliday, 2008), could play an important role in discriminatory hiring practices. To date, not much research has been conducted into recruiters' hiring practices (Akcan et al., 2017), perhaps due to logistical issues. Studies can be categorized into two types of sources: a) those with direct access to school administrators, managers, recruiters, and policy makers; and b) those that analyze job ads, policy documents, and teachers' accounts of employers. In regard to the first, the few direct accounts obtained from recruiters within East Asia include Stanley's (2013) conversations with a foreign recruiter in mainland China and a self-account of Keaney (2016), a project manager with years of experience in East and South-East Asia. Keaney argues that NEST schemes are justified due to the lack of local teachers with enough language proficiency, which is what NESTs bring into the picture. However, Keaney recognizes that NESTs who are genuinely qualified and experienced are a rare find. For Stanley (2013), the recruiter in their account summarizes the prevalent view on recruiting in many Asian contexts: "He prefers to employ teachers who are young, blond, bubbly, attractive, and entertaining, even if unqualified" (p. 156). The racist aspect of this view is further corroborated by teacher accounts such as Shao (2005) and Hsu (2005) who detail their challenges and racial discrimination suffered with recruiters in China.

The second branch of scholarship which has provided a useful window into recruiters' attitudes towards NESTs and NNESTs is the analysis of recruiter websites or job ads on the web. Studies that have paid specific attention to international job ads for teaching positions in East Asia are Mahboob and Golden (2013), Rivers (2016), Ruecker and Ives (2015), and Song and Zhang (2010), all of which have revealed that being a NEST was a primary requirement, if not the most important requirement, to apply for a teaching position. In Song and Zhang,

analysis of ten websites revealed that 71.6% of job ads for ELT positions in Korea demanded NEST status, while 79.3% of ads requested the same for positions in China. In Mahboob and Golden, an analysis of 44 job ads for positions in East Asia revealed NEST status to be a requirement in 34 of them, with two ads explicitly specifying that applicants should be White (in one ad) and Caucasian (in the other). Ruecker and Ives' analysis of 59 websites recruiting for a specific language school showed that 81% of job postings had NEST status as one of the requirements, expressed in different ways: sometimes requiring applicants to be NESTs and sometimes requiring candidates to hold passports from anglophone countries. They also showed, through their TEFL Heaven website analysis, how language schools' recruiting websites portray the ideal NEST through the images utilized in website design. With the use of particular images, websites can imply that the ideal NEST is ethnically White. Finally, Rivers conducted a study on 292 ELT job ads within the context of Japanese higher education. Results showed that 58 of those ads demanded applicants to be NESTs. Also, Rivers argued that a racist undertone was present in 146 job ads' requirement that applicants submit a recent photograph.

In terms of recruiters' ethnic preferences as expressed through online job ads, Rivers (2016) has pointed out that "it would certainly not be in the best interests of the institution to be making public proclamations, in English to an international audience, favoring one race or ethnicity over another" (p. 81). As Rivers explains, that kind of discourse is not compatible with the accepted rhetoric used on mainstream job billboards or web pages aimed at international Western audiences in countries such as the United States, Canada, Australia, and New Zealand. Even though racism and a preference for White teachers is a prevalent factor in countries such as South Korea, Japan, and China (Braine, 2010; Kubota & Lin, 2006; Leonard, 2019; Lowe & Pinner, 2016; Rivers & Ross, 2013; Ruecker & Ives, 2015; Stanley, 2013), it is an issue that is only visually alluded to on recruitment websites (Ruecker & Ives, 2015) rather than explicitly mentioned (with two exceptions in Mahboob & Golden, 2013). It seems that even though many recruiters in these countries actively look to find what they believe to be ideal NESTs by attracting White NESTs for their schools, they are, at the same time, aware of the potential negative consequences should they explicitly voice that desire. Having one's school branded as racist cannot be good for business. Despite these latent ethnic preferences, demanding that potential teachers be only NESTs has not yet received international recognition as a form of discrimination to the same degree as gender or racial discrimination. As such, while mechanisms have been put in place to uphold gender and racial equality in general recruitment practices, protections to ensure an equitable hiring process for English language teachers remain lacking.

Native-speakerist discriminatory language would appear to be decreasing on websites of internationally renowned institutions as well as institutions compelled to follow anti-discriminatory policy and regulations in specific countries. One

example is tefl.com, one of the biggest ELT job search engines, which used to have up to 70% of its hosted ads include a native speaker requirement as a prevalent component (Kiczkowiak, 2014). A quick search on the website now shows a significant decrease in native speaker requirements in its advertisements over the last few years. Another relevant organization is the British Council, which does not phrase its qualification requirements in terms of nativeness. This could have been prompted by the British Association of Applied Linguistics in 2012 (Rivers, 2013) with their drafting of a formal policy against the use of "native speaker" in their online advertisements, which has influenced a number of renowned British institutions in the ELT space. A similar decrease in discriminatory language can be seen across institutions in North America, which do not usually use "nativeness" as a requirement in job ads as this would contravene local laws as well as values conveyed by the TESOL International Association in two anti-discrimination statements (2001, 2006). Other institutional responses against the use of nativeness-related terminology include KOTESOL (2019); TESOL-SPAIN (2017); Asociación de Centros de Enseñanza de Idiomas de Andalucía (Association of Language Teaching Centres in Andalusia; 2017); and the Association of British Columbia Teachers of English as an Additional Language (BC TEAL; 2014).

It stands to reason that language and educational institutions, in pursuit of worldwide recognition, look for the endorsement of renowned organizations, such as TESOL International Association, to further their national and international outreach. However, to form such a partnership with TESOL, they must abide by their nondiscriminatory policy which includes, but is not limited to, language background, race, ethnicity, gender, religion, age, sexual orientation, nationality, disability, appearance, or geographic location (TESOL International Association, 2020). Indeed, it is for this reason that certain language teaching companies and institutions advocate for equality via their media outlets so as to meet the requirements of well-known associations' nondiscriminatory policies and regulations even if, in reality, they do not practice what they preach. An example of contradictory hiring practices is seen in the present case study on the iTutorGroup company. Until now, literature reporting on these covert discriminatory hiring practices has been scarcely available, which is where this research study comes in to fill the gap by uncovering how iTutorGroup's hiring scheme continues to systematically discriminate against non-NEST, non-White teaching professionals.

PRESENT STUDY

This article details a case study examining iTutorGroup's discriminatory hiring processes, focusing on two specific aspects: a) an analysis of the company's online application form, with its automatic allocation of a potential wage depending on an applicant's specific background;[2] and b) an analysis that compares components

of the two types of interviews offered by the company after the online form is filled out. The guiding questions for this study were:

1. Within the iTutorGroup hiring scheme, how does the applicant's profile influence their wage offer?
2. In what ways do the findings reflect the literature on discriminatory hiring and recruitment practices?

A company background of iTutorGroup

The iTutorGroup company, founded in 1998 and based in China, is currently one of the biggest education online platforms in the world. It recruits teachers for its partner companies TutorABC, tutorJr, vipJr, and TutorMing. TutorABC services Taiwan and mainland China, offering English language courses for adults. TutorJr provides English language courses for students aged 6–18 in Taiwan, while vipJr provides English language, mathematics, and "other diverse teaching services" (Online English Teaching, n.d.) for students aged 6–18 in mainland China. Finally, TutorMing offers Chinese language courses for learners of Chinese worldwide. With more than 30,000 teachers (iTutorGroup, 2020a) and around 200,000-plus students (China's iTutorGroup Targets $2 Billion Valuation Ahead of IPO, 2018), iTutorGroup provides 24/7 language teaching services. Valued at 1 billion USD (iTutorGroup, 2015), the company stands as one of the biggest competitors in the ELT space alongside VIPKid, DaDa, and other major online English language schools in China.

The iTutorGroup company prides itself on "providing individualized, personalized learning experiences to hundreds of thousands of students & business professionals [by] leveraging big data analytics and utilizing advanced algorithmic matching between students, classmates, teaching consultants and digital content" (iTutorGroup, 2020a). Indeed, a similar approach is taken to the recruitment process of teachers via the use of an AI-driven online system (iTutorGroup, 2020a). In the section below, I detail the mechanics of this online AI-recruitment system as well as what a typical recruitment process looks like on the platform.

The recruitment process of iTutorGroup

The iTutorGroup company claims that it "welcomes anyone with a passion for teaching to join us!" (iTutorGroup, 2020b) and showcases the fact that it employs 30,000 teachers (iTutorGroup, 2020b) from 135-plus countries. Once an applicant determines that they meet the eligibility requirements (e.g., qualifications, experience, internet connection), they sign up on the web page at https://join.itutorgroup.com.[3] The candidate will then be redirected to a different section of the web page where a new profile needs to be created. The candidate can use their Facebook, Google profile, or e-mail to set up a new account. After that, an online form needs to be filled out which asks for:

- name,
- gender (male or female options),
- date of birth,
- nationality (countries in alphabetical order with the exception of the BANA countries located on top),
- current location (i.e., where the candidates reside currently),
- cell phone number,
- highest level of education (drop-down menu with bachelor's, MA, PhD, post-doctorate, or "None of the above" options),
- "How much teaching experience do you have?" (drop-down menu options: less than 1 year, 1–2 years, 2–3 years, 3+ years),
- "Aside from ESL teaching, I have expertise in the field of" (a number of options for selecting fields outside of ESL),[4]
- teaching certificates (options: TESOL, TEFL, CELTA, "other certifications"),
- a referral code (in case being referred from another teacher), and
- "Where did you hear from us?" (drop-down menu to choose from several media outlets).

When all the fields have been filled out, the applicant clicks on "Submit," and a pop-up window will appear where the applicant can double-check and confirm the information entered. Upon submission of the online form, the applicant is redirected to another page that displays the candidate's earning potential in a box under the heading "How much can I earn?" Depending on the candidate's profile, they will be able to earn "up to" a certain wage. Also, there is another box that indicates the minimum number of hours the candidate is required to commit to (usually around 5 hours per week). At the bottom of the page there appear a number of options with offers to continue the application process: The candidate can opt to book an appointment for a one-on-one interview with one of iTutorGroup's recruiters or can choose to attend an automated interview. After either interview option, the applicant must wait for their application's final result to learn whether they were hired or not.

METHODS

A case study approach was taken in order to understand the "particularity and complexity of a single case" (Stake, 1995, p. xi), namely, here, iTutorGroup's hiring procedure. Data collection was carried out via content analysis, which "involves the counting of instances of words, phrases, or grammatical structures

that fall into specific categories" (Dörnyei, 2006, p. 255). In this particular case, content analysis data collection focused on the results obtained from different types of profiles entered as job applications on the iTutorGroup website. Results indicated the potential wage offer for a teacher, as well as the option to follow through with the application via either an asynchronous video-recorded interview or a synchronous live online interview.

Procedure

The job application online form was filled out several times. Each time, I started by entering a random e-mail address and password in the sign-up section of the iTutorGroup web page (https://join.itutorgroup.com). The relevant fields in the online form comprise nationality, location of residence, highest level of education, years of teaching experience, and teaching certificates. The "Name," "Phone," and "Where did you hear from us?" fields were filled out with random letters. Although "Gender" and "Date of birth" were variables that could also be used to discriminate against teachers, the analysis of these falls beyond this study's scope. Given that this study aimed to cover native-speakerist related phenomenon, the gender field was set to "Male" and the "Date of birth" to March 6th, 1988 for all applicants.

The literature on discriminatory hiring practices, supported by anecdotal evidence in discussion forums on sites such as Indeed and Glassdoor (via employee feedback) as well as in articles on blogs such as Online English Teaching (n.d.) and Teach&GO (2020), pointed my research towards investigating variables such as nationality, location of residence, highest level of education, years of teaching experience, and teaching certification. The aforementioned sources indicated, above all, that native speaker status, location of residence, a bachelor's degree, and 1 year of experience were needed, but these sources did not indicate whether a better wage was attainable by holding more advanced degrees or having any further teaching experience. I entered a number of profiles in such a way as to see how much weight would be placed on nationality, location of residence, degrees, and teacher experience.

The following profiles were entered:

Category 1: PhD and CELTA certificate holder, 3+ years of teaching experience (the maximum that can be entered)

Category 2: Bachelor's degree and TEFL[5] certificate holder, less than 1 year of teaching experience.

As can be seen in Table 1 below, the following nationalities were chosen for all two categories: the United States, the United Kingdom, Australia, New Zealand, Canada, South Africa, Argentina, Brazil, Venezuela, Germany, France, Spain, China, Japan, Singapore, the Philippines, India, Nigeria, Ghana, and Cameroon.

For location of residence, all nationalities were entered with their corresponding country of origin; in addition, non-BANA nationalities were paired up with residence in Canada to compare potential differences in wages while BANA countries were paired up with residence in Canada, Germany and Argentina, to also see any potential differences among wages. For example, in the non-BANA category, a total of four applications were entered per teacher nationality:

- a Venezuelan living in Venezuela with a PhD and 3+ years of teaching experience,
- a Venezuelan living in Canada with a PhD and 3+ years of teaching experience,
- a Venezuelan living in Venezuela with a bachelor's degree and less than 1 year of teaching experience, and
- a Venezuelan living in Canada with a bachelor's degree and less than 1 year of teaching experience.

For the BANA category, a total of eight applications were submitted per teacher nationality:

- an American living in the United States with a PhD and 3+ years of teaching experience,
- an American living in Canada with a PhD and 3+ years of teaching experience,
- an American living in Germany with a PhD and 3+ years of teaching experience,
- an American living in Argentina with a PhD and 3+ years of teaching experience,
- an American living in the United States with a bachelor's degree and less than 1 year of teaching experience,
- an American living in Canada with a bachelor's degree and less than 1 year of teaching experience,
- an American living in Germany with a bachelor's degree and less than 1 year of teaching experience, and
- an American living in Argentina with a bachelor's degree and less than 1 year of teaching experience.

TABLE 1. *Profiles entered in iterations of job application*

Nationality	Location Same as Nationality	Canada (Location)	Germany (Location)	Argentina (Location)
The United Kingdom	Category 1/ Category 2	Category 1/ Category 2	Category 1/ Category 2	Category 1/ Category 2
The United States	Category 1/ Category 2	Category 1/ Category 2	Category 1/ Category 2	Category 1/ Category 2
Canada	Category 1/ Category 2	Category 1/ Category 2	Category 1/ Category 2	Category 1/ Category 2
Australia	Category 1/ Category 2	Category 1/ Category 2	Category 1/ Category 2	Category 1/ Category 2
New Zealand	Category 1/ Category 2	Category 1/ Category 2	Category 1/ Category 2	Category 1/ Category 2
Germany	Category 1/ Category 2	Category 1/ Category 2	NA [a]	NA
Spain	Category 1/ Category 2	Category 1/ Category 2	NA	NA
Argentina	Category 1/ Category 2	Category 1/ Category 2	NA	NA
The Philippines	Category 1/ Category 2	Category 1/ Category 2	NA	NA
Brazil	Category 1/ Category 2	Category 1/ Category 2	NA	NA
Venezuela	Category 1/ Category 2	Category 1/ Category 2	NA	NA
China	Category 1/ Category 2	Category 1/ Category 2	NA	NA
Japan	Category 1/ Category 2	Category 1/ Category 2	NA	NA
Singapore	Category 1/ Category 2	Category 1/ Category 2	NA	NA
France	Category 1/ Category 2	Category 1/ Category 2	NA	NA
India	Category 1/ Category 2	Category 1/ Category 2	NA	NA
Nigeria	Category 1/ Category 2	Category 1/ Category 2	NA	NA
Ghana	Category 1/ Category 2	Category 1/ Category 2	NA	NA
Cameroon	Category 1/ Category 2	Category 1/ Category 2	NA	NA

[a] Stands for "Not analyzed."

Entering each profile in the application form returned an automatic response that varied depending on the specific profile. Each response included the potential wage the applicant could earn along with the possibility for a video-recorded or live interview (with the ability to choose) or, with some profiles, the possibility of only a video-recorded interview. In some cases, no potential wage was offered at all and a message indicating the application was "under evaluation" would be displayed.

Each response was analyzed according to the wage offer amount, whether a choice was offered of a pre-recorded or live interview, and whether the "under evaluation" message was displayed. Similar responses were grouped together into categories, and characteristics in the profiles were analyzed for what they had in common to produce similar wage offers and interview responses. Profiles with characteristics that produced similar responses were likewise grouped into categories.

RESULTS AND DISCUSSION

As can be seen in Table 2 below, the division of teachers between category 1 (PhD and CELTA certificate holder, 3+ years of experience) and category 2 (bachelor's degree and CELTA holder, 1 year of experience) is missing. The reason for this is, as data collection progressed and different profiles were iterated through application forms, it became clear that both the potential wage offer and the interview type were exactly the same regardless of the applicants' different qualifications. That meant that a novice teacher with a bachelor's degree and a less recognized teaching certification could earn the same wage as an experienced teacher of the same nationality with a PhD, 3+ years of experience, and a CELTA certificate. Consequently, the level of qualifications beyond the minimum requirements to teach English seem to be irrelevant for the application. Differences in potential wage earnings and the type of interview a candidate can choose lie mainly (if not exclusively) on the applicant's nationality.

To discuss specific findings, I will use categories under the labels of "desirable," "less desirable," and "undesirable," which will help organize the different nationalities and locations of residence. By "desirable," I aim to describe those nationalities iTutorGroup looks to for hiring their ideal candidates. By "less desirable," I aim to describe those nationalities iTutorGroup will accept but punish with a lower wage for being those that do not stereotypically portray a native speaker image. Finally, I call "undesirable" those nationalities the company might try to avoid hiring, or to which it provides fewer opportunities to reach the hiring stage.

TABLE 2. *Potential wage offers and interviews*

Nationality	National-ity Same as Location	Canada (Location)	Germany (Location)	Argentina (Location)	Interview Options
The United Kingdom	16.6 GBP (22.88 USD) [a]	28.2 CAD (22.48 USD)	17.2 USD	17.2 USD	Automated or 1-1 [b]
The United States	21.6 USD	28.2 CAD	17.2 USD	17.2 USD	Automated or 1-1
Canada	28.2 CAD (22.48 USD)	28.2 CAD	17.2 USD	17.2 USD	Automated or 1-1
Australia	20.2 USD	26.6 CAD (21.20 USD)	16.2 USD	16.2 USD	Automated or 1-1
New Zealand	18.4 USD	24 CAD (19.13 USD)	15 USD	14.6 USD	Automated or 1-1
Germany	15.2 USD	19.8 CAD (15.78 USD)	NA [c]	NA	Automated
Spain	12.2 USD	15.8 CAD (12.59 USD)	NA	NA	Automated
Argentina	10.2 USD	13.4 CAD (10.68 USD)	NA	NA	Automated
South Africa	105 ZAR (7.41 USD)	9.8 CAD (7.81 USD)	NA	NA	Automated
The Philip-pines	6.2 USD	8 CAD (6.38 USD)	NA	NA	Automated
Brazil	6.2 USD	8 CAD	NA	NA	Automated
Venezuela	6.2 USD	8 CAD	NA	NA	Automated
China	"Evaluating ..."	"Evaluating ..."	NA	NA	None
Japan	"Evaluating ..."	"Evaluating ..."	NA	NA	None
Singapore	"Evaluating ..."	"Evaluating ..."	NA	NA	None
France	"Evaluating ..."	"Evaluating ..."	NA	NA	None
India	"Evaluating ..."	"Evaluating ..."	NA	NA	None
Nigeria	"Evaluating ..."	"Evaluating ..."	NA	NA	None
Ghana	"Evaluating ..."	"Evaluating ..."	NA	NA	None
Cameroon	"Evaluating ..."	"Evaluating ..."	NA	NA	None

[a] The conversion to USD in brackets is only an estimate for clarification.

[b] Stands for "One-on-one interview."

[c] Stands for "Not analyzed."

Wage offer

Clearly, teachers of BANA nationalities, as desirable nationalities who teach in their country of origin, enjoy the best possible potential wage outcomes. Taking into consideration current conversion rates, teachers with British, American, and Canadian nationalities rank first, with roughly the same wage for teaching in their own country, followed by Australia and New Zealand in last place. It is interesting to note that even within BANA countries, there is a hierarchy, based on wage offerings, in which American, British, and Canadian English enjoy the top positions. It is not surprising that American and British English might be the most desirable as, due to colonial legacy, their dialects are usually considered exemplary varieties. Along with them, Canadian English might enjoy a high-paying position due to its (perceived) similarities with Standard American English. The overall results in the desirable category agree with the available literature on native-speakerist job ads that demand candidates to be NESTs from specific countries, often including some or all of the countries mentioned in this section (Mackenzie, 2021; Mahboob & Golden, 2013; Ruecker & Ives, 2015; Selvi, 2010).

The less desirable nationalities — including Germany, Spain, Argentina, South Africa, the Philippines, Brazil, and Venezuela — occupy the second tier, characterized as nations where non-native speakers of English abound. It is interesting to note iTutorGroup's view of South Africa, as can be seen via the wage offer of 105 ZAT (roughly 7.41 USD). South Africa has, indeed, occupied a position of controversy within Asian countries' foreign teacher policies, some of which do not consider it a native English-speaking country (a common category to address the countries English teachers come from). For example, South Korea seems to consider South Africa a less legitimate English-speaking nation, as it imposes further restrictions on South Africans who want to apply for an English teaching position (English Program in Korea, n.d.) by demanding documentation that can prove they have attended anglophone primary and secondary school. On the other hand, China considers South Africa a native English-speaking country, granting South Africa equal standing and legitimacy (as it does BANA nationalities) when applying for an English teaching work visa (State Administration of Foreign Experts Affairs, 2018).

In terms of determining the degrees of nationality desirability, it is clear why BANA countries are considered as more desirable versus non-BANA countries as less desirable: BANA countries are where native speakers abound. However, questions remain as to how iTutorGroup determines different salaries for different non-native teachers based upon their nationality. Teachers of German

nationality are the best paid (15.2 USD), while teachers of Filipino, Brazilian, and Venezuelan nationality occupy the lower end of the wage scale (6.2 USD). Wage does not change much even if the German, Filipino, Brazilian, or Venezuelan teacher worked in Canada (as a common point of reference). It is difficult to speculate what parameters iTutorGroup uses to measure different non-native English-speaking nationalities. Even though German and Spanish nationalities garner the highest wage offers, teachers of French nationality were not even offered a potential wage, being relegated to the undesirable group of nationalities. European nationalities, overall, are not necessarily considered superior as a monolith in their English-speaking ability according to iTutorGroup.

In determining the degree of legitimacy of teachers from non-native English-speaking countries, the other variable that can be discarded is whether English holds official language status in their corresponding nations. In this study, many of the applications with home countries where English is an official national language (e.g., Singapore, Nigeria, Cameroon, Ghana) received worse results in comparison to other countries such as Germany and Spain, whose official language is not English.

The most striking result lies among the undesirable nationalities. Teachers of Chinese, Japanese, Singaporean, Indian, Nigerian, Ghanaian, and Cameroonian nationalities did not even receive a potential wage offer (nor the chance to follow up with an interview). On the contrary, they all received the following message: "Evaluating: Thank you for submitting! Your application is now under evaluation, we will contact you shortly via email. If you have any questions, please contact us at recruiting@itutorgroup.com." Clearly, these nationalities are positioned as undesirable. The iTutorGroup company is, indeed, providing fewer opportunities to this group of teachers, who could conceivably be equally, if not more, qualified than their desirable counterparts. Results show that a teacher from a BANA country with minimum qualifications (category 2 profile) gets an automatic wage offer and the chance of a follow-up interview, while a highly skilled, qualified teacher (category 1 profile: PhD and CELTA certificate holder, 3+ years of experience) from the undesirable group receives neither a wage offer nor a follow-through interview. The discrimination here is apparent.

We can only speculate as to why the undesirable nationalities are considered as such by iTutorGroup. Upon enquiry with iTutorGroup about their country tier system and wage offers, a recruitment agent stated that the pay structure depends upon "qualification, previous teaching experiences, certificate(s) in hand" (personal communication, June 20, 2020), which contradicts the automatic wage offer results where qualifications and teaching experience did *not* seem to be taken into account. The agent also stated that the pay according to country of location depends upon "economic factors" (personal communication, June 20, 2020). Even if we consider the location variable as valid for the difference in wage offers, it does not account for cases in which applicants of equal qualifications and

experience located in the same country are offered different wages. Ultimately, it appears that country of citizenship, and not current location, remains as one of the key measuring variables in terms of wage offers.

It is noteworthy that, with the exception of the Philippines, all the African and Asian nationalities received less positive feedback as compared to their European and North/South American counterparts (with the exception of France). A possible explanation lies in the fact that these undesirable countries are majority non-White-populated nations. English teaching is, indeed, a racialized profession in that stakeholders idealize the successful teacher as a White Anglo-Saxon NEST (Kubota & Lin, 2006; Amin, 1997). Particularly in Asia, there is an emergent body of scholarship documenting raciolinguistic issues pertaining to ESL teacher recruitment. Students within countries such as Japan, South Korea, Thailand, Taiwan, and mainland China show racial bias by expressing preference for teachers with Western Anglo-Saxon Whiteness (Appleby, 2017; Alvarez, 2020; Fithriani, 2018; Hickey, 2018; Kubota & Lin, 2006; Leonard, 2019; Lowe & Pinner, 2016; Rivers & Ross, 2013; Stanley, 2013). Students' bias provides recruiters with further leeway to exclude non-White teachers since recruiters usually justify discriminatory hiring practices based on their clients' preference for certain types of teachers. Instances of racial discrimination abound in mainland China, which is where a large part of iTutorGroup's clientele resides. For example, Hsu (2005) and Shao (2005), both Chinese American, recount firsthand experiences of racism that were extremely discouraging in their potential English teaching job hunt in China. Shao learnt that parents and recruiters were mostly looking for non-Asian, preferably White-looking, teachers, regardless of their qualifications. For Hsu (2005): "You know, now in China, many students want their foreign teachers to have a white face. It is extreme, but it is understandable."

Liu (2018) further corroborates Hsu's (2005) and Shao's (2005) experiences by receiving confirmation directly from recruiters in China, as more than half of the recruiters interviewed "granted explicit endorsement for White NESTs" (p. 92). Teachers from African and Asian countries further deviate from the idealized White, native-speaking candidate. This bias could be a likely factor playing a role in iTutorGroup's hiring practices and their reasoning for providing fewer hiring opportunities to teachers of Asian and African nationalities.

Follow-up interview

Successful candidates of the first screening (i.e., online form completion) proceed to the next step, which consists of an online interview. As previously mentioned, iTutorGroup offers two types of interviews: a synchronous, live one-on-one interview or an asynchronous video-recorded interview. Based on the results of the present study, iTutorGroup offered both possibilities, synchronous and asynchronous, to applicants of desired BANA nationalities. Applicants of less desired nationalities were offered asynchronous video-recorded interviews, while applicants of undesired nationalities were offered none of the possibilities

aforementioned. Members of undesired nationalities were told that they should wait to be contacted by iTutorGroup's staff with further instructions. Whether this is (or not) a covert practice to deny applicants of undesirable nationalities the possibility to continue their application process, it is a fact that with this feedback, opportunities to follow through with the application are ultimately diminished.

The iTutorGroup company's synchronous/asynchronous interview strategy could be based on the worth they assign to applicants of different nationalities. Applicants of less desirable nationalities could be offered an asynchronous interview since this methodology can "target a very wide audience at a small cost" (Sołek-Borowska & Wilczewska, 2018, p. 25). On the other hand, applicants of BANA countries are offered both types of interviews, which allows the applicant to choose the kind of interview they want based on convenience. However, the important point here is that it is BANA applicants only that are considered worth granting the opportunity of a synchronous interview.

The iTutorGroup company's relations with the TESOL International Association

One last concerning factor about the company is its relationship with the TESOL International Association as a 2019 Global Partner. For any organization, being such a partner is undoubtedly a useful strategy in gaining international recognition and can, consequently, provide a broader platform from which to acquire a larger clientele. Indeed, the TESOL International Association states that with its Global Partnership Program, partners will be able to "grow [their] customer, student, or employee base" (TESOL International Association, 2020). However, the TESOL International Association's Global Partners are to uphold the association's nondiscrimination policy, which is, as this study has shown, not a policy iTutorGroup is adhering to. In fact, iTutorGroup has established a façade of equality to harvest the TESOL International Association partnership benefits while continuing covert discriminatory hiring practices.

A clear example of this marketing façade is iTutorGroup's press release during the 2018 TESOL International Association China Assembly. Here, iTutorGroup reasserts its "commitment" to high educational standards and quality teachers by citing its CEO, Eric Yang:

> Dr. Yang firmly believes that education should be quality-oriented, and teachers are key in education. Not everyone who can speak English is qualified to be an English teacher. Just like not everyone who speaks Chinese can be a Chinese teacher. For this reason, iTutorGroup insists on hiring TESOL-certified teachers. (iTutorGroup, 2018)

This statement clearly contradicts the practices observed on the iTutorGroup hiring website. If qualified teachers are key to education, then why would a less qualified/experienced teacher from a BANA country be offered a better wage and interview accommodations than a better qualified/more experienced teacher

from a non-BANA country? It is, hence, imperative that the TESOL International Association address these issues to maintain its social justice integrity. This can be achieved if the TESOL International Association actively ensures that all of the organizations/companies with which it partners honour egalitarian hiring practices within their institutions.

CONCLUSION

This study has provided an overview of the iTutorGroup company and its covert discriminatory hiring practices. These discriminatory practices, which are native-speakerist in nature, border on blatant racism for their disproportionate hiring opportunities, as is evidenced in this study by applications submitted with Asian/African nationalities. Results showed that to pass the initial screening hiring process, less qualified/experienced applicants from BANA countries enjoyed better potential wage opportunities and more flexibility in the interview process as compared to highly qualified applicants (those holding PhD and CELTA certificates and 3+ years of experience) of less desirable or undesirable nationalities. Results align with Sołek-Borowska and Wilczewska's (2018) observations, when they noted the same in a recruitment project in Poland for iTutorGroup that looked for fluent speakers of English, regardless of whether they had any teaching background. Since BANA nationals are associated with ideal standards of native-speaker English, it is clear why they would enjoy the best benefits, this regardless of their teaching experience/qualifications. Finally, it is of utmost importance that TESOL International Association reviews its partnerships with educational companies such as iTutorGroup. Associating with companies like these will only tarnish the image and reputation of TESOL International Association and, in turn, further empower discriminatory educational companies to capitalize on misinformation and discrimination.

NOTES

1. With the impact of globalization, im/emigration, transcultural flow of information/ideas, and the fluidity of geographical and political boundaries, scholars have questioned the limitations of Kachru's circles in modern society (Leimgruber, 2013). More specifically, Yano (2009) describes how even inner circle countries are experiencing demographic changes that question the concept of the inner circle native variety (e.g., the increase of Hispanics and immigration in the United States in the last ten years; the emergence of native speakers of Singaporean English in Singapore who speak the language not only at school, but at home and other environments). However, it is the fixity of Kachru's circles (regardless of whether academics agree or not) that works as a useful metaphor in this article to express the ideology espoused by stakeholders in Asia: a fixed viewpoint as to what a native speaker is/looks like and how that can lead to conflating ethnicity, native language, and nation-state imageries all together based on stereotyping. This is why concepts such as "foreign authenticity" play an important part in explaining

stakeholder perceptions. It helps to illuminate how teachers obtain authority based on the fixed stereotypes espoused by stakeholders as to what a foreigner/native speaker is (or should be).

2. "Background" entails the teacher's nationality, place of residence, teaching qualifications, and experience.

3. At the time of preparing this issue for publication, iTutorGroup appeared to have disabled the application page. The links in the text to the iTutorGroup website are to archived versions of the site as they appeared when this case study was performed.

4. This question was coincidentally introduced at the time of data collection when a number of applications had already been sent as part of data collection. The applications sent with the added question had the option "Other" selected and "~" in the clarification box to indicate the candidate did not have experience outside of ESL teaching.

5. This acronym is usually used as a generic label to refer to certificates from different institutions that are usually less recognized than International House and the CELTA certification.

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VALIDATION OF THE FRENCH VERSION OF THE STUDENT ENGAGEMENT INSTRUMENT

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ABSTRACT. The purpose of this study is to explore the psychometric properties of the French version of the Student Engagement Instrument in order to perform a cross-cultural validation of its factorial structure, based on a sample of 919 French Canadian high school students. Results confirm the reliability of the instrument with good internal consistency (Cronbach's alpha between .76 and .84). Confirmatory factor analysis shows the validity of the six scales composing the French version of the instrument. Results are significant as there were no standardized instruments with which to evaluate student engagement in high school students in French. Student engagement represents an important intervention target towards improving student achievement and preventing dropout.

VALIDATION DE LA VERSION FRANCOPHONE DE L'INSTRUMENT DE MESURE D'ENGAGEMENT DES ÉLÈVES

RÉSUMÉ. Le but de cette étude est d'explorer les propriétés psychométriques de la version française de l'instrument de Mesure d'engagement des élèves afin de réaliser une validation interculturelle de sa structure factorielle, basée sur un échantillon de 919 élèves francophones du secondaire au Canada. Les résultats confirment la fiabilité de l'instrument avec une bonne cohérence interne (alpha de Cronbach entre .76 et .84). L'analyse factorielle confirmatrice démontre la validité des six échelles composant la version française de l'instrument. Les résultats sont significatifs étant donné l'absence d'instruments normalisés pour évaluer l'engagement des élèves du secondaire en français. L'engagement des élèves représente une cible d'intervention importante pour améliorer la réussite scolaire et prévenir l'abandon scolaire.

In Quebec, more boys than girls leave high school without their diplomas: 18.8 % of boys as opposed to 11.9 % of girls (Ministère de l'Éducation, de l'Enseignement supérieur et de la Recherche, 2015). Several factors have been identified in predicting dropout. Low student engagement, for instance, has been found to contribute significantly to the risk of dropping out (Fortin et al., 2013).

Similarly, student engagement trajectories identified as unstable—that is, student engagement which fluctuates over time — have also been found to be strongly related to school dropout (Janosz et al., 2008): When a student's engagement level decreases, the dropout risk increases more for those in unstable trajectories than for those students following normative or stable engagement timelines. Student engagement thus appears to be an important factor to consider both in terms of its evaluation and in terms of its use as a target for dropout prevention efforts. However, a review of the literature reveals that there are no valid instruments with which to evaluate student engagement, in the present context, in French-speaking high school students. This methodological gap results in the difficulty of identifying students with unstable engagement trajectories in a timely manner (Janosz et al., 2008), thus excluding them from the opportunity to benefit from preventive measures. Considering the high dropout rate amongst French-speaking Canadians, developing a self-reported assessment tool in French would be key to helping determine students' engagement level. In a comparative analysis of different tools used to measure student engagement, Fredricks and McColskey (2012) identified Appleton et al.'s (2006) Student Engagement Instrument (SEI) as the self-report measure evaluating students' cognitive and affective engagement with the highest internal consistency and adequate test-retest and interrater reliability. The SEI's strong psychometric value guided the choice for its translation into French. Validating this new version of the SEI to address the lack of engagement measurement tools for French-speaking Canadian students is the purpose of this study.

Student engagement represents a research construct which can help provide knowledge and specific targets for dropout prevention in the fields of research on educational intervention and school achievement. However, there are a number of aspects of this construct which still need to be clarified. As a case in point, studies focusing on student engagement do not always provide a clear definition of student engagement, nor do they always clearly identify the dimensions which are considered in measuring student engagement. As outlined by Fredricks et al. (2011), student engagement may be assessed through different means (observation, interviews, or self-report surveys), but, fundamentally, the means need to be anchored conceptually and refer to a specific definition of student engagement. As a result, empirical studies on the topic tend to operationalize student engagement differently, considering several indicators in their evaluation. This reality constitutes one of the limits on growth in this field of research and, more specifically, in acknowledging the role of evaluation in furthering the development of knowledge in this field; evaluation is a methodological question, one that begins with defining the construct.

We define student engagement as a multidimensional (Appleton et al., 2008; Fredricks et al., 2004; Jimerson et al., 2003) and dynamic concept (Finn, 1989; Fredricks et al., 2004). Student engagement denotes the relationship the student develops with both school and learning (Appleton et al., 2008; Hart

et al., 2011) as a function of the interactions between the student's personal and contextual factors, where the latter refers to the school, the home, and the sociocultural environments. Moreover, the three dimensions associated with student engagement (cognitive, behavioral, and affective) are dynamically related (Wang & Peck, 2013), despite the fact that they can follow distinctive trajectories over time (Li & Lerner, 2011; Wang & Eccles, 2011) and contribute in distinct ways to student achievement and educational aspirations (Wang & Eccles, 2011). Thus, behavioral, affective, and cognitive engagement trajectories may vary in different ways in one student over the course of high school. Janosz et al. (2008), in their longitudinal study following 13,300 French Canadian high school students, found that students following unstable engagement trajectories displayed a higher probability of obtaining lower grades and were at greater risk of dropping out of school than the students evolving on more stable trajectories. Unstable trajectories, as identified by Janosz et al., were characterized by lower levels of initial student engagement and by a more significant decrease in engagement levels over time than those of stable trajectories.

Empirical studies tend to rely on a taxonomy of student engagement varying between two and four subtypes (emotional / affective, behavioral, cognitive, psychological) with associated indicators also varying. Fredricks et al. (2004) considered three subtypes of engagement: behavioral, affective, and cognitive. According to Fredricks et al., behavioral engagement refers to the positive behaviours fostered by the student towards school and learning which contribute to enhancing positive adaptation and achievement. These behaviours include, but are not limited to, involvement in school tasks and active participation in school and extracurricular activities. Affective engagement refers to the student's affective reactions in the classroom and their reflection in school bonding, as well as the value attributed to school and learning. Cognitive engagement involves the student's investment in learning, which may manifest itself through the use of self-regulation and organizational skills in learning tasks.

In their thorough comparative analysis of methods and tools to assess student engagement, Fredricks and McColskey (2012) outlined the strengths, shortcomings, and psychometric properties of several methods and measures. Although there may be some advantages in using observation methods or teacher reports to assess engagement in younger students, self-report survey measures have been found to provide a better measure of the student's subjective perception, particularly in terms of emotional / psychological and cognitive dimensions, which are not readily observable. Evaluating the affective / psychological and cognitive dimensions of student engagement from observation of the student behaviour relies heavily on the observatory / evaluator's inferences (Appleton et al., 2006). Fredricks and McColskey (2012) compared 11 self-report survey measures, outlining the dimensions evaluated, the intended use of the measure, as well as its psychometric properties. This thorough analytical comparison was used in determining which measure to employ in our study.

Our own survey measure selection process was based on five criteria. First, the context of our research is anchored primarily in dropout prevention efforts, and this preventive framework relies on a solid partnership with local high schools where behavioral indicators are systematically monitored. In this context, the need to assess the behavioral dimension of student engagement is not prevalent. Our second criterion was the age group, with high school students being the focus of our research. Our third criterion pertained to the survey's psychometric properties, that is, a high internal consistency and adequate test-retest, which are important to make sure results were strongly linked to engagement and stable over time. Our fourth criterion was based on the aim to measure cognitive and affective engagement through a self-report survey, while our fifth one concerned issues of availability, cost, and length. With all these considered, the SEI (Appleton et al., 2006) was found to be the most relevant self-report survey measure for our research context. We requested the authorization to perform a cross-cultural validation with a French-language version of the instrument, relying on Betts et al. (2010), who demonstrated its validity across different age groups, as well as Moreira et al. (2009), who performed the first cross-cultural validation with a Portuguese version.

Appleton et al. (2006) proposed a student engagement taxonomy composed of four subtypes: academic, behavioral, cognitive, and psychological. Following a systematic review of the literature on the cognitive and psychological / affective engagement subtypes, as well as the existing tools to evaluate them, Appleton et al. created the Student Engagement Instrument. The researchers chose to measure these subtypes through a self-report instrument as it offers a more reliable and comprehensive understanding of each student's cognitive and psychological / affective engagement. The research focus of Appleton and his team is rooted in a preventive framework in which assessing engagement and providing intervention leads to higher achievement and lower dropout rates. In proposing their taxonomy, the researchers relied on the theoretical works of Finn (1989), Connell (1990), Connell and Wellborn (1991), and McPartland (1994), as well as their extensive intervention experience with Check & Connect[1] (Evelo et al., 1996), a dropout prevention program which has been widely implemented in North American schools over the past 25 years.

The SEI (Appleton et al., 2006) assesses cognitive and psychological / affective engagement in high school students based on the contribution of six factors: (a) Teacher-Student Relationships (TSR); (b) Control and Relevance of Schoolwork (CRSW); (c) Peer Support for Learning (PSL); (d) Future Aspirations and Goals (FAG); (e) Family Support for Learning (FSL); and (f) Extrinsic Motivation (EM). In its original version, the questionnaire included 35 items scored on a four-point Likert-type scale ("highly agree," "agree," "disagree," and "highly disagree"). The original instrument showed an internal consistency (Cronbach's alpha) ranging between .72 and .92 (Fredricks & McColskey, 2012). Appleton et al. (2006)

confirmed the six-factor structure of their instrument. The instrument included two reverse-keyed items to reduce response acquiescence.

The purpose of this study is to validate the French version of the SEI and determine the extent to which the factorial structure of the SEI is invariant across students' cultural backgrounds.

MATERIALS AND METHODS

Participants

A sample of French Canadian secondary school students participated in the study ($N = 919$). They attended an urban public school in the Eastern Townships region of Quebec, Canada. The school was chosen on the basis of its representativeness as its student population encompasses students from significantly heterogeneous ethnic and economic backgrounds, similar to those found in other schools in Quebec. Students who participated were between 11 and 18 years of age, with the average age being 14.26 years old. Secondary schooling in Quebec spans over 5 years. In this sample, 18.9% were enrolled in Secondary 1 (Grade 7), 22.2% in Secondary 2 (Grade 8), 18% in Secondary 3 (Grade 9), 23.1% in Secondary 4 (Grade 10), and 13.9% were in Secondary 5 (Grade 11). A small percentage (1.3%) spanned grades, having, for example, passed math in Secondary 3, but having failed French in Secondary 2. The sample was composed of 40.7% girls and 59.3% boys, with 76.5 % having French as their mother tongue. This sample was subdivided into two subsamples for cross-validation purposes. The first subsample ($n = 448$) included 36.2% girls and 63.8% boys, while the second ($n = 471$) included 45% girls and 55% boys.

Procedure

The consent of the authors of the original version of the SEI (Appleton et al., 2006) to proceed to its translation into French and to its validation was obtained in December 2013. As the translation of an instrument, in and of itself, plays a fundamental role in its validation process, the forward-only translation technique (Maneesriwongul & Dixon, 2004) was used to translate the original questionnaire from English to French. This process encompassed three phases. First, a professional translator translated all questions from English to French, and also translated the guidelines provided for its use. Second, the first French version was submitted to an inter-judge committee composed of two judges knowledgeable in the field of educational research. Both judges independently reviewed the French version of the questionnaire, comparing each of the items to the ones in the original English version. Each judge suggested a few modifications. For example, the word "guardian" was translated to "parental figure" to avoid confusion, as "guardian" is synonymous to "babysitter" in Quebec culture. Third, after discussion amongst the judges about the proposed modifications, the French version of the questionnaire was modified and ready for its first use. It was used

in the spring of 2014. The questionnaires were distributed in the classrooms, during a 45-minute study period. As indicated in the guidelines for use in the English version, an adult read the guidelines and then each question. Students filled in their responses as the adult proceeded to read the questionnaire.

Data analysis strategy

To thoroughly examine the SEI factor structure, statistical analyses were conducted in different steps. We first ran a series of exploratory factor analysis (EFA) with oblique rotations to identify the correct number of factors. Once the correct number of factors was found, the measurement model was more fully explored through an EFA in a confirmatory factor analysis (CFA) framework (Jöreskog, 1969). The EFA in the CFA framework is an analytic step between the EFA and the CFA that enables researchers to study the plausibility of complex loadings across factors. The EFA in the CFA framework uses the same number of restrictions as the EFA. In the framework, model restrictions start by fixing factor variances to 1, finding an anchor item for each factor, and fixing the loading of this item to 1 for the factor and 0 for all other factors. After our first estimation, all non-significant factor loadings were fixed to 0. Following Hoyle and Duvall (2004) as well as Betts et al. (2010), when the expected percentage of variance accounted for in the indicator by the factor was less than 10%, the loading of this indicator was set to 0. Thus, all standardized factor loadings less than or equal to .30 were fixed to 0 in subsequent model estimation. In a third step, a CFA was carried out. In the last step, the reliability of the scale was computed. To cross-validate the SEI structure, the total sample (N = 919) was divided into two samples. The first sample (n = 448) was used to conduct an EFA, the EFA in the CFA framework, and a tentative CFA model. The second sample (n = 471) was used for cross-validation purpose.

Following common practice, goodness of fit was evaluated using a variety of fit indices: the comparative fit index (CFI; Bentler, 1990), the Tucker-Lewis index (TLI; Bentler & Bonett, 1980; Tucker & Lewis, 1973), the root mean square of approximation (RMSEA; Browne & Cudeck, 1993), as well as the probability that the RMSEA was at or below .05. For the CFI, guidelines for acceptable value of model fit are at .90 or greater (Garson, 2015). For the TLI, values less than .90 indicate that the model could be improved (Marsh et al., 1988) and those greater than .95 indicate good fitting models (Hu & Bentler, 1999). For the RMSEA, values less than .05 indicate close fit, values between .05 and .08 indicated reasonable fit, those between .08 and .10 indicate mediocre fit, and values greater than .10 indicate unacceptable fit (Browne & Cudeck, 1993).

Finally, covariance matrices of the ordered categorical variables were analyzed using Mplus 6.11 (Muthén & Muthén, 2011). Weighted least squares estimation with missing data (Asparouhov & Muthén, 2010) available in Mplus was used for model estimation. The modeling results accounted for the non-independence of

students nested within schools by adjusting the standard error using a sandwich estimator.

RESULTS

Exploratory factor analysis

Results of EFA showed that the six-factors solution, as well as solutions with a higher number of factors, fit the data well (see Table 1). The five-factors solution had acceptable fit in regard to CFI and TLI but had low probability (p = .017) of the RMSEA, falling below the .05 upper bond for good model fit. Consistent with Appleton et al. (2006), the six-factors solution — x^2 (400) = 817.557, p < .001, CFI = .968, TLI = .952, RMSEA = .048 (p = .701) — was retained.

TABLE 1. *Results for exploratory factor analyses in the Student Engagement Instrument Validation Model for Sample 1*

Factor	x^2	*df*	*p*	CFI	TLI	RMSEA	RMSEA <.05[a]
1	4163.747	560	<.001	.722	.704	.120	<.001
2	2541.627	526	<.001	.844	.824	.093	<.001
3	1706.690	493	<.001	.906	.887	.074	<.001
4	1311.594	461	<.001	.934	.915	.064	<.001
5	1023.307	430	<.001	.954	.937	.056	.017
6	817.557	400	<.001	.968	.952	.048	.701
7	694.768	371	<.001	.975	.960	.044	.969
8	578.803	343	<.001	.982	.968	.039	.999
9	473.484	316	<.001	.988	.977	.033	1

NOTE. CFI = comparative fit index, TLI = Tucker-Lewis index, RMSEA = root mean square of approximation.

[a] Probability based on a two-tailed 90% confidence interval, which indicates that the upper confidence estimate is less than .05.

Exploratory factor analysis within the confirmatory factor analysis framework

Following Betts et al. (2010), Item 1 was used as the anchor item for TSR, Item 10 for CRSW, Item 19 for PSL, Item 25 for FAG, Item 31 for FSL, and Item 18 for EM. After running all restrictions on parameters, as outlined above, the final model resulted in a simple structure. Indeed, none of the cross loadings had a standardized value greater than .30.

Confirmatory factor analysis

Results from the two CFAs demonstrated that the model fit the data well. Indeed, fit statistics were x^2 (545) = 960.138, $p < .001$, CFI = .948, TLI = .943, and RMSEA = .041 ($p = 1$) for Sample 1, and x^2 (545) = 994.427, $p < .001$, CFI = .945, TLI = .94, and RMSEA = .042 ($p = .999$) for Sample 2. Furthermore, Table 2 shows that the indicators were highly related to their purported factors, with standardized factor loadings ranging from .56 to .89 in the first sample and from .54 to .89 in the second sample.

TABLE 2. *Standardized parameter estimates in the six-factor structure of the Student Engagement Instrument Validation Model*

	Item Parameter Estimate											
	TSR		CRSW		PSL		FAG		FSL		EM	
Item	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2
3	.79	.69										
5	.69	.69										
10	.63	.63										
13	.75	.66										
16	.85	.77										
21	.84	.82										
22	.72	.73										
27	.69	.64										
31	.83	.71										
2			.62	.56								
9			.61	.54								
15			.64	.66								
25			.56	.57								
26			.69	.67								
28			.71	.58								
33			.70	.66								
34			.72	.76								
35			.64	.68								
4					.82	.75						
6					.77	.74						
7					.79	.86						
14					.79	.83						

23	.82	.81						
24	.65	.72						
8			.75	.80				
11			.82	.95				
17			.77	.87				
19			.85	.80				
30			.83	.75				
1					.85	.75		
12					.74	.77		
20					.81	.83		
29					.86	.80		
18							.80	.89
32							.89	.85

NOTE. S1 = Sample 1; S2 = Sample 2; TSR = Teacher-Student Relationships; CRSW = Control and Relevance of School Work; PSL = Peer Support for Learning; FAG = Future Aspirations and Goals; FSL = Family Support for Learning; EM = Extrinsic Motivation.

Scale reliability

Following Appleton et al. (2006), we computed the Cronbach's alpha for each of the factors in the final model as well as the bivariate correlations between the six factors in each sample (see Tables 3 and 4). Consistent with Appleton et al. (2006), all bivariate correlations were positive in the two samples, ranging from .08 to .78 in the first sample and from .16 to .73 in the second sample. High reliability was found for the scales in the two samples, ranging from .78 to .88 in the first sample and from .76 to .84 in the second sample (see Table 5). Internal consistency for both the original and the French version of the SEI were similar.

TABLE 3. *Reliabilities and correlations between factors in the six-factor structure of the Student Engagement Instrument Validation Model for Sample 1*

Type	TSR	CRSW	PSL	FAG	FSL	EM
TSR	**.88**	.78	.56	.51	.60	.08
CRSW		**.82**	.45	.68	.68	.45
PSL			**.84**	.43	.47	.11
FAG				**.78**	.65	.32
FSL					**.78**	.21
EM						**.82**

NOTE. TSR = Teacher-Student Relationships; CRSW = Control and Relevance of School Work; PSL = Peer Support for Learning; FAG = Future Aspirations and Goals; FSL = Family Support for Learning; EM = Extrinsic Motivation. Reliability estimates are given in bold in the diagonal.

TABLE 4. *Reliabilities and correlations between factors in the six-factor structure of the Student Engagement Instrument Validation Model for Sample 2*

Type	TSR	CRSW	PSL	FAG	FSL	EM
TSR	**.84**	.68	.53	.43	.48	.21
CRSW		**.81**	.42	.73	.57	.23
PSL			**.83**	.47	.52	.16
FAG				**.80**	.52	.36
FSL					**.76**	.21
EM						**.84**

NOTE. TSR = Teacher-Student Relationships; CRSW = Control and Relevance of School Work; PSL = Peer Support for Learning; FAG = Future Aspirations and Goals; FSL = Family Support for Learning; EM = Extrinsic Motivation. Reliability estimates are given in bold in the diagonal.

TABLE 5. *Internal consistency of the six subscales of the French version of the Student Engagement Instrument*

		Cronbach's alpha		
		Original	French Version	
Scale	Subscale	Scale	Sample 1	Sample 2
School Cognitive Engagement	Control and Relevance of School Work	.80	.82	.81
	Future Aspirations and Goals	.78	.78	.80
	Extrinsic Motivation	.72	.82	.84
School Psychological Engagement	Teacher-Student Relationships	.88	.88	.84
	Family Support for Learning	.76	.78	.76
	Peer Support for Learning	.82	.84	.83

DISCUSSION

The purpose of the study was to validate the French version of the SEI (Appleton et al., 2006). Consistent with the findings of Appleton et al. (2006), our results supported the six-factor structure of the SEI. Furthermore, the fit statistics from the CFA in the current study (e.g., Sample 1: CFI = .948, TLI = .943, RMSEA = .041; Sample 2: CFI = .94, TLI = .94, RMSEA = .042) were good and very close to those reported in Appleton et al. The interfactor correlations ranged from .08 to .78 in the first sample and from .16 to 73 in the second sample, which are higher than those reported in Appleton et al.'s findings (*rs* = .073 to .506) but close to results reported in Betts et al. (2010; *rs* = .45 to .79). The reliability of the scales ranged from .78 to .88 in the first sample and from .76 to .84 in the second sample, which are similar to Appleton et al.'s findings (Cronbach's alphas = .72 to .88). Finally, as was the case in the study by Appleton et al., simple factor structure was found for the six factors as all standardized cross

loading were less than .30. These results confirm the validity and reliability of the French version of the SEI and contribute further to the comprehension of student engagement as a universal concept.

Three elements merit further discussion. First, evaluating student engagement, defined as the relationship the student develops with school and learning, is necessary both to facilitate dropout prevention efforts and to better target students who are at risk of dropping out and would benefit from intervention. The regular evaluation of student engagement throughout the academic careers of secondary school students could make a difference in identifying those students who would benefit from preventive efforts. The validation of the French version of the SEI will now allow opportune and efficient evaluation of student engagement in French-speaking high school students. Moreover, results from the evaluation using this instrument will provide more specific data with which to offer targeted intervention, specifically in line with changes in trajectories of each of the six factors evaluated.

Second, one of the challenges associated with validating an instrument in a language other than the one in which it was created is cross-cultural validation. Whereas Moreira et al. (2009) found significant cultural differences when they attempted to validate the Portuguese version of the SEI, our validation process of the French version yielded comparable results to the original version, measuring six factors to describe psychological / affective and cognitive engagement in secondary school students. Internal consistency for both the original and the French version is similar. This consistency could perhaps be explained by the fact that school systems and the culture are more similar within North American borders, but it may also be explained by an accurate semantic translation of the instrument in French.

Third, we wish to outline the importance of discussing the pertinence of including extrinsic motivation as a factor linked with cognitive engagement. In their validation of the SEI in middle and high school students, Betts et al. (2010) excluded this factor. Although the researchers' decision to change the structure of the instrument is not clearly discussed in their article, we support the need for further discussion of whether or not to include extrinsic motivation as part of a subscale for cognitive engagement, as defined through self-regulation, relevance of school work to future endeavors, value of learning, personal goals, and autonomy. Despite the fact that extrinsic motivation may have an impact on self-regulation or autonomy as part of cognitive engagement, extrinsic motivation in and of itself includes affective and behavioral components. Measuring cognitive engagement using extrinsic motivation may therefore present as imprecise, conceptually. Future research efforts could contribute to the identification of more precise indicators of cognitive engagement, for instance, in relation with autonomy and self-regulation as cognitive processes involved in learning.

In our efforts to prevent school dropout and increase student achievement, student engagement represents a worthwhile intermediate outcome to monitor. The use of a validated self-report survey instrument was required in French for use in Quebec secondary schools. This cross-cultural validation demonstrates that the French version of the instrument presents similar psychometric properties to its original English version. Future research could confirm our findings.

NOTES

1. Check & Connect is an intervention program developed by Evelo et al. (1996) in which students identified as being at-risk of school dropout are paired up with a significant adult in the school environment who then monitors studeznt attendance and achievement (check) and provides guidance during the span of the school year (connect).

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SUPPORTING SELF-REGULATED LEARNING IN A SECONDARY APPLIED MATHEMATICS COURSE

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ABSTRACT. This study examines how one teacher supported low-achieving students' self-regulated learning (SRL) in the context of a secondary mathematics class. The teacher's scaffolding provided students with multiple opportunities to use feedback and adapt learning and study strategies. Data compared pre- and post-measures of metacognitive skills, motivational beliefs, and learning and study behaviours, and examined the effects of directed practice on students' developing SRL as well as their mathematics achievement. Results suggest the need for more research into the effects of individualized, targeted supports, particularly in assisting students in using metacognitive feedback to adapt learning strategies.

SOUTENIR UN APPRENTISSAGE AUTORÉGULÉ DANS UN COURS DE MATHÉMATIQUES APPLIQUÉES AU SECONDAIRE

RÉSUMÉ. Cette étude examine comment un enseignant a soutenu l'apprentissage autorégulé d'élèves peu performants dans le contexte d'un cours de mathématiques au secondaire. L'échafaudage de l'enseignant a fourni aux élèves de multiples occasions d'employer la rétroaction constructive et d'adapter les stratégies d'apprentissage et d'étude. Les données ont comparé les mesures (d'avant et d'après) des compétences métacognitives, des croyances motivationnelles et des comportements d'apprentissage et d'étude, et ont examiné les effets de la pratique dirigée sur le développement de l'apprentissage autorégulé des élèves ainsi que sur leurs résultats en mathématiques. Les résultats suggèrent le besoin de plus amples recherches sur les effets des soutiens individualisés et ciblés, en particulier afin d'aider les élèves à utiliser la rétroaction métacognitive pour adapter leurs stratégies d'apprentissage.

Research on self-regulation in academic settings has become more prevalent in the past three decades, perhaps because self-regulatory behaviours are stronger predictors of academic success than IQ scores or prior subject knowledge (Blair & Razza, 2007; Rimm-Kaufman et al., 2009; Veenman & Spaans, 2005). In most conceptualizations of self-regulated learning (SRL), cognition, metacognition, motivation, and strategic action work in iterative and interactive ways before, during, and after learning activities (Butler et al, 2017). The effectiveness with which learners self-regulate is thought to depend on internal characteristics (e.g., motivation, metacognitive skills, prior subject knowledge, emotional and

volitional control skills) as well as external influences (e.g., task complexity, classroom supports) (Butler et al, 2017; Shanker, 2012; Tobias & Everson, 2009; Zimmerman, 2008). Teachers can play a key role in fostering self-regulation through regular classroom instruction, so that students not only acquire content knowledge but also become lifelong learners.

This article details a case study examining how one secondary mathematics teacher supported low-achieving students' development of SRL. Our overall research question was: can low-achieving grade 9 mathematics students' metacognitive skills, motivational beliefs, strategic learning behaviors, and mathematics achievement be enhanced through teacher-designed SRL supports? The teacher provided students with scaffolding that afforded multiple opportunities to use feedback and adapt learning behaviours throughout a semester-long course. We compared pre-and post-course scores on SRL-related variables, including metacognitive skills, motivational beliefs, and learning behaviours. We also observed the effects of repeated practice on students' developing SRL skills as well as their mathematics achievement.

MOTIVATION AND METACOGNITION IN LEARNING AND SELF-REGULATION

Research has shown important relationships between student SRL and motivational beliefs such as self-efficacy, task interest, and perceived instrumentality (Bandura, 1989; Cleary, 2006; Zimmerman, 2011). For example, self-efficacy predicts the effort students invest in learning, and their use of learning strategies (e.g., self-testing, redoing challenging homework problems) (Bandura, 1989; Butler et al, 2017; Zimmerman, 2008). However, research also demonstrates declines in such motivational beliefs as well as in achievement during early adolescence (Buzza, 2013). Ahmed and colleagues (2012) note that research shows age-related declines in students' mastery goals, success expectancies, and task-values, particularly in mathematics (Linnenbrink-Garcia & Fredricks, 2008; Wigfield et al., 2006). Mastery goals focus on one's own achievement standards as opposed to comparison with others (Elliott & Dweck, 2005). Success expectancies are judgments about the likelihood of success at a task and task-values are perceptions of how personally meaningful or important success is (Schunk & Pajares, 2005).

Many of the SRL supports provided by the teacher in the present study were designed to help students increase their metacognitive knowledge and control skills. Metacognitive knowledge (learners' understanding of what they do and do not know) and metacognitive control (learners' ability to modify or develop learning strategies to improve learning) are essential to learning and self-regulation (Tobias & Everson, 2009). Students' metacognitive judgments about their understanding, knowledge, and / or readiness to take tests are referred to as "knowledge monitoring" (see Pintrich et al., 2000; see also Winne, 2011). Tobias and Everson's (2009) framework for studying the role of metacognition

in learning situates knowledge monitoring as foundational. They reported 26 studies involving the use of a Knowledge Monitoring Accuracy (KMA) assessment, which measures one's knowledge or understanding in a specific domain, such as mathematics or biology (Schraw, 1995; Tobias et al, 1999). Tobias and colleagues (1999) used "Hamann Coefficients" to measure KMA. The Hamann coefficient is a correlation that expresses 'feeling of knowing' accuracy; it is calculated from students' judgments of whether they answered test questions correctly versus their actual performance (Tobias et al, 1999) by taking the difference between the proportions of correct versus incorrect responses (Schraw, 1995). "Hamann coefficients range from −1 to 1, where 0 corresponds to no association or chance level of accuracy" (Schmitter-Edgecombe & Anderson, 2007, p. 7), with stronger positive coefficients representing higher KMA, and stronger negative coefficients representing lower KMA. Negative coefficients reflect either over-confidence or under-confidence (Tobias et al, 1999). Some studies (e.g., Everson & Tobias 1998; Tobias & Everson, 2009) indicate a strong and robust relationship between KMA and achievement, but there are some conflicting results (e.g. Thiede et al, 2003).

Training learners to make more accurate judgments of their learning has shown inconsistent increases in achievement scores. For example, high-achieving students showed improvement in KMA with training, while low-achieving students did not (e.g., Hacker et al, 2008; Hacker et al, 2000; Keleman et al, 2007). Hacker et al. (2000) also observed that despite marked improvements in high-performing students' KMA after training, these improvements did not correlate with better exam performance. Similarly, Nietfeld et al (2005) concluded that feedback on the accuracy of students' predictions on individual test questions and on their overall exam performance did not improve metacognitive calibration.

In a study that spanned four exams, Miller and Geraci (2011) sought to improve students' KMA in predicting exam performance by providing concrete feedback and extra marks if the students changed their behaviour in accordance with feedback. Concrete feedback was provided in the form of three specific pieces of information: students' exam scores, their predicted exam scores (to remind them of their predictions), and their final exam scores after adding extra credit if their predictions were accurate. Students were also given feedback in class, explaining that most of them had been overconfident in their predictions. They were encouraged to either lower their predictions or try to increase their actual exam performance. Lower-achieving students improved their KMA from the first exam to the second. However, their monitoring accuracy did not improve after the second exam nor did their final grades . Predictions of high achieving students did not improve, but their monitoring accuracy was extremely high to begin with (92-96%). In a post-course questionnaire about use of feedback, many low-achieving students indicated that they studied more or lowered their predicted exam scores (strategies which were suggested in class).

Finally, one study showed increased mathematics achievement after students self-reflected on their performance and work habits and used performance feedback to change their learning strategies (Zimmerman et al, 2011). In this study college students were assigned randomly to one of nine intervention (SRL) classes or one of nine control classes. In the SRL classes students assessed their own ineffectual problem-solving strategies in a first test, and then went on to establish new strategies for a second test. After the first test, the intervention group outperformed the control group on all mathematics tests and the final exam. Notably, students who received the intervention were significantly less likely to be overconfident in self-efficacy and self-evaluation ratings before taking the second test, illustrating the importance of SRL support in helping students become more accurate in their metacognitive knowledge.

In summary, in some studies, KMA predicted achievement. However, after creating higher- and lower-achieving groups using a median split based on final course grades, Miller and Garaci (2011) found that training increased KMA scores for lower-achieving but not higher-achieving students. Exam performance was not always related to KMA increases. Thus, although metacognitive knowledge appears to be related to achievement, increasing KMA alone may be insufficient to boost performance. It is possible that the absence of associations between metacognitive training and KMA, and KMA and performance, is due to a lack of concrete feedback and personalized guidance. Although KMA training allows students to practice making metacognitive judgements and gives them information about accuracy of their judgements, specific coaching on how to adapt their learning behaviours effectively in response to performance feedback may be needed (Kirschner et al, 2006).

SRL SUPPORT IN A CLASSROOM CONTEXT

The complex interactions between learner characteristics and context have received significant academic study (Butler et al, 2005; Buzza, 2013; Perry et al, 2004; Perry & VandeKamp, 2000). Students' adaptive, regulatory behaviour appears to mediate the relationship between student performance, contextual factors, and individual characteristics (Moos & Ringdal, 2012; Winne & Hadwin, 2012). Accordingly, although all learners are likely self-regulating in some ways during learning, enacting self-regulatory strategies and approaches to academic work varies. For instance, research shows that low-achieving students typically demonstrate lower levels of self-efficacy as well as reactive, rather than proactive, self-regulatory learning behaviours (Zimmerman, 2012; see also Buzza & Dol, 2015). One reason why reactive learners regulate their learning less effectively than proactive learners is that they set vague or general goals (if goals are set at all) and rely on outcomes and self-reflection to guide future behavior (Zimmerman, 2008). Effective self-regulation involves task analysis, goal setting, and strategic planning before learning tasks, allowing for effective monitoring and adaptation

during performance (Zimmerman, 2012). In mathematics, for instance, ineffective learning strategies can result from a failure to analyze tasks effectively or to set appropriate task criteria or standards (Butler, 1994; Butler & Winne, 1995). However, much like any acquirable skills and dispositions, SRL can develop over time with appropriate support. For instance, asking students to practice making metacognitive judgements and to identify their studying techniques supports development of metacognitive knowledge, motivation, and strategic learning behaviours (Paris & Paris, 2001).

Based on consistent evidence that SRL predicts positive academic outcomes for students, including those of lower-achieving students (Butler et al, 2013; Cleary et al, 2008; Zimmerman et al., 2011), many teachers are encouraged to support the development of students' SRL skills (Ontario Ministry of Education, 2010). This is especially important in mathematics, where Canadian students' performance has declined steadily in recent years (OECD 2019).

Generally, research demonstrates that SRL support can help learners identify and adapt strategic learning behaviours for specific tasks and contexts, but we lack a clear understanding of how classroom practices influence self-regulation. Establishing effective practice guidelines is challenging given variations in students' prior subject knowledge, motivational beliefs, learning behaviours, and metacognitive skills. Further, instructional time that teachers can afford for individual students is limited.

In research by Butler et al (2013) and Cleary et al (2008), teachers coached SRL strategies directly. Butler et al's (2013) study incorporated SRL support throughout a school year, allowing multiple opportunities to address students' individual needs. In that study, support practices did not directly predict achievement, but rather appeared to influence students' SRL development by affecting how students approached their learning. Cleary et al's (2008) study involved coaching for small intervention groups over eleven weeks. Post-intervention grades showed significant improvement when compared to pre-intervention grades; however, the degree of individualization that coaches provided is unclear. Neither study used class-wide interventions, which may be a more realistic approach to SRL support within today's classrooms.

Research on teachers' SRL support is important in classrooms with lower-achieving students, given that SRL can improve learning and performance regardless of ability. Lower-achieving students who have not been formally identified with learning disabilities typically receive no 'special' or individualized education and have received very little SRL research attention. This article assesses the effectiveness of classroom support strategies for lower-achieving students' SRL development (i.e. metacognitive skills, motivational beliefs, strategic learning behaviours) in Grade 9 mathematics.

METHOD

Participants

Participants were enrolled in a one-semester Grade 9 Applied Mathematics class in a mid-sized Canadian city. In this district, students typically choose to take Applied Mathematics when their previous mathematics grades are too low for post-secondary preparatory courses and / or they lack interest in post-secondary mathematics. Generally, these students lack confidence in their capability to perform well in mathematics. Seventeen of the 22 students in the course provided informed consent to participate. The five students who did not were removed from the study. Two students were removed because they consistently misunderstood instructions on one of the measures. The final sample included 15 participants.

Classroom Practices to Support SRL

Students' SRL development was supported in three ways: a) creation and use of study sheets for practice tests and graded unit tests; b) making metacognitive judgments about response accuracy on each test question; and c) completing a Self-Assessment Questionnaire (SAQ; See Appendix) before and after each unit test. The teacher developed these supports after participating in a three-year professional development program on SRL, then used them to address her students' apparent low motivation and confidence in mathematics.

Students were encouraged to create study sheets for practice tests that they completed one week before each of the eight unit tests. They could include any information that would fit on a single 8" x 11" sheet. During class, the teacher coached students in creating these study sheets. Practice tests were reviewed and discussed immediately after completion and students were encouraged to revise their study sheets to increase their usefulness for the upcoming unit test. After unit tests were graded and returned with teacher feedback, students were encouraged to revise their study sheets once again, and to use the revised version in the creation of a comprehensive study sheet for the culminating final exam. Creating study sheets supported student motivation and engagement through identifying important content covered in class; opportunities to revise study sheets following review of practice tests encouraged self-reflection on their study strategies (Paris & Paris, 2001).

During unit tests, students made metacognitive judgments after completing each question (called 'postdictions') by circling "Y" or "N" to indicate whether they thought their answer was correct. Reflecting on postdiction accuracy during test review in class was intended to offer students insight into their ability to make metacognitive judgments. Previous literature demonstrates this strategy is an effective means of developing metacognitive knowledge and awareness (e.g., Cleary et al, 2008; Zimmerman et al., 2011).

Just before each unit test, students completed the pre-test section of the SAQ (Hughes, 2012). They reported whether they studied and for how long. They then identified their learning and study strategies from a list of 19 options and reflected on their usefulness, thereby supporting metacognition. Students noted specific concerns about the upcoming test, gauged their readiness, and predicted their test grade (in percentages). Instructional time constraints prevented the teacher from having students complete the post-test section of the SAQ. For the same reason, pre-test SAQs were completed for only six of the eight unit tests.

MEASURES

Achievement

Achievement was measured using a percentage score attributed to each student, calculated by combining the weighted average of each student's scores on the eight unit tests and the final exam.

Metacognition

Hamann coefficients (Tobias et al, 1999) were calculated from students' judgments about the correctness of their test performance and used as a measure of KMA.

Indicators of motivation

Self-efficacy.

Self-efficacy in mathematics was evaluated pre- and post-course using a six-item self-efficacy scale (Urdan & Midgley, 2003). This scale has a reported internal consistency of .84 for a seventh-grade sample (Urdan & Midgley, 2003).

Task interest.

Interest in mathematics was assessed pre- and post-course using a five-item Task Interest Inventory (TII). The TII was adapted for use in assessing students' level of interest and enjoyment in learning mathematics, as opposed to learning in science or biology (Cleary et al, 2008). Cleary et al (2008) reported a strong internal consistency estimate ($\alpha = .96$).

Perceived instrumentality.

Students' perceived value of mathematics was evaluated pre- and post-course using a Perceived Instrumentality Inventory (PII, Cleary, 2006). This inventory was designed to assess students' perceptions of the value or importance of studying and performing well in a particular subject (in this case, mathematics) (Cleary, 2006, p. 311). As recommended by Cleary, a five-item version of the PII was used

instead of the original four-item version (personal communication, 2010). An internal consistency estimate for the PII was reported on the original four-item scale (α = .60, Cleary, 2006), but was not available for the current five-item scale.

Strategic Learning Behaviours

Attendance.

Student attendance scores were assigned based on presence during the 84 days of classes. Attending class in this case study was essential for students to benefit from SRL support, thus attendance scores were treated as indicators of strategic learning behaviour.

Time spent studying.

Pretest SAQs asked students to indicate the amount of time spent studying for each test. Although previous literature demonstrates inconsistent relationships between time spent studying and student achievement (Allen et al., 1972; Kember et al., 1995; Plant et al., 2005), we categorized time spent studying as a strategic learning behaviour, since the teacher repeatedly told students that studying will help them improve their grades.

Learning and study strategies.

The pretest SAQ measured strategic learning behaviour by asking students to select their study strategies from a list of 19 options.

Student-created study sheets.

Although strongly encouraged by the teacher, students' creation of study sheets was optional. Therefore, the use versus non-use of a study sheet for each unit test was recorded as an indicator of a strategic learning behaviour.

RESULTS

The impact of one teacher's class-wide support for SRL in a grade 9 Applied Mathematics classroom was examined using behavioural and self-report measures. We assessed students' metacognitive skills, motivational beliefs, strategic learning behaviours, and achievement in a naturalistic classroom setting at the beginning and end of the course.

Metacognitive Skills

Knowledge Monitoring Accuracy (KMA) was measured using a Hamann coefficient for each student for each unit test as well as the final exam (Schraw, 1995; Tobias et al, 1999). Table 1 shows average test grades and the corresponding Hamann coefficients for each test.

TABLE 1. *Test Grades and Hamann Coeficients throughout Course.*

Assessment	Grade		Hamann Coefficient	
	N	M (*SD*)	N	M (*SD*)
Unit 1	13	71.22 (19.90)	13	0.33 (0.34)
Unit 3	15	76.67 (16.08)	15	0.37 (0.29)
Unit 4	14	74.84 (14.65)	14	0.49 (0.24)
Unit 5	14	70.52 (14.51)	14	0.30 (0.41)
Unit 6	13	74.11 (14.47)	13	0.22 (0.46)
Unit 8	15	69.31 (24.80)	N /A	N /A
Final Exam	15	68.67 (9.19)	15	0.40 (0.26)

NOTE 1. Unit 2 was not tested, Unit 7 test was open-book, and for Unit 8, Hamann coefficient data were not collected.

NOTE 2. See p. 10 for an explanation of how Hamann coefficients are calculated and interpreted

To determine relationships between students' metacognitive knowledge, motivation (pre- and post-), and use of strategic learning behaviours, correlation coefficients were computed (Table 2) along with Hamann coefficients (measuring metacognition), self-efficacy, task-interest, and perceived instrumentality (measuring motivation), attendance, grades, number of study sheets, and number of study strategies used (measuring strategic learning behaviours).

This analysis yielded two notable findings. Specifically, Hamman coefficient scores (measuring KMA) were strongly related to achievement ($r = .62$, $p < .05$), and to posttest self-efficacy ($r = .69$, $p < .01$). Students who monitored their knowledge more accurately tended to receive higher grades and possess higher self-efficacy at the end of the course.

TABLE 2. *Spearman's Correlations between Questionnaires, Attendance, Grades, Number of Study Sheets, and Hamann Coef icients*

	Att	Pre SE	Pre TII	Pre PII	Pt SE	Pt TII	Pt PII	Ach	#S.S.	Ham
Att	-									
Pre SE	.113	~								
Pre TII	.275	.428	~							
Pre PII	.363	.527*	.180	~						
Pt SE	-.005	.326	.463	.290	~					
Pt TII	-.047	.478	.545*	.474	.772**	~				
Pt PII	-.090	.441	.491	.372	.254	.244	~			
Ach	.490	-.055	-.146	.218	.607*	.524	-.040	~		
#S.S.	.594*	-.011	-.509	.034	-.048	-.281	-.354	.276	~	
Ham	.408	-.058	.163	.193	.687**	.469	.027	.621*	.376	~
#Strat	.593*	.276	-.181	.678*	.162	.021	.164	.227	.548	.400

NOTE. * $p < .05$ (2- tailed),** $p < .01$ (2-tailed). Att. = Attendance, calculated as number of days present out of 84; Pre = Pretest; Pt = Posttest; SE =Self-Efficacy scale from the Patterns of Adaptive Learning Scale (PALS, Urdan & Midgley, 2003); TII = Task Interest Inventory (Cleary, 2006); PII = Perceived Instrumentality Inventory (Cleary, 2006); % = Grades; # S.S. = Number of times had study sheet; Ham = Hamann coefficients; # Strat. = Number of strategies used when studying. Sample size for all correlations was $n = 15$ except: correlations with Grades ($n = 13$), correlations with Hamann coefficients ($n = 13$), and correlations with Number of strategies used when studying ($n = 12$). Students' motivational beliefs were measured using adapted versions of the Task Interest Inventory for Math (TII) and the Perceived Instrumentality Inventory (PII) (Cleary, 2006). Each of these measures consists of five-items and uses a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The TII was adapted for use in assessing students' level of interest and enjoyment in learning mathematics, as opposed to learning in science or biology (Cleary et al., 2008). Cleary et al. (2008) reported changes they made to the original version of the TII , including rephrasing two of the items from negative to positive and adding the fifth item, resulting in a strong internal consistency estimate ($\alpha = .96$).

Motivational Beliefs

Indicators of students' motivational beliefs were self-reports of self-efficacy (SE), task interest (TII), and perceived instrumentality (PII). The internal consistency of these measures was evaluated using pre-and post-course questionnaire responses. Table 3 shows means, standard deviations, and Cronbach's alpha internal consistency coefficients for each measure. The internal consistency on these measures was generally high, with PII (perceived usefulness of mathematics) at

pretest showing the lowest coefficient (α = .68). Means for all measures were above the mid-point at pre- and post-course. All mean scores were higher at the end of the course than at the beginning, although the average scores on PII were highest of the three measures.

TABLE 3. *Means, Standard Deviations, and Cronbach's Alpha Internal Consistency Coef icients for Measures and Subscales.*

Measure	M	SD	α
Pre SE	3.93	0.71	.857
Post SE	4.04	0.80	.897
Pre TII	3.09	1.04	.909
Post TII	3.49	1.17	.975
Pre PII	4.40	0.64	.676
Post PII	4.71	0.51	.934

NOTE. SE = Self-Efficacy scale from the Patterns of Adaptive Learning Scale (PALS, Urdan & Midg-ley, 2003); TII = Task Interest Inventory (Cleary, 2006); PII = Perceived Instrumentality Inventory (Cleary, 2006). All values of n are 15, except for Post TII, which had n = 14 for Cronbach's alpha but n = 15 for mean and standard deviation.

Wilcoxon signed-rank tests were used to compare pre-and post-semester SE, TII, and PII measures. PII showed a statistically significant difference from pretest (n = 15, Mdn = 4.6) to posttest (n = 15, Mdn = 5.0), Z = -2.02, $p < .05$, while pre- and post-course differences in TII and SE did not reach significance. Thus, while students' perceptions of the usefulness of mathematics increased significantly throughout the course, their interest in, and self-efficacy for mathematics remained relatively static.

Analyses between motivation measures showed three statistically significant correlations: one between pretest self-efficacy and perceived instrumentality (r = .53, $p < .05$), another between posttest self-efficacy and task-interest (r = .77, $p < .01$), and a third between pre-and posttest task-interest (r = .55, $p < .05$).

Strategic Learning Behaviours

Strategic learning behaviours associated with SRL in this study were: attendance, number of minutes spent studying, number of study strategies used, and creation of study sheets. Descriptive statistics on these measures appear in Table 4.

Average attendance was 73.87 days out of a possible 84 instructional days (SD = 8.14), with a range of 56 to 83 days. Since study sheets were optional, creation of study sheets was treated as evidence of strategic efforts toward learning and test performance. The average number of study sheets created was 3.33 (SD = 2.16), out of a possible seven (including six unit tests and the final exam). Minimum and maximum values showed that some students did not use study sheets at all, while others used them for every test.

Another measure of learning and study behaviour was the number of learning strategies selected from the list of 19 on the SAQ for (each of six) unit tests and the final exam. The total number of strategies averaged 31.58 (*SD* = 19.51), although the high standard deviation indicated significant variability in the number of strategies used. Strategies reported most frequently were "stayed up to date on each day's homework", "completed the unit study sheet", and "used my Multiple Subject Instructional Period to complete homework / assignments / review." Strategies least often selected were "re-did challenging homework questions" and "tested myself on the material." Thus, while most students reported reviewing, practicing, summarizing, and getting help in understanding information during each mathematics unit, less emphasis was placed on identifying areas of importance or studying strategically for tests.

TABLE 4. *Means, Standard Deviations, and Minimum and Maximum Values for Behavioural Indicators of Motivation and SRL*

Measure	M	Median	SD	Min	Max	N
Attendance	73.87	75.00	8.14	56.00	83.00	15
Min Studying	202.19	116.25	235.40	.00	735.00	8
# of Strategies	31.58	31.00	19.51	1.00	68.00	12
Study Sheets	3.33	4.00	2.16	.00	7.00	15

NOTE. Attendance = days present out of 84; Min Studying = Total # of minutes spent studying on Units 1, 3, 4, 5, 6, and 8; Study Sheets = Number of times students had a study sheet out of 7 possible tests and the final exam; # of Strategies = Number of reported study strategies (out of possible 19 per unit) used during Units 1, 3, 4, 5, 6, and 8.

Attendance was significantly related to the number of different learning strategies used ($r = .59$, $p < .05$) and the number of participants' study sheets ($r = .59$, $p < .05$). In other words, students who missed fewer days of class tended to use study sheets as well as other learning and study strategies more frequently than students who were often absent. Pretest scores on the perceived usefulness of mathematics (PII) also predicted the number of learning strategies students used ($r = .68$, $p < .05$), indicating that students who valued mathematics were more likely to use more learning and study strategies.

An average of 202.19 minutes were spent studying (*SD* = 235.40) across six unit tests and the final exam. The large standard deviation on this measure shows significant variation in how much time students spent studying. The range shows that some students did not study at all, while some studied for as long as 735 minutes during the course. In this case, time spent studying is best described by the median of 116.25 minutes.

DISCUSSION

This article describes a case study on the effects of a teacher's SRL supports for lower achieving students in a grade 9 Applied Mathematics classroom. Research suggests that SRL supports may increase student achievement and improve metacognitive and motivational self-regulation capacities if students adapt their learning behaviours in response to such supports (Butler et al, 2013; Cleary et al, 2008; Paris & Paris, 2001; Zimmerman et al., 2011). Since few studies have examined SRL development in an authentic classroom setting, unique insights are offered on the potential impact of SRL supports. Data collected over a semester allowed investigation into how metacognitive skills, motivational beliefs, and strategic learning behaviours were related to student achievement. Pre-and- post-course scores on motivation variables (self-efficacy, perceived value of mathematics (TII), and interest in mathematics (PII) provided an indicator of possible changes in motivation as classroom support for SRL development was implemented throughout the course.

By asking students to practice making metacognitive judgements, creating, and revising study sheets, and identifying studying techniques, the teacher supported metacognition, motivation, and strategic learning behaviours. Despite the small sample size, some statistically significant relationships were found among SRL-related indicators and achievement. The absence of statistical significance in some cases may contribute to our understanding of potential shortcomings of the use of class-wide strategies.

Supporting Metacognitive Knowledge Development

In this study, asking students to practice assessing their mathematics knowledge by judging the accuracy of their test question responses (KMA, measured by Hamann coefficients) measured metacognitive knowledge, and supported metacognitive skill development (Paris & Paris, 2001).

Pre-test mathematics self-efficacy was unrelated to KMA and post-test self-efficacy. However, students with higher KMA to start with exited the course with higher self-efficacy than those with lower KMA. Thus, successfully assessing test question accuracy may have had a positive impact on students' self-efficacy. It is not clear though, whether students' increased self-efficacy was fostered by making metacognitive judgements or by achieving high test grades, or both (see Nietfeld et al, 2006).

The KMA measure was positively correlated with test grades and post-test self-efficacy; however, test grades did not increase during the course. Thus, there is no evidence of an impact on achievement due to practicing these metacognitive judgments. Despite this outcome, students who could accurately assess the veracity of their answers generally performed better on tests. This relationship is consistent with previous studies showing a positive relationship between

metacognitive knowledge and performance (Nietfeld et al., 2006; Tobias & Everson, 2009), and demonstrates this relationship in the naturalistic setting of a high school classroom.

Relationships between Motivational Beliefs, SRL and Achievement

It was expected that motivational beliefs (i.e. self-efficacy, task interest and perceived instrumentality) measured at the beginning of the course would be related to indicators of effort in the course (i.e., strategic learning behaviours) as ascertained by attendance, number of minutes spent studying, and use of various learning strategies. However, pre-test mathematics interest was related only to post-test mathematics interest, suggesting that students' interest remained relatively consistent through the semester and was not influenced by other variables. In contrast, pre-test perceived instrumentality (i.e. perceived value of mathematics) was related to the total number of different learning and study strategies students used. The temporal nature of this outcome suggests the relationship could be causal. If so, it may be that students will use a broader range of learning and study strategies if teachers help them to see real-life, personally relevant uses for mathematics.

Interestingly, post-test self-efficacy and task interest correlated with each other and with test grades, which was not the case in pre-test findings. This is consistent with previous research (e.g. Bandura, 1989), supporting the idea that performance influenced students' motivational beliefs, rather than the reverse.

Notably, significant differences were not found in self-efficacy and task interest from pre- to post-test. Further, these pre-test measures did not predict measures of strategic learning behavior or test grades. This suggests that pre-course indicators of mathematics-related self-efficacy and task interest provide little to no indication of who will employ strategic learning behaviours, who will achieve high course grades, or who will report strong motivation at the end of the course. Should these findings be replicated with larger samples, educators working with students entering high school as low mathematics achievers should avoid making assumptions about their students' abilities or predicting their future efforts based on initial levels of interest or confidence.

Effects of SRL Support

Several of the SRL support practices employed in this study align with those suggested by Paris and Paris (2001), such as equipping students with a broad array of learning strategies and encouraging them to reflect on which strategies they find most useful. On the pretest SAQ, students identified strategies they used when preparing for the test, and then reflected on their usefulness. The teacher also tried to encourage students to create study sheets in preparation for practice tests. Study sheets gave students the opportunity to reflect on performance feedback and adapt their learning and study behaviours for each unit test.

During class, the teacher frequently promoted the use of multiple learning strategies and study sheets. It was not surprising, then, that students with higher attendance used a greater number of strategies (r = .59) and used study sheets more often (r = .59). However, neither of these practices predicted scores on outcome variables (i.e., KMA, grades, or post-semester measures of self-efficacy, task interest, or perceived instrumentality).

That students' use of multiple study strategies and study sheets was unrelated to achievement is notable. In contrast, Zimmerman et al. (2011) found that achievement outcomes were more positive for students who were given SRL training than for those without training. Although achievement was related to a number of variables in the present study, it did not follow from higher initial levels of motivation, nor did it correlate with strategic learning behaviours (attendance, creating study sheets, and adopting multiple learning strategies). One explanation could be that the wide variability in students' responses to these SRL supports negated any changes that might have occurred for some students within this small sample. However, given the importance of specific and conditional feedback (e.g., Nietfeld et al, 2006; Zimmerman et al., 2011), it is also possible that insufficient teacher guidance was given for making effective use of feedback and reflection to improve strategies and performance. A key feature of the SRL support in Zimmerman et al.'s (2011) study was individualized coaching to assist students in examining their errors and deciding on specific strategies for subsequent learning and studying. Paris and Paris (2001) also note that students "need to be given enough information about various strategies to know how, when, and why to apply them; and the teacher also needs to guide students to recognize the effects of using specific strategies" (p. 93). In this study, the absence of individualized guidance may explain why these students were unable to adapt their learning behaviours effectively. Given the high need for academic support in Applied Mathematics classes, this may have been one area where more intensive, individualized support was needed.

LIMITATIONS AND IMPLICATIONS OF THE STUDY FOR RESEARCH AND PRACTICE

Although the examination of SRL in a naturalistic setting is a strength of this study, there are a number of disadvantages associated with this methodological approach. First, although 15 students is a reasonable number for a case study, generalization of the results is limited. Second, it was not possible to randomly select the participating teacher, class, or students, further limiting generalizability of these findings. Third, inconsistent attendance meant that some measures were not completed by all students. Fourth, classroom time constraints meant that students did not complete the SAQ prior to all tests or use the post-test section of the SAQ. Finally, although mathematics education research (e.g. Boaler, 2015) suggests that different approaches to mathematics pedagogy can impact students' motivation, metacognitive skills, learning strategies, and subsequently

achievement, this study did not allow for systematic tracking of the instructor's pedagogical approach. Moreover, while the importance of both conceptual and procedural understanding is recognized, these aspects of mathematical learning and assessment were beyond the scope of this study; therefore, this information was not collected.

Despite these limitations, examination of relationships among learning and instructional variables as they play out in real-world contexts is important (Barab, 2006). As such, the insights offered by this study far outweigh the limitations. Focusing on this classroom allowed for the evaluation of authentic supports for students' SRL development, increasing external validity. Using both behavioural and self-report measures of motivation and SRL provided triangulation of data, helping to strengthen the conclusions that can be drawn in an authentic setting where control over variables is limited (Barab, 2006).

The support strategies here included varied opportunities for self-assessment, performance feedback, and encouragement to use multiple learning strategies. Such opportunities are thought to contribute to students' development of metacognitive knowledge, subject motivation, and SRL strategies (Buzza, 2013). While there were limited outcomes within this sample, previous evidence of positive effects on achievement from student use of such metacognitive skills supports their value in academic contexts (e.g., Winne & Perry, 2000). Additionally, the creation of study sheets could be a useful strategy for students in diverse academic learning situations (such as in other courses), given the reflection opportunities that this practice provides.

As noted by Winne and Perry (2000), metacognitive skills are key features of SRL; accurately evaluating one's learning strengths and weaknesses and subsequently selecting appropriate learning and study strategies are important examples of these skills. Using KMA as an indicator of knowledge monitoring is advantageous as it avoids problems associated with self-report measures of metacognitive processes such as social desirability responding and potentially inaccurate memories or judgments of cognitive processes during learning (Tobias & Everson, 2009; Winne & Perry, 2000).

However, the lack of individualized guidance on making productive use of the feedback given during this study may have limited the effectiveness of SRL supports for students. Previous studies involving SRL support (e.g., Cleary et al, 2008; Zimmerman et al., 2011) included individualized feedback and guidance to assist students in adapting their learning strategies based on performance data. The extent to which this occurred in Butler et al's (2013) study is unknown and may have varied across classrooms, but more positive achievement outcomes were shown with support being tailored to specific learning tasks, contexts, and content. Research also indicates that opportunities to engage in self-assessment are unlikely to enhance performance if the learner is unable to change strategies and behaviour effectively. Low-achieving students typically demonstrate lower levels

of self-efficacy as well as reactive rather than proactive self-regulatory behaviours (Buzza & Dol, 2015; Zimmerman, 2008; 2012); they may be especially in need of individualized support to effectively alter study strategies and behavior.

This raises significant challenges for practical application, especially given the limited time and opportunities that many teachers have for individualizing support. Intensive one-on-one interventions might not be feasible in most classroom situations. However, it is yet unknown how much scaffolding is optimal, and how much variability exists in the level of scaffolding needed by different students. Answers to these important questions may suggest how to balance class-wide support with individualized coaching. Future studies may also address teaching practices that help groups of students consider the meaning of feedback on learning tasks; students might then work collaboratively to strategize on ways to improve their learning. Next steps in SRL research may include classroom-based interventions that test how well learners can improve their metacognitive skills with both feedback and strategic input from one another, contributing to a clearer understanding of how, when and why individualized support is required.

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APPENDIX:

SELF-ASSESSMENT QUESTIONNAIRE (HUGHES, 2012)

PRE-TEST

Unit#___ Topic:___________________________ Name:_____________
____

<table>
<tr><th>In the space below write about any concerns you have about the upcoming test.</th><th colspan="2">Preparing for this test what strategies and techniques did you use? Please check any that apply.</th></tr>
<tr><td>___________________________
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____
____
____
____
___________</td><td rowspan="3">□ Reread each lesson with a coloured pen / highlighter.

□ Wrote additional process notes to myself while the lesson was still fresh.

□ Redid the examples from the lesson.

□ Stayed up-to-date on each day's homework.

□ Got help with any challenging homework problems.

□ Got caught up on missed lessons right away.

□ Explained the material to someone else.

□ Redid challenging homework questions.

□ Completed the assigned review questions.

□ Completed the unit study sheet.</td><td rowspan="3">□ Corrected any quizzes or assignments.

□ Used my MSIP period to complete homework / assignments / review.

□ Worked with someone else during class time.

□ Worked independently during class time.

□ Tested myself on the material.

□ Studied with someone else for the test.

□ Studied independently for the test.

□ Got help in Math-SIP

□ Other:
________________</td></tr>
<tr><td>Did you study for this test?
Yes __ No __</td></tr>
<tr><td>How much time did you spend studying for this test? _______</td></tr>
<tr><td colspan="3">Please make a prediction about your test score: 100-80 79-70 69-60 59-60 50-</td></tr>
</table>

POST-TEST

1. What kinds of questions did you do well on?	2. What kinds of questions did you NOT do well on?
3. On the study sheet you created, what information was helpful to you in writing the test? ___ Formulas ___ Definitions ___ Sample problems ___ Tips/notes to myself ___ Diagrams ___ Rules ___ Other: _____	4. What information was missing from the study sheet that *would have* helped? ___ Formulas ___ Definitions ___ Sample problems ___ Tips / notes to myself ___ Diagrams ___ Rules ___ Other: _____
5. Using a DIFFERENT COLOURED pencil, pen, or marker, add the items you thought would have been helpful to your study sheet □	
Correct your test questions and resubmit the corrected test and revised study sheet to your teacher! □	

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TEACHER TELLING IN THE MATHEMATICS CLASSROOM: A MICROLEVEL STUDY OF THE DYNAMICS BETWEEN GENERAL AND CONTEXTUALIZED KNOWLEDGE

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ABSTRACT. In this article, we analyze moments of teacher telling (MTT) involving the exposition of new knowledge to students. We first specify the theoretical framework used for our analyses and describe our global methodology, focusing on teacher telling moments as taking part in the students' mathematics learning. Then, we review the literature on this topic and develop a specific tool, called a "proximity," to study MMTs in relation to whole-class scaffolding. Finally, we compare two high school teachers' practices in teaching the same content — variation of functions for 10th grade students — to illustrate this new analytical lens. In the conclusion, we discuss our approach and develop several research perspectives.

LES MOMENTS D'EXPOSITION DE NOUVELLES CONNAISSANCES PAR L'ENSEIGNANT EN COURS DE MATHÉMATIQUES : UNE ÉTUDE DE MICRO-NIVEAU SUR LA DYNAMIQUE ENTRE LES CONNAISSANCES GÉNÉRALES ET CONTEXTUALISÉES

RÉSUMÉ. Ici, nous présentons comment nous abordons l'étude des moments d'exposition de nouvelles connaissances aux élèves par les enseignants. Nous précisons premièrement le cadre théorique que nous utilisons pour nos analyses et explicitons notre méthodologie globale, en insistant sur le fait que les moments d'expositions de connaissances par l'enseignant participent à l'apprentissage des mathématiques par les élèves. Nous faisons ensuite une revue de la littérature sur ce sujet. Nous développons un outil spécifique, appelé « *proximités* », pour étudier ces moments, en relation avec un encadrement de la classe entière. Enfin, nous comparons les pratiques de deux enseignants du secondaire sur le même contenu pour illustrer cette nouvelle approche analytique. En conclusion, nous discutons de notre démarche et développons plusieurs perspectives de recherche.

In this article, we study moments of teacher telling (MMT) involving the exposition of new pieces of mathematical knowledge to students from the 10th grade.

What students do during an MTT is not easy to characterize or even observe because students are usually listening to, or taking notes on, what the teacher is presenting. Nevertheless, we believe these moments do contribute to students' learning, and this study aims to improve understanding of how MTTs might be making an impact in the learning process. Are there different ways of exposing students to mathematics, with different consequences in terms of students' mathematical activities?[1] For example, a teacher may choose to give examples before recounting the lecture, or to show or not show proofs of theorems. Students can be asked to read their textbook or watch a video before the MTT. Sometimes, students are left to discover or establish certain properties on their own, depending on the content and other circumstances. During the telling itself, relationships to previous knowledge or activities may be explained to a greater or lesser extent, or students may be asked to share their insights, which may be discussed based on the specific mathematical concepts being studied. However, the initial concern remains: How can researchers study MTTs and their actual impact on learning since it is difficult to observe students' activities during those moments?

In this article, we open by clarifying the issues at hand, beginning first with our theoretical hypotheses. We provide some details regarding MMTs and a glimpse into the ordinary practices of mathematics teachers in France when introducing pieces of knowledge to their students. We present our general methodology for studying students' activities. We then refer to the literature about teacher telling and whole-class scaffolding to highlight the way our point of view can shed light on these questions. In the third part, we introduce a tool, called a "proximity," leading to a methodology that may be used to study whole-class scaffolding during MTTs. In the fourth part, we illustrate our methodology and highlight our use of proximities to detect diversity in the implementation of the same mathematical content by analyzing MMTs in two classes. In the conclusion, we summarize our work and discuss the implications of our research and results.

FROM STUDENTS' ACTIVITIES TO STUDENTS' LEARNING IN MATHEMATICS: OUR GENERAL FRAMEWORK AND METHODOLOGY

The general outline of our research begins with our specific use of activity theory (as specified below), postulating that students' mathematical activities are the basis of their learning. However, these activities are not easy for the researcher to observe directly. Students' activities are mostly brought about by the teacher's choices in regard to mathematical content and its implementation in the classroom. Indeed, students' activities performed under a given piece of content depend on the specific tasks chosen by the teacher to be worked on (i.e., their order, their place in relation to the MTT, and their degree of complexity, especially

with regard to the use of pieces of knowledge requiring adaptations). Both the way tasks and activities contribute to constructing meaning and their degree of technicality are involved in our analyses. Students' activities also depend on the way in which the students work, what we call "implementation of the task": alone or in small groups, with more or less time, more or less interventions from the teacher, with direct or indirect help in the event of blockage, and with corrections that are based on the students' solutions.

The more varied the adaptations of knowledge required to solve the tasks, and the greater the teachers' interventions are adapted to the actual work of the students, the better the potential of the teaching is to make a large number of students learn, according to our hypothesis.

As such, we have to study teachers' choices to better understand the mathematical activities made possible for students in the classroom.

A specific use of activity theory

Our hypothesis is that learning is triggered by activity: It stems from both the constructivist Piagetian and socioconstructivist Vygotskian approaches to learning. We rely on the complementarity of the theoretical frameworks underlying these approaches regarding conceptualization, as each of them proposes an original perspective on the construction of knowledge[2] (Robert, 2012; Rogalski, 2013). In fact, we transpose the theoretical concepts of Piaget and Vygotsky about child development in daily situations to the context of students learning mathematics in classroom situations.[3]

Vygotsky has also developed the crucial concept of the *zone of proximal development* (ZPD), which can be defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). In the teaching and learning context, the ZPD is the area between what a learner can do by themselves and what they can perform with the help of a more knowledgeable other, the teacher, or a peer.

The ZPD is constantly changing (although not quickly), and an appropriate teaching process consists of dialectics between scaffolding students' mathematical activity and carefully reducing support on a given piece of content. We emphasize the importance of the mediating role of the teacher (as a "better knower"); in this regard, we utilize Bruner's (1983) concepts related to mediation as a scaffolding process. More precisely, we introduce the study of the way the teacher helps the students, the comments they add, the questions and answers that occur, and their attempts to connect a new piece of knowledge with what the students already know (or can solve). Our aim is to understand the possible effects of these interventions on students' mathematical activity.

Some specificities of MTTs in the classrooms

Moments of teacher telling (MTTs), when teachers expose a piece of knowledge, are crucial moments in the learning process where generalization, formalization, and organization of a new piece of knowledge — in its articulation within previous (or pre-learned) knowledge — are at stake. During the MTTs, some pieces of knowledge are not to be directly used by the students in a specific task, and the whole meaning of the discussed content might not be immediately accessible to the students. Nevertheless, we admit, on the basis of our theoretical framework, that MTTs — as long as they are not isolated from the rest of the process — play a role in students' conceptualizing process. Indeed, MTTs are part of the dialectical movement between general aspects of knowledge and contextualized ones.[4] They constitute the origin of the students' activities with a given concept, as well as where, when, and how a certain piece of knowledge may be used; in the long term, MTTs contribute to the construction of meaning made by the students. Their effects on this construction depend on the aimed level of conceptualization, the age of the students, and the content at stake.

The connections to be made, between contextualized and general forms of knowledge, or between new and previous pieces of knowledge, require filling some gaps that might differ among students, depending on their activities or knowledge. We assume that it is important for the teacher to identify these gaps and help fill them. Hence, closing the gaps means, among other things, clarifying as many implicit aspects as possible, according to the students' actual understanding, as expressed by at least some of them. This is one of the main issues during MTTs:[5] the need for teachers to introduce new knowledge, while not straying too far from what the students actually know and do.

Of course, the exposition of knowledge by the teacher constitutes only a part of the process in students' aimed learning. Sometimes, ahead of an MTT, *introductory tasks* are proposed to students. It may be a particular case where a general concept has to be used (partially), or a modeling task, or the use of specific words, first contextualized by being encountered in examples. The idea is to create, for the students, a need or a motive to learn this new piece of knowledge (based on our constructivist perspective on learning). Let us provide an example: Students in the second-to-last year of secondary school (13–14 year olds, 8th grade) are required to learn the Pythagorean theorem. The teacher could introduce it at the beginning of the chapter, and they might or might not provide a proof of it. The teacher could also tell the students before introducing it (or just after) that this theorem links the geometrical property of a triangle being right-angled with a numerical property about the lengths of the sides. However, an introductory task could also consist of spending some time before the lesson having students draw triangles, measuring the sides, and comparing two numbers: the square of the length of the longest side and the sum of the squares of the lengths of the other two sides. A discussion could then lead to a conjecture about the

triangles where the equality between these two numbers seems to be verified, thus preparing them for the lesson. The question of approximating measurements can motivate the demonstration of the Pythagorean theorem in the case of the right-angled triangle. Here, the pupils can explore the generalization of their findings. There are other types of introductory tasks, but the aim is always to prepare students for the new knowledge, through some work in a particular context or by making students feel the need for this knowledge to solve the tasks at stake. Our hypothesis is that such introductory tasks make it easier for students to make sense of the MTT (and, importantly, to listen to it).

In teaching sessions following an MTT, the students usually have to use the new general knowledge in exercises, with or without *adaptations* (i.e., variations in the way knowledge is put to work), in various contexts, with more or less time and range of initiative, depending on the content. Teachers usually expect their students to both memorize the wording of a given definition or property and to be able to use it in various exercises. Analyzing an MTT then does not only require describing the mathematical definitions and properties which are the focus of the teaching but also the various associated tasks to be solved and their implementation in class.

Generalities in our methodology of studying learning

To evaluate the possible student activities generated by the teaching, and their potential in terms of conceptualization of a given new piece of knowledge, we have to take into account the specificity of each particular piece of mathematical knowledge. We have thus introduced the idea of "highlights" of a mathematical concept, which refers to the intersection of a mathematical point of view, the school curricula, and the cognitive difficulties for students on this subject. It offers the researcher a global reference point to study the content at stake in the teaching and learning process and to compare what may be potentially expected (by the researcher) and what effectively occurs in class. It acts as a global a priori analysis of the content to be taught (Bridoux et al., 2016, p. 191), and is critical to our analyses.

However, analyzing students' activities leads to difficulties for the researcher from a methodological point of view. First, activities related to a targeted mathematical concept should be considered in their entirety over the long term to understand what truly happens in this learning process. Furthermore, following the work of Leontiev (1972/1978), we distinguish activities from tasks and do not identify activities with observable actions only, as activities have a mental component that remains inaccessible to the researcher. However, we assume that we can reasonably infer the possible activities of the students from both the proposed mathematical tasks and the choices made for their implementation in the classroom. When there are no obvious tasks, as is the case during the MTTs, we have to adapt our methodology in another way, as we explain below.

LITERATURE ABOUT LECTURES IN MATHEMATICS CLASSROOMS

International context

Since the 1980s, many countries, including France, have initiated reforms in mathematics education. With a more constructivist view of the basics of learning, these reforms tend to reconsider the traditional ways of teaching mathematics, questioning the model of teaching as information transmission (the "telling model"; Smith, 1996, p. 393). Regardless of their initial motives, they have widely promoted "an active view of learning mathematics" (Smith, 1996, p. 393) in which the role of the teacher is fundamentally different from their role in a more traditional model. In particular, "teachers must play more the role of classroom facilitator than knowledge source" (Smith, 1996, p. 394). However, MMTs have not disappeared from classrooms. One of the reasons pointed out by Smith (1996) is that telling plays an important role in mathematics teachers' sense of efficacy and that changing this and replacing it with new "moorings for efficacy" (p. 395) is not that simple. Another reason might be that even in a teaching model based on a constructivist conception of learning, teacher telling still has a role to play. Indeed, one cannot expect students to come up with usual mathematical theorems, definitions, formulas, or vocabulary without any help. This idea led Smith to come up with the notion of "judicious telling" (p. 397) as a central component of teaching practices, consistent with an active learning model. He describes the function of judicious telling as the mediation teachers have to achieve between the accepted mathematical knowledge and methods and the particular intellectual communities of their classrooms. In particular, teachers are in charge of "additions — such as useful terminology, ways of representing mathematical ideas and counterexamples to student conjectures — in settings where those additions are necessary" (Smith, 1996, p. 397).

The French word "*cours*," referring both to the whole session, to the part of the session devoted to the exposition of pieces of knowledge by the teacher, and to the resulting written record, shows the place teacher telling has been taking in French culture. Indeed, before the constructivist views on education led to more involvement for students in their learning, mathematics sessions were mainly in the form of lectures from teachers. Today, in many mathematics classes in secondary school throughout France, and for a significant proportion of sessions, a large part is still devoted to exposition by the teacher; this is done, partly in writing and partly orally, for certain general mathematical objects (theorems, properties, formulas, and definitions, as well as vocabulary, methods, and proofs) and comments about these objects.

The relations between MTT analysis and the mathematical content at stake

Constructivist approaches in teaching mathematics led to reforms emphasizing the importance of students autonomously searching for meaningful mathematics problems, with collective discussions in the classroom. Institutional reforms

in various countries (National Council of Teachers of Mathematics [NCTM], for instance) were sometimes interpreted as a requirement for teachers to listen to the students' proposals and discussions while avoiding the provision of substantive mathematical help through indicating the relevant concepts or procedures (Simon, 2013). Stein et al. (2008) discussed this interpretation of problem-oriented teaching and learning and stressed the need for teachers to be helped in moving beyond show and tell, and to maintain a sense of efficacy that they might fear losing (as Smith, 1996, had already analyzed), by giving them other means of presenting mathematical knowledge through telling while remaining in control of the mathematical dynamics and teaching goals. For further learning of mathematics in secondary education, Lobato et al. (2005) underlined that telling remains important because students cannot reinvent the mathematical content at stake.

Authors such as Baxter and Williams (2010) highlighted the tension—which they call the "dilemma of telling" (p. 8)—between engaging students in autonomous tasks, which could be effective in making sense of mathematical concepts, and guiding them toward meaningful learning from a disciplinary point of view. After a constructivist stance which led to some reduction of telling-focused teaching methods, there was a move toward a different instructional stance in mathematics education which opened a new space for teacher telling, this time based on scaffolding (Wood et al., 1976). In an introduction to a *ZDM – Mathematics Education* special issue on scaffolding and dialogic teaching, Bakker et al. (2015) conducted a review of the literature on teacher telling and scaffolding in which they defended Baxter and Williams' point of view that "telling is not necessarily at odds with the idea of scaffolding as long as it is contingent to the situation" (p. 1056).

Furthermore, the issue of making links between general and contextualized knowledge in a lesson is also found in the particular case of examples, about which Bills et al. (2006), at the 30th Conference of the International Group for the Psychology of Mathematics Education (PME 30), presented a survey of literature illustrating the diversity of approaches in examples used for the learning and teaching processes. However, as we will show, the dialectic between general and contextualized knowledge is not limited to the use of examples in mathematics learning and teaching.

Whole-class scaffolding and MTTs

Scaffolding was first introduced by Bruner (1983) to operationalize the concept of ZPD. It "consists essentially of the [adult] 'controlling' those elements of the task that are initially beyond the learner's capacity, thus permitting him to concentrate on and complete only those elements that are within his range of competence" (Wood et al., 1976, p. 90). Originally, scaffolding was oriented toward one-to-one interactions with a child or pupil. Since then, the range of situations in which scaffolding has been employed has expanded in several directions, three of which

we will highlight here. First, scaffolding may be used as a means of supporting a particular student's learning in a school context while appearing to be quite relevant to analyze their acquisitions (e.g., in reading or in mathematics[6]). Second, it can be applied to whole-class situations: Smit et al. (2013) proposed a conceptualization "that keeps as close as possible to the spirit of [its] origin, but that leaves room for features not salient in one-to-one interaction" (p. 818). Third, beyond problem solving, scaffolding may help students' understanding by relating a new piece of knowledge to an already familiar one or by better integrating that knowledge into a net of already organized concepts.

Given our own research interests, we are primarily concerned with the generalization of individual scaffolding to situations where there are more collective interactions and comments on mathematical content than one-to-one interactions. To this end, we have designed a specific tool to analyze teachers' interventions involving knowledge, called a "discursive proximity," which is particularly suitable for at least partially studying whole-class scaffolding during MTTs.

A TOOL TO STUDY WHOLE-CLASS SCAFFOLDING, ESPECIALLY DURING MTTS: PROXIMITIES IN THE TEACHER'S DISCOURSE

Teachers' practices are a key element of our MTT analysis

In MTTs, very few traces of students' activities are evident (compared to other moments in class): The students' tasks are not obvious, and observation of their activities is more difficult than during problem-solving moments, which has lead us to adapt our existing methodology for this article's particular analysis (Horoks & Robert, 2007). Furthermore, the study of these moments concerns a small part of the teaching / learning process, which is not easy to interpret as an isolated element. We therefore use a detour to analyze an MTT's potential impact on students' learning through the study of the teacher's discourse during these moments, taking into account the students' activities before this moment, and according to the content at stake, the school level, and the students' known difficulties.

We will not provide here an exhaustive list of the various choices that a teacher may adopt for the MTT's content, the moment's level of generality or rigour, the adopted formalism, the proofs given, what still remains hidden (implicit), and so on. The organization of the MTT may also be very different among teachers: from a lecture, where the students take notes, to an interactive talk, where the students may take part. Sometimes, a teacher might only offer a solved exercise or a generic example (Mason & Pimm, 1984), instead of a general statement to be used as a general rule. In other circumstances, a teacher might add some historical context or emphasize the way the concepts are to be used.

In fact, the main entry point for the present analysis is tied to the comments the teacher adds, whether they were anticipated or improvised, when — and only when — they are directly linked to the students' (possible) activities or (supposed) knowledge. Our focus is on the way the teacher's discourse could contribute to the students' understanding of the mathematical content at stake through the connections that the teacher might establish with elements that some of the students are already supposed to have absorbed. As explained above, it might be previous activities, pieces of previously acquired knowledge, or what the teacher imagines the students' knowledge to be. This involves both the form and substance of teachers' discourse.

This means that after studying the highlights of a mathematical concept — to pinpoint what students may know, what they might miss, or what may be difficult for them — we then study to what extent the students' ZPD may be involved in the teacher's comments during MTTs. We label the corresponding excerpts of the teacher's discourse as proximities.[7] MTTs are related to whole-class scaffolding, but specified to telling moments and closely related to mathematical content and students' activities. Three types of proximities will be identified in the teacher's discourse according to their place between general and contextualized content. As researchers, we look for opportunities in which proximities could have been introduced by the teacher, deduced from the general characteristics of the mathematical content. We then study the teacher's discourse to deduce the actual proximities offered to the students. This study is based on years of research on teaching practices and on our own experience in teacher education.

Studying proximities during MTTs: A specific methodology

This section will detail our methodology in studying and categorizing proximities in the teacher's discourse[8] during MTTs in class. We analyzed both the teacher's and students' discourse, to the extent that we could, through a video of the session. Proximities may happen through foreseen or improvised comments. We also intended to identify other comments, mathematical or meta-mathematical,[9] that may reach the students' ZPD: proximities between the planned tasks and the text of the lesson, between the student's effective activities on the previous tasks and the targeted knowledge, or between questions and answers occurring during the lesson. We then attempted to identify some missed opportunities, which are often tied to elements or links that remain implicit (according to the researcher's point of view), possibly due to a lack of awareness on the part of the teacher, a misreading of students' difficulties, or even a lack of time.

We were particularly interested in comments that may have reached the students' ZPDs, or at least the ZPDs of the majority of the students in the class. These discursive proximities could contain explanations or clarifications on the meaning of the mathematical concept at hand, and about how to apply it; they could explicitly connect the activities of the students to the pieces of general knowledge behind them ("ascending proximities"), or link pieces of general knowledge to

the activities ("descending proximities"). These proximities could also concern[10] general or applied knowledge ("horizontal proximities"). This categorization of the comments, according to their place between general knowledge and its contextualized form, is based on the way the teacher attempts to bridge the gaps between the targeted pieces of general knowledge and the students' detected knowledge or activities (Chappet-Paries et al., 2017b). We will provide examples of these categories in the following section. Our Vygotskian hypothesis is that if some comments connect the students' previous knowledge and activities to the targeted new knowledge (or methods), they could be relevant for the learning expected, since they may reach the students' ZPD.

A CASE STUDY: TWO EXAMPLES OF MTTS ON FUNCTION VARIATIONS FOR 10TH GRADE STUDENTS

In this section, we describe what happened in two different 10th grade classrooms during a session about the direction of variations of functions (one of these analyses is presented in detail in Chappet-Paries et al., 2017a) and demonstrate how proximities can be a tool to compare the practices of two teachers — in this case, "GE" and "MM" — implementing an MTT on the same mathematical content. The two classes as taught were not similar, but both were held in neither notably privileged nor notably disadvantaged social environments. We do not present the complete data here, which include other moments of the sessions that we have analyzed elsewhere (Chappet-Paries et al., 2017a; Robert & Rogalski, 2020), since our aim is strictly to illustrate the way we detect the proximities in the teacher's discourse during MTTs, according to our previous analysis of the mathematical content.

Highlights of the mathematics at stake

Functions are first encountered in the last level of lower secondary school ("*collège*" in France, 14–15-year-old students) and then studied more thoroughly in the first year of upper secondary school ("*lycée*," 15–16-year-old students). Formal definitions of increasing and decreasing functions are introduced for the first time in lycée, as well as the concept of variations (and of a variation table). These students also have to know how to study particular functions: linear functions (already partially met at the end of collège), polynomial functions, and so forth. Linear functions are the only type of function explicitly studied during the last year of collège, and is described by the formula $f(x) = ax + b$ and associated with straight lines. Then, in lycée, students learn the following properties: "if $a > 0$, the function is increasing" and "if $a < 0$, the function is decreasing." More precisely, during the first year of lycée, studying a function's variations includes both the graphic and the algebraic general definitions of increasing and decreasing functions and their use in some exercises. The notion of derivatives is approached only during the following year.

During their years in collège, and even before then, the students are accustomed to interpreting graphics in terms of variations, including examples outside mathematics: For instance, they can read on a graph that a quantity on the *y*-axis increases. However, the connection between graphs and functions is not explicitly addressed before the last year of collège. Nonetheless, for us, that connection plays a key role in the conceptualizing of functions, and it represents a necessary and difficult transfer of what students know on graphs, toward the represented functions, and especially toward the algebraic aspects, that did not appear when working on graphs before that point (cf. Chappet-Paries et al., 2017a). For students, adopting this algebraic perspective involves the difficult connection between something global and perceptible on the one hand (the graph, where points are implicitly involved) and a relation between two pieces of information on the other hand, namely, the covariation of the coordinates of the points on the corresponding graph. It also involves a complex wording for the definition of an increasing function *f*, with a quantifier (explicit or not): "For any couple of numbers a and b in a given interval, if $a < b$ then $f(a) < f(b)$."

From our perspective, considering the expected level of conceptualization of functions' variations in 10th grade in France, knowing the concept of an increasing function includes knowing all of its aspects (graph, values, and algebraic formula), and means that students can link these aspects and choose the most relevant one to solve a problem. This understanding of the concept could not come without the work done on exercises involving it. However, thanks to MTTs, students might already gather, ahead of this work, an operative idea of what is at stake. They can then recognize targeted pieces of knowledge, through the teachers' comments, linking their activities and what was presented during the MTT.

Whatever the introductory task is before the MTT, the complete formalization of "for all a and b in a given interval, if $a < b$ then $f(a) < f(b)$" cannot be directly deduced by students from solving the task. For us, the gap is too large between, on the one hand, the global perception of the graph going upward, with readable consequences on the covariation of the abscissa and ordinate of the points of the graph, and on the other hand, the formal translation of it, with an implication involving a universal quantifier and two values of x. This translation cannot be provoked by a question before students know about the definition, which contradicts the introductive aim of an introductory task.

Studying MTTs in two classes

Our methodology allows us to see differences in the two classes under analysis that might have impacted students' conceptualization of the mathematics in question. Both teachers let students work on an introductory task before the MTT (the day or the morning before), but the tasks were not the same. Moreover, the time devoted to the introductory task, and to the presentation of (similar) content in the first MTT that followed it, differed widely between the two

classes. Finally, the main proximities we identified from the two teachers were very different. We detail these differences below.

The two introductory tasks

In the first class, students worked on two given graphs, which were not explicitly associated with functions, and critically without any algebraic expression of the functions. The *x*-axis was the axis of time (*t*), even if it was not explicitly indicated, and the *y*-axes both represented some physical quantity (temperature or altitude). The tasks then consisted of recognizing, describing, and interpreting the graphs ("the graph goes up on such period") to conclude that "the temperature is rising." Some intervals were introduced to characterize the values associated with growth, or some values to characterize the extremum, but the students only had to read them on the graphs. There were no questions leading to an algebraic interpretation of the increase since the function was not explicitly expressed in its algebraic form.

In the second class, the students worked on optimizing the area of an agricultural field, which could be modeled geometrically, leading to a quadratic function. Two variables were to be explicitly involved, one of them being a length (*x*) and the other the area (*y*) to be maximized. The values and the graph could be obtained with the use of appropriate software. Some questions involving the description and interpretation of the values and the graph did arise, but the questions also offered opportunities to go a little further toward the algebraic formalization, since the relation between *x* and *y* was explicit in this case as a result of the inevitable approximation of numerical and graphical approaches.

The two MTTs

In both classes, we analyzed a transcript of a video which captured the MTT.[11]

1) In GE's classroom

We analyzed the first 10 minutes of teacher GE's MTT in which he provided the definition of an increasing function after the prior work on the introductory task. He began by recalling the task as the description of the evolution of two phenomena called "functions." However, he never mentioned the variable for time (*t*) in this introduction. Then, he announced to the students that the goal of the lesson was to generalize what they had done during the introductory task. This comment may constitute a horizontal proximity between the aim of the task and the aim of the MTT. At the same time, the teacher projected on the blackboard the part of the textbook related to this lesson and let the students copy what was on the board if they so chose.

Then, the teacher defined an increasing function on an interval and wrote it on the blackboard: "If *x* increases, then *f*(*x*) also." This definition is not yet the algebraic expression, but it does include the relation between the evolution of the values of *x* and those of *f*(*x*). In addition, he added: "What does it mean

on a graph? It means that the graph is going up, as you saw in the introductory task." Here, we see that the teacher displayed a descendant proximity instead of an ascendant one as we would have expected. If the teacher had chosen to begin with the example of the particular graph on which the students had worked, and had questioned them on a way to translate the behaviour of the function observed on the graph into words by describing the evolution of the coordinates' values, we would have identified an ascendant proximity, even if only a few students had answered this question. However, since the teacher presented the work on the previous task as an illustration of the new definition, instead of presenting the definition as a precise generalization of what the students had done, we consider it a descendant one.

Next, the teacher added the algebraic definition, without any comment other than "It means also ..." He did not justify its difference with the previous expressions, nor its potential usefulness. He only wrote, "If $a < b$ then $f(a) < f(b)$," without any reference, even orally, to the fact that it must be proven for any a and b, despite the complete expression being included in the students' textbook and projected on the blackboard. The teacher also did not show on the graph the representation of the (incomplete) formula he wrote on the blackboard, which he could have done by placing, for example, a, b, $f(a)$, and $f(b)$ for some values of a and b. Does it reveal that the teacher did not perceive the students' likely difficulties with this expression? Or does it reveal that the teacher knew that this expression would not be used later to solve exercises, and thus pointless to spend time on at that juncture, as evidenced by the fact that the meaning of the expression was still inaccessible without solving a few exercises?

At this point of the MTT, a student posed a question to the teacher, asking, "Shall we be assessed on that?" One could interpret this question as a student's unease with such a mysterious expression, without any link to the previous interpretations or translations of the growth of a function. Then, after having repeated the three ways of considering an increasing function (with the order of the values, on the graph and algebraically), the teacher went on to the decreasing case, with the same steps (this time including the graph interpretation of the algebraic expression for two given values a and b).

2) In MM's classroom

It took teacher MM 50 minutes to define an increasing function. First, he recalled the work of the introductory task — the algebraic expression of the function f with its interval of definition is reobtained after 14 minutes. As the students had to find the function's maximum, the teacher first showed values of x and $f(x)$ by means of a spreadsheet and let students describe what happens in terms of variations. Then, the same task was solved graphically by reading the graph on a computer. MM insisted explicitly on the link between the two semiotic registers of representation (table of values, graph): first growing, then reaching a maximum, and then decreasing. He also insisted on the approximation, cited

by some students, of these two approaches. In this approach, we see proximities based on the students' work, which may help them to recognize the relations between registers regarding some aspects of functions. Then, after half an hour, the teacher announced that he would begin a more general discussion of the variations of functions (a horizontal proximity). He explained first the need for appropriate words and the students proposed some options, such as "ascending" and "increasing." The teacher finally kept, as mathematicians do, the word "increasing" for a function whose graph goes up on an interval, thus constituting a first definition. Here, we have the first ascendant proximity, as the formulation given originates from the activity. Then, showing the graph and the values, the teacher went back to the task and repeated that the function is increasing on the first interval (thus now demonstrating a descendant proximity).

After this, he asked the students to find an algebraic translation of the first definition. He insisted on the importance of a rigorous translation: "Later you will be asked to anticipate the maxima of a function, without being given a graph [nor] a table, which are approximations, but through translating it in an algebraic language." There is a need for such an algebraic definition, tied to the imprecision of the previous work, as some students expressed: As such, we consider this comment as an ascendant proximity. To answer the teacher's question, some students then gave an intermediary expression: "The greater x is, the greater y is." The teacher insisted on the difficulty of this work, and it can be seen from the footage that some students of the class did not participate in it. The teacher tried to elicit something nearer to the targeted definition, but he was unable to get more from the students. It was apparent that he had to help them, and he suggested considering two values of x instead of considering all the values:

> How can I see that x is increasing? I take greater and greater values of x ... I need to take at least two of them. How can it be written? How do we discriminate between two different values? x_1 and x_2. That is for x: $x_1 < x_2$.

Then, the teacher gave the complete expression and explained what it means graphically for the previously mentioned function (a descendant proximity). After this, the MTT continued, with decreasing functions and related topics.

Differences between the MTTs in the two classes

Finally, having analyzed each MTT, we can see the differences between them. However, it is important to note that we cannot explain the teachers' choices, as we do not know the full context of the classes. The greatest difference for us was the presence or absence of ascendant proximities, based on students' activities, to promote a link between their previous work on the variations of an explicit function and the general definitions of variations, including the difficult algebraic one. The second case (MM's class) showcased examples of these ascendant proximities, connecting at least the first ways to characterize an increasing function and the students' contextualized work. In the other class

(with GE as teacher), we noticed only descendant proximities, which we consider less likely to reach the students' ZPDs, and a possibly missed opportunity for an ascending proximity (which we had expected to take place). However, according to the difficulty of the algebraic definition and the gap between this definition and the students' previous knowledge, we must note that the algebraic definition had to be introduced by the second teacher himself, therefore with a descendant proximity only.

With these two cases, we have offered some evidence as to the analytical utility of our tools to study MTTs. The a priori study of the content at stake makes it possible for the researcher to identify opportunities for proximities. In this case, the study of highlights helped identify the need for a focus on the links between graphical and numerical knowledge and formal knowledge (algebraic formula) and the necessity to help students understand this difficult new formula, the need for it, and its meaning. Further, the study of the implementation of MTTs allows the researcher to detect what occurs in the classroom concerning these links and especially what remains implicit between contextualized and general knowledge. This suggests that, in the first classroom, some elements could have been developed further. However, we do not yet have evidence, other than theoretical, to ensure that the effects on student learning are different depending on the type of proximity. That is the next step of our research.

CONCLUSION

We have developed in this article some new extensions of our previously constituted theoretical framework (Robert & Rogalski, 2005): Instead of analyzing students' activities directly, which are difficult to characterize during MTTs, we infer some possibilities as to students' understanding of the content at stake, drawn from specific comments in the teacher's discourse, called proximities. We particularly focused on highlighting the dynamics between general knowledge and its uses, which are usually at stake in MTTs. This involves the connections between the teacher's choices of (a) mathematical content; (b) content implementation during the sessions; and, maybe, (c) previous tasks and the anticipation of later work on other tasks.

One way of interpreting our work is to consider that these proximities, along with the exercises proposed after the MTT, may help students do the expected transformation of *pseudoconcepts* (i.e., what appears to be a concept without actually being one as it lacks foundational reasoning) into concepts (Vygotsky, 1978). It was this notion which inspired us to conduct this study. Of course, unlike Vygotsky (1978), our focus is with students and scientific concepts, not with young children and mundane concepts (i.e., concepts stemming only from experience), but we do suggest that what occurs during MTTs is similar. First, students hear words and see formulas, although they still might not attain the whole meaning, just as if they were considering a pseudoconcept. Then,

through various exercises where students put this information to use, and after their errors are revised and commented upon by the teacher, it is gradually transformed into a proper concept. It is as if, after the MTT, the students have in mind a partly empty envelope, with a label only, with the aim being to fill it with effective mathematics to be used and appropriated in a conceptual way. Adopting this metaphor, the importance for the teacher to provide and make use of all occasions to connect the objects (words, formulas) and their uses in context becomes evident — without neglecting the importance of the ZPD of each student in the learning process.

Some developments in our research using proximities

Widening the analysis

First, it seems necessary to study more of these moments, in relation to other mathematical concepts, to be able to establish some regularity in the teaching practices concerning MTTs. Does a teacher always develop the same type of MTT for different mathematical content in one class? How about in different classes? Are there differences in a teacher's choices in regards to the students' age? Can we characterize differences between teachers according to the tasks they give to their students before and after the MTT, and to the content and organization of their MTTs? Some pieces of research have already shown differences between MTTs to introduce a concept (e.g., Horoks, 2006; Chesnais, 2011), but without the precise, localized study of proximities.

The main question for us is the potential effects of the choices for MTTs on students' learning during the lessons and perhaps after. Are there tasks that provide more or less opportunities for student reflection on which to build proximities? Are all students equally receptive to proximities?

Individual and classroom ZPD

Let us comment briefly on the open question of the relation between individual ZPD and what could be called a "classroom ZPD" (cf. whole-class scaffolding, Smit et al., 2013).

In our current research work generally, our observables for studying students' activities are mostly based on what is happening and what may be seen or heard in the classroom, and rarely on what occurs for individual students or subgroups. Teachers' discursive proximities can then be considered a means of making students move toward new conceptual knowledge, but the process refers to the class as an entity. Does the concept of ZPD remain relevant to analyze what could be considered as the teacher's scaffolding of a class-wide conceptualization? There can be several potential better knowers in the class context. During MTT, these students may scaffold other students' activities and (short-term) learning processes. In fact, a concept may be considered to be in the classroom ZPD, even if there are only some students for which the concept is

in *their* ZPD. This means that the mathematical activity, and the comments on the activity, of these students and their teacher might trigger the development of the other students' ZPD, and subsequently their knowledge. This question clearly necessitates more research.

Nevertheless, we do not know what potential effects we can expect on learning, nor can we easily distinguish MTTs' impact from the impact of the whole teaching process.

Returning to teaching practices

In the context of ordinary classrooms, there is a common question about teacher's comments: Is one telling too much, or perhaps telling too little? Making systematic discursive proximities during MTTs may appear to some students as boring or overwhelming, with too many comments. For others, it may help to reinforce their understanding (perhaps especially if they present a low level of self-confidence). Adapting to students' diversity when implementing the prepared proximities is a teaching challenge, requiring sensitivity to the reactions of the students in a phase (the MTT) where their activity is often hidden (this challenge concerns the "sensitivity to students" in Jaworski's triad; Potari & Jaworski, 2002, p. 352).

Finally, in addition to a new theoretical scope, the introduction of a new tool that operationalizes the concept of ZPD could have implications in terms of teaching practices and teacher education. Future research and study could bear out the utility of proximities for the classroom and, ultimately, for the students.

NOTES

1. For us, mathematical activities represent not only what students do or say, but also what they think.
2. We do not ignore their divergences regarding the philosophical background, the role of language in child development, and the relationships between learning and development.
3. However, we do not refer to the systemic view on activity theory as developed by Engeström and Sannino (2010).
4. The word "general" is often used by teachers themselves to describe the text of certain definitions, theorems, properties, formulas, methods, or even vocabulary exposed during MTTs. The word "decontextualized" may be used instead of "general" to highlight the fact that a piece of knowledge can be formalized independently from a particular context, outside of a specific problem; in such a case, it is more difficult for students to link it to what they already know or have done.
5. This issue is probably handled differently by different teachers.
6. It has also been introduced for teacher training as the *zone of proximal professional development* (ZPPD; Abboud et al., 2020).

7. We call a "proximity" (Robert & Vandebrouck, 2014; Bridoux et al., 2016) any element in the teacher's decisions or discourse that (potentially) contributes to fill the gaps for (some of) the students, between the mathematics at stake and the students' understanding. In our definition, they are both "cognitive proximities," as they are supposed to have an effect on understanding, as well as "discursive proximities," as they appear in the teacher's discourse. There may be other kinds of proximities, such as a "proximity-in-act" when the teacher changes the task so that more students can work on it.
8. In fact, this label has not been introduced solely for the study of these moments, but it appears to be a privileged tool to perform this analysis.
9. Not strictly mathematical discourse but discourse *about* mathematics.
10. As supposed by the researcher.
11. We did not know what occurred during the work on the introductory task beforehand as it was not filmed.

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CLASS-WIDE BEHAVIOUR MANAGEMENT PRACTICES REPORTED BY PRE-AND ELEMENTARY SCHOOL TEACHERS : RELATIONS WITH INDIVIDUAL AND CONTEXTUAL CHARACTERISTICS.

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ABSTRACT. This study examined the use of inclusive practices by 1,373 Quebec teachers to promote prosocial behaviour, according to their individual and contextual characteristics. Two questionnaires were used: a sociodemographic and a validated Classroom Behaviour Management Practices Inventory (*N* = 68 items; 2 dimensions/7 scales α = .70 to .90). Results from descriptive and univariate variance analysis showed that proactive /positive dimension practices (e.g., rules, instructional, reinforcement-based) are used more frequently than reductive dimension practices (e.g., educational consequences), although some of the latter are frequently used. Hierarchical models indicate significant interrelationships with teachers characteristics and the scales of classroom behaviour management practices, but for a small proportion of explained variance.

LES PRATIQUES DE GESTION DES COMPORTEMENT RAPPORTÉES PAR LES ENSEIGNANTS DU PRÉSCOLAIRE ET DU PRIMAIRE: RELATIONS AVEC LEURS CARACTÉRISTIQUES INDIVIDUELLES ET CONTEXTUELLES.

RÉSUMÉ. Cette étude a examiné la fréquence d'utilisation des pratiques promouvant les comportements prosociaux des élèves par 1 373 enseignants québécois. Deux questionnaires ont été utilisés : un questionnaire sociodémographique et un inventaire validé des pratiques de gestion du comportement (*N* = 68 items ; 2 dimensions/7 échelles α = .70 à .90). Les résultats des analyses descriptives et de variances univariées ont montré que les pratiques proactives/positives (p. ex., règles et routines, félicitations) sont utilisées plus fréquemment que les pratiques réductrice (p. ex., conséquences éducatives), bien que ces dernières soient fréquemment utilisées. Les modèles hiérarchiques indiquent des interrelations significatives entre les caractéristiques des enseignants et les échelles de pratiques, mais pour une faible proportion de la variance expliquée.

Inclusive education (United Nations Educational, Scientific and Cultural Organization [UNESCO], 1994, 2009) and Quebec school system prioritizes the schooling of *all* students in the regular classroom (Ministère de l'Éducation et de l'Enseignement supérieur [MEES], 2017). In a regular classroom composed of students with diverse needs, more than a third have difficulty at some point during the year in establishing and maintaining satisfactory interpersonal relationships, following rules, or regulating their emotions or actions (Forness et al., 2012; Hornby & Evans, 2014). For 5-10% of students, these difficulties can result in persistent disruptive and problematic behaviours, such as, disobedience, defiance, motor agitation, or being off-task or inattentive (Ministère de l'Éducation, de l'Enseignement supérieur et de la Recherche [MEESR], 2015), which are likely to interfere with learning or classroom activities (Cooper & Cefai, 2013; Kauffman & Landrum, 2018).

Despite the large number of evidence-based practices known to promote psychosocial adjustment in school (Chaffee et al., 2017; Warmbold-Brann et al., 2017; Waschbusch et al., 2019), managing disruptive behaviour in the regular classroom remains a challenge for many teachers (Boutin et al., 2015). Rather than support the development of social-emotional competence and the acquisition of underlying social skills (Rose-Krasnor, 1997) such as prosocial behaviour (e.g. encouraging, sharing) or self-regulation, some teachers tend to fall back on strategies that focus on coercive / punitive practices to eliminate disruptive behaviours (Clunies-Ross et al., 2008; Michail, 2012). While the former are associated with greater opportunities for development and learning, and greater engagement in activities/task (Eisengerg et al., 2013), the latter are associated with a number of negative effects on students, notably decreased motivation to learn (Payne, 2015), decreased attention to activites/tasks (Leflot et al., 2010) and increased teacher-student conflict (Sellman, 2009). Managing disruptive behaviour is related to an increase in stress that can lead to burnout, (Fernet et al., 2012) professional disengagement and resignation (Kamanzi et al., 2017; Martin et al., 2012). While many teachers attribute their difficulties to a lack of preparation or training (Nadeau et al., 2015; State et al., 2011), few studies (still fewer in Quebec) have identified specific shortcomings or variables that may influence the implementation of behaviour management practices. These challenges experienced by both students and teachers point to the importance of establishing a picture of the use of practices to promote students'psychosocial adaptation in schools. This portrait will make it possible to highlight the needs in initial and in-service teachers' training, in order to provide a school environment conducive to development and learning, and thus positively influence the educational success for all students.

PROMOTING PSYCHOSOCIAL ADJUSTEMENT IN SCHOOL

Evidence-Based Practices

Evidence-based practices can be briefly defined as specific intervention strategies that are shown to be effective through controlled research in a defined population (Chambless & Hollon, 1998; Kratochwill et al., 2013). In the field of psychosocial adjustment in schools — whether for specific students, small groups of students, or class-wide — evidence-based practices largely arise from the behavioural sciences (Nadeau et al., 2020; Cooper et al., 2020; Kazdin, 2019). Practices can be framed in terms of two distinct intentions or expected effects on the student's observable behaviour: proactive / positive practices or reductive practices.

Proactive / positive practices encourage the emergence and maintenance of desired and prosocial behaviour and prevent the occurrence of disruptive behaviour. They may involve actions intended to facilitate the smooth running of an activity, such as organizing the environment and resources (e.g., furniture, space layout, material) (Office of Special Education Programs, 2015), setting and modeling clear rules and expectations (Gable et al., 2009), nurturing positive relationships (Mikulincer & Shaver, 2012), using positive attention and reinforcement (Sugai & Horner, 2009), or supporting self-control and self-regulation of students (Briesch & Chafouleas, 2009). This may also involve observing and describing the student's manifestation of a specific behaviour in different situations and identifying the factors / stimuli potentially related to reasons why it occurs at a specific time or in a specific environment (e.g. functional assessment; Steege et al., 2019).

Reductive practices aim to decrease the occurrence of a (mis)behaviour judged as problematic, difficult, or disruptive. Positive behavioural approaches do not support the use of this type of practice because they are perceived as punitive. However, reductive practices are still used and are not all the same (Drevon & Hixson, 2019). Practices identified as educational consequences involve actions designed to reach educational goals (e.g. social or emotional learning towards the desired behaviour) with the student. Logical and natural consequences, token economy, time-out from reinforcement and overcorrection, are examples intended to discourage the likelihood of a disruptive behaviour. To be consistent with educational consequences, practices must be planned, forewarned to the student, and used in conjunction with proactive and positive practices (Kazdin, 2019) as part of a comprehensive education plan (Kern & Chen, 2019) that supports the learning of an alternative and desired behaviour. For their part, coercive /punitive practices involve actions that occur in reaction to disruptive behaviour and are aimed at suppressing it while reactivating the teacher's authority. Threat or expulsion from school are examples that often negatively influence a student's personal dignity restrict access to meaningful opportunities. Indeed, their use raises ethical issues (Kazdin, 2019) and is considered incompatible with evidence-based practice. They tend to have limited effects in the short term. Most

importantly, they may have counterproductive effects on the teacher/student relationship over the long term, by incidentally creating a reinforcing effet on disruptive behaviour and increasing its occurrence rather than promoting more adaptative behaviour.

Teachers' Uses of Behaviour Management Practices

Due to the heterogeneity of classroom environments and students, teachers need to draw on a variety of evidence-based practices appropriate for students with emotional and behavioural needs. From the perspective of inclusive education and class-wide (universal) intervention, the terms "classroom management" and "behaviour management" are often used interchangeably to refer to "thoughtful, sequential and simultaneous acts performed by teachers to establish, maintain and restore the learning environment" (Gaudreau, 2017). Some studies carried out in the United States have described the frequency of the use of behaviour management practices by teachers. Their findings are summarized here according to teachers' individual characteristics (e.g., amount of teaching experience) or contextual characteristics (e.g., grade level, setting [general; special], training opportunities) known to influence the use of practices (Aarons et al., 2011).

Gable et al. (2012) explored the frequency of reported practices by 1,588 general education teachers and 1,472 special education teachers at the preschool, elementary and high school levels, without support statistical differences according to shool settings or teaching level. Among 20 instructional of behaviour practices, the most frequently used practices were:establishing clear rules and expectations, providing support and adjusting educational requirements, supporting positive behaviour, setting up a behaviour education plan, and using specific instructions to develop learning and study skills. The least used practices included group contingency programs, observational / functional assessment, pre-correction of behaviours, and peer-assisted learning. The qualitative study conducted with 22 elementary and high school teachers (Evans et al., 2012) found that, as compared to general education teachers, special education teachers seems to use a wider range of practices like set clear expectations, positive reinforcement and self-regulation mechanisms. Among all school setting teachers, the most used practices were verbal reinforcement and physical proximity. When observing behaviour management practices, Maggin et al. (2011) noted on their part that general and special education teachers tend to use the same practices, while exhibiting a low ratio of positive practices (e.g., praise) as compared to reductive practices (e.g., reprimands). The ratio was approximately 1:1, compared to the recommended ratio ranging from 3:1 up to 5:1 (Cook et al., 2018; Pfiffner et al., 1985).

At the elementary school level, Reddy et al. (2013) examined 23 behaviour management practices (observations/questionnaires) used by 317 teachers according to teaching experience and grade level. Results suggested that evidence-based practices were used by teachers approximately 60% to 70% of the

time, with a praise-reprimand ratio of 1:1.5. The most observed practices were teaching planning and materials management, whereas the least were controlling antecedents (e.g., displaying the class schedule and lessons) and assessing progress. Hierarchical regression models also demonstrated that preschool and early elementary teachers, as compared to higher levels teachers, use more frequently clear instructions, verbal reinforcement and feedback to redirect behaviours. Higher levels more frequently relied on progress monitoring and metacognitive support. With the exception of the use of praise, Reddy et al. (2013) results did not show interaction between years of experience or teaching level and the use of evidence-based behaviour management practices.

To sum up, previous studies examined the use of a limited number of practices by teachers, and explored the role of somes teacher's characterics (i.e., school setting, years of experience, teaching level) mostly with descriptive and correlational analysis. These results do not clarify the role of a set of teacher's individual and contextual characteristics, and their discrepancies may be explained by the variety of methods and measures (and their psychometric qualities) employed. However, the use of questionnaires or observations seems to lead to results with the same trends (Clunies-Ross et al., 2008; Debnam et al., 2015; Gitomer et al., 2014). In particular, these two types of measurement would be strongly correlated when instrument statements are formulated to represent strategies applied in a specific way, in a specific context (Koziol & Burns, 1986). In the studies reviewed, the wording of the statements presented rather a non-specific use of practices, and their number (examined from questionnaire or observation) was generally small and not representative of the range of practices described above.

Given that several factors may influence whether or not teachers use evidence-based practices to manage behaviour, (Aarons et al., 2011) salient individual and contextual characteristics might be considered to better understand a given situation. For instance, the prevalence of students' presenting disruptive behaviours, and teachers' gender or teaching experience, including their knowledge or training in behaviour management which is likely to influence their degree of confidence in being able to manage such behaviours (Boutin et al., 2015; Rousseau et al., 2014). To our knowledge, a comprehensive picture of the specific practices used by preschool and elementary school teachers has only been established in a very limited number of studies. Of these, it has not been possible to reach a consensus on the interrelationships of practice use to individual or contextual characteristics, since both characteristics are rarely, if ever, considered simultaneously. For example, studies on instructional practices suggest the presence of distinctive associations according to gender; women are more motivated to use the recommended practices (Sabe & Aelterman, 2007; Schiefele, 2017; Schiefele & Schaffner, 2015). Other studies on professional development suggest an influence of teacher support through coaching or behaviour consultation on teacher practices (Nadeau et al., 2012; Holdaway & Owens, 2015; State et al., 2017). Being able to identify which type of characteristic

is most related to the use of which practices would allow for a more targeted effort in supporting teachers to meet the diverse needs of students. Such research would also help to make adjustments to training programs (e.g., individual characteristics) or to working conditions (e.g., contextual variables). The present study aspired to fill an important gap in knowledge by examining the practices of pre- and elementary school teachers in Quebec to promote prosocial behaviour and psychosocial adjustments of students. Specifically, it aimed to describe the use of classroom behaviour management practices and explore their interrelationship to individual and contextual teachers' characteristics, based on the following questions and hypotheses:

1. What is the use frequency of specific proactive / positive and reductive (i.e., educational and coercive) practices by preschool and elementary school teachers to manage disruptive behaviour in their classrooms?
2. What are the relationships between the practices used and individual teacher characteristics?
3. What are the relationships between the practices used and contextual variables?

METHOD

This study falls under the scope of a broader project that aims to pinpoint conditions for the education of students with behavioural difficulties in Quebec (Massé et al., 2018). The study adopts a descriptive-explanatory methodology to describe and to explore the relationships between variables.

PROCEDURE AND PARTICIPANTS

An informational email was sent to 60 Francophone school boards (approximately 12,000 teachers) and 15 Francophone private schools (approximately 300 teachers), requesting that they share the invitation with their teachers. In all, 1,580 teachers clicked on the invitation link, 190 chose not to participate and 207 were excluded from the analysis because they answered the questionnaire more than once (n = 17) or answered only a few statements (e.g. less than one tenth) (n = 190). The final sample thus consisted of 1,373 preschool and elementary school teachers. The participation rate, estimated at 10.3%, was considered representative of the population when using a non-probabilistic sampling based on the accessibility of the targeted community (William & Protheroe, 2008). Compared to teachers in preschool and elementary education in Quebec (MEES, 2015), the sample included roughly the same proportion of women (92% versus 89.1% respectively).The teachers were aged between 30 to 49 (68%), held a bachelor's degree as their highest level of education (82%) and taught in a public (94%) or private school with an underprivileged (40%), average (37%) or privileged (23%) socioeconomic environment index. Table 1

(see next section) presents the socio-demographic data of the sample used for subsequent analyses. All procedures for this study received ethics committee approval from the responsible university.

MEASURES

Two questionnaires were used for this study. The socio-demographic questionnaire had 11 questions corresponding to independent variables. Individual characteristics (n = 4) refer to age group, level of education, teaching experience, needs for training and consultation. Contextual characteristics (n=7) refer to type of institution (public / private school), the school's socioeconomic index, setting (general / special), grade level, specific training in behaviour management / disruptive behaviour (preservice or in-service; hours), number of students with disruptive behaviour in their group over the last two years, and number of active participations in an individualized (education) plan (IP) for a student with disruptive behaviour within the last two years.

TABLE 1. *Socio-Demographic of Participants (Frequencies, Means and Standards Deviation)*

Variables	Frequency (%)	*M (SD)*
Gender		
Female	1263 (92.0)	
Male	110 (8.0)	
Teaching Experience		15.67 (8.6)
0 to 5 years	168 (12.2)	
6 to 15 years	541 (39.4)	
16 to 25 years	480 (35.0)	
26 years and over	184 (13.4)	
Teacher's setting		
General	1213 (88.3)	
Special	160 (11.7)	
Grade level		3.92 (2.0)
Preschool (age 5)	204 (14.9	
1st (age 6)	222 (16.2	
2nd (age 7)	203 (14.8)	
3rd (age 8)	195 (14.0)	
4th (age 9)	160 (11.7)	
5th (age 10)	178 (13.0)	
6th (age 11)	211 (15.4)	

Variables	Frequency (%)	*M (SD)*
Specific training in behaviour management (hours)		
Preservice		51.92 (64.2)
None	219 (16.0)	
1 to 45	782 (57.0)	
46 to 90	255 (18.6)	
91 and over	117 (8.5)	
Inservice		16.40 (43.8)
None	249 (18.1)	
1 to 5	467 (34.0)	
6 to 15	369 (26.9)	
16 and over	288 (21.0)	
Number of students in class with disruptive behaviour		2.54 (3.4)
None	223 (16.2)	
1 to 5	1037 (75.5)	
6 and over	113 (8.2)	
Individualized education plan (number)		3.15 (5.1)
None	307 (22.4)	
1 to 5	872 (63.5)	
6 and over	194 (14.1)	

The second questionnaire, the Classroom Behaviour Management Practices Inventory (*Inventaire des pratiques de gestion de comportements en classe*; Nadeau et al., 2018), listed 68 items of behaviour management practices for both proactive / positive ($n = 49$; $\alpha = .91$) and reductive ($n = 19$; $\alpha = .79$) dimensions, which referred to the dependent variables of the study. The proactive / positive dimension was composed of five scales measuring specific practices: 1) instructional teaching planning and time management ($n = 15$; e.g., planning rituals to greet students at the beginning and end of class); 2) establishing rules and instructions ($n = 10$; e.g., regularly reminding students of expected behaviours); 3) positive reinforcement-based ($n = 6$; e.g., giving a student explicit feedback on what they did well); 4) self-regulation support ($n = 15$; e.g., using a signal of some kind to remind students of the instructions or rules to follow); and 5) observational / functional assessment ($n = 3$; e.g., observing a student and taking notes on their

behaviour in order to determine what is causing disruptive behaviour). The reductive dimension was composed of two scales measuring specific practices geared toward: 6) educational consequences (n = 10; e.g., apply the expected consequences when there is a breach of the rules) or 7) coercive / punitive (n = 9; e.g., giving a detention). For each strategy, the participants were to indicate how often they used it on a frequency Likert scale (1 = *never*; 5 = *very often*). Each practice scale score was calculated based on the average score of each strategy item that constitue it. As in the instrument validation process (N = 319; Nadeau et al., 2018), the psychometric characteristics presented in Table 2 (see: *Results*) demonstrate globally good construct validity in spite the large sample size (e.g., goodness of fit indicator; Browne & Cudeck, 1993; Kline, 2016).

DATA ANALYSIS

Statistical analyses were conducted using IBM SPSS Statistics software version 24. Preliminary analyses examined the presence of missing data, normality of distribution for all the dependent variables (practice scales), and extreme values. To establish a picture of the practices used by teachers, descriptive analyses were conducted on averages, standard deviations, correlations, and paired *t*-tests between each of the scales. To diminish the likelihood of a type I error, the *p*-value at .007 is established by the correction of Bonferonni to each test (.05 / number of tests[7]; Tabachnick & Fidell, 2019). To explore the interrelationships between the independent variables related to teacher characteristics and the dependent variables related to practices, a series of seven hierarchical models was carried out (i.e., for each scale of practices). In the first step, the individual variables of gender and years of experience were introduced. Two other control variables were introduced at this step (e.g., source a = discussion group, source b = individual interview). The other independent variables representing contextual characteristics were added in step two. The choice of variables was intended to reduce the model's complexity in order to avoid interpretation-related difficulties (Hox et al., 2018). The premises for this type of analysis, such as normality of error distribution, homoscedasticity and absence of multicollinearity between independent variables, were respectively observed by the Durbin-Watson statistic, the homogeneity of residual variances and the Variance Inflation Factor (VIF).

RESULTS

Preliminary Analysis

The indicators confirming the postulate of the normality of distribution, averages, standard deviations, and correlations are presented in Table 2. The correlations indicate a moderate to strong significant association between the scales of the proactive dimension (Min. = 0.39, Max. = 0.69) and those of the reductive dimension (0.51), and a mild to moderate significant association between the scales of the two dimensions (Min. = 0.07, Max. = 0.43). Table 3

shows the correlations between the dependent and independent variables. The correlations between the independent variables range from -.17 to .62. Univariate variance analyses (*t*-tests and ANOVA) revealed no differences on the dependent variables of the practices for the independent variables 'type of school' (public / private) and 'socioeconomic status index', which were therefore excluded from subsequent analyses. Given the presence of the covariance and to facilitate comparison with other studies, the variable 'teaching experience (years of)' was used rather than 'age of participant'.

Use of Behaviour Management Practices

The scores obtained for each practice scale indicate an average slightly higher than the midpoint. Practices referring to proactive / positive dimension (M = 4.25, SD = 0.36) were used significantly more than those referring to reactive/reductive dimension: M = 3.20, SD = 0.48, $t(1.1372) = 76.46$, p = .000. Results from *t*-tests indicated that most of the practice scaless differed significantly from each other (*p*-value at .007), with the exception of the self-regulation and educational consequences scales (p = .01). The most proactive / positive dimension practices used were: clear rules, instructions and routines; planning and resource management; and positive reinforcement. The least used were: self-regulation and observational / functional assessment. The average scores for the coercive / punitive scale was situated near the midpoint while also indicating that these practices were used less often than the educational consequence practices that were frequently used.

TABLE 2. *Psychometric Statistics, Descriptive Statistics, and Pearson Correlations Between Scale of the Classroom Behaviour Management Practices (n = 1373)*

Dependent Variables	1	2	3	4	5	6	7
1. Teaching planning	–	.69***	.48***	.69***	.54***	.36***	.08**
2. Rules and instructions		_	.50***	.65***	.55***	.37***	.08**
3. Positive reinforcement			_	.54***	.39***	.43***	.17***
4. Self-regulation				_	.63***	.37***	.07*
5. Observation/ assessment					_	.29***	.10***
6. Educational consequence						_	.51***
7. Coercive/ punitive							–

Dependent Variables	1	2	3	4	5	6	7
Mean	4.03	4.32	4.51	4.33	4.00	3.76	2.59
Standard Deviation	0.44	0.39	0.38	0.48	0.67	0.49	0.61
Skewness	-.31	-.56	-.92	-.79	-.43	-.16	.30
Kurtosis	-.25	.16	1.0	.70	-.25	-.16	-.11
Alpha	.84	.84	.85	.71	.90	.70	.80
X2 (df)	443.25 *** (90)	366.21 *** (90)	213.30 *** (35)	31.04 *** (8)	0.01 (1)	165.76 *** (32)	184.46 *** (21)
RMSEA	.05	.05	.06	.05	.00	.06	.08
CFI	.95	.95	.96	.99	1.00	.94	.96

Note Alpha = ordinal coefficient alpha calculated from our sample.

p<.05 **p <.01.*p<.001*

TABLE 3: *Pearson Correlation Between Sociodemographic (Independent Variables) and Classroom Behaviour Management Practices (Dependent Variables)*

Sociodemographic (IV) Practices (DV)	Gender	Teaching experience	Educational setting	Grade level	Training preservice	Training inservice	Student in class	IP participation
1. Teaching planning	-.14***	.16***	-.07*	-.03	.01	.07*	.01	.09**
2. Rules and instructions	-.13***	.16***	.04	-.03	-.01	.06	.01	.06*
3. Positive reinforcement	-.14***	.08**	-.11***	-.15***	.06*	.04	.02	.10***
4. Self-regulation	-.13***	.15***	-.11***	-.11***	.05	.07**	.06*	.12***
5. Obsevational/ Assessment	-.04	.18***	-.08**	-.07**	.03	.08**	.06*	.08**
6. Educational consequence	-.05	.09***	-.03	-.08**	-.04	.01	.01	.07*

Sociodemographic (IV) Practices (DV)	Gender	Teaching experience	Educational setting	Grade level	Training preservice	Training inservice	Student in class	IP participation
7. Coercive/punitive	*.05*	*.07***	*-.02*	*.15****	*-.06**	*.01*	*.09****	*.11****

Note: Gender coded as *male* = 0, *female* = 1. Teacher's setting coded as *general* = 0 , *special* = 1. Grade level coded as *Preschool* = 1 to *6th grade* = 7. Training Preservice and Inservice (on behaviour management) = *hours*. Student with disruptive behaviour in class and IP Participation = *number*.

*$p < .05$. **$p < .01$. *** $<.001$*

RELATIONSHIP OF PRACTICES TO TEACHERS CHARACTERISTICS

For all hierarchical models, the total proportion of explained variance of behaviour management practices ranged from 2% to 16%. The main effects are reported by step and by independent variable, according to their decreasing relations to the dependent variables.

Individual Characteristics

Among the variables introduced in step one, teaching experience was significantly associated with all the dependent variables; the longer teachers had taught, the more they used all the practices. Gender was associated with four scales in the proactive dimension; more than men, women reported using instructional teaching planning and resource management, establishment of rules, instructions and routines, positive reinforcement and self-regulation. The variables introduced in the first step were significantly related to each of the dependent variables, for a proportion of explained variance ranging from 1% to 5%.

Contextual Characteristics

Among the independent variables introduced in the second step, teaching level was significantly associated with three scales of the proactive / positive dimension: the higher the teaching level in elementary school, the less teachers reported using positive reinforcement, self-regulation, and observational / functional assessment. Teaching level was also significantly associated with both scales of the reductive dimension: the higher the teaching level in elementary school, the less teachers reported using educational consequence practices and the more they reported using the coercive / punitive practices. The variable of participation in an individualized education plan was also significantly associated with five scales of practices: the more teachers reported having participated in the development of an individualized educational plan, the more frequently they reported using instructional planning and resource management, positive reinforcement, self-regulation, and both scales of reductive practices.

School setting was significantly associated with four practices: general education teachers reported using less frequently the practices of teaching planning, positive reinforcement, self-regulation, observational / functional assessment. Among the training variables, the preservice training was the only one associated with coercive / punitive practices scale: the more hours of training received, the less teachers used these practices. For all the hierarchical models verified on the practices, no significant association was found with the number of students with behaviour difficulties in the classroom.

Taken together, the independent variables introduced in step two were significantly related to six dependent variables, in proportions ranging from 1% to 13%.

TABLE 4. *Hierarchical regression models predicting classroom behaviour management practices (n = 1373)*

	Classroom Management Practices (DV)													
	1. Teaching planning		2. Rules and instructions		3. Positive reinforcement		4. Self-regulation		5. Observation/ assessment		6. Educational consequence		7. Coercive punitive	
Predictors (IV)	B	β	B	β	B	β	B	β	B	β	B	β	B	β
Source (a)	.02	.02	.05	.04	.05	.03	.05	.03	.04	.02	.05	.03	.00	.00
Source (b)	.00	.00	-.07	-.04	-.10	-.04	-.17***	-.08	-.09	-.03	-.13*	-.06	-.12	-.04
Step 1														
Gender	-.19***	-.14	-.18***	-.13	-.20***	-.11	-.18***	-.11	-.06	-.03	-.06	-.03	.05	.02
Teaching experience	.01***	.16	.01***	.16	.00**	.08	.01***	.15	.01***	.18	.00**	-.08	.00*	.06
Δ R^2	.05***		.05***		.04***		.05***		.04***		.02***		.01*	
Δ F-value df (4, 1368)	F = 15.97***		F = 16.70***		F = 6.71***		F = 17.17***		F = 12.81***		F = 5.58***		F = 3.07*	
Step 2														
Educational setting	-.07*	-.06	.06	.05	-.12**	-.08	-.11**	-.08	-.14*	-.07	-.02	-.01	-.02	-.01
Grade level	.00	-.00	-.00	-.01	-.03***	-.13	-.02**	-.08	-.02*	-.06	-.02**	-.07	.04***	.14
Training-preservice	.00	.00	.00	.01	.00	.05	.00	.04	.00	.02	.00	-.04	-.00*	-.06
Training-inservice	.00*	.06	.00	.05	.00	.02	.00	.05	.00*	.06	.00	.01	.00	.01
Student in class	-.00	-.01	.00	.00	-.00	-.01	.00	.03	.00	.03	.00	-.00	.01	.05
IEP participation	.00*	.06	.00	.05	.01**	.08	.01*	.07	.00	.04	.01*	.06	.01*	.07
Δ R^2	.01**		.01		.13***		.03***		.02***		.01*		.04***	
Δ F-value df (6, 1362)	F = 3.07**		F = 1.56		F = 28.73***		F = 7.62***		F = 4.61***		F = 2.26*		F = 8.36***	
Total Adjusted R2	.05**		.05		.16***		.07***		.05***		.02*		.04***	
F-value total df (10, 1362)	F = 8.29***		F = 7.63***		F = 9.62***		F = 11.64***		F = 7.97***		F = 3.60***		F = 6.29***	

NOTE. IEP = Individualized education plan. Gender coded as male = 0, female = 1. Teacher's setting coded as general = 0, special = 1. Grade level coded as Preschool = 1 to 6th grade = 7. Training Preservice and Inservice = hours. Student with disruptive behaviour in class and PI Participation = number.

*$p < .05$. **$p < .01$. ***$p < .001$.

DISCUSSION

This article set out to examine the practices used by pre- and elementary school teachers to manage difficult behaviours in the regular classroom in Quebec. The portrait of teaching practices is first discussed, followed by the relationships that emerged between individual and contextual variables.

Portrait of Preschool and Elementary Teachers' Practices in Quebec

Overall, the results suggest that the gap between the frequency of the teachers' use of recommended practices and the frequencies found in other studies is not as large as anticipated (Evans et al., 2012; Gable et al., 2012; State et al., 2017). Globally speaking, teachers often reported using practices that fell under the proactive dimension. The most used practices were: the establishment of clear rules, instructions and routines; teaching planning and resource management; and positive reinforcement. These results are consistent with other studies (Gable et al., 2012; Reddy et al., 2013; State et al., 2017) and support the assumption that classroom-wide practices requiring less individual time or effort are more commonly used (Sugai & Horner, 2009; Warmbold-Brann et al., 2017; Waschbusch et al., 2019). This would also explain the fact that self-regulation practices are less often used because they are perceived as more demanding, suggesting at the same time that students with disruptive behaviour are less likely to experience opportunities to develop or learn self-regulation skills (Carter et al., 2011), like (re-) focus on a task, calm down after something exciting or upsetting, regulate reactions to strong emotions like frustation. In the same trend, observing and identifying environmental cues in relation to the disruptive behaviour are practices that are less often used by teachers. This finding could be related to the fact that teachers are not necessarily trained to obtain a comprehensive understanding of the transaction between the student and his environment (including teacher practices). Alternatively, it could point to teacher misconception about observation and assessment of student behaviour, which may be mistakenly associated with intensive or demanding practices that require a more systematic follow-up with a specific student or additional intervention.

It is nevertheless encouraging to note that unlike in other studies, the frequency of use of practices in the proactive dimension was higher than the reductive dimension, and that the coercive / punitive practices were reported to be used the least often. It is possible that the use of a wider range of practices helped yield a more comprehensive and positive profile of actual classroom practices. Still, the reported frequency of use of reductive practices such as educational consequences remain close to some proactive practices, and suggests that the praise-reprimand ratio may be similar to the one found in previous studies (Evans et al., 2012; Reddy et al., 2013).

Practices in Relation to Teachers' Characteristics

The results highlight the interrelationship between teachers' self-reported practices and their individual and contextual characteristics, in addition to clarifying the distinct contribution of these characteristics. Teaching experience, teaching level, and participation in an individualized education plan are the variables related to a higher number of practices. The results obtained and discussed above are based on an explained variance that can be qualified as marginal and thus needs to be carefully interpreted.

Individual Characteristics

The results indicate that as teachers' years of teaching experience increase, the more likely teachers would slightly increase the frequency of use of the practice set. These results are in contrast to a study by Reddy and colleagues (2013), but consistent with the study by State and colleagues (2017) that show an increase in practice implementation as a function of teachers' years of experience following training. Nonetheless, the fact that more years of teaching experience is also associated with more frequent use of reductive practices is concerning. Indeed, it may suggest issues with processes of professional integration concerning classroom management of the kind that fosters prosocial behaviours and a positive learning climate (State et al., 2011). Awareness should be raised about the proactive / positive-reductive dimensions ratio in relation to the recommended praise-reprimand ratio mentioned earlier (Cook et al., 2018; Pfiffner et al., 1985). Engagement in supportive and positive practices needs to be encouraged at a rate of three to five times more often than reductive practices.

The results also provide information on the relationship between teacher gender and practices used. To some extent, women reported more frequent use of practices geared toward planning and resource management, positive reinforcement, and self-regulation support. It may be, following on studies of instructional practices (Sabbe & Aelterman, 2007; Schiefele, 2017), that women are more inclined to use recommended practices than men.

Contextual Characteristics

Among all the contextual variables studied in this research, grade level appears to be influential in relation to the practices reported by the teachers. Overall, the more teachers teach at an upper level, the more likely they are to use coercive / punitive practices and the less likely they are to use proactive practices. These results are in line with Reddy and colleagues (2013), who noted that teachers at higher levels used more practices aiming to support students' metacognitive thinking and monitor their progress. Rather, it appears that the higher grade level at which teachers teach, the less likely teachers are to promote the learning of appropriate behaviours and prevent problematic ones, and the more likely they are to try to eliminate disruptive behaviours.

Encouragingly, these results indicate that participation in an individualized education plan significantly contributes to increasing the frequency of use of certain proactive practices albeit also reductive ones. In the absence of prior studies verifying the contribution of this participation, it is reasonable to anticipate that, similar to the effects of a consultation process (Nadeau et al., 2012; Holdaway & Owens, 2015), multidisciplinary team discussions and the support provided to teachers will help them better understand the nature of students' needs and difficulties, and consequently to implement the practices effectively.

In line with previous studies examining influence according to school settings (Evans et al., 2012; Floress et al., 2017; Gable et al., 2012), the results indicate that special education teachers use practices belonging to the proactive dimension, such as self-regulation, positive reinforcement and observation / functional assessment, slightly more often in comparison to general teachers. This small but significant difference may be explained by the compositions of the teachers' classrooms. General education teachers must manage the learning and behaviour of students with diverse needs, which may make their task more complex and leave fewer opportunities or less time for individualized practices. For their part, special education teachers are more likely to have classrooms with a higher number of students exhibiting self-control problems, thus prompting them to use individualized practices more often. Moreover, the differences according to setting may also be tied to the higher number hours of training completed on behaviour difficulties. A study by Gable and colleagues (2012) suggests that general education teachers may feel less equipped to use positive reinforcement and observational / functional assessment systems than special education teachers. Notably, the results from the current study indicate that except for preservice training in relation with coercice / punitive practices, there is no association between the number of training hours and others practices. Thus, the fewer hours of training teachers received during their preservice training, the more they used coercive / punitive practices, and conversely, the more hours of in-service training they completed, the more they used observational / functional assessment. Finally, the number of students with behaviour difficulties included in a group is not related to the frequency with which teachers use the practices.

Certain limitations of this study should nuance the interpretation of the results. The self-report questionnaire may have contributed to drawing a more positive picture of the practices used by teachers (Hogan, 2019). However, the validity of our results is supported by studies suggesting that self-reported practices and classroom observations are strongly correlated when the items are linked to specific goals and represent the same trends (Clunies-Ross et al., 2008; Debnam et al., 2015; Gitomer et al., 2014). Regarding the measurement instrument, it could be helpful in some situations to add a timeline within which teachers are asked to evaluate their frequency of use of each practice (e.g., in the last 2 weeks). Further, the study might benefit from including a scale specifically addressing collaboration practices with families, which is upheld by the scholarly literature

as a way to promote academic performance (Cox, 2005).

About the analysis used, other associations between variables (e.g. between independent or dependant variables) could help better adjust the model evaluated. Along the same lines, the low variance explained by the model's suggests that investigation of other variables is needed to better understand what can influence the use of the practices bu the teachers. This result is surprising considering that the variables introduced in the present study are those that were primarily identified in previous studies (e.g., Evans et al., 2012; Reddy et al., 2013) or in studies assessing the effects of in-service training on teachers' practices (Aarons et al., 2011). Compared to these studies, the more robust methods of analysis used by the present study suggest instead that relative importance be given to the characteristics examined. Indeed, the most previous studies did not report results that identified the percentage of variance explained for each variable. In short, although the present study was intended to be exploratory, it contributes to the advancement of knowledge by specifying the relative influence of these variables on the use of practices by teachers.

To account for the small proportion of the variance in the practices explained by the characteristics examined, other avenues must be explored through research and the school community. In this sense, pre-service teacher training programs or schools offering in-service training can't only rely on the characteristics examined to identify teachers' needs. For instance, an interesting avenue would be to investigate the role of teacher beliefs (Ajzen, 2012). In particular, the links between the use of teaching practices and the beliefs that teachers have toward students with disruptive behaviours, such as their attitudes toward the students' integration in regular classrooms or feelings of self-efficacy to teach those students (MacFarlane & Woolfson, 2013). In addition, the representations that teachers may have regarding the achievement of the objectives established by the curriculum/pedagogical framework or the educational setting (general or special), as well as the expectations perceived on the part of their management or school team, deserve to be studied. It could also be relevant to study the role of support or accompaniment received by teachers in facilitating the school inclusion of those students. Further, a mixed methodology approach including observations or interviews with teachers would help build on the goals of the present study and confirm the fidelity of implementation of practices.

CONCLUSION

In a context of inclusive education, teacher is called to support the heterogenous needs of their students and to promote their psychosocial adjustement by the use of differentiated (various) practices. The present study has, for the first time, established a portrait of a range of class-wide behavioural management practices by surveying a large numer of pre- and elementary school teachers. The results have documented the most and least used practices in a classroom setting and help

guide efforts to close the gap between evidence-based and implemented practices. Compared to previous studies conducted in other nations with a similar research focus, this study also undelines the relative influence of teacher characteristics and the need to take greater account of certain contextual characteristics, such as teacher support and consultation. Given that teaching experience seems to be negatively associated with the use of coercive / punitive practices, better understanding the reasons behind their use appears to be a relevant theme to explore. These could provide solutions likely to guide the modalities and content of teacher training programs (initial and in-service), and thus better support better support teachers in using practices that promote the development and acquisition of students' social and emotional competence and skills.

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AUTHORING PROFESSIONAL IDENTITY: PRE-SERVICE TEACHERS AND WAYS OF KNOWING

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ABSTRACT. Education programs increasingly emphasize the development of strong core beliefs and values to support professional judgment for pre-service teacher practice. The ability to critically integrate multiple perspectives is an expected foundation for the pedagogical decisions and professional responsibilities pre-service teachers carry out. This article details research undertaken to investigate pre-service teachers' ways of knowing as they progress through a Bachelor of Education program. Findings from semi-structured interviews are discussed in terms of supporting pre-service teacher intellectual development in teacher education programs so that a professional teacher identity is encouraged.

ÊTRE AUTEUR DE SON IDENTITÉ PROFESSIONNELLE : LES ENSEIGNANTS EN FORMATION INITIALE ET LES MODES DE CONNAISSANCE

RÉSUMÉ. Les programmes d'éducation accordent de plus en plus d'importance au développement de valeurs solides pour soutenir le jugement professionnel dans la pratique des enseignants en formation initiale (préservice). La capacité d'intégrer de manière critique plusieurs perspectives est considérée comme une fondation attendue pour les décisions pédagogiques et les responsabilités professionnelles assumées par les enseignants préservice. Cet article détaille une recherche menée afin d'examiner les modes de connaissance des enseignants préservice au fur et à mesure de leur progression dans un programme de baccalauréat en éducation. Les résultats des entrevues semi-structurés sont discutés en matière de soutien au développement intellectuel des enseignants préservice dans les programmes de formation des enseignants, de manière à favoriser l'émergence d'une identité professionnelle enseignante.

Teachers engage in practice not just with their knowledge of content, but also with their being: who they are, how they see themselves as teachers, how they relate to others, and how they identify themselves within the profession. Developing a teacher identity is central to the practices, competencies, and dispositions that teachers bring to their classroom (Walkington, 2005). Much has been written

about the importance of cultivating beliefs and values in shaping teacher identity (Britzman, 2003; Clandinin, 2019; Clandinin et al., 2009). Research has further suggested that identity actually helps to shape pre-service teachers' instructional practice in the classroom and professional knowledge development (Beijaard et al., 2004; Connelly & Clandinin, 1999). Winslade (2002) usefully describes teacher identity as the fostering of *self-descriptions* within the social and cultural norms of a particular context, while Flores and Day (2006) note the complex negotiation between self and context in developing and sustaining teacher identity.

Most teacher education programs are organized to encourage and support pre-service teachers' understanding of the profession through engagement in coursework on campus and practicum experiences in classroom settings. Pre-service teachers are thus afforded an opportunity to develop their beliefs and knowledge about the roles and responsibilities of educators, from both theoretical and practical perspectives, as well as to make connections among the two. Nieto (2003) affirms that teacher identity is deeply woven into teacher practice, thus justifying its presence in a program of study. Yet often this focus (on teacher identity) is precisely what is missing, as the push to develop pre-service teachers' competencies in curricula, discipline specializations, and pedagogical strategies take precedence. In Canada, little research has been carried out on pre-service teachers' ways of knowing and how pre-service teachers' epistemological beliefs and developing values are shaped by participation in teacher education programs. This paper aims to contribute to addressing that gap in the literature.

Social constructivist theories in teaching support pedagogical approaches that reflect deep understanding and higher order thinking (Windschitl, 2002). While "it is important that pre-service teachers have an understanding of constructivist teaching practices" (Walker et al., 2012, p. 24), it is also essential that their beliefs support these pedagogical approaches and strategies. Understanding pre-service teachers' personal epistemology through the lens of self-descriptions (Winslade, 2002), drawing on the work of Baxter Magolda, is the focus of this article.

The purpose of the research on which this article is based was to investigate the emerging teacher identity of pre-service teachers as they progressed through their program of study and practicum experiences during their first year in a 2-year after-degree program. It explores what pre-service teachers came to know about their own learning and their prevalent patterns of intellectual development — in other words, their *ways of knowing* (Baxter Magolda, 1992).

THEORETICAL FRAMEWORK

Ways of knowing and epistemological beliefs

Research has shown students (pre-service teachers are first and foremost students) vary in the beliefs that they hold about knowledge and that their epistemological beliefs affect the ways in which they learn and make judgements (Baxter Magolda,

1992; Belenky et al., 1986; Perry, 1970). Proponents of an epistemological development paradigm see personal epistemologies as developing over time (Belenky et al., 1986; Perry, 1970). Pintrich (as cited in Walker et al., 2012) has explained that "individuals move from a simple to a complex evidence-based way of knowing, commonly referred to in the literature as naïve to sophisticated beliefs" (p. 25). An understanding of student development theory can assist teacher educators in addressing student needs and facilitating worthwhile and engaging learning environments; such an understanding "is at the heart of effective educational practice" (Baxter Magolda, 1992, p. 1).

I bring renewed attention to Baxter Magolda's work because I believe her insights into ways of knowing can offer a valuable framework for understanding pre-service teachers' knowledge about their own learning and their emerging teacher identity. Baxter Magolda's (1992) investigation into student intellectual development built upon and synthesized the earlier work of Perry and Belenky et al. Perry (1970) located variations in beliefs in stages of development, while Belenky et al. (1986) focused on ways of knowing, and especially women's ways of knowing. Baxter Magolda's study was based on a longitudinal investigation of men and women as they progressed through an undergraduate degree program. She tracked their personal epistemological beliefs as patterns in ways of knowing.

Baxter Magolda (1992) emphasized the social constructivist nature of researching ways of knowing. She explained that students' ways of seeing the world encounter those held by their professors and their peers: "The meaning that students make of these experiences depends partially on their original view of the world, partially on the other views they encounter, and partially on the context in which the experience takes place" (Baxter Magolda, 1992, p. 20). Baxter Magolda (1992, 2007) further proposed that individuals' perspectives of the world are entwined with how they view themselves. Applying these concepts, pre-service teachers' sense of identity and their knowledge about teaching are shaped by "arrays of social positioning, experiences, and resources to enact their professional selves in particular ways" (Sexton, 2008, p. 75). Baxter Magolda (1992) suggested that the learner's ability to reflect on their beliefs and to arrive at their own conclusions are essential to developing a strong sense of self.

Baxter Magolda identified four ways of knowing, each with a core set of assumptions about knowledge, with all four being epistemic assumptions. The four ways of knowing are: *absolute knowing*, *transitional knowing*, *independent knowing,* and *contextual knowing* (Baxter Magolda, 1992).

A brief description of the four patterns follows.

Absolute knowing

Baxter Magolda described absolute knowing as knowledge that is certain and unchanging. Students tend to believe that instructors have all the answers and that they acquire knowledge from them. Students believe peers do not possess

any knowledge other than that obtained from the instructor. Students regard the role of evaluation as a process by which they demonstrate their understanding of content to the instructor.

Transitional knowing

Transitional knowing is characterized as understanding that some knowledge is certain and some uncertain. Students recognize discrepancies among experts in uncertain areas of knowledge. A voice of authority can be questioned. Students may consider their perspectives to be as valid as those of their instructors. Peers are perceived as helpful, and the exchange of ideas is valued. A student's investment in learning is dependent on personal perceptions of how useful it will be in their future.

Independent knowing

Independent knowing is defined by uncertainty and openness. Students have their own beliefs and think content through for themselves. The role of instructors is to be supportive of individual perspectives and to encourage independent thinking. Students see their peers as important sources of knowledge.

Contextual knowing

Contextual knowing requires students to make judgments based on evidence in a particular situation. Instructors promote applying new knowledge. There is an emphasis on discussion of perspectives, thinking problems through, and integrating multiple perspectives. Students genuinely value and critically reflect on points of view shared by peers.

Ways of knowing and identity

For the purposes of the present study, *teacher identity* was defined as an ongoing construction emerging through pre-service teachers' interpretation and reinterpretation of their experiences within a professional community of practice. The understanding that pre-service teachers have of how they learn, their learning experiences with others (peers and instructors), learning in the practicum environment, and their emerging beliefs about teaching are viewed through the lens of their epistemological beliefs as framed within patterns of intellectual development — patterns aligned with those theorized by Baxter Magolda.

METHODOLOGY

The present study was framed within an interpretive, social constructivist approach. Constructivists believe that "knowledge and truth are created, not discovered by mind" (Schwandt, 1998, p. 236), thus allowing for a pluralistic and malleable reality. The emphasis is on individuals' ongoing, collective generation of meaning as shaped by a particular context.

Research context and questions

The study was carried out within a teacher education program at a large research institution. The Bachelor of Education (BEd) program stresses subject matter knowledge, pedagogical skills, and the development of good judgment in practice. Students may enter a 2-year after-degree program or a 5-year concurrent program. The pre-service teachers in this study were enrolled in the 2-year after-degree program which offered a total of 20 weeks of practicum experiences incrementally increased from the first to the second year.

In most teacher education programs, theory and practice are viewed as tightly interwoven so that students will come to understand that both live in classroom settings. Pre-service teachers nevertheless view learning skills during their practicum as far more important than applying theory; the practicum entails direct contact with classroom management and their own teaching performance (Bainbridge, 2011). This remained an ongoing tension for pre-service teachers as they moved through the program.

Two research questions guided the present study:

1. How might aspects of on-campus and practicum experiences shape a strong pre-service teacher identity?
2. What beliefs do pre-service teachers have about the teaching profession?

Pre-service teachers participated in four cohort-based practicum experiences, each of which was organized as a course with specific outcomes, reflective writing assignments, and formative and summative assessments. Pre-service teachers were further supported by a practicum curriculum, mentoring by a partner teacher, and support from the university instructors. Of a purposeful variation sample of 19 elementary and secondary pre-service teachers, seven pre-service teachers (five women and two men) agreed to participate. The participants were placed in elementary school, junior high school, and senior high school classrooms. They reflected on their understandings of their course work and practicum experiences at the conclusion of their first year in a BEd after-degree program (by which time they had completed their second practicum experience). Each participant was assigned a pseudonym and are referred to as such in this article.

Data collection

The qualitative research involved semi-structured interviews with pre-service teachers, gathered at the end of the first year of their program. Interview questions were adapted from Baxter Magolda's (1992) questionnaire protocol. Individual interviews lasted approximately 1 hour and 30 minutes and resulted in 166 pages of transcripts. To ensure accuracy, the transcribed interviews were sent to participants for member checking (Denzin & Lincoln, 2005). An iterative and thematic analysis of the transcripts followed.

Baxter-Magolda's research on the development of intellectual thinking provided the patterns for interpreting participant responses. In her study, Baxter Magolda (1992) identified one of four predominant patterns (a way of knowing) for each student in each of five knowledge domains. Those five domains were: role of the learner, role of peers in learning, role of the instructor in learning, evaluation, and the nature of knowledge. She then identified an overall pattern of ways of knowing for the student based on an average of the domain ratings. Because her study included a large number of participants (101 undergraduate students), she was also able to establish patterns across the group. In the present study, with a much smaller number of participants (seven), I focused on locating the pre-service teachers' understandings of their experiences within Baxter Magolda's four ways of knowing across five domains, accommodated to the context of a teacher education program. These five accommodated domains were: the role of the self as learner, the role of peers in learning, the role of instructors in learning, the role of practicum experiences in learning, and beliefs about teaching. Within each of these domains, I identified a predominant way of knowing for each student.

A participant profile was initially created for each pre-service teacher, which provided a context for ascribing meaning to their comments. The analysis then focused on their experiences by grouping and comparing their quotes. A brief background of each of the pre-service teachers in this study first provides a context for a deeper understanding of their individual comments.

Pre-service teachers and school contexts

The first participant, "Amy," enrolled in the BEd program directly after completing a degree in psychology. She was placed in an elementary classroom setting during her second practicum. "Anne," the second participant, took some business courses and then enrolled in an undergraduate degree in humanities. After completing her degree, Anne worked briefly before applying to the BEd program. She was also placed in an elementary classroom. "Emily" received an undergraduate degree in kinesiology, playing volleyball on several university teams. She worked several years before enrolling in the Bachelor of Education program. Emily was placed in a junior high school classroom. "Evan" had an undergraduate degree in history and was placed in a junior high school classroom with a teacher who mainly taught humanities. "Luke" completed a degree in political science and environmental science. He was in the army reserve and then travelled before enrolling in the BEd program. He was placed in a senior high school classroom. "Nathan" began university studying science but re-discovered a passion for music and graduated with a music degree before entering the BEd program. He was placed in a junior high school setting with a teacher in the music department. The seventh participant, "Nora," moved directly to the BEd program after her first degree in physical education. She was placed with a junior high school teacher during her second practicum.

FINDINGS AND INTERPRETATIONS

Pre-service teachers' ways of knowing

Pre-service teachers' ways of knowing were identified within five domains: role as a learner, role of peers in learning, role of instructors in learning, role of practicum experiences, and beliefs about teaching. If a particular domain was not allocated any of the ways of knowing, then there was a lack of data to support an allocation (i.e., the pattern was found to not be evident in the pre-service teachers' comments). Table 1 summarizes the allocation of ways of knowing within each domain for each of the pre-service teachers.

TABLE 1. *Pre-service teacher ways of knowing within each domain*

	Domain				
Student	Role of self as learner	Role of peers	Role of instructor	Practicum experiences	Beliefs about teaching
Amy	A	T	I	I	I
Anne	I	T	C	C	C
Emily	C	I	–	C	C
Evan	I	T	I	I	I
Luke	C	T	C	C	C
Nathan	I	I	I	C	C
Nora	A/T	A	A/T	T	T

NOTE. Ways of knowing: A = Absolute, T = Transitional, I = Independent, C = Contextual

Pre-service teachers' epistemological beliefs were not always consistent across the five domains, reflecting the fluid nature of movement from one way of knowing to another. Individually, these pre-service teachers did not regard all aspects of their learning, nor the role of those who supported them in their learning, in the same way of knowing. This finding echoes Schommer's (1994) and Lucas and Tan's (2013) conclusions that epistemological beliefs are multidimensional and may develop unevenly over time. The movement between ways of knowing illuminates the intellectual development of pre-service teachers as they progress though a teacher education program.

Research has provided some evidence that personal epistemologies influence both learning and teaching in pre-service teachers. For example, Naylor et al. (2015) found that as "pre-service teachers learnt to teach and were learners themselves, they saw metacognitive similarities between their learning styles and their teaching styles" (p. 130). Similarly, Walker et al.'s (2012) research pointed to a link between pre-service teachers' personal epistemologies and their comfort with accommodating multiple perspectives. Pre-service teachers who hold more

sophisticated, or more complex, evidence-based personal epistemologies are likely to have meaningful approaches to their own learning and to have teaching practices which engage students in meaningful learning (Walker et al., 2012). Additionally, pre-service teachers' views about what comprises effective teaching in literacy was found to be linked to their personal epistemologies by Yadav and Koehler (as cited in Walker et al., 2012, p. 26). This evidence suggests that teacher educators who wish to promote deep and complex approaches to learning could determine pre-service teachers' epistemological beliefs early in the program.

In the following section, themes that emerged from the data analysis are discussed: the variation of perceptions of the role of self and others in learning as well as the participants' sophisticated beliefs about teaching.

Theme: Variation of the perceptions of roles of self and others in learning

Pre-service teachers exhibited a range of understandings in terms of the roles that self, peers, and instructors had in their learning (Baxter Magolda's knowledge domains); pre-service teachers indicated they did not regard the role they played, nor the role that others played, in their own learning in terms of consistent ways of knowing. Such a finding can also be supported by the research of Palmer and Marra (2004), who tentatively concluded that student epistemologies may not be consistent across knowledge domains. Six of the seven pre-service teachers in the present study expressed perspectives that fell within a variety of ways of knowing for three of the relevant domains: role of self as learner, role of peers, and role of instructor. For example, Amy believed her learning was a straightforward transaction. In her classes, she focused on obtaining the requisite information:

> I learn best when I'm engaged and I can follow you and you've got my attention. Yes, I'm a big note taker, I'm a big hard copy person and I'm a highlighter ... I go home and I type the notes, because for me that's how — you know, I can't fully give my attention in class because sometimes I'm jotting down notes and I'm trying to listen.

Amy emphasized obtaining and identifying important information and recording it in class, reflecting an absolute way of knowing. However, she used her notes to later help her recall important points, as she saw herself as needing to understand, not just acquire, the information, thus drawing on a way of knowing that was more transitional. Her approach to learning relied on her instructors as sources for new knowledge. When asked about the role of her peers in her learning, Amy acknowledged the helpful role they played:

> You can bounce ideas off one another and ask did you watch this, or what do you think of this or and I really like being able to bounce things off people and know that you are going through the same things.

This comment represents a transitional view. Amy appreciated the active exchange of ideas; she believed that she understood material better after hearing her classmates' perspectives.

Similarly, Nora demonstrated a blend of absolute and transitional ways of knowing in describing the role played by herself and others in her learning:

> I think I learn through watching and then doing myself; I think I probably learned more in my first practicum than I learned ... in the two years of the program. My partner teacher had enough faith in me that he just let me go ... he let me try and if something failed, we would talk about it after.

Nora's preference for watching her partner teacher teach, and then teaching herself, suggested a gradual assuming of responsibility for classroom learning experiences. A conversation reflecting on her teaching took place with her partner teacher only if something did not go according to her plan. Nora added, "Some things worked that I didn't think would work and so the opportunity to try was really important." These comments represented the transitional way of knowing, one in which students focused on acquiring and then understanding and applying knowledge. Although taking a somewhat active role in applying what she has learned from her partner teacher, Nora remained reliant on the authority of her partner teacher in framing her teaching practice.

In commenting on how she viewed the role of her classmates in her learning, Nora displayed an absolute way of knowing as she appeared to consider her classmates as peers, but not as sources of learning or support for developing a deeper understanding of topics:

> I think they did [contribute to my learning] a little bit but I wouldn't say a lot. ... The classes were so big ... It wasn't really until I was in my specialization that I started to feel like I was really connecting with people. ... But I wouldn't say that they really contributed greatly to my overall learning experience.

Nora relied on her own investment in learning and acknowledged that she found her first year in the teacher education program lonely: "I think I struggled a little bit more to make connections with people." Large classes made it more difficult for her to connect to her peers. As pre-service teachers encounter a variety of beliefs and have new learning experiences with others, their ways of knowing may also change and evolve over time.

Theme: Sophisticated beliefs about teaching

Baxter Magolda (1992) states that students make "a discovery that will make independent knowing possible" and will shift their focus to thinking for themselves (p. 137). Teacher educators hope to promote "active learning and disciplined inquiry that leads to the intellectual empowerment of students" (Boyer as cited in Baxter Magolda, 1992, p. 269). A notable feature of the data, as seen in Table 1, is the prevalence of independent and contextual ways of knowing identified by the participants in the beliefs about teaching domain. An independent way of knowing in this domain was displayed by two pre-service teachers and a contextual way of knowing by four pre-service teachers. The core assumptions underlying an independent way of knowing are that knowledge is uncertain and

open to many interpretations. The variety of viewpoints shared by others then becomes a legitimate source of knowledge. Thinking for oneself is an approach to knowledge that characterizes independent knowing. This feature remained true for contextual knowing as well, although a contextual knower must also "consider the ideas of others and the relationship of his [*sic*] point of view to others" (Baxter Magolda, 1992, p. 69). Core assumptions for the contextual way of knowing are that knowledge may be uncertain, but some views are more valid than others. Exchanging ideas with others helps individuals to evaluate and integrate new understanding.

The practicum experience provided an opportunity for the pre-service teachers to make new discoveries about the teaching profession. New understanding is encouraged in a school environment where professional experiences — such as lesson planning, instruction, assessment, and classroom management — are part of the practicum. Pre-service teachers are presented with new learning contexts when they are assigned to a classroom with a particular grade level and partner teacher. The learning context changes daily, and pre-service teachers must respond along with the classroom teacher to the individual needs of their learners. When responding to questions about their beliefs and understanding related to teaching, two of the pre-service teachers responded in a manner that reflected an independent way of knowing. For instance, Evan indicated the following:

> I want to be a teacher who knows what he is teaching, who the students consider a friend but also an authority ... somebody who they're responsible to instead of us just being peers. I'd like to think that I'd be a teacher who could, who any student could come to with issues.

Evan was developing a vision of his teaching practice based on navigating the duality of the teacher as a friend and an authority figure. His thinking fell within the independent way of knowing, but his vision was still developing; he was not yet voicing a consolidated perspective of a teacher identity. Additionally, his focus was on the self and less on student needs. Likewise, Amy expressed beliefs about teaching that reflected an independent way of knowing:

> I definitely have some good models of a good teacher and who I kind of want to be, and I don't want to be exactly like them, but there are parts of them that I do want to be like ... somebody that is willing to adapt and be open to spontaneity I think is good.

Amy was also balancing perspectives; she had a sense of her own strengths as a teacher but was aware that other models could offer her valuable reference points.

Four of the pre-service teachers (when responding to questions related to beliefs about teaching) displayed a more complex and assured understanding reflected by a contextual way of knowing. One of those teachers, Nathan, described the freedom he felt in the classroom when he was given the opportunity to teach band class on his own:

> I was relaxed and could do what I wanted. I had a plan; I was in my zone as far as improvising and taking what the students wanted [into consideration] and just having fun with the students. ... The classes tended to go well.

Nathan explained that his classes often went more smoothly when his partner teacher did not interrupt the flow of his lesson: "I would follow [my lesson plan] and she would say that I followed it too closely and that I needed to improvise more, then if I improvised too much, she would say, go the other way." Nathan acknowledged that his partner teacher's judgment of his performance, though, could have been more specific: "She gave me the point form notes ... but did not talk about how I could improve overall."

Similarly, Emily appreciated the opportunity to demonstrate her skills in teaching physical education in her practicum: "I was proud of myself for completing the practicum and getting some of those harsh comments that can be part of the experience ... but I know I will succeed." The practicum experience allowed both Nathan and Emily to develop their own perspectives and think through the problems that were part of the teaching experiences in their classrooms. Not all partner teachers are supportive mentors in the ways that teacher educators would wish them to be for pre-service teachers. Knowing that his partner teacher did "not really care that much that I was there in her class" created challenges for Nathan. Nathan was required to consider the ideas and practices of his partner teacher and the relationship of his point of view to hers. Contextual knowers think through problems and integrate and apply new knowledge. Thinking critically about the context of his practicum allowed Nathan to begin to develop and make use of pedagogical approaches that reflected his strengths. Emily's partner teacher was less involved in guiding her work. The partner teacher's feedback was not consistent or always clear, but she stated that he also gave her many opportunities to teach using her own judgement. Emily stated, "He trusted me and he let me approach the classes in my own way." Emily developed a level of confidence that allowed her to take up her role successfully as a pre-service teacher. She perceived that she was learning about the teaching role and was growing as a result of her partner teacher's more hands-off approach.

Nathan described his beliefs about teaching this way:

> Good teaching is thoroughly planned and has purpose with everything ... It also has room for improvisation. It's only planned in its basic structure, but not every little thing is planned. Teaching is patient, and teaching is selfless.

Nathan's practicum experience told him that preparation is important, but he left space for unplanned experiences. He was developing his own views and voice; he expressed confidence in how to organize a teacher's role and responsibilities, but there was also an underlying acknowledgement of the unpredictable aspects of teaching.

Luke remarked on his understanding of teaching: "You have to be authentic. You have to embody it." He articulated the importance of self-reflection for synthesizing new experiences, saying the following:

> I think it looks like overcoming barriers ... You know, there is a little bit of push and pull and a little bit of tug and then you reach a new level of understanding or a new way of looking at something. Uhm, I think good teaching looks like those moments in action affecting each other and I think it, it doesn't look static, it looks dynamic.

Anne, whose beliefs about teaching also fell in the contextual way of knowing, described her responsibility as an emerging teacher to "figure out who you are as a person and as a learner before you can really establish yourself as a teacher." She continued:

> Teaching is meeting your students' needs ... it's very context specific, so I guess just being able to take each day by day and of course you are going to have your strategies that work for you and build on those ... it depends on the students definitely.

Anne recognized the needs of her students in a specific classroom context as being important to how she approached her teaching. Anne's statements demonstrated the voice that she was developing about her teaching practice.

Storylines

In her research, Baxter Magolda (1992) found underlying "story lines" (p. 191), or threads, that ran through the collective stories of her students. These story lines were more general than the patterns of ways of knowing she identified. The story lines provided an opportunity for the reader to find possible parallels between the specific experiences of her participants and students at other institutions. Lucas and Tan (2013) also discovered evidence of story lines in their study of the experiences of business and accounting students. In the research presented in this article, I found two story lines evident across the pre-service teachers' accounts.

Storyline: Valuing practicum experiences

Pre-service teachers tend to value their practicum experiences, viewing these experiences as dynamic and beneficial for their growth as teachers (Bainbridge, 2011). The practicum experience often gives pre-service teachers models of effective teaching practices and ways of building relationships with students; this hands-on experience allows them to experience a variety of classroom settings and to begin to develop their professional identity. Comments from six of the pre-service teachers in this study fell into the independent or contextual way of knowing when speaking about the practicum and the significant role they believe it played in their growth as a pre-service teacher. Only one student displayed a transitional way of knowing.

Evan's comments reflected the independent way of knowing in this domain. He reported that the practicum experience was unsettling in some ways. He was still uncertain about the nature of teaching but had considered his efforts carefully: "I honestly have a hard time separating teacher from teaching. I don't, I don't know if teaching as the act or teacher as person is more important." During his practicum experience, Evan wrestled with what to believe about teaching and how to define his teaching approach. Similarly, Amy grappled with her orientation to teaching during her practicum. She described her biggest challenge with her students as needing "to shift my thinking from how I would think to how they are going to think ... I struggle with that from time to time."

Pre-service teachers' comments in the contextual way of knowing acknowledged that partner teachers have an active role to play in acknowledging their efficacy as budding educators. Emily appreciated the ways in which her partner teacher contributed to her learning in the practicum, but also recognized her own individual identity as a pre-service teacher. Her partner teacher demonstrated how to develop relationships with students and how to manage large classes. Emily noted that she "learned a lot from her partner teacher, but I will never be him." Anne's comments on her practicum experiences related to her growing confidence: "It made me more confident ... I think that the interactions with the students were meaningful and I took a lot out of it, and I think they did too." Nathan reported that his partner teacher was a "very competent music teacher," but she "didn't seem to have a lot of energy or a particular desire in coaching me and mentoring me through the process." Emily and Anne described their practicum experience in positive terms, acknowledging areas of growth, while Nathan identified a specific challenge that was part of his experience, commenting that his practicum context was not always a positive one for him. However, his other comments indicated he still felt a sense of professional growth from his experience.

Nora's comments reflected the transitional way of knowing, mirroring the value placed on the practicum experience by others. Nora stated, "I definitely learned the most in my practicums ... I think that the field experiences are more powerful." She further added that "maybe it's terrible to say this, but I don't even remember some of my classes." These statements revealed her preference for the practical learning gained in the field. When asked to describe the role of the practicum in her learning, Nora explained how the way in which her partner teacher approached his teaching had influenced her perspective:

> Yeah, I think just watching him in the last practicum taught me a lot — areas I want to be like and some areas that I don't want to be like ... I mean, there were things that I didn't necessarily agree with. I keep them to myself ... it is his class.

Nora was aware that she could choose her teaching strategies; however, she was not ready yet to act fully on these beliefs. The element of teacher authority is an

aspect of the practicum that pre-service teachers navigate with varying degrees of comfort. The relationship between the partner teacher and the pre-service teacher is usually key to a successful practicum experience (Danyluk et al., 2020). If the partner teacher does not provide emotional support, collaboration, flexibility, and a manageable workload to the pre-service teacher, then the pre-service teacher's opportunities for professional growth become limited (Beck & Kosnik, 2002).

Practicum experiences gave these pre-service teachers opportunities that allowed them to wrestle with complex issues that supported them in moving towards more mature epistemological beliefs. The real-life context of the classroom was a powerful learning environment that asked the pre-service teachers to imagine their own way of being in the classroom. As they progressed through practicum experiences, they experienced growing autonomy and increased responsibility. These are usually welcomed aspects of the pre-service teacher experience (Naylor et al., 2015), but they can also contribute to vulnerability. The expectations placed upon the pre-service teacher to develop relationships with both students and teachers, to fit within the school community, and to unpack the curricular outcomes of programs of study all require much effort and a sense of self-efficacy. A strong sense of professional self can blossom in these circumstances, but supportive contexts are essential to this growth (Dam & Bloom, 2006).

Storyline: Developing personal voice and teacher identity

In the second storyline, the pre-service teachers demonstrated the development of a professional stance towards teaching and learning. Brownlee et al. (2001) note that epistemological beliefs, which "are considered to filter all knowledge and beliefs, may influence beliefs about learning and teaching in specific learning situations and therefore, how a person is likely to approach learning/teaching in particular contexts" (p. 250). Similarly, Nickel and Zimmer (2019) state that "TCs [Teacher Candidates] who are able to align their practice with [their] beliefs are likely to feel a strong sense of self-efficacy" (p. 146). As the pre-service teachers moved to more sophisticated ways of knowing, their sense of self as teacher became less tentative and idealized and more nuanced and grounded.

Four of the pre-service teachers revealed their teacher identity through belief statements (about teaching) in the contextual way of knowing. Comments from Emily, Luke, and Anne reflected how they saw themselves as emerging teachers. Emily described her views on her teaching identity this way: "I haven't had enough experience to know … have I got a grasp on my own professional identity? I don't think so … I'm not sure of the type of teacher I'm going to be yet." Emily described the uncertainty she felt about her teaching identity. Her image of herself as a teacher — or, as described by Darling-Hammond and Bransford, her "vision of professional practice" (as cited in Darling-Hammond, 2006, p. 304) — was still uncertain. Emily acknowledged that experience will help her define this identity for her. Her openness to "perspectives and a little bit more insight" from other teachers reflected her contextual way of knowing.

Luke remarked on his understanding of himself as a teacher, "You have to show up as yourself and discover your style … your essence. And it needs to come from a place inside, not from a book." Luke's comments suggested a recognition of the importance of self-understanding and reflection. Clandinin's (1992) work offers insights into Luke's teacher identity development, suggesting that a teacher's personal practical knowledge rests on past experiences, present thinking, and future plans thinking: "It is the kind of knowledge carved out of, and shaped by, situations; knowledge that is constructed and reconstructed as we live our stories and retell and relive them through the process of reflection" (p. 125).

Anne revealed a strong sense of self in comments about her emerging teacher identity:

> You want to know who your students are, you want to bring that out, and you want that to shine through, their interests and everything in their own work. It would be kind of hypocritical if you are making them work on discovering who they are as people and who they are going to be in this life if you haven't kind of reflected on that yourself.

Anne's comments also pointed to the importance of self-knowledge. She further commented that as a pre-service teacher,

> you're negotiating a few identities. It's with the students 'cause you are trying to find your place with them, but you are also figuring out where you stand with your partner teacher, and also where you fit into school life.

Anne identified the complexities of integrating the multiple roles of teacher. Connelly and Clandinin (1999) suggest that "different identities can show up to be reshaped and take on new life in different landscape settings" (p. 95).

Baxter Magolda's (1992) research has recognized the importance of learner identity in developing epistemological beliefs. She explained that how one makes meaning of knowledge, views oneself in relation to others, and perceives one's identity contribute to an ability to speak and decide for oneself. Baxter Magolda (2007) uses the term "self-authorship" (p. 69) to describe this shift to an internal voice that guides individual beliefs and values. In the present study, the pre-service teachers' comments reflected a growing ability to think for themselves; this capacity became the foundation for their emerging professional voice and teacher identity.

DISCUSSION

My purpose in examining the perspectives of pre-service teachers in this study has been to draw out useful connections between Baxter Magolda's ways of knowing and pre-service teacher patterns of intellectual development. Pre-service teacher identity can be illuminated through this lens of pre-service teacher epistemologies. While pre-service teachers in the present study displayed a range

of ways of knowing across the five domains, the majority of pre-service teacher comments fell into the independent and contextual patterns.

In her work, Baxter Magolda (1992) identified one overarching pattern for the students. In the present research, I acknowledge the fluid and dynamic nature of their responses within and across knowledge domains. This approach allowed the contextual attributes of each pre-service teacher to be discerned. In this way, my study has aimed to contribute to a deepening understanding of how Baxter Magolda's ways of knowing framework may be utilized in ways that recognize the complexity of knowledge construction.

Pre-service teachers primarily want to practice their teaching skills in a supportive practicum setting (Ulvik & Smith, 2011); the significance of this finding has been explored elsewhere (Hastings, 2010; Turunen & Tuovila, 2012). The pre-service teachers in the present study viewed the practicum experience as a powerful and engaging site of learning. The ability to integrate a variety of perspectives and to decide on appropriate approaches in diverse classroom settings is a necessary skill for classroom teachers. Brownlee (2001) noted that the progression towards more sophisticated ways of knowing is important for classroom teachers who are increasingly teaching in "pluralistic educational contexts where interactions with a variety of students, colleagues and parents require flexibility and reasoned interpretations" (p. 288).

While many pre-service teachers (generally) have said that the practicum experience is the most consequential for them in learning to teach, Adoniou has concluded "that teacher preparation was most effective when there was alignment and collaboration between universities, practicum, and schools" (as cited in Naylor et al., 2015, p. 131). None of the pre-service teachers in the present study mentioned the role of university field instructors in contributing to their learning in the practicum experience; the role of the university field instructor seemed vague in their minds. One suggestion for change is to rework the field instructor role to that of mentor (rather than evaluator); thus, university coursework could be connected in new ways to the practicum experience. A context in which partner teacher and university field instructor both support the pre-service teacher as emerging teacher educators could help to build connections between theory and practice and offer a more cohesive pre-service teacher experience.

Intellectual development is not just a process of maturation (Chickering & Reisser, 1993), but a multi-dimensional and context-sensitive process. In the present study, the variety of ways of knowing suggests that teacher educators should be concerned with providing opportunities to activate and extend the understandings of pre-service teachers regarding the complex nature of teaching. Naylor et al. (2015) recommend that teacher educators take advantage of the background experiences that pre-service teachers bring to the program. When "teacher educators apply strategies for activating pre-service teachers' backgrounds and assumptions so that reflection and critical analysis of the effects of holding

such views can be identified" (Naylor et al., 2015, p. 130), preconceived ideas about teaching can be investigated and challenged.

Similarly, Ellis (2010) concludes that teacher education programs need to plan for and recognize the agency of pre-service teachers in the varied educational settings in which they find themselves. Teacher educators who model problematizing and reflecting critically on personal epistemological beliefs can promote the development of more sophisticated epistemological beliefs (Brownlee et al., 2009; Walker et al., 2012). Such practices would be best supported by a clear program philosophy that articulates the focus and goals for the teacher education program, accompanied by greater collaboration between teacher education instructors and classroom teachers.

CONCLUSIONS

The small-scale study that was the basis of this article aimed to contribute to an understanding of the personal epistemologies of pre-service teachers. I recognize that institutional contexts for students vary, and that the perspectives of pre-service teachers are context-bound and constructed in particular educational settings. Pre-service teachers who participated in the present study may have been more comfortable and confident in their pre-service teacher role. There may have been others who were more anxious about sharing their emerging beliefs and values about teaching. These pre-service teachers' voices did not comprise part of this group. Further research that captures a greater range of pre-service teacher experiences and perspectives would be beneficial.

The findings indicated that an understanding of pre-service teachers' personal epistemologies, as framed through patterns of intellectual development or ways of knowing, can offer important insights into how they view their learning contexts and themselves as emerging teachers. Developing more sophisticated personal epistemologies can promote meaningful approaches to teaching while developing teacher identity reflects on teacher practice. When identity development is part of a teacher education program (Beauchamp & Thomas, 2009; Gallchóir et al., 2018), it can provide pre-service teachers with opportunities to integrate their understanding of learning and teaching and deepen a vision of themselves as educators. Integrating personal epistemologies as an explicit pedagogical approach in teacher education programs — along with greater collaboration between university and practicum sites of learning, and the integration of mentoring roles — are both highly recommended.

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CO-OPERATIVE INQUIRY: A RESEARCH POLICY METHOD FOR SECONDARY EDUCATION IN NIGERIA

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ABSTRACT. This article examines the level of research involvement among educational stakeholders in the process of educational policy-making and implementation in Nigeria. It attributes the transformational challenges confronting the secondary school system in Nigeria to the epistemological question: "What is the relationship between the knower or would-be knower and what can be known?" This is premised on the idea that the research process that led to the 6-3-3-4, or the "new" 9-3-4 system of education from the 6-5-2-3 system of education, did not involve the participants as co-researchers and co-subjects in their relationship. This article argues for co-operative inquiry as an alternative participatory, action research method for ameliorating these transformational challenges in the Nigerian secondary school system.

ENQUÊTE CO-OPÉRATIVE : UNE MÉTHODE DE POLITIQUE DE RECHERCHE POUR L'ÉDUCATION SECONDAIRE AU NIGÉRIA

RÉSUMÉ. Cet article examine le niveau d'implication de la recherche parmi les parties prenantes éducationnelles dans le processus d'élaboration et de mise en œuvre des politiques éducatives au Nigéria. L'article attribue les défis transformationnels auxquels les secondaires nigérians sont confrontés à la question épistémologique : « Quelle est la relation entre le connaisseur ou le soi-disant connaisseur et ce qui peut être connu ? » Ceci repose sur l'idée que le processus de recherche qui a conduit au système d'éducation 6-3-3-4, ou au « nouveau » système d'éducation 9-3-4, n'a pas impliqué les participants en tant que co-chercheurs et co-sujets. Cet article plaide en faveur de l'enquête co-opérative en tant que méthode alternative de recherche afin d'améliorer ces défis transformationnels dans les secondaires nigérians.

Education is perceived as a tool for social development and improving society. As a result of this, there should be a mutual relationship among the educational stakeholders, especially when it involves the research process for constructing and re-constructing knowledge in order to develop society. This research process usually involves the researchers and the subjects in terms of knowledge creation

and re-creation. Therefore, there is a form of power relationship between the researchers and subjects in the research process because knowledge itself is power.

The position of this article is that there should be a balance of power between the researchers and subjects as regards construction and re-construction of knowledge in the Nigerian society. The balance in this form of research refers to a process whereby researchers and subjects see themselves as co-researchers and co-subjects. This is a full participatory, action research process and often referred to as research with people at every stage of the research process. This article begins with an overview of Nigerian secondary school reforms of September 8 to 12, 1969 and October 4 to 5, 2010; examines the transformational challenges associated with implementation of policy outcomes in terms of gap between policy-intent and implementation; and concludes that co-operative inquiry is a form of participatory, action research and its application is an alternative research method.

NIGERIAN SECONDARY EDUCATION SYSTEM REFORMS

A society is a system of social arrangements to meet needs and solve tasks which, today, are changing rapidly. Hence, the secondary educational process must take such changing dimensions into account in shaping the balance of experience and imagination that are suitable for individual responsiveness and effectiveness in such a society. Secondary education in Nigeria is also analogous with the high school system in countries such as the United States of America (USA) and Canada. In this regard, Dewey's (2002) observation on problems of US high schools "having to do with preparation for college on one side, and for life on the other" (p. 111) appears relevant to the context of secondary education goals in Nigerian society. Secondary education occupies a central position in Nigerian government policy documents. According to the Federal Republic of Nigeria (2004, pp. 13-14), the specific objectives of secondary education in Nigeria include:

a. provide all primary school leavers with the opportunity for education of a higher level, irrespective of sex, social status, religious or ethnic background;

b. offer diversified curriculum to cater for the differences in talents, opportunities and future roles;

c. provide trained manpower in the applied science, technology and commerce at sub-professional grades;

d. develop and promote Nigerian languages, art and culture in the context of world's cultural heritage;

e. inspire students with a desire for self-improvement and achievement of excellence;

f. foster National unity with an emphasis on the common ties that

unite us in our diversity;

g. raise a generation of people who can think for themselves, respect the views and feelings of others, respect the dignity of labour, appreciate those values specified under our broad national goals and live as good citizens;

h. promote technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development.

The construction and re-construction of knowledge in the education system in Nigeria using participatory approach was done on September 8 to 12, 1969, during the national curriculum conference and subsequently on October 4 to 5, 2010, in the educational summit by examining the goals and contents of education in Nigeria. To justify this participatory approach, Fafunwa (1974) stated:

> The 1969 conference was not a conference of experts and professionals but of the people, in that it comprised the representatives of trade unions, farmers' unions, women's organisations, religious bodies, teachers' associations, other professional organisations (medical, legal, engineering, etc.), university teachers and administrators, as well as Ministry officials, youth-club organisers, businessmen and representatives from the governments of most of the twelve states of Nigeria. (p. 210)

Also, the participants for the 2010 summit, according to the communiqué of National Universities Commission (NUC), aptly stated:

> The meeting which was presided over by Mr. President, Dr. Goodluck Ebele Jonathan, GCFR, was attended by all major stakeholders in the Education sector. This included Honourable Minister of Education, Traditional Rulers, Commissioners for Education, Nigerians in Diaspora, Development Partners, Non-Governmental Organizations, Members of the Diplomatic Corps, and other Parastatals of the Federal Ministry of Education, Education Corps of the Armed Forces of Nigeria and the Private Sector. (Federal Republic of Nigeria, 2010, p. 5)

A cursory look at the participants of the 1969 conference and the 2010 summit reveals similarities in terms of participants. This explains the relevance of the participatory approach when it comes to construction and re-construction of meaning in the education system in Nigeria as one of the most effective research methods.

In the Nigerian education system, the year 1969 was very important because it was the first time Nigerians were to deliberate on what kind of education could be needed or relevant for an independent nation. Also, it gave the opportunity to critically examine the colonial influence on the Nigerian educational system. Fafunwa (1974) rightly captured this purpose thus:

> The conference was not concerned with preparing a national curriculum, nor was it expected to recommend specific content and methodology. Rather, in this first phase it was to review old and identify new national goals for Nigerian education, bearing in mind the needs of youths and adults in the

> task of nation-building and national reconstruction for social and economic well-being of the individual and the society. (p. 210)

The research outcomes of the 1969 national curriculum conference led to a seminar in June of 1973. The outcomes of the seminar led to the publication of the Nigerian National Policy on Education, which was first published in 1977 and revised in 1981, 1998, and 2004.

The 2010 summit deliberated on issues as regards the implementation and practices of the Nigerian National Policy on Education. However, observations and conclusions that emanated from the 2010 education summit, most especially regarding secondary education system, have been highly contested and debated among stakeholders in the education system.

Secondary education occupies a central position in the National Policy. For international understanding, it is crucial at this stage to briefly describe the system of education before and after 1969 to illustrate the relevance of the secondary education system in Nigeria. Prior to the 1969 conference, the system of education was 6-5-2-3. This means 6 years of primary school, 5 years of secondary school, 2 years of higher school certificate, and 3 years of university education. The 1969 conference recommended the 6-3-3-4 system of education: 6 years of primary school, 3 years of junior secondary school, 3 years of senior secondary school, and 4 years of university education. This implies that secondary education is to be given in two stages. In 2004, the Universal Basic Education Act was enacted in Nigeria. This led to a slight modification of the 6-3-3-4 system to the 9-3-4 system of education in 2005. This means 9 years of basic education (i.e., combination of primary school and junior secondary school), 3 years of secondary school, and 4 years of university education. Based on this information, secondary school education witnessed a radical departure and structural changes from the old system in 1989, when the 6-3-3-4 system was implemented and slightly adjusted in 2005.

Secondary education represents a critical stage in the life of every learner. This is the education given at the adolescence stage of the learner. The adolescence stage plays an important role especially in providing a training ground for adulthood. Hence, the nature and quality of education given to any adolescent should be accorded ultimate importance. In a nutshell, it is the education every learner receives after elementary level and before the tertiary stage.

Nigeria as a country places a premium on the secondary education level. This is aptly captured in the two broad goals of secondary education stated in the National Policy on Education: "to prepare the individual for: useful living within the society; and higher education" (Federal Republic of Nigeria, 2004, p. 13). In reality, what is the situation of secondary education in Nigeria? Or, how far has the country come towards attaining these broad goals?

Answers to these questions, especially as regarding the second goal "to prepare

the individual for higher education," look specific, definite, and measurable. Although this second goal is an offshoot of the first goal, Nigeria has not performed well for the past 20 years. This is shown by the abysmally poor performance of students in school and public examinations. For instance, Bello-Osagie and Olugbamila (2009) reported that the Federal Government of Nigeria set up a panel to probe the mass failure rate in external examinations for her 104 Unity Colleges in 2009. This decadence in not only the secondary school system, but also the entire education system in Nigeria, has become a national issue.

The holistic reaction to this education problem was a two-day Presidential Stakeholders' Summit on education with the theme: "Reclamation, Restoration and Sustenance of Quality and Ethics in Education in Nigeria," which took place on October 4 and 5, 2010. The summit assessed the current state of education in Nigeria. Assessing the secondary school system, the Minister of Education asserted that the recurrent poor performance of students in public examinations was an indication of systemic failure in the country (Ndeokwelu, 2010). The President of Nigeria pointed out that "the 6-3-3-4 system of education [has] failed to address the challenges besetting the sector [secondary school] and had not equipped Nigerians with the necessary skills" (Federal Republic of Nigeria, 2010, p. 1). He therefore concluded:

> The Minister of Education who advocated 6-3-3-4 needs to apologize to Nigerians. It is one of those theoretical concepts that did not work. The secondary school education has been dislocated but it is not working. In fact, there is nowhere it is working because it's all theory. (Abanobi, 2010, para. 10)

In response to the President's conclusive statement, the previous Minister of Education posited:

> It is true that I proposed the 6-3-3-4 system of education in 1989. I don't have any apology about it. Our problem is not the system but failure to implement what was recommended before the cancellation. I believe in that system of education and I have written a book on it. Currently, it is being run in the US, Japan and other countries in the world. So what is wrong with our own? (Nigeria Resource Center, 2010, para. 11)

The President's statement disagrees with the previous Minister's words, but the two are pointing towards transformational challenges associated with the implementation of policy. These two opposing statements suggest a research methodological problem in proffering solutions to educational problems in Nigeria. This methodological research problem refers to the gap between policy-intent and implementation.

It is against this background that this paper assesses the value of the participatory approach as a research framework concerning the reconstruction of the education system in Nigeria and most especially as it affects the secondary school system. The basis of the argument is on the two conflicting statements on challenges confronting the secondary school system in Nigeria. It therefore considers co-

operative inquiry as a form of participatory, action research and its application as an alternative research method to ameliorate the transformational challenges confronting the Nigerian secondary school system.

CO-OPERATIVE INQUIRY

Co-operative inquiry is a sub-set of action research. The term action research can be literally interpreted as "action" and "research," which means the relationship between theory and practice. The pioneers of action research are Lewin (1946) and Corey (1953). The philosophical base of action research can be attributed to Habermas's (1962/1989) work on critical theory, where subjects participate as equals in rational discussion in the pursuit of truth and the common good. Carr and Kemmis (1986) saw action research as a form of self-reflective enquiry by participants undertaken to improve understanding of their practices with a view to maximizing social justice. In a more detailed and comprehensive definition, Kemmis and McTaggart (1988) posited:

> Action research is a form of collective self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own social or educational practices, as well as their understanding of these practices and the situations.... The approach is not only action research when it is collaborative, though it is important to realize that the action research of the group is achieved through the critically examined action of individual group members. (p. 5)

Although this approach involves collaboration with people for emancipation, Stenhouse (1975) and Whitehead (1985) have argued that action research can be done on an individual basis, for instance, the teacher as researcher.

The background of individual or group activity and other classifications of action research, such as reflective practice and a critical action research model, lead to co-operative inquiry. Co-operative inquiry is a participatory form of action research methodologies. It was conceptualized in 1996 by John Heron from Heron's (1971) experiential approach to research. Heron (1996) developed co-operative inquiry as a research methodology. It is a type of research with people, and not on or about people (Heron, 1996; Heron & Reason, 2001). The researcher and people who participate in the research collaborate to determine issues to be discussed, the analysis and interpretation of findings, and conclusions emanating from the study. This minimizes the problem of power structure or control in the research process because the position that is finally arrived at is jointly decided by the researcher and the subjects in a participatory process. Oates (2002) opined that "the researcher-subject distinction disappears and all participants are both co-researchers and co-subjects" (p. 27).

According to Heron (1996), there are several features of co-operative inquiry. All subjects are as fully involved as possible as co-researchers in decisions about content and method. There is interplay between reflection and action. There is

explicit attention to the validity of the inquiry and its findings. There is a range of special skills suited to such all-purpose experiential inquiry. Finally, the full range of human sensibilities is available as an instrument of inquiry.

Participation is a key word in co-operative inquiry. According to Oates (2002), participation "involves two complementary processes between political participation (concerning the relation between people in the inquiry and the decisions that affect them) and epistemic participation (concerning the relation between the knower and the known)" (p. 28). According to Heron (1996), there are several reasons for political participation. First, people have a right to participate in decisions about the method and conclusions in research that seeks to formulate knowledge about them. Second, it gives them the opportunity to express their own preferences and values in the research design. Third, it empowers them to flourish fully as humans in the study, and be represented as such in its conclusions, rather than being passive subjects of the researchers. Fourth, it avoids their being disempowered, oppressed, and misrepresented by the researchers' values that are implicit in any unilateral research design.

Heron (1996) also offers several arguments for epistemic participation. He claimed that propositions about human experience are of questionable validity if they are not grounded in the researchers' experience. Also, the most rigorous way to do so is for researchers to ground their statements directly in their own experience as co-subjects. Moreover, researchers cannot get outside, or try to get outside, the human condition in order to study it. They can only study it through their own embodiment in joint participation and dialogue with others who are similarly engaged. Finally, Heron (1996) observes that this enables researchers to come to know both the external forms of worlds and peoples, as well as the inner feelings and modes of awareness of these forms.

Co-operative inquiry appears to negate the epistemological and ontological assumptions of quantitative methods of research on people. According to Oates (2002), the quantitative method of research:

> ignores the human right of people to participate in decisions about gaining knowledge of them [i.e., an insufficient form of political participation]. It produces knowledge that is not experientially grounded: the researchers are not involved in the experience examined by the research, and the subjects are not involved in the selection of the constructs which are used to make sense of their experience [i.e., an insufficient form of epistemic participation]. (p. 28)

Qualitative research focuses on interpretation of human constructs. There may be problems over whose voice is to be represented or excluded in the analysis of findings. This is the point where the power of the researcher becomes important. Oates (2002) opined that "interpretative researchers can also be partially participant[s] (in the epistemic sense) if they do fieldwork involving participant observation" (p. 28). Therefore, qualitative research is a mid-way approach when it comes to exclusive, controlling research on people and fully

participatory research with people (Heron, 1996).

Both quantitative and qualitative research can be called research on people or about people. One of the problems associated with research on people is that there is little connection between researchers' experience and the subjects' experience. The researchers are the active agents who determine the methodological process and analysis, while the subjects are the less active agents who contribute the action to be studied. As a result of this relationship, the research outcomes may be too theoretical and impracticable because the researchers dominate the process. In co-operative inquiry, these problems are usually minimized to a certain extent because the researchers and the subjects collaborate in a participatory manner to determine the research process and outcomes. Reason (1999) asserted that co-operative inquiry is a radically participative form of inquiry in which all those involved are both co-researchers and co-subjects.

Co-operative inquiry has been described as a research cycling process involving four phases of reflection and action. According to Heron (1996), Oates (2002), and Reason and Heron (1999), there are four phases. Phase one refers to the coming together of a group of co-researchers to explore an agreed area of human activity. This is the phase where the research settings, such as objectives, questions, and methods, are formulated. It is usually called a reflection stage. In Phase two, co-researchers now become co-subjects. They engage in agreed-upon actions, observe, and record the process and outcomes of their own and each other's experiences. It is also the action phase. In Phase three, the co-subjects become fully immersed in and engaged with their experience. This is also an action phase. Phase four represents coming together to reframe or reject the co-subjects questions and ideas. It can even lead to new propositions of questions. This is the point where co-researchers and co-subjects share their experiential data from phases two and three and re-consider their original position. This is also the reflection stage.

These phases of reflection and action can involve several repetitive research cycles in order to enhance the validity and robustness of the findings. To ensure this validity, Heron (1996) suggested being present and open, bracketing and reframing, radical practice and congruence, non-attachment and meta-intentionality, and emotional competence as basic inquiry skills in cooperative inquiry research process.

The epistemological assumption of co-operative inquiry is based on critical subjectivity. According to Heron (1999), critical subjectivity "means that we do not have to throw away our living knowledge in search of objectivity, but are able to build on it and develop it" (p. 212). Based on this notion of reality, Heron (1996), Heron and Reason (1997), and Reason (1999) have grouped the four ways of knowing that can be generated in co-operative inquiry into extended epistemology. Reason (1999), for instance, referred to "epistemology meaning a theory of how you know, and extended because it reaches beyond the primarily

theoretical knowledge of academia" (p. 211). This extended epistemology goes beyond theoretical knowledge recognized by research on people; it is research with people, by the people, and for the people. The research outcomes are well-grounded with the people. Reason (1999) described the four ways of knowing in this extended epistemology:

> Experiential knowing is through direct face-to-face encounter with a person, place or thing; it is knowing through empathy and resonance, that type of in depth knowing which is almost impossible to put into words. Presentational knowing grows out of experiential knowing, and provides the first form of expression through story, drawing, sculpture, movement, dance and so on. Propositional knowing "about" something, is knowing through ideas and theories, expressed in informative statements. Practical knowing is knowing-"how to" do something and is expressed in a skill, knack or competence. (p. 211)

It appears that these four ways of knowing are developmental as each builds up on another. It starts from experiential knowing, which is being perceived by all in our immediate environment. This perception accounts for individual differences of experience in how we look at the problem in the environment. It also leads to propositional knowing and finally practical knowing.

According to Heron and Reason (1997), critical subjectivity can lead to critical intersubjectivity because our ways of knowing are always within the linguistic-cultural and experiential-shared meaning having a critical consciousness with each other, which leads to the co-operative inquiry method. This implies a collaborative form of inquiry as co-researchers and co-subjects form a common ground based on the four ways of knowing. Co-researchers and co-subjects, therefore, engage in several research cycles before reaching a common ground in a research process.

The procedures to develop this form of agreement in co-operative inquiry include a series of actions. Such actions are managing divergence and convergence within and between cycles, balancing reflection and action, challenging uncritical subjectivity and intersubjectivity, managing unaware projections and displaced anxiety, attending to the dynamic interplay of chaos and order, and securing authentic collaboration (Heron & Reason, 1997). Careful identification and implementation of these procedures will ensure the validity of knowledge being generated in co-operative inquiry.

Heron and Reason (1997) concluded that qualitative research, like other traditional research methodologies in the social sciences, is about other people in their own setting. Co-operative inquiry is therefore a wide-ranging approach to social science study about any aspect of human conditions that a group of co-researchers and co-subjects chooses to explore through the instrumentality of their own experience (Heron & Reason, 1997). This inquiry places both the co-researchers and co-subjects in the same research conditions to develop the practical way of knowing.

APPLICATION OF CO-OPERATIVE INQUIRY TO SECONDARY SCHOOL SYSTEM IN NIGERIA

The application of co-operative inquiry in the Nigerian secondary school system demands a re-examination of the epistemological assumptions that guided the 1969 conference and the 2010 summit that led to the two conflicting statements from key educational stakeholders. This is needed because participatory approach as a research framework was used for both the 1969 conference and 2010 summit. This re-examination implies "the epistemological question, 'What is the relationship between the knower or would-be knower and what can be known?"' (Reason, 1998, p. 9).

In a nutshell, the relationship between researchers and participants based on the participatory approaches for the 1969 conference and the 2010 summit appears to be at the first level of empowerment in participatory research. Heron (1996) observed:

> The first is when informants [subjects] are liberated by a research design to voice their own views and values and to act in ways they judge to be productive. The second and higher-order level is when informants [subjects] are empowered by being initiated in and by collaborating in, the research design itself and the values embodied in it. The first without the second is something of a contradiction. (p. 28)

To justify this placement, it is stated thus:

> After the National Curriculum Conference [1969 conference,] a seminar of experts drawn from a wide range of interest groups within Nigeria was convened in the year 1973. The seminar, which included voluntary agencies and external bodies, deliberated on what a national policy on education for an independent and sovereign Nigeria should be. (Federal Republic of Nigeria, 2004, p. iii)

It can be inferred that some of the 1969 participants were invited to offer informed consent on goals of education in Nigeria. This refers to the first level of empowerment in participatory research. The 1973 seminar was a forum for experts alone and used to fashion the policy document. This represents the second level of empowerment, but not all the 1969 participants attended the 1973 seminar. This is the genesis of contradiction in Heron's (1996) words on policy-making. Co-operative inquiry operates at the second and higher-order level of empowerment.

Obviously, the policy document stated that not everybody who attended the conference was invited to the 1973 seminar. It should be noted that the outcomes of the 1973 seminar led to the Policy document on education. It is possible that the experience of every participant in the 1969 conference may not be adequately represented. Or in principle, not all the participants were at the seminar to agree to the final outcome or output. It is against this background that this paper argues for another research method that will ensure that every

decision taken through participatory approach is a co-operative affair. As Reason (1999) described:

> Co-operative inquiry is an inquiry strategy in which all those involved in the research endeavour are both co-researchers, whose thinking and decision-making contributes to generating ideas, designing and managing the project, and drawing conclusions from the experience; and also co-subjects, participating in the activity which is being researched. (p. 207)

If this co-operative inquiry is done, then the statements "there is nowhere it is working because it's all theory" or "what is wrong with our own" would not have sufficed at all. Instead, the research would have incorporated the users (subjects and researchers) at planning and implementation stages. All stakeholders' views are considered in the process and outcomes on how the system of education should be operated.

The previous participatory approach engaged mostly the researchers at the planning stage and the subjects at the preliminary stage of the planning process. The subjects who are mostly "the managers on spot" or people to implement the policy may not be well-acquainted with it. To support this idea, Heron (1996) argued:

> If reality is nothing but an internal mental construct, no warrant can be given for supposing that other people being studied actually exist, let alone for supposing that the researcher's view of them adequately represents their own view of their situation. (p. 10)

This suggests that perceptions on implementing the system of education from both the researchers and subjects will be different from each other. This lack of congruence in the research process would have been resolved if co-operative inquiry had been utilized.

The earlier participatory research reflects traditional research processes. According to Reason (1999), one of the problems of traditional research "is that the kind of thinking done by researchers is often theoretical rather than practical. It does not help people to find out how to act to change things in their lives" (p. 208). This argument of Reason (1999) corresponded with the statement "there is nowhere it is working because it's all theory." Reason (1999) therefore pointed out that co-operative inquiry is "concerned with revisioning our understanding of our world, as well as transforming practice within it" (p. 208). This suggests that transformational challenges confronting the secondary school system in Nigeria can still be revisited and ameliorated with co-operative inquiry.

Participants in co-operative inquiry follow social guidelines that define their approach to sensitive issues. In principle, the activities are participatory and the process is democratic in terms of equal distribution of power with assurance that all participants have a voice. Stringer (2004) noted that in action research, "people develop high degrees of motivation and are often empowered to act in

ways they never thought possible" (p. 31) and, as described earlier, co-operative inquiry is a form of action research. From Stringer's point of view, the two opposing statements ought to have been simplified in terms of gap between policy intent and implementation.

Co-operative inquiry adheres to the concept of participant-oriented development and promotes an active involvement of participants. Also, it allows the participant to be more conscious and creative in order to achieve real transformational schooling in the form of dialogue. In co-operative inquiry, the facilitator guides other participants on the broad goals of secondary education through independence, inquiry, and cooperation, and communicates deeply through group inquiry to enhance attainment of the goals of secondary schooling.

THE DYNAMICS OF POLITICAL CHANGE IN NIGERIAN SCHOOLING

Generally, educational politics could be used to include all social interaction which influences education. In Nigeria, the history of education development depicts three phases. Adesina (1992) noted that "history of our educational development, to most of us, reveals three phases each with its peculiar lessons and experiences" (p. 1). The first phase, between 1861 and 1960, which was a reflection of the continuation of colonial conceptions and strategies, was based on a policy of teleguidance and importation of foreign curricula and materials for adoption in Nigerian schools. During this phase, the central actors were the colonial countries and their foreign experts while Nigerian educators and students were bystanders or mere onlookers. However, with increasing internal sensitivities and awareness, the strains, weaknesses, and distortions that accompanied this phase were exposed and had to give way to a new phase: the second phase.

The attainment of independence in 1960 ushered in the second phase which was also characterized by the influx of all sorts of experts and ideas based on prescriptions or specifications largely prepared by the colonial country or its agency with very little or superficial knowledge of Nigerian local conditions. At this second phase, the experts occupied the various positions of designing the curricula in the sectors where they were engaged and preparing project evaluations without appropriate consultations with the local or on-the-spot Nigerian personnel.

The third phase was from 1969 till date. It depicts local initiatives in the holding of the 1969 Curriculum Conference and the subsequent Seminar in 1973 and Summit in 2010, which were fundamental to the formulation of the Nigerian National Policy on Education documents. Since education should be a joint effort of both the Government and the people, the roles of the various levels of Government need to be reviewed with the view to determining the specific roles to be played by the people themselves.

In a general sense, the successful implementation of any policy rests squarely on all those involved not only in formulation of policies but also in its implementation.

For example, when federal, states and local governments are singing different tunes on the same educational issues or when a National Policy is agreed upon and each level of government implements what it wishes rather than what is agreed upon, the resulting situation is chaos and confusion. Education should be regarded as a collective responsibility that brings together the beneficiaries in the form of teachers, parents, students, policy makers and executors.

Another classic example is the language issue in the Nigerian educational system. The ultimate goal is that the only right medium of instruction at any level of the school systems (primary, secondary, and tertiary) is monolingualism or to some extent, bilingualism in the form of convention. The reality of Nigerian society depicts a multilingual and multi-ethnic diverse nation and therefore poses a threat to the effective implementation of the educational language policy for realization of such goal. The Nigerian National Policy on Education stated that "the medium of instruction in the primary school shall be the language of immediate environment for the first three years in monolingual communities. During this period, English language shall be taught as a subject" (Federal Republic of Nigeria, 2004, p. 11). This is the case of the use of mother tongue. Specifically, it requires instruction to be conducted in the mother tongue for the first three years of the primary school. Today, most state and local governments have ignored this provision in the National Policy, most especially among private schools.

CONCLUSION

The argument of this paper is not for change in the system of education. It is only reacting to the two conflicting statements regarding the process that led to the structurally similar 6-3-3-4 and the 9-3-4 systems of education. These systems of education restructured the education process in Nigeria, but there are transformational challenges associated with the policy making and implementation. Both statements in this writer's view are only referring to non-workability or impracticability of the system of education.

The position of this article is that the methodology used to arrive at the system of education contributed to the transformational challenges as evidenced by the two conflicting statements noted earlier. Although it used elements of a participatory approach, not all the 1969 conference participants were carried along at every stage of the policy-making, especially at the 1973 seminar. This article, therefore, argues for co-operative inquiry as an alternative participatory, action research method to examine transformational challenges confronting the secondary school system in Nigeria. This is a full participatory approach that will include every participant at every stage of policy-making.

This argument assumes that the previous method used in arriving at the current system of education did not properly engage the researchers and subjects mutually as co-researchers and co-subjects. The policy outcomes appear to reflect

most of the views of the researchers, common to most traditional research, which justified the statement "it's all theory" because the participants were not properly involved in the whole process of conceptualizing the 6-3-3-4 system of education. If the co-operative inquiry had been used, it would have neutralized the unforeseen circumstances that worked against the system of education, which justified the statement "So, what is wrong with our own?" Hence, there is need for co-operative inquiry as an alternative research method to examine the transformational challenges confronting the secondary school system in Nigeria. Hopefully, the co-operative inquiry will bridge the gap between policy intent and implementation.

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(UN)MAKING THE GRADE: AN INSTRUCTOR'S GUIDE TO MITIGATING THE NEGATIVE IMPACTS OF GRADES WITHIN A NEOLIBERAL UNIVERSITY SYSTEM

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ABSTRACT. Critics of the neoliberal university argue that grading undermines student learning. In this article, I survey the literature in order to ascertain whether such critiques are supported by pedagogical research. Investigating the relationship between grading and motivation, feedback, and autonomy, respectively, I conclude that grades most often do undercut learning. I explore the implications for instructors at Canadian universities, suggesting that abandoning grades is currently neither feasible nor best for students. I propose pragmatic adaptations to common grading practices that better promote learning and conclude that the implementation of less grade-centric assessment strategies is not only the best way to support student learning but also a way to challenge and mitigate the influences of neoliberal ideology in higher education.

(DÉ) CONSTRUIRE LA NOTE : LE GUIDE D'UN ENSEIGNANT AFIN D'ATTÉNUER LES IMPACTS NÉGATIFS DES NOTES DANS UN SYSTÈME UNIVERSITAIRE NÉOLIBÉRAL

RÉSUMÉ. Les critiques de l'université néolibérale affirment que l'évaluation compromet l'apprentissage. Ici, je complète un survol de la littérature pour déterminer si de telles critiques sont soutenues par des recherches. En étudiant la relation entre l'évaluation, la motivation, les commentaires d'évaluation et l'autonomie, je conclus que les notes ont un impact négatif sur l'apprentissage. J'explore les implications pour les enseignants des universités canadiennes, en suggérant que renoncer aux notes n'est ni faisable ni optimal pour les étudiants. Je propose des adaptations pragmatiques aux pratiques courantes qui favorisent davantage l'apprentissage et je conclus que des stratégies d'évaluation moins centrées sur les notes ne sont pas seulement la meilleure façon de soutenir l'apprentissage des étudiants, mais aussi atténuent l'influence de l'idéologie néolibérale.

When the COVID-19 pandemic forced an abrupt transition to remote teaching for Canadian university instructors, it was not entirely clear what this monumental shift would mean for higher education in the long term. As educators, now that we have the opportunity to reflect back on our collective unplanned experiment, there is widespread discussion about the ways in which our pandemic teaching experiences might compel us to reconsider aspects of undergraduate education that, before the pandemic, were often taken for granted (Champagne & Granja, 2021).

Among the many practices and assumptions that are currently being rethought, the issue of assessment has received considerable attention. Surveying the landscape of Canadian higher education, Champagne and Granja (2021) foreground the issue of student mental health, especially grade anxiety and its implications for academic dishonesty. Taking a broader North American perspective, Berkowitz (2021) highlights the problem of pandemic-driven grade inflation. While these are important reasons to reflect on our grading practices, some took the pandemic disruption as an opportunity to ask whether we should be grading at all. Indeed, two institutions with which I have been affiliated — Lawrence University in Appleton, Wisconsin, and Brock University in St. Catharines, Ontario — organized community reads of Susan Blum's (2020a) *Ungrading* within the first 18 months of the pandemic. The essays in Blum's collected volume argue that students benefit most when grading — that is, assessing the quality of student work by assigning a numerical or letter value — is abandoned altogether.

Even as the pandemic provided a unique opportunity to scrutinize and revise the way we provide undergraduate education, it is important to remember that most of the issues under discussion are not new. On the subject of grading, some of the strongest critiques have traditionally come from those who see current grading practices as a harmful symptom of the long-standing influence of neoliberal ideology on the modern university, which is my main focus in this article. I take the reflective opportunity the pandemic afforded us to reconsider common grading practices in light of critiques of neoliberal influences in the post-secondary sphere.

NEOLIBERALISM AND HIGHER EDUCATION

Neoliberalism has been the prevailing political and economic ideology in much of the developed world since the late 1970s and continues to dominate many aspects of modern society. As Harvey (2007) defines it, *neoliberalism* is "a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade" (p. 2). Within this capitalistic framework, the role of the university is not to facilitate learning per se but rather to prepare students

to participate in the knowledge economy as skilled workers (Canaan & Shumar, 2008; Olssen & Peters, 2005).

Neoliberalism perceives education in economic terms. This conceptualization works in two ways, interpreting students as both resources and consumers. First, according to human capital theory, which is closely aligned with neoliberal theory, students are an economic resource. The expense invested in their education is expected to pay off in the form of skilled workers and economic growth for the society that has furnished them with educational opportunities (Gillies, 2015). Second, neoliberal ideology construes education as a business. In such a system, students are understood as consumers that universities must compete for through careful marketing and by catering to students' individual preferences (Norris, 2011, 2020).

The standard view of grading within such a model prioritizes quantification and measurement. Grading acts as a kind of quality assurance guarantee, with its implied promise to ready students for the knowledge economy. Universities are expected to certify students' level of learning (Kvale, 2007), standardize outcomes so that students can be ranked (Canally, 2012; Lynch & Hennessy, 2017), and communicate the relative ability of students to potential graduate schools and employers (Kvale, 2007; Lynch & Hennessy, 2017; Miley & Gonsalves, 2004). At the same time, grades are the primary way in which universities satisfy the desires of their student consumers. Grades and the accompanying credentials are the products that students purchase with their tuition dollars (Brown & Murphy, 2012; Kvale, 2007; Lynch & Hennessy, 2017). For their part, students demand a return on their investment in the form of an education whose benefits they can measure in job market success and financial gain; personal growth does not typically feature among the priorities of these students (Norris, 2020).

Critics of the neoliberal model of higher education underscore the negative consequences of grades. They suggest that, rather than promoting learning, grades primarily compare, sort, and rank students while, at the same time, satisfying their consumerist preferences. In such a system, students are less likely to take on challenging classes that might lower their GPA (Brown & Murphy, 2012). They are also more likely to demand unearned high grades (Lynch & Hennessy, 2017), this because they understand themselves to have purchased a degree rather than paying tuition fees for an opportunity to earn one. Furthermore, grades undermine student solidarity, promoting competition and individualism (Canally, 2012; Pulfrey & Butera, 2013). In addition, the pursuit of high grades damages critical thinking and encourages passive submission to authority figures (Lynch & Hennessy, 2017; Tannock, 2017). Grading also undercuts students' desire to learn for learning's sake and has been tied to increases in cheating behaviours (Pulfrey & Butera, 2013; Tannock, 2017). Had they known about it, these same authors would surely have considered the possibility that the recent proliferation of ChatGPT-based academic dishonesty might, in part, stem from prevailing post-secondary grading practices.

These critiques of grading trouble the status quo of higher education and pose further questions. Do grades exert a uniformly negative influence on the learning of university students? And what does the scholarship of teaching and learning say on this matter? Drawing on evidence primarily from North America and the United Kingdom, and focusing exclusively on undergraduate university practices, I explore the pros and cons of grading through three interrelated pedagogically informed lenses: motivation, feedback, and autonomy. While there may be many possible arguments against grading — and, it is important to mention, the practice of grading long predates the onset of neoliberalism — I ask whether the arguments of those who oppose grading on anti-neoliberal grounds are supported by educational research. I then discuss the implications of my findings for undergraduate instruction in the Canadian university context, exploring the possibility of abolishing grades entirely, even as I consider other, less radical ways to challenge and mitigate the dominant role grades play in our current neoliberal model of higher education.

MOTIVATION

There is an immense body of research focusing on the relationship between grades and motivation, a representative sample of which I discuss here. Almost all of it concludes that, contrary to the common assumption that grades act as rewards to motivate student effort, grades instead undermine student motivation to learn and to work hard. In empirical studies, grades have been shown to decrease intrinsic motivation to learn, that is, motivation to learn for the sake of learning; learning for intrinsic reasons is usually contrasted with learning for some instrumental purpose, such as earning a scholarship or getting into graduate school (Hiller & Hietapelto, 2001; McMorran et al., 2017; Ryan & Deci, 2020). Furthermore, grades inhibit divergent thinking, that is, approaching a task in multiple, creative ways (Butler & Nisan, 1986). They also undermine the desire to do more than what is strictly required to preserve self-esteem in comparisons with classmates (Ryan & Weinstein, 2009), especially when a student consistently receives low grades (Lynch & Hennessy, 2017). And they enhance anxiety and increase challenge avoidance (Chamberlin et al., 2018; Marcus & Tomasi, 2020; Ryan & Weinstein, 2009).

While there is considerable evidence that grades are demotivating, it is important to raise one caveat: Motivation also wanes if students receive no information whatsoever about their competence and the quality of their work (Butler & Nisan, 1986). In other words, receiving a grade is better for motivation than receiving nothing at all. In fact, one study (Trotter, 2006) even demonstrated that continual numerical evaluation throughout the term (by comparison with a single high-stakes end-of-term exam) enhanced learning and improved student motivation. This was because it allowed the students to fine-tune their own learning more effectively over time as opposed to only receiving information about their performance after the class had finished.

FEEDBACK

Trotter's (2006) study suggests that intrinsic motivation is not sufficient to ensure high-quality learning. Students learn better when they receive some kind of feedback. Not all feedback, however, is the same. Trotter's work effectively demonstrated the distinction between *summative feedback*, feedback received at the end of a task when there is no opportunity to apply it, and *formative feedback*, feedback that contributes to future work, whether through revising the current assignment or building toward the next. (For a more recent discussion of these two types of feedback, see Winstone & Boud, 2022). While both summative and formative feedback can be accompanied by a grade, Sadler (1989), who wrote a seminal article on the subject of formative learning, notes that "a grade ... may actually be counterproductive for formative purposes" (p. 121). Indeed, students are less likely to attempt to understand or even read the comments when a grade is included (Blum, 2020b), thus undermining any formative benefits of the feedback. In neoliberal terms, once a grade has been assigned, the student perceives the educational transaction as complete, rendering comments irrelevant.

The provision of formative feedback is linked to motivation. While grades usually decrease motivation, a description of the strengths and areas for improvement in a student's work, feedback that typically comes in the form of a written narrative assessment, has been shown to increase motivation to learn. The motivational benefits of comments, however, are primarily tied to feedback unaccompanied by a grade (Blum, 2020b; Chamberlin et al., 2018; Pulfrey et al., 2011). It is noteworthy that comments accompanied by a numerical or letter grade often lose their motivational benefits, as shown in research conducted by Chamberlin et al. (2018). This research suggested that a decrease in motivation might be explained by the fact that the presence of a grade eclipses the narrative feedback. Put differently, students in a neoliberal educational context are socialized to internalize the grade and ignore the comments. The work of Chamberlin et al. supports similar conclusions published by Black and William (1998), Lipnevich and Smith (2008), Pokorny and Pickford (2010), and Pulfrey et al. (2011), each of whom addressed the idea that letter or numerical grades inhibit the intended pedagogical benefits of comments. In short, grades are likely to undermine efforts to motivate student learning even when formative feedback is also provided.

There is much scholarship extoling the benefits of providing regular formative feedback, particularly when the feedback offers clear guidance on how to improve (Ambrose et al., 2010; Chalmers et al., 2018; Nicol, 2010; Nicol & Macfarlane-Dick, 2006). Petty (2009) even notes that "formative assessment methods have some of the highest effect sizes found in education" (p. 85). At the same time, it is also important to acknowledge the many challenges to implementing formative feedback in a system that requires grades. Instructors and students often do not share a common vocabulary for describing assessment criteria used to generate formative feedback, which means that grades remain the default language used to evaluate performance (Bailey & Garner, 2010; Ferguson, 2011; Pokorny &

Pickford, 2010). Research also shows that the concept of formative assessment is not always well understood by instructors, particularly its relationship to the process of generating numbers and letters at the end of a term (Bennett, 2011; Black & William, 1998; Harlen & James, 1997). Again, this suggests that, while formative feedback has the potential to increase student learning, the current grade-oriented system undermines its positive impact.

AUTONOMY

Autonomy, also referred to as self-determination, is equally important for student learning, reinforcing both motivation and feedback (the two of which, in turn, reinforce autonomy). Grades are antithetical to a student's sense of self-determination because, within a system of assessment, they definitively establish the teacher's outsized influence over both classroom activity (Blum, 2020b; Sadler, 1989) and the students' future educational and employment opportunities (Goulden & Griffin, 1997). Grades can lead students to feel as though they have no agency in their own education. This loss of self-determination has been linked to decreased achievement, well-being, and persistence (Chamberlin et al., 2018), which has the potential to lower intrinsic motivation and cause shallow (viz., surface) learning (Ryan & Weinstein, 2009). It can also be tied to increased performance avoidance, where students do not strive to achieve greater competence but instead work only to avoid appearing incompetent in comparison to peers (Pulfrey et al., 2011).

By contrast, instructional methods that emphasize student agency and de-emphasize the instructor's power to assign a number or letter to any given piece of work can have a positive effect on learning, even when the instructor will ultimately evaluate students' work. Examples of such methods include allowing students to choose the topic and format of a project, or having them engage in self-reflection and self-assessment. Activities like these help students to derive motivation from within themselves rather than relying on instructors to impose tasks and determine the value of those tasks. Such approaches can result in increased task interest, creativity, and psychological well-being (Chamberlin et al., 2018; Pulfrey et al., 2013). Whether or not a grade will eventually be assigned, instructors should provide information that enhances students' sense of competence — for example, through clearly written rubrics — thus locating the source of achievement and improvement within the student rather than with the instructor (Ambrose et al., 2010; Chamberlin et al., 2018; Pulfrey et al., 2013; Ryan & Weinstein, 2009). In order to learn deeply, students must develop the capacity to monitor and evaluate the quality of their own work and, eventually, to regulate their own learning (Nicol, 2010; Sadler, 1989). Grades are most often antithetical to these goals.

In conclusion, a review of the educational literature on motivation, feedback, and autonomy demonstrates clearly that the detrimental effects of assigning letter

and number grades typically outweigh any potential benefits. The scholarship of teaching and learning broadly supports the critique of the influence of neoliberal ideologies on current grading practices. In the remainder of this article, I consider the implications of this consensus in the literature for the practices of instructors teaching undergraduate courses at Canadian universities.

SHOULD WE ABOLISH GRADING?

If grades are typically harmful and rarely considered helpful to student learning, the question arises: Should we abandon grading altogether? More than a decade ago, Culum Canally, then an instructor at Wilfrid Laurier University in Waterloo, Ontario, made an impassioned plea for faculty to do precisely this. In his 2012 anti-neoliberal opinion piece, Canally argued that even the most vocal critics of the neoliberal system are complicit through their continued use of grading. He went on to suggest that instructors "can use grading, or more specifically not grading, as an enormously powerful tool to resist the further imposition of neoliberal practices on public higher education" (Canally, 2012, para. 2). He urged instructors to promote a more cooperative classroom community, which could free them to focus on facilitating learning and undermine an unjust system wherein grades — which, he argued, "gauge students' obedience to a neoliberal curriculum" (Canally, 2012, para. 10) — determine employability.

In 2007 and 2008, in a well-known case, a tenured faculty member at the University of Ottawa, Denis Rancourt, did exactly what Canally would later advocate. Employing what he called "student-centred evaluation" in several physics courses, he awarded every student an A+ (Foisy, 2014, p. 10). In his own words:

> I explained that ... it was necessary to remove the coercive and ranking aspects of grades, in order to create an optimized learning environment. I explained that, under these conditions, I fully expected that every student who commits to this method would experience exceptional results and that, therefore, I expected everyone to obtain A+. (Rancourt, as quoted in Foisy, 2014, p. 11).

Rancourt was dismissed by his employer for his failure to grade students objectively in accordance with the university senate's academic standards and marking scales. When the matter came before an arbitrator in 2013, the arbitration ultimately upheld the dismissal as well as the university's right to compel its instructors to grade in a certain way. According to the arbitrator (Claude Foisy), grading methodology did not fall under the umbrella of academic freedom (Foisy, 2014). The arbitrator's final decision endorsed the neoliberal function of grading (Tannock, 2017), emphasizing that it "differentiates the students and sets them apart one from the other and permits them to obtain bursaries, grants and in many cases, admission to post-graduate studies" (Foisy, 2014, p. 24). Here, the university's duty to sort, rank, and certify students in anticipation of their participation in the knowledge economy was unquestioningly upheld.

Rancourt's case set a sobering precedent for those inclined to heed Canally's call to reject the imposed necessity of grading in Canadian higher education. A handful of US colleges have implemented some form of gradeless assessment (Blum, 2020b), but as yet, to the best of my knowledge, no Canadian schools have abandoned grading entirely at the undergraduate level. Rancourt's example, along with other Canadian and US precedents mentioned in Foisy's decision, suggests that even tenured faculty, not to mention untenured or adjunct / sessional instructors, risk their job security when they completely ignore the grading guidelines established by their institutions. Advocacy for a gradeless system is certainly possible, especially for those with tenure, but simply refusing to hand in grades or, alternatively, assigning A+ to everyone in the class, is not a realistic course of action. Beyond questions of job security, we cannot ignore Foisy's reminder that students still require grades to be eligible for scholarships and apply to graduate programs, among other things. Doing away with grades does students no favours in the short term as it would impede their ability to navigate educational obstacles and pursue careers in our existing neoliberal reality.

It is also important to consider the impact of abandoning grading on student learning. In the Rancourt case, we do not know whether a guaranteed A+ helped, harmed, or had no impact on students' understanding of solid-state physics. Foisy's arbitration considered only the neoliberal imperative to rank and sort students and did not broach the question of educational outcomes (Tannock, 2017). Rancourt's own reasons for implementing his grading scheme — namely, to foster "genuine self-motivation"; accommodate students' individual abilities, interests, and aptitudes; reduce academic dishonesty; reward effort and creative engagement; and mitigate the typically uneven power dynamics between grader and graded (Foisy, 2014, p. 10) — are all laudable and certainly dovetail with research on the role of motivation and autonomy in student learning, as explored above. However, in light of the same research, it does not seem likely that awarding an A+ to all students in a course — "automatically without any possibility of getting a lower grade than that," as the arbitration decision describes (Foisy, 2014, p. 18) — is the best way to promote engaged learning in all students.

In short, avoiding grading altogether is not a feasible course of action in the current Canadian context. What path lies open, then, to somebody concerned about the negative impacts of grades on student learning? The remainder of this article is offered as practical guidance for the instructor seeking to balance the pedagogical imperative to support student learning with the neoliberal imperative to submit grades at the end of every term. Given that letter and number grades are, at least for now, a necessary part of university teaching, the principles of motivation, feedback, and autonomy offer practical guidance to instructors in designing assessments and feedback mechanisms to mitigate the negative impacts of grades.

STRATEGIES TO MITIGATE THE NEGATIVE IMPACTS OF GRADING

Research clearly indicates the importance of motivation, feedback, and autonomy for student learning and, at the same time, demonstrates that grades typically undermine all three. How best to support student learning in a system that requires grades? In consonance with the research, the simple answer is that instructors should withhold number or letter grades during the term even though they are required to submit them to the university (and reveal them to the students) at the end of the semester. A fuller answer adds that instructors must simultaneously provide frequent, timely, and thoughtfully detailed formative feedback that gives students an accurate sense of their strengths and weaknesses along with a set of strategies that empower them to improve. Moving progressively from small tweaks to completely restructured course assessments, I suggest several possible strategies that undergraduate instructors might use to incorporate these three principles into their classroom practices so as to support student learning.

One of the easiest ways to enhance student learning, even when a grade will ultimately be assigned, is to offer detailed narrative feedback that is initially unaccompanied by a grade. As I have already discussed, comments without a letter or a numerical grade tend to increase student motivation. Narrative feedback also supports autonomy by generating feelings of competence, helping students understand their own strengths and offering support in addressing areas of weakness (Butler & Nisan, 1986; Chamberlin et al., 2018). As I will outline, there are several ways in which instructors can ensure that students are able to do the work of internalizing feedback before they experience the potentially negative psychological impact of the grade itself. For example, even delaying the numerical or letter grade by a day or two, and distributing comments first, can increase the likelihood that students will benefit from narrative feedback (Chamberlin et al., 2018).

Beyond merely separating comments and grades chronologically, instructors can also create opportunities for students to reflect on the comments they receive and, in this way, increase their impact. Indeed, guided metacognitive reflection is an effective way to help students internalize and ultimately use comments to improve their work (Katapodis & Davidson, 2020). As Bowen (2017) explains, one way to encourage such reflection is by having students complete a "cognitive wrapper" before distributing grades (p. 113). This activity guides students in reflecting on their preparation and the feedback they received, with a view to articulating a strategy for future improvement. Importantly, students complete the cognitive wrapper before an assigned grade potentially skews their perception of their own performance. This also discourages comparison with classmates and focuses students' attention on the power they have over their own improvement.

Another way to increase student learning, even when assigning grades, is to emphasize the dialogic nature of assessment. In other words, if instructors construct a feedback environment that is conversational rather than unidirectional

(instructor → student), students are likely to feel more motivated and enjoy a greater sense of autonomy. Dialogic feedback typically creates an opportunity for students to respond to the feedback they receive, explain or justify their intellectual choices, and seek clarification from the instructor. As Nicol (2010) discusses in detail (see also Nicol & Macfarlane-Dick, 2006), dialogue is the best way to ensure that both instructor and students are operating within the same frame of reference, as opposed to leaving grading criteria vague or unspoken. Nicol also explains that dialogic feedback allows students to request feedback in a certain format or on particular aspects of their work, which increases feelings of autonomy and deepens learning. One effective way to provide this type of feedback is in a face-to-face feedback conference, which has been shown to increase student understanding of feedback, especially qualitative criteria, and to increase their trust and engagement in the feedback process (Chalmers et al., 2018). These conferences can be done one-on-one or, in larger classes, with small groups of students.

Dialogue in assessment can also be generated through peer review (providing open-ended feedback) or peer assessment (determining whether work has met certain criteria or not). This is another way to provide feedback without assigning a numerical or letter grade while, at the same time, reducing the controlling influence of the instructor (Nicol & Macfarlane-Dick, 2006). For example, Katopodis and Davidson (2020) discuss their use of peer evaluation in class and explain how asking students to adopt the role of assessor improves their understanding of the course evaluation criteria and, by extension, their ability to apply it to their own work. Katopodis and Davidson use the evidence of their own experience to suggest that engaging in the assessment of peer work leads to both self-discovery and a more cohesive and supportive classroom community. While the competition encouraged by the grade-based neoliberal system has the potential to affect students' relationships with their peers negatively (Chamberlin et al., 2018), well-designed peer assessment activities are one way to circumvent this problem. Such alternatives place control firmly with students, increasing both intrinsic motivation and autonomy.

A more radical approach to "ungrading" is for instructors to decline to give students any grades until the very end of the course, using instead a system of contract or mastery grading (see Armacost & Pet-Armacost, 2003; Bergmann, 2013; Blum, 2020b; Hiller & Hietapelto, 2001; Katopodis & Davidson, 2020; Lynch & Hennessy, 2017; Nilson, 2015). In both contract and mastery grading, the instructor lays out clear criteria for success on any given piece of work. Students pass if they meet all criteria and receive no credit if they fail to meet one or more. A contract grading system allows students just one attempt at each assessment (they typically have some ability to decide how many tasks to attempt and/or at what level of difficulty) and the final grade is calculated based on how many assessments were successfully completed. By contrast, a mastery grading system compels the student to attempt each assessment as many times as necessary to

succeed before moving on to the next. The final grade is calculated based on how far the student progresses in their learning. Hybrid combinations of contract and mastery grading also exist, allowing students the opportunity to resubmit only some assignments, or to resubmit all assignments a limited number of times.

Both systems have the potential to increase learning by focusing student attention on meeting learning objectives rather than obtaining a particular grade because there is no partial credit for work that does not meet all standards at a basic level. They also address motivation, feedback, and autonomy. They motivate students by providing small, achievable objectives with clear instructions about how to succeed. They offer regular, detailed feedback as to where the student sits in relation to learning goals. Finally, they promote self-determination, as students have the ability to set the pace of their own learning and, in many cases, the freedom to decide which objectives they will strive to meet (Hiller & Hietapelto, 2001; Katopodis & Davidson, 2020). For all of these reasons, a contract or mastery grading system allows instructors to prioritize learning and decentre grades while still satisfying the requirements of the university's existing administrative framework.

The alternative assessment strategies I have explored are summarized below (see Table 1).

TABLE 1. *Assessment strategies emphasizing motivation, feedback, and autonomy*

Strategy	Examples / Options
Narrative Feedback	No Grade
	Delayed Grade
	Delayed Grade with Metacognitive Reflection
Dialogic Feedback	Feedback Conference
	Peer Review
	Peer Assessment
No In-Term Grades	Contract Grading
	Mastery Grading

NOTE. The organization of this table is not meant to imply that these strategies are mutually exclusive. For example, initial narrative feedback could lay the groundwork for a subsequent feedback conference.

LIMITATIONS

While the suggestions I have just reviewed are likely to increase student motivation and autonomy through feedback and, therefore, deepen learning, none are panaceas, and each has potential drawbacks that instructors will have to consider. For example, narrative feedback and feedback conferences are time-consuming and not easily scalable for large classes. Peer feedback can vary in quality, especially if a student has not accurately understood the learning objectives or assessment criteria. As for contract and mastery grading, if not implemented carefully, they can introduce new forms of instructor control, undermining autonomy. Moreover, this bird's-eye view of different assessment strategies does not address potential discipline-specific challenges. For example, while not impossible, it is more difficult to give narrative feedback in a math course or to apply the concept of mastery in theatre arts. Instructors would have to adapt these strategies to their own subject matter and comfort level in ways that I have not discussed here. Nonetheless, all of these approaches have the potential to mitigate the harmful effects of grading described by critics of the neoliberal university and in the pedagogical literature.

POSSIBILITIES

In the long run, decentring numerical and letter grades in the classroom has the potential to create students, and eventually citizens, who possess the capacity to push back against the neoliberal forces that currently dominate the Canadian higher education landscape. Miley and Gonsalves (2004) discuss how the student obsession with grades represents a response to societal pressures. They contend that grades are the shorthand that allows students to communicate their worth to those outside academia, and to achieve socially sanctioned life objectives, typically economic ones. I argue that a shift away from grades and toward instructional strategies that centre motivation and autonomy through feedback can give students the ability to envisage goals beyond the ones a neoliberal view of education espouses. Less emphasis on grades can help students articulate a broader set of skills and aptitudes gained through scholastic pursuits that have value not just within the job market but also beyond it.

By fostering intrinsic motivation in the classroom, instructors can show students that they need not choose goals in response to extrinsic neoliberal economic pressures. In such an environment, students are empowered to assign their own values to education rather than tacitly accepting only those values society imposes. Similarly, by emphasizing student autonomy, instructors shift the focus away from comparison and competition, undermining the neoliberal compulsion to rank and sort. Greater autonomy also allows students to understand their own agency better both in the classroom and, hopefully, outside of it. Thoughtful, generous feedback promotes both motivation and autonomy and is key in supporting students in the process of becoming independent, self-directed

learners in their lives after university. Rather than relying on an instructor or a transcript to dictate personal worth in competition with others, students gain the tools to understand their own strengths and weaknesses. The student's sense of accomplishment and success is individual rather than relative, decoupled from the letter or the number the instructor assigns. In such a system, individual achievement is derived from meaningful learning; it is never simply the product the university offers to satisfy the desires of student consumers.

Drastic social change will not happen immediately, of course, and most of us will continue to assign grades in our classes. However, there is good reason to believe that attempts to challenge and mitigate the negative impacts of dominant models of assessment — those that resist an exclusive emphasis on numerical and letter grades — are part of an ongoing process that will eventually allow us to reconceptualize higher education and its role in society (Lynch & Hennessy, 2017). Indeed, it is clear that the widespread disruption caused by the pandemic has already provoked changes in grading practices in higher education. For example, many Canadian universities allowed undergraduates to opt for pass / fail notation instead of grades on their transcripts (essentially, a simplified version of contract / mastery grading) as a response to the unique pressures and challenges that were created by the COVID-19 pandemic (Friesen, 2020; University Affairs, 2021).

Whether teaching in pandemic conditions or in our current post-pandemic reality, in choosing to resist the dictates of neoliberal ideology, each instructor has the power to change the ways in which they assess students that best align with their positioning within their institution and their own philosophical commitments. Even small (but significant and thoughtful) changes to assessment practices can help shift the university away from a paradigm whose social purpose is to sort and rank students-as-consumers and, instead, towards a paradigm whose highest ideal is to truly foster learning.[1]

NOTES

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WHO AM I, REALLY? REFLECTIONS ON DEVELOPING PROFESSIONAL IDENTITY AS A CÉGEP TEACHER

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ABSTRACT. In this *MJE* Forum, the author invites conversation on what it means to be a teacher in Quebec's unique Cegep system. Cegep, positioned between the more structured secondary program and the more autonomous university experience, requires that its teachers grapple with what it means to be a Cegep teacher. Her own piece focuses on exploring her development as a teacher and how teacher identity is shaped by personal and professional relationships. Beyond professional development in workshops and continuing education, Cegep teachers engage in discussions, debates, and collaborations with our peers; ultimately, this community of practice is an essential element in the development of our teaching practice and our identity.

QUI SUIS-JE, VRAIMENT? RÉFLEXIONS SUR LE DÉVELOPPEMENT DE L'IDENTITÉ PROFESSIONNELLE EN TANT QU'ENSEIGNANT AU CÉGEP

RÉSUMÉ. Dans ce forum RSEM, l'auteur incite une conversation sur ce que signifient être enseignant dans le système des Cégeps au Québec. Les Cégeps, situés entre le programme secondaire plus structuré et l'expérience universitaire plus autonome, exigent de leurs enseignants qu'ils confrontent les implications d'être un enseignant au Cégep. Sa contribution se concentre sur l'exploration de son parcours d'enseignant personnel et sur la façon dont l'identité d'enseignant est façonnée par les relations personnelles et professionnelles. Au-delà du développement professionnel lors d'ateliers et de formations continues, les enseignants au Cégep s'engagent dans des discussions, des débats et des collaborations avec leurs pairs; finalement, cette communauté de pratique est un élément essentiel dans le développement de notre pratique pédagogique et de notre identité.

This year, I am celebrating my 20th anniversary of teaching in higher education. Most of those years have been spent teaching at the Cégep level [*collège d'enseignement général et professionnel*]. Teaching at the Cégep level is an attractive prospect for many academics; the qualifications are not quite as stringent as university teaching, and there is no research expectation. Like our university colleagues, however, Cégep teachers often find themselves walking through the door of our first classroom only to be hit by panic — do we know how to *be* Cégep teachers?

How we spend our days

Writer Annie Dillard (2013) reminds us that "how we spend our days is, of course, how we spend our lives" (p. 27). How we spend our days, of course, is working — recent research shows that the average person spends a third of their life, close to 90,000 hours, working (Gettysburg College, 2021). What we do in our professional capacity, then, inevitably influences who we are personally. Philosopher Al Gini (1998) says "it is in work that we become persons. Work is that which forms us, gives us a focus, gives us a vehicle for personal expression and offers us a means for personal definition" (p. 708). As teachers, we do not work in a vacuum, and our identity as *teacher* is constructed and reconstructed in a social context. Interactions with students, with colleagues, with administrators, influence our professional identity and, in turn, our practice.

Faculty in higher education are often discussed collectively, as if individuals within the group share a predetermined and universal set of characteristics. Yet, even from the student perspective, it is clear that no two teachers are alike. Beyond practical differences in our pedagogical approaches we are, of course, individual human beings, with personal identities that inform our professional identities.

Identity is a term that is perpetually being probed and explored, and our understanding of the term is influenced by our discipline and context. Most explorations of identity agree, at least, that identity is not fixed, but develops and evolves over time (Trautwein, 2018). Our identity as academics and teachers, as is true in other professions, is influenced by internal and external factors, past and present experiences. The teacher we are today is not the teacher we were yesterday, nor the teacher we will be tomorrow, or next year. Trautwein (2018) says, in short, "the process of identity development in teaching can be described as a complex, career-long process" (p. 997).

Each of us embodies several roles. We might think of these roles as identities, in the plural (Fearon, 1999); howsoever we choose to label them, what is important is that we recognize them, and appreciate how each one influences the others. My identities as student, citizen, relative, and teacher are not necessarily the same — or perhaps more accurately are *necessarily not* the same (Fearon, 1999). Other aspects that are perhaps more indelibly part of our selves, such as behaviours, beliefs, opinions, values, skills, experience, and family history, are assumed to be carried with us, regardless of context (Fearon, 1999).

Ultimately, as one might imagine, it is hard to pin down any one fixed definition of professional identity; however, Avidov-Ungar and Forkosh-Baruch (2018) identified four facets:

> professional identity as an ongoing process of interpretation of experiences and responses to the questions "Who am I now?" and "What would I like to be in the future?"; professional identity as reference to the individual and the context of his or her actions; professional identity as a sum of sub-identities in harmony; and professional identity as requiring involvement and activity of the professional. (p. 185)

To better understand what it means to be a Cégep teacher, then, we might ask ourselves four questions, based on those characteristics:

1. Who am I now, and who would I like to become?
2. Who am I in this role?
3. Who am I in this context?
4. Who am I in this community?

I take up each in turn — and, in this Forum piece, invite others to do the same, in whatever manner seems most appropriate.

Who am I now, and who would I like to be?

Teacher is such a ubiquitous term that some may feel that there is no need to define it — a teacher is one who teaches. Therefore, a Cégep teacher is one who teaches at Cégep. What could be simpler?

Many metaphors have been used to illustrate what we mean by *teacher*: medical metaphors (teachers are doctors, and the students' illness is ignorance), military metaphors (teaching is about instilling discipline and conformity), agricultural metaphors (teachers plant seeds), and even spiritual and religious metaphors (school as sanctuary, and teacher as mystic / priest) (Badley & Hollabaugh, 2012). Weimer (2016) described teaching as midwifery, and teachers as "present at the birth of learning" (para. 3). Cégep teacher educator Denise Barbeau (as cited in Doucet, 2016) has compared teaching to directing theatrical productions or being a gardener, metaphors clearly rooted in Barbeau's notion that the task of teaching "is not to showcase our own knowledge, but to guide students in developing theirs" (in Doucet, 2016, p. 5). She elaborated, using the following felicitous phrase: "a teacher's role is to foster harmonious contact" between the learning task and student (in Doucet, 2016, p. 5).

The fact that so many different metaphors exist to describe what it means to be a teacher, or what it means to teach, suggests that the concept of what a teacher *is,* is not that simple after all. If nothing else, the constantly evolving theories of learning and knowledge would imply a parallel shift in how we understand what it means to teach; we have progressed well beyond the Skinner model of

behaviourism in learning, and teacher as source of punishment and reward. Badley and Hollabaugh (2012) identified three 'clusters' of teaching metaphors that seem to reflect our evolution: transmission, facilitation, and catalyst. Metaphors from the transmission category emphasize teaching as the act of moving information from the source to a destination, often perceived as an empty vessel to be filled with the teacher's knowledge. Much of our common expressions in education are in fact rooted in this perception. Consider, for examples, idiomatic expressions such as *getting ideas across* or *getting through to students*. Badley and Hollabaugh (2012) suggest: "when a teacher attempts to become the sole transmitter and interpreter of knowledge (the *principle source and cause* of learning) within a classroom, meaningful learning is easily undermined" (p. 56).

The notion of the teacher as facilitator is arguably a more commonly used metaphor in contemporary, more student-centered, pedagogy. While a facilitator may seem like a friendlier way to think of teaching, as Badley and Hollabaugh (2012) point out, a teacher must still have knowledge to transmit. Furthermore, as the coaching metaphor suggests, this model of teaching, while maintaining the idea of facilitation, highlights the importance of motivation and inspiration: "Good coaches are able to inspire those they coach to perform at their highest level, whether in training, in competition, or in life experiences" (Badley & Hollabaugh 2012, p. 59).

The teacher as catalyst is one who generates dissonance to inspire learning, by playing devil's advocate, engaging in Socratic dialogue, or simply stirring the pot. Dissonance becomes the irritating grain of sand that ultimately transforms into a pearl. Proponents of the teacher as catalyst claim that students are more engaged in their learning; however, Badley and Hollabaugh (2012) caution that while lively and rigorous debate might engage students, curricular objectives cannot be neglected. Engaging in this approach to teaching requires "exceptional classroom leadership and discussion-leading skills" (Badley & Hollabaugh 2012, p. 63), sensitivity to student discomfort, recognition of boundaries, establishment of safe learning spaces, and recognition of "the ceiling of students' capacity for dissonance" (Badley & Hollabaugh, 2012, p. 64), so that students are not so stressed that they lose sight of the purpose of the task.

The danger with metaphors is essentialism. Just as our identity is multifaceted and ever-changing, so too is our teaching practice. It is not that we do not transmit, facilitate, *or* inspire, but rather we engage in all three, this along a spectrum, in response to the actual context — the subject, the level, whether the class meets at 8 a.m. or 2 p.m., even our own familiarity with the topic — all of which also manifest in particular ways in the Cégep system.

Who would I like to become?

How might we consciously develop our professional identity? As we think about our future as Cégep teachers, it is imperative to look not only at our current practice, but also at our own lived experience as students. Are there teachers in our past who we are, consciously or not, emulating? Are there discipline-specific conventions around teaching and learning that we are relying on by default?

In her extensive review of research on teachers' professional identity, Izadinia (2013) reported that "all studies suggest that having [student teachers] reflect upon their own values, beliefs, feelings and teaching practices and experiences helps shape their professional identity" (p. 699). Becoming reflexive in one's practice includes becoming conscious of the "continued influence of former teachers" (Lortie, 2005, p. 139), and teaching habits hitherto unconsciously embraced, and, most importantly, acting on that consciousness to change our practice. This is not to say that all of those habits are necessarily bad; in fact, as Lortie (2005) pointed out in his seminal study (first published in 1975) people "usually have little difficulty in recalling their former teachers and, particularly, in discussing those they consider 'outstanding'" (Lortie, 2005, p. 139). Lortie's (2005) discussions with teachers, however, revealed that even when they were aware of former teachers' influence, they did not recall those teachers in terms of instructional strategies or assessment practices, but in terms of personal warmth and nurturing. If teachers are to become reflexive practitioners, they can start by recognizing the disconnect between the qualities they remember as "outstanding," which Lortie discovered tend to reflect "nurturant" qualities (Lortie, 2005, p. 140) and those that they identify as important in a professional capacity — and perhaps start to also question why the notion of being nurturing is somehow alien to professional practice. The many hours spent as a student constitute what Lortie (2005) called an *apprenticeship of observation* (Lortie, 2005, p. 61). I spent 24 years watching other people teach, three of them as a Cégep student, before I stepped into a classroom as a teacher myself, and I only deliberately sought out training as a Cégep teacher two years after I had begun teaching. Why was that?

Who am I in this role?

When researching teacher development and identity, the research focus (perhaps naturally) tends toward *new* and *pre*-service teachers, rather than veteran teachers and *their* development. Flores and Day (2006) identified two milestone phases in the professional development of new teachers: "the *threshold* and the *growing into the profession*" (p. 220, italics in original). They characterized the *threshold period* as a confrontation between the new teachers' ideas of what teaching was and the realities of their everyday classroom experience; teachers embarked on their new careers "from a more inductive and student-centered approach" (Flores & Day, 2006, p. 227) but were quickly derailed by the transition shock. The crisis of this transition shock tended, in these teachers, to invoke a shift toward "more

'traditional' and teacher-centered [approach] (even if their beliefs pointed to the opposite direction), owing to problems associated with classroom management and student control" (Flores & Day, 2006, p. 227). As new teachers, they tended to "use the history of their own schooling and [emulate] specific teacher role models" (Enyedy et al., 2005, p. 70). In other words, when faced with challenges in the classroom, teachers tended to fall back on their own experience as students and engage in "strategic compliance" (Flores & Day, 2006, p. 225).

Flores and Day (2006) noted, as did Borg (2004) and Lortie (2005), that this strategic compliance is recognized by new teachers; most have "personal reservations" (Flores & Day, 2006, p. 225) about using conventional methods. Although such methods may temporarily solve the problems associated with transition shock, as teachers *grow into the profession*, they "tend to focus their attention on the improvement of skills, methods and competencies" (Flores & Day, 2006, p. 220). Gradually, tentatively, in "an ongoing and dynamic process which entails the making sense and (re)interpretation of one's own values and experiences," (Flores & Day, 2006, p. 220) these teachers create their own professional identity.

In Cégep teaching, the transition shock for teachers has little to do with entering the profession from particularly progressive pedagogical theories, since most have not studied those theories prior to their entry into the profession. Relying on more traditional teaching practices is perhaps even more prevalent in higher education, simply because so many of us have not been exposed to the evolution of pedagogy through formal teacher training. The real shock for us comes from the realization that our students were not simply younger versions of ourselves. We are faced with students who struggle with concepts that came easily for us, students who do not love our topic — or even school — the way we do, students whose goals are radically different from what ours were. How we cope with that realization and, I hope, how we learn to appreciate those differences and find pedagogical approaches that speak to our students, is a milestone in our developmental journey.

So, what is Cégep?

In practical terms, Cégep is what comes after high school for students in Quebec, and leads either to university studies or directly to the job market. While there are two-year colleges outside of Quebec, the concept — and politics — of Cégep, the *collège d'enseignement général et professionnel*, may be harder to grasp for those who have not encountered Cégep before. One might place it in the same category as junior college, or 6th form, or Grade 13, but, ultimately, Cégep really is not quite like anything else.

Perhaps the most distinct feature of the education system in Quebec is that postsecondary education begins earlier than in the rest of the continent. Quebec students complete high school studies in Secondary V, otherwise known as Grade

11, which means that they typically graduate at 16 or 17 years old. Students are not required to continue their studies beyond high school, and graduation from high school does not allow direct, immediate entry to university-level studies. Most Quebec graduates choose to continue at one of the province's 48 Cégeps.[1] Students can choose to do a two-year pre-university program, such as Social Science, Science, Commerce, or Liberal Arts, or they can opt for a three-year technical program[2], such as Animal Health, Nursing, Aerotech, or Professional Theatre. Certification from the three-year programs denotes professional competence; for instance, students graduating from the Nursing program are qualified to work in Quebec as nurses, without mandatory university certification.

A brief history of the Cégep system

The Cégep system is one of the many outcomes of the political transformation of mid-twentieth century Quebec. In the early 1960s, Quebec was in a period of social upheaval, conventionally referred to as the 'Quiet Revolution' (*la révolution tranquille*), after *la grande noirceure* (the 'Dark Ages'). The *noirceure* was an era marked by almost two decades of conservative governance under Maurice Duplessis' Union Nationale, with heavy influence from the powerful Catholic Church. Based primarily on the work of the Parent Commission of 1963, reform in higher education in the province was intended to address the clear disadvantages of the noirceure hindering Francophone students, as compared with their Anglophone counterparts (Burgess, 1971; Magnuson, 1986). Burgess (1971) noted, for instance, that despite the significantly larger Francophone student population, pre-reform post-secondary education offered the same number of spaces to both English-speaking and French-speaking students. In 1960, approximately 3% of university-aged Francophones were in university, as compared with 11% of Anglophones; in both populations, most students were male, and several programs excluded female applicants altogether (Pigeon, n.d.). Adding to this disparity was the post-war Baby Boom, which created an even larger population of young Francophone adults, competing for a scant 7,500 spaces allocated among the three French universities: Université Laval, Université de Montréal, and Université de Sherbrooke (Pigeon, n.d.). Finally, regional disparity meant that the rural areas (which were predominantly Francophone) were underserved, while Montreal (predominantly Anglophone) was home to the lion's share of post-secondary educational institutions, both French and English (Magnuson, 1986).

The Parent Report

The five-volume *Rapport de la Commission royale d'enquête sur l'enseignement dans la province de Québec*, published between the spring of 1965 and summer of 1966, is more commonly referred to in both English and French as 'the *Parent Report* / le *rapport Parent*.' Under the leadership of Msgr. Alfonse-Marie Parent, a Catholic priest and educator, the commission brought together nine leaders

in education from the English and French communities, to study the crisis in education in the province. The *Parent Report* (Pigeon, n.d.) proposed a major reform, with 500 recommendations, and five main objectives:

1. To provide greater access to higher education for the larger Francophone population;
2. To provide technical and vocational programs of study, in both languages;
3. To instill some form of coherence between the hitherto separate English and French systems;
4. To regulate both systems in order to be more credible and useful both domestically and internationally;
5. To integrate general education, that is, the humanities, into all programs.

The Parent Commission, widely regarded as the catalyst of a seismic shift in education in Quebec, also sparked the creation of the Ministry of Education in 1964, deliberately distancing higher education from the control of both the federal government and the Catholic Church (Durocher, 2015), further establishing post-secondary education as a right, not a luxury (Pigeon, n.d.).

The early days

As its acronym suggests, Cégep (viz., *collège d'enseignement général et professionnel* (college of general and professional education), from its inception, offered two streams, namely, the two-year pre-university track and the three-year technical track. According to Burgess (1971), the Cégep system was consciously designed to be unique, rather than an imitation of an already-existing institution. Cégep is exceptional in that its programs are not parallel to the first two years of university programs, but are conceived of as a transition as well as foundation. Like the British sixth form, Cégep can be a steppingstone to further post-secondary education; however, unlike the British system, each Cégep is its own institution, physically and administratively, and can offer a wider range of programs (Burgess, 1971).

Evolution towards the Program approach

Over the past fifty-odd years, the Cégep system has undergone frequent scrutiny. The Robillard reform of 1993 was the first to result in significant changes, most notably to a competency-based program approach, which is still the model used today. Under this model, courses within a program are designed not only to meet the learning objectives of the individual course, but to work toward a holistic, program-related exit profile (see Figure 1). All programs culminate in a required comprehensive assessment (sometimes referred to as the integrative project) through which students demonstrate their competence in the program's objectives (Dawson College, 2021).

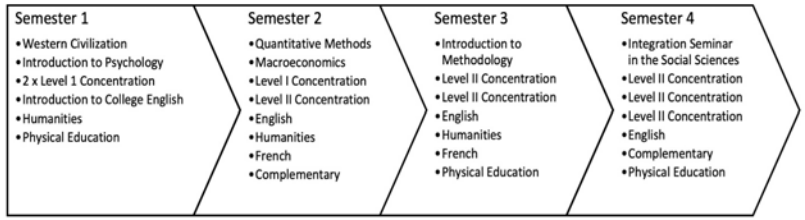

FIGURE 1. *Program grid for social science, adapted from Champlain College (2020). Level 1 and level 2 concentration courses allow students to choose from courses in Anthropology, Biology, Business, Economics, Geography, History, Sociology, Political Science and Psychology.*

Who am I in this context?

Identity is constructed, and it is contextualized — and, as teachers, that context is the classroom, a space that Danielewicz (2001) said we must inhabit as if it is "the most natural place in the world" (p. 10). Importantly, Danielewicz (2001) described the classroom as a social setting, in other words, as a primary site of interaction. This implies that the classroom is a principal site of meaning-making for our students — and ourselves. This notion of classroom as natural habitat also implies that we be prepared to adapt, develop, and even defend that environment.

In higher education, the 'apprenticeship of observation' phenomenon is heightened by the fact that Cégep teachers are employed to teach as experts in individual disciplines — that is, English Literature, Chemistry, Respiratory Technologies — rather than based on their accreditation as teachers. Thus, our individual professional identity, and in turn our pedagogical approaches and attitudes, reflect this non-academic affiliation. In other words, we only become teachers after we have already become a nurse, a sociologist, or a chemist.

In an interview with Isabelle Fortier (2007), Cégep teacher Caroline Chateauneuf reflected on her development as a teacher:

> when I first began as a CEGEP teacher, I considered myself primarily a guidance counsellor. I was eager to defend my professional identity as a guidance counsellor. I was anxious about losing this identity. … During the master's studies program … I realized that my professional identity as a guidance counsellor was affecting my teaching practice. In fact, my teaching and evaluation styles bear a close resemblance to my image of myself as a guidance counsellor. … [T]hrough [reading] and exchanges with other teachers, I realized that my guidance counsellor identity could not be ignored but it could be moulded by my teaching position. Being a college teacher does not mean I lose my identity as a guidance counsellor. It simply means that I am unique in my way of teaching and the way I view my practice. (p. 2)

Similarly, Thornton (2011) has explored the "dual roles of artist and teacher" (p. 31). Thornton's focus was on art teachers, but much of what he found applies to Cégep teachers as well. He wrote that "art teachers for whatever reason (there can be complex motivational factors involved) have chosen to teach" (Thornton, 2011, p. 34), but

> there seem to be a variety of difficulties some experience regarding identity. There are teachers of art who feel uncomfortable because they are not making art. There are artist teachers who feel uncomfortable for not devoting themselves more to teaching. There are artist teachers who believe they can only function in both roles if they keep them separate. There are artist teachers who are concerned not to impose their own ideas as artists on their students. There are artists who work in residencies who are not sure whether to act as teachers or artists when working with students. There are artists who are determined never to teach for fear of losing their identity as artists. (Thornton, 2011, p. 35)

These struggles of artist / teacher identity can be extrapolated to the larger post-secondary teaching community, and to the idea that our sense of professional identity directly influences our practice, regardless of discipline. Enyedy et al. (2005) point out: "A missing component in the construct of [teacher] identity is practice" (p. 71). While our competence as teachers is based in our knowledge — both pedagogical and disciplinary — and our beliefs about learning and about our subject matter, these factors are "mediated by a teacher's multiple, professional identities" (Enyedy et al, 2005, p. 69). These identities, in turn, lie "at the intersection" (Enyedy et al, 2005, p. 71) of personal history and culture, and community of practice. Izadinia (2013) echoed this when she wrote that teacher identity lies at "the intersection of personal, pedagogical, and political participation and reflection within a larger sociopolitical context" (Izadinia, 2013, p. 694).

Being a Cégep teacher

Ideally, Cégep is a valuable learning transition stage for students, and the size and distribution of the system supports the creation and delivery of a wide range of three-year programs, sustained by the larger infrastructure of each college. Programs such as Dental Hygiene (offered only at John Abbott College in English, and in only two Francophone colleges) or Aerospace Engineering, offered exclusively at Edouard-Montpetit's School of Aeronautics, would likely not be viable as stand-alone schools, but the multidimensional and multidisciplinary nature of the Cégep system allows them to flourish. At the same time, the fundamental curriculum of most Cégep programs, with their emphasis on relatively small class sizes, means that post-secondary education can be offered in areas of the province that might not sustain a university.

Many of us, as reflected in my research on Cégep teaching (McDonnell, 2020), are well aware of the distinct nature of Cégep, even if it is not always easy to

articulate. For one thing, we have class sizes that are more amenable to interactive, collaborative learning strategies.[3] Whereas university courses often take place in large lecture halls with enrolment of over 100 students, in Cégep, even first-year courses are significantly smaller — no more than 40 students, and deliberately so.

For this reason (among others), Cégep can be an attractive teaching opportunity. Further, most Cégep teaching positions (pre-university or technical) require a master's degree or equivalent, rather than a doctorate.[4] Furthermore, Cégep teachers are not required to conduct research, publish, or present their work at conferences, although many institutions support individual teachers who wish to pursue such endeavors; several institutions have affiliations with grant-funding organizations such as Social Sciences and Humanities Research Council (SSHRC) or Entente Canada-Québec. Although informally, Cégep teachers may use the term 'tenure' to refer to permanent status, there is no tenure process at this level; teachers accrue seniority and achieve *permanence* after a certain number of consecutive full-time contracts.[5] Teaching in Cégep is a largely autonomous affair. Teachers are not accountable to parents and in fact, by law, teachers cannot discuss student performance or progress with parents of students over 18.

Teaching in Cégep, for those who love teaching, can therefore be incredibly rewarding. Like any profession, it comes with its good days and bad days, its highs and lows, its annoying colleagues as well as ones who become fast friends. New teachers may find themselves languishing in a Continuing Education or part-time wasteland for some time; however, unlike the university setting, there are no adjuncts or limited-term appointments. It may take time to get to achieve job security, but once in the door, you are on your way.

Who am I in this community?

Just as the term *identity* is complex and layered, so too is the term *community*. We embody several identities, finding ourselves as members of several communities. Our several identities interact and intersect, just as these different communities overlap and exert influence on each other.

In our professional identities as Cégep teachers, we participate in some communities actively and consciously, others less so. From our very first day on campus, we have already interacted with Human Resources (HR) colleagues, our faculty dean, and a few department members. Soon after, we get to know our students — each classroom becomes its own community, with its own dynamic and momentum. Over time, we get to know our department colleagues, and likely other teachers, and sooner rather than later, we start to feel inextricably part of this place.

More subtly, we also become embedded in the culture of the college, and the larger, perhaps less tangible, idea of the Cégep system. As reflective practitioners, we need to understand the values and mission of that system, because those values, and that mission, are at the core of what we do.

Organic communities of practice

One of the most rewarding aspects of Cégep teaching is the opportunity to just sit down and *talk* with colleagues. Over the past twenty years, I have participated in countless conversations about teaching — in the hallways outside our classrooms, in our offices, over drinks after department meetings, even at dinner parties, much to the exasperated chagrin of our respective partners. We have talked about great books or articles to use in class, shared ideas for assessments, sought help in dealing with challenging students, argued over commas in department motions, and vented about administrative decisions.

Some new teachers are fortunate to encounter a more experienced colleague who becomes a mentor. More often, what we find instead are *mentoring moments*. These moments share a few characteristics: they are typically peer-to-peer dialogues (although not exclusively); they are mutually beneficial (both parties get something from the dialogue); they may arise from a crisis but are not really designed to solve a problem — rather, they allow both people to explore ideas, share experiences, and brainstorm strategies, without trying to find *the* one-and-only way to deal with the crisis.

So, for example, I might engage in a discussion with my colleague Jane about our deadline policies, perhaps because one of us is dealing with a situation that has made us question our current policy. I will talk about what my policy is, and Jane will tell me about hers. We will naturally talk about how our policies differ — maybe Jane refuses to accept any submissions more than three days after the deadline, whereas I accept them but provide no feedback, or deduct 5% for each day late. Perhaps I will realize that my policy now is pretty different from what it was five years ago, and we will talk about what changed and why — maybe I have stopped deducting marks for late submissions because I reflected on that practice and came to the conclusion that I wanted the grade to reflect the work done, not the time management. Maybe it is the other way around, and I have realized that I want students to learn how to manage time and workload, so my deadline policy now reflects that desire. Jane and I might talk for an hour or so, sipping tea, sharing stories of students who have tested our policy patience. In the end, maybe one or the other of us will adjust her policy; maybe neither of us will make any changes. No matter what, we both will feel more confident in our policy. In discussing, exploring, challenging, reflecting, we have come to understand better why our policy is what it is. We can better articulate the *how* and *why* of our policy.

If *how* we spend our days determines how we spend our lives, then *who* we spend those days with also determines how we feel about our lives. Good colleges will support teachers with resources and training, but good colleagues will also support each other — and this, I found in my time there, was one of the greatest defining 'moments' not only in shaping me as a Cégep teacher, but in understanding what that meant to me.

REFLECTIONS

The teacher we are today is not the teacher we were yesterday, nor the teacher we will be tomorrow, or next year. If professional identity is indeed a "sum of sub-identities in harmony" (Avidov-Ungar & Forkosh-Baruch, 2018, p. 185), then a Cégep teacher is a complex creature indeed. Like any other professional, we are at our best if we are willing to be reflective, asking ourselves not only *who am I now?* but also, *who would I like to be?* We must understand ourselves in the context of Cégep teaching, and how that context determines our role. We must also understand ourselves as members of communities, both large and small, formal and organic. The large-scale, historic mission of the system resonates, perhaps, but we are most authentically ourselves, and continue our development professionally and personally, when we find ourselves within our local, organic community of Cégep practice.

NOTES

1. In 2009, Quebec had the highest rate of post-secondary graduates, with 71.7% of Quebecers between 25 and 29 with a post-secondary diploma. The national average in the same year was 65.2% (Statistics Canada, as cited in Perron, 2011). Perron (2011) credits the Cégep system, introduced in the 1960s, with taking the province from the lowest rate of education — an average of only eight years of schooling in the 1950s — to the current level of performance.
2. 'Pre-university' and 'technical' are the terms used by the Quebec Ministry of Education (Ministère de l'éducation et de l'enseignement supérieure, 2021) to describe the two college-level program categories. Some colleges, and some members of the college community, use other terms, particularly with regard to the technical programs. These programs may be referred to by some as 'vocational,' 'career,' or, simply, 'three-year' programs.
3. Note that unlike the corresponding university-level progression, course size is less likely to change over the course of the students' progress through their program, as shown in the figure below (McDonnell, 2020). As such, even with foundational courses designed to introduce students to foundational concepts and a broad general knowledge of the subject, teachers have more opportunity to engage in the facilitator model of teaching and learning.

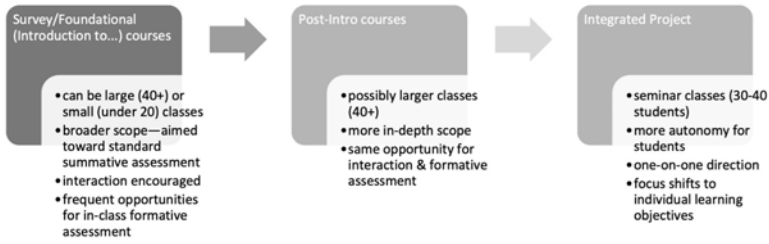

FIGURE 2. *Progression and relative class size in Cégep program courses.*

4. Depending on the program and college, minimum requirements vary; however, a review of local Cégeps confirm that most programs require a master's or equivalent.
5. Article 5-2.00 of the FNEEQ (Fédération nationale des enseignantes et des enseignants du Québec) Collective Agreement (2016) outlines several paths to permanent status. Different colleges, and different departments, have different numbers of available full-time teaching positions, so that it may take as few as two years of full-time work, or as many as five, to become permanent.

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ON IN-NESS: WHAT CÉGEP TEACHING KEEPS TEACHING ME

MAGDALENA OLSZANOWSKI, *Concordia University*

ABSTRACT. A first-person essay on the ways that Cégep teaching is different from teaching at a university. The reflection explores how belonging — an "in-ness" — is enacted within a creative arts department by focusing on various experiences from being hired to navigating teaching online during the pandemic. By doing so, the author recognizes how they come to understand and promulgate belonging in the classroom.

SUR L'APPARTENANCE : CE QUE L'ENSEIGNEMENT AU CÉGEP CONTINUE DE M'APPRENDRE

RÉSUMÉ. Un essai à la première personne sur les différences entre l'enseignement au cégep et à l'université. Cette réflexion explore la manière dont un sentiment d'appartenance est mis en œuvre au sein d'un département des arts créatifs en se concentrant sur différentes expériences, de l'embauche à la navigation de l'enseignement en ligne pendant la pandémie. Ce faisant, l'auteure reconnaît comment ils en viennent à comprendre et à promulguer le sentiment d'appartenance dans la salle de classe.

"You're in!" an enthusiastic voice announced on the other line. I recognized the voice because I spoke with its owner a few days ago, in an interview for a teaching post.

My interview was at the end of a heat wave in September. I sat at a round table in an HR office, sweating, and fumbling to provide cogent answers on how I would teach conceptual art and Sophie Calle to students who may be in the Arts, Literature, and Communication program, but whose interest stopped at the scheduling of their timetable. Somehow, it all came together.

"It's your new chair from Arts, Literature, and Communication," they continued.

"I got ahead of myself, but you got the job."

I collected my bearings, standing in the narrow gap between my bed and desk, elated, and dizzy from toddler-induced sleep deprivation.

"Your pedagogical methods really impressed us, Magda. You begin on Monday. I know it'll be the 3rd week of class, but I've contacted the teachers that previously taught your courses and asked them to send you their materials. Everyone will help you as much as they can, and you'll see, our students are the sweetest. They know a replacement is coming. You will fit right in."

I had four days to prepare for three new courses in a new department in a new academic system.

"Don't worry. Most new hires have this initiation — an immediate dive into the deep end."

She wasn't kidding.

A similar story plays out with most of my friends who begin their Cégep careers: perpetually catching up, reading as much as we can about what and how we are supposed to teach. Graduate studies prepare us to be researchers, not educators.

Yet, even with an abrupt start, new hires flourish because of the resolute support among Cégep teachers. Unlike in the university system, new faculty are not seen as expendable transient outsiders. The environment doesn't depend on competition and scarcity (Bowering & Reed, 2021).

The onset of emergency online teaching in 2020 echoed this dive into the deep end — my department came together in a manner highlighting care, patience, and optimism towards each other and our students.

This experience revealed what kind of teacher I want to be, how I want to engage students, and how the collectivity between teachers extends to our relationships with the students. As such, I yielded to the potential of a Cégep classroom: a space that facilitates and encourages an exploration of one's interest and practice within the program, that can still fulfill the program's competencies.[1] My focus became more workshop-style and process-oriented. Pragmatically, that meant, for example, changing my rubrics to recognize the importance of production and technical mistakes, mishaps, etc. Reflections on the process also became an indispensable, validated, and graded part of the work.

Patience and mindfulness became paramount in this generative approach. I clarified to my students that my questions and comments on their work were not meant as interrogations but rather an engagement in critical dialogue; a way of showing curiosity and thinking through something with them (Massumi, 2010). We don't learn by slogging through an assignment for a grade. Or, if we do, at

best we learn the tactics of what will get us the grade we want. It teaches us how to manage the work we are obliged to do rather than the work we want to be doing. The pandemic allowed me to lead by example and enable my students to reflect on "what brought them to their work [and] what they brought into their work" (Ahmed, 2021). To be "into" something is a movement and action towards that something, to support it and to also be supported by it — in this case, the Cégep community of learning.

By way of Sara Ahmed's *Queer Phenomenology* (2006), it is my responsibility to furnish our classroom space with a table that is large enough and comfortable enough for every student's movement. This was accentuated in 2020-2021 at the peak of the COVID-19 pandemic, when differences between us were heightened. While studying at Cégep, most students are still living at home but need their own space and independence. This often-unwelcome blurring of home/school space became apparent during the pandemic. Students were calling into class on their phones from their cars, unable to go anywhere, turning on their mic only to immediately turn it off again when competing with their home soundscape. There was no table for us to sit at together and orient ourselves, so I asked them to imagine one. The question that remote learning forced us to face still stands today: how can we sustain an equitable space of "you're in" in a classroom that is an abstract space of avatars and small rectangles monitoring our position in front of a screen? Even if implausible, we keep experimenting.

"You're in" is a simple phrase, yet expansive in belonging. This in-ness is what Cégep teaching keeps teaching me.

NOTES

1. Programs have specific competencies that students must acquire. A competency is: "an ability to act, succeed, and progress that allows one to apply in varied spheres of activity forms of knowledge (content knowledge, skills, attitudes, etc.) acquired in a specific context." (Côté, 2015, p.5)

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DERRIÈRE LE LUTRIN… LE DÉSÉQUILIBRE QUI M'INSPIRE

TERRY PROVOST *Collège Dawson*

RÉSUMÉ. Cette réponse veut s'engager dans la conversation qu'ont éveillée Maggie McDonnell et Teresa Strong-Wilson au sujet d'identité professionnelle. Qui suis-je comme professeure d'histoire de l'art au niveau collégial? Alors que de nombreux cégeps instaurent à l'instant des approches de décolonialité pour rendre plus juste leurs cursus scolaires, je remarque une apathie chez les étudiants, voire une résistance qui semble endurcir avec la croyance de multiculturalisme. Dans ce partage, je passe en revue quelques défis et les aspects de mon rôle aux multiples facettes qui me préoccupent.

BEHIND THE LECTERN: THE MOTIVATING INSTABILITY OF TEACHING

ABSTRACT. This response piece engages in the conversation initiated by Maggie McDonnell and Teresa Strong-Wilson on professional identity. It ponders the question of my role as a college-level professor of art history. Whereas numerous academic institutions have started to decolonise curricula to promote diverse perspectives, certain students, believing multiculturalism applies to all across the board, show indifference in learning decolonised points of view. Here, I examine some of these challenges and the several sides of my role as teacher.

De nombreux cégeps instaurent à l'instant des approches de décolonialité pour aborder les pratiques de jadis qui marginalisaient certains savoirs des groupes subalternisés, pratiques perdurant autour du cursus scolaire d'aujourd'hui. En tant qu'éducatrice d'histoire de l'art à un cégep, je remarque chez les étudiants une certaine apathie que j'attribue à la naïveté ainsi qu'à la résistance d'explorer d'autres perspectives que les leurs. Cette indifférence devient encore plus prononcée lorsque l'idéologie de multiculturalisme est tenue pour acquis un remède de longue date censée avoir fait florès de rétablir l'égalité des chances pour tout le monde. J'ose dire que plusieurs cégepiens dans mes cours — francophones

autant qu'anglophones — préfèrent se fermer les yeux et adopter cette optique trompeuse au lieu de sonder les injustices du passé qui continuent d'ébranler le statut des groupes racisés. Ce sont ces enjeux que me préoccupent dans mon parcours d'enseignant et je me demande constamment : comment puis-je enseigner des sujets brûlants afin que tout apprenant participe au processus de conscientisation?

En leur parlant de l'esclavage, de la colonisation, de l'assimilation culturelle et de l'expropriation à travers l'art visuel, je constate un écart entre le contenu enseigné et la réalité vécue et héritée par les descendants des groupes subalternisés. Plusieurs apprenants — surtout ceux s'identifiant au courant dominant — ne peuvent pas imaginer ces thèmes, vu qu'ils ne sont nullement touchés par les retombées néfastes durables. C'est à ces moments qu'un sentiment d'inaptitude m'envahit, sentiment qui m'inspire néanmoins à me redresser et à trouver d'autres moyens d'engager les étudiants. Je passe des heures à songer à des façons d'aviver l'empathie et de soulever des questions au regard des automatismes à caractère colonial, lesquelles influencent encore notre manière de voir, d'apprendre, de penser, de valoriser, de classer et d'apprécier les esthétiques en beaux-arts.

Quand bien même mes collègues promeuvent les nouvelles approches, certains d'entre eux évitent de présenter de la matière atypique et controversée aux étudiants par crainte de les outrer et de ne pas savoir par la suite gérer l'énergie affective de la classe. Cette peur et l'inaction ne font qu'épauler les modèles didactiques du statu quo qui excluent certains savoirs issus des groupes non hégémoniques. Ainsi, dans notre communauté d'enseignants s'efforçant à instaurer du changement, alléguer des pratiques décoloniales ne se traduit pas forcément en action, ce qui me contrarie. Ces pratiques restent à réaliser de manière uniforme parmi des enseignants et de manière pragmatique lors de l'apprentissage. La timidité pédagogique risque de freiner la transformation de notre façon d'enseigner de même que de démentir aux apprenants les moments de découverte propices qui pourraient mener à des nouvelles perspectives d'ouverture.[1]

Sont indispensables les approches décoloniales qui parviennent à sensibiliser les étudiants aux enjeux portant sur le passé impérialiste, sa taxonomie des espèces humaines, son racisme normalisé et ses savoirs.[2] Selon Nicolas Beauclair (2015), la décolonialité provient d'un cadre théorique du sociologue Immanuel Wallerstein qui examine la hiérarchie capitaliste mondiale dont « les Européens [blancs] occupaient le sommet » (p. 67-68). Aussi ce cadre vise-t-il à mobiliser les causes des groupes marginalisés et à les faire participer pleinement au processus de conscientisation. Beauclair (2015) semble préconiser l'interculturalité comme moyen efficace d'y parvenir, vu que les échanges interculturels donnent aux dépossédés une plate-forme d'autorité, de légitimité et de reconnaissance pour négocier des interventions (p. 68-69). Mais d'après moi, même ces échanges sont ancrés dans les réseaux de pouvoir qui pourraient empêcher de vrais changements menant à l'équité pour les défavorisés.

Alors, qui suis-je en tant qu'enseignante? Derrière le lutrin — place de pouvoir, de vulnérabilité, d'humilité et de transcendance, je me sens quelque peu déséquilibrée, assumant le triple rôle de professeure, d'animatrice et d'apprenante. Je dis « déséquilibrée », car en situation d'enseignement instantané, l'imprévisible et les réactions d'étudiants réclament que je fasse d'emblée des ajustements. Toutefois, ce personnage tripartite se complexifie et s'enrichit par l'entremise d'expériences vécues et du capital culturel qui construisent l'identité — mon identité — de façon continue. Je suis professeure au sens d'être diplômée d'un doctorat et d'avoir des habiletés requises pour enseigner. De plus, mes expériences de conférencière pendant mes études des trois cycles supérieurs m'ont bien servi dans le rôle d'animatrice. Les présentations de recherche, les exposés oraux, les débats sur les faits contestés et les répliques vives repensées à l'avance en préparation du questionnement imprévu, sont devenus des compétences inculquées dans mon personnage universitaire, lesquelles se prêtent facilement au rôle d'animatrice d'apprentissage lorsque je donne un cours magistral au lutrin.

Mais c'est mon rôle d'apprenante, étant à la fois formel et populaire, qui m'éblouit parce qu'il s'avère le plus dialogique des trois. Ce rôle, lié à mon moi supérieur, comporte une relation intense entre mes identités d'apprenante formelle, soit étudiante scolarisée, et d'apprenante ordinaire. Celle de l'étudiante me rappelle mon parcours universitaire, les évaluations sommatives imposées par les institutions académiques, les luttes pour valider mes recherches, les attitudes détestables et admirables des professeurs qui m'ont marquée à fond et les obligations déontologiques qui ont depuis lors informé et peaufiné mon savoir-agir professionnel. Enracinée dans la culture scolaire compétitive et égoïste, cette identité — œuvrant pour l'exactitude et la clarté — donne forme à mes pratiques enseignantes. En revanche, l'apprenante populaire en moi est toujours activée, avide de connaître et de voir le nouveau. Elle est la personne qui apprend de la vie et donc des situations ontologiques et existentiels. C'est elle qui me chuchote chaque matin, *Que vas-tu vivre aujourd'hui? Que vas-tu devenir?* Elle est celle qui voit plus lucidement les interconnexions dans le monde, qui s'avère plus humaine et douce, et qui rentre en dialogue avec d'autres identités de mon moi, et ce, m'orientant vers de longs intervalles de réflexion.

C'est alors cet amalgame identitaire qui me permet de m'identifier avec mes étudiants et de me voir à travers leur regard. Comme apprenante « à l'écoute », j'encourage leur partage d'idées sur l'art tiré du vécu. Puis en même temps, j'apprends réciproquement d'eux. Or, j'ai toujours l'impression de ne pas faire assez pour susciter l'intérêt pour les artistes subalternisés. À titre d'exemple, en présentant les tableaux du 19e siècle de Paul Kane (Canadien irlandais), de Cornelius Krieghoff (Canadien hollandais) et de Zachary Vincent (Huron-Wendat), tous traitant à sa façon les autochtones, j'observe que Kane fait souvent sujet de l'exposé écrit. Pourquoi ce choix? N'ai-je pas bien présenté Vincent? Peut-être s'agit-il d'une plus grande quantité d'écrits sur les artistes coloniaux, disponible à la bibliothèque et sur Internet, et ce, facilitant sans doute la tâche de recherche

pour les étudiants. Ce fait ramène à la question des communautés de pratique et à la nécessité de rénover les modes d'apprentissage habituels qui excluent.

Et d'autres constats qui me tracassent? Les cégepiens sont d'âges mixtes. Ainsi, je me soucie constamment de la matière, à savoir si elle est trop facile pour les plus âgés ou trop difficile pour ceux qui viennent directement du secondaire. S'ennuieront-ils en raison du pédantisme, étant donné qu'outre des mouvements artistiques, je dois aussi leur faire apprendre à « lire » et à déchiffrer des compositions picturales en utilisant une panoplie de termes et de méthodologies propres à l'histoire de l'art et à la littératie visuelle. Malgré ces exigences, je tiens à cultiver chez les étudiants l'empathie qui me paraît tantôt innée, tantôt acquise du vécu. C'est l'empathie qui déclenche, dirais-je, l'ouverture d'esprit, la curiosité intellectuelle, l'appréciation de l'autre et l'attitude d'inclusion. L'empathie fait de nous des citoyens sains, larges d'esprit. Suis-je un tel modèle pour mes étudiants? À part les activités muséales et les travaux pratiques habituels, comment puis-je les impliquer davantage dans la communauté de pratique de façon innovatrice?

Je crois sincèrement que, pour réifier une communauté de pratique légitime, il faudra une volonté collective que l'on pourrait actionner. Aussi faudra-t-il que toute partie prenante — au lieu de rester excessivement prudente jusqu'au point de passivité — s'engage pleinement à agir sur l'initiative de collaborer et d'intervenir de manière responsable. En sus, on devrait entraîner le plus possible les apprenants dans les processus de négociation de sens et de conscientisation. Mettraient-ils la décolonialité dans la même catégorie que *Critical Race Theory*, théorie du cursus états-unien provoquant à présent tant de controverse en tant que pédagogie censée culpabiliser les blancs? Je l'ignore. Mais je me sers des échecs et des incertitudes, y compris les critiques notées dans les évaluations de l'enseignement, comme tremplin d'espérance, lequel me permettrait d'améliorer le cours, de me surpasser et de repenser des techniques plus gagnantes pour mes étudiants. Ce que je deviendrai dans ce rôle demeure un grand point d'interrogation.

NOTES

1. Vincent Berry (2008), dépouillant les théories d'Étienne Wenger, dit que la communauté de pratique comprend l'apprenant, sa participation active et sa négociation de sens des concepts, procédé qui puisse entraîner des modalités « conflictuelles ou harmonieuses, privées ou publiques, compétitives ou coopératives » (p. 27).
2. Je fais allusion à l'ensemble des doctrines justifiant la domination hégémonique d'un groupe sur d'autres, qu'explicitent Monique Eckmann et Miryam Eser Davolio (2002): « Ce rapport de domination, qui utilise des découpages en termes de races ou d'ethnies, fonctionne principalement selon deux modèles : le modèle de l'ordre colonial – rapports de domination et d'exploitation – ou le modèle du nazisme – racisme d'exclusion et d'extermination » (Chapitre 1, paragr. 2).

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LESSONS FROM THE JUNK DRAWER: POSSIBILITIES FOR SUSTAINABILITY IN ART EDUCATION

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ABSTRACT. From planetary warming and natural disasters to pollution and community unrest, the sensorium of the climate crisis pervades our daily life. Art education has the potential to help us better understand the sensory reality of the climate crisis. However, the materials used in artistic creation are ecologically unsustainable and therefore may hinder learner's connection to ecology. Through exploring the metaphor of the junk drawer, the author positions materials as potential teachers and, subsequently, as important parts of meaningful teaching and learning. The article explores the pedagogical impacts of different art materials while arguing that sustainable materials can lead to eco-consciousness for educators and students.

VERS UNE ÉDUCATION ARTISTIQUE, ENVIRONNEMENTALE ET NÉO-MATÉRIALISTE

RÉSUMÉ. De réchauffements planétaires et catastrophes naturelles à la pollution et les troubles communautaires, le sensorium de la crise climatique imprègne notre vie quotidienne. L'éducation artistique a le potentiel de nous aider à mieux comprendre la réalité sensorielle de la crise climatique. Cependant, les matériaux utilisés dans la création artistique ne sont pas écologiquement durables et peuvent entraver la connexion des apprenants avec l'écologie. En explorant la métaphore du tiroir fourre-tout, l'auteur positionne les matériaux comme des enseignants potentiels et comme des éléments importants de l'enseignement et de l'apprentissage. L'article examine les impacts pédagogiques de différents matériaux artistiques tout en soutenant que des matériaux durables peuvent conduire à une meilleure conscience écologique pour les enseignants et les étudiants.

"Objects, materials, and the processes surrounding them have roles in the decisions and choices we make in our lives." (Garber, 2019, p. 9)

As a child, I loved the junk drawer. I noticed this was a place where things went to die. Things went in and rarely went out. I would spend afternoons rifling through the drawer and fashioning new objects with the dead ones—guitars that were elastic bands connecting every nob in the kitchen, games that were played

with old coins and balls of tape that could never quite bounce. My early life was also coloured with memories of mixing plastic paint with plastic brushes onto canvas. When I painted with purple paint, I could feel the lilac and lavender we had in our garden. When I painted the white birch tree, I could almost feel my feet climbing it. I didn't know the toxicity of art materials and that I was hurting our planet and myself when I was trying to deeply connect with the beauty of creation. These materials were not good teachers, not only because they created pollution but because of what they communicated. They taught me that abundance did not necessitate connection. They taught me that excess should be the expectation. They taught me to make art in the way our production system makes goods — quick, and in excess. They didn't shed any light on the complicated relationships between material and culture — but the junk drawer did. Throughout this article, I will be expanding on the lessons of the junk drawer by asking the following question: could reusing materials promise a more sustainable future for the creation of art and for our relationship to the land?

As a white settler-Canadian, I will be investigating this through a limited and potentially biased perspective (Sensoy & DiAngelo, 2017, p. 39). I will be referring to Art Education in the North American settler context, which leaves out other experiences of Art Education, creative reuse, and environmentalism. I will be looking through the lens of new materialism and Indigenous materialism (Rosiek et al., 2020) — both of which explore on non-human agency and new materialism view objects as potential teachers.

"Who and what teaches?", is a question that post-humanist and new materialist frameworks explore while discussing pedagogy (Bayley, 2018; Garber, 2019). We usually consider teachers to be 'living' entities that deliberately deliver information to other 'living' entities. What if we expanded our definition on teaching by considering our role in the realm of matter? Through considering the "dynamism of forces" (Barad, 2007, p. 141), we can become cognizant of our entanglement to matter and intra-action with objects. To be entangled with an object is to be surrounded by, immersed in, and composed of matter. A new materialist philosophy of immanence assumes "all matter is one, intelligent, and self-organizing and includes assemblages of both human and non-human, organic and techno-others" (Braidotti, 2019, p.45). This definition allows for the complex "relationship between people and things, including political, economic, technological, aesthetic, sensorial and emotional processes" (Fuglerude & Wainwright, 2015, p. 1) to become all part of one connected material world. Rather than coming to understand our surroundings through thought, we come to understand our environment through messy-meaning and intra-action (Fuglerude & Wainwright, 2015, Rosiek et al., 2020). Therefore, matter is not passive but informs our ways of being and mirrors our current world (Garber, 2019).

Our current world is facing the materiality of the climate crisis. From plastic beaches and violent storms, to mass planetary movement and toxic bodies, the sensorium of climate crisis defines our current ethos. It not only an environmental, but is a human crisis because it means a slow, painful devastation of our personal ecologies and communities (Graham, 2007, Solnit, 2014). Art education often brings communities together and elicits social change (Hicks and King, 2007). Paradoxically, the materials used in artistic creation can lead to environmental issues and may not further a learner's connection to ecology (Davis, 2015). Since visual art centers around the creation of objects using matter, it has the potential to inspire people to reconsider how they relate to objects and matter (Garber, 2019). Creating art using solely materials that are divorced from nature further segregates us from our environment. Through recent years, it has been shown that reusing materials for artistic means can lead to sustainable awareness through redefining consumption and materiality (Garber, 2019; Girak, 2019; Inwood, 2013; Sang, 2010). I am concerned with how creative reuse in art education can instill a different relationship to objects - one that can lead to an expanded environmental and material awareness.

My interest in creative reuse has always been a hobby that ran parallel to my art practice. I have been fascinated by the artists like Valerie Blass, Louise Bourgeoise, David Altmejd, Eva Hesse, Giorgia Violpe and Yevgeniya Gaganovich who used found materials in their works. I have built small dioramas with recycled materials and translated these 3D assemblage works into big paintings, made sculptures using old fruits, wax and hair, and made quilts using old fabrics found at depots. Sadly, nothing seemed compete with the vibrancy of oil paints or the flat void of acrylics. These were the materials that raised me and taught me what art is. When I studied art technique, these materials were presented as the objective framework of artistic creation. Later, when I taught art to my students, these were the materials that filled the storage unit, coloured the canvases, and clogged the drains. I was bringing up a future generation of artists the same way I was brought up, under the assumption that I was their teacher, and the materials were merely tools of the imagination.

This artistic approach seemed to be fulfilling for my students, until I had a student challenge this framework by refusing to take a canvas for the project we were working on. When I asked why, they responded by saying "I am just going to make something and then throw it out, which will hurt the planet even more." Despite my prior interest in environmental anthropology and ecologies, this was a paramount moment for me as an educator. I began to ask myself bigger questions about art, education and climate crisis such as, "What is pedagogy when all of the tools are treated as separate material entities? How can a philosophy of immanence lead to a more holistic art education that leads to planet preservation?" I started to research my art materials from their production to their demise on the ACMI (The Art and Creative Materials Institute) and the chemical safety page on the Government of Canada website.

Through this formative research, I learned how the oil economy defines our current epistemologies. Common pedagogical art materials like gel watercolour paints, Crayola markers and tempera paint all contain plastic and are produced as cheap and quick as possible. Their fate in the classroom is of a similar nature - they are used quickly due to the expectation that learning happens through ample production. The materials dictate speed through their fast-drying qualities and through this, embed the capitalistic epistemology that quick production is the proof of learning. Aesthetics are necessitated through consumption - this is what these materials taught me. Once the materials have been used up, they are discarded down the drain or into the garbage. Their ghosts live on as micro-plastics haunting the water and making their way into our food and bodies, further blurring the line between human and plastic (Davis, 2015).

Is creative reuse a solution to the aforementioned educational issues without current art materials? Reusing old materials can be a transient solution that allows us to deal with our waste as the means of production slows down (Lorrie Blair, personal communication, 2018). However, an all-encompassing material shift is necessary to combat the climate crisis, and each discipline must look at what this means for them (Inwood & Kennedy, 2020). I argue that in art education, we have to start asking what our materials are teaching us and we have to base our material choices on what is safest for the earth and what can impact our understanding of nature and the climate crisis best.

Art educators can do this by turning back to the lessons of the junk drawer. It was in this small space that I first saw the epistemological potential in discarded objects. Certain objects from that drawer still remain my teachers. The string that seemingly lasted forever was a metaphor for how materials transcend time. The elastics that I stretched out and plucked showed me that music is everywhere. The styrofoam balls taught me that plastic can become so small that is pretends to disappear. Through connecting to the lessons of the junk drawer, I will continue to research the potential power creative reuse may have to harness a philosophical shift that moves us further from petrocultural practices and closer to "art for earth's sake" (Gablik, 2002, pp. 7-21).

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BOOK REVIEW / COMPTE-RENDU

PEYTON, J. K., & YOUNG-SCHOLTEN, M. (Eds.). *Teaching Adult Immigrants With Limited Formal Education: Theory, Research and Practice*. Bristol: Multilingual Matters. (2020). 208 pp. $34.95 (Paperback). (ISBN 978-1-78-892699-7).

Around the world, 750 million adults live in unstable conditions where conflict and poor infrastructure limit their access to formal schooling and threaten them with displacement. This figure grows every year, as does the number of displaced people who settle in a new land and need to learn a new language. Many governments have responded by creating newcomer education programs, but only recently have the specific language learning needs of adult newcomers with limited formal education gained significant scholarly attention. As a result, resources for teaching these learners are scarce and scattered. Peyton and Young-Scholten's recent volume — *Teaching Adult Migrants With Limited Formal Education: Theory, Research and Practice* — represents a major step toward rectifying this problem, providing a concise reference work informed by a nearly decade-long project entitled *European Speakers of Other Languages: Teaching Adult Migrants and Training Their Teachers.* Although the resulting text is steeped in the European tradition of language education, it remains valuable to any researchers and teachers of migrant adult language learners regardless of geographic area.

The volume contains seven chapters. The first provides important context from second-language acquisition research, concluding with a thorough description of the research project on which the volume is based. Chapters 2 and 3 offer theoretical overviews of literacy acquisition from a social and psycholinguistic perspective, respectively. The most significant contribution of Chapter 2 is its discussion of variation in the cultural significance of literacy and the implications of this variation on teaching practice. Chapter 3 goes beyond pure psycholinguistics, not only explaining the various skills that make up print literacy, but also offering a welcome introduction to critical literacy instruction and extensive reading. Chapter 4 addresses vocabulary, providing much-needed guidance on practical matters such as developing vocabulary knowledge that is both broad and deep. Chapter 5 discusses morphosyntactic (that is, vocabulary and grammar) development, one of the few topics in this book to benefit from

an extensive body of research specific to adults. Chapter 6 makes a compelling argument for the importance of helping adult learners to support their families' multilingual development. The final chapter ties together loose ends through a discussion of strategies for teaching and tutoring adults with limited formal education.

The lack of a solid research base on adult language and literacy instruction is a self-perpetuating cycle; it is difficult to research a topic when there is so little prior work to build on. However, this volume overcomes this hurdle by leveraging research on first-language literacy acquisition and adult second-language acquisition to draw conclusions about teaching adults with limited formal education. For instance, Chapter 3 extrapolates from research on children's reading development to that of adults, resulting in a detailed overview of the development of literacy skills, from decoding and phonetic awareness to textual interpretation. In contrast, Chapter 5 benefits from a comparatively strong research base on the morphosyntactic development of adults with limited formal education. However, this research deals predominantly with European adults who have migrated within Europe, raising the question of whether its findings can be simply extended to the linguistically and culturally diverse classrooms of today.

At times, chapters seem lacking in theoretical cohesion. This is particularly apparent in Chapter 6's treatment of multilingualism and home language maintenance, a vitally important topic for teachers of newcomers to understand. For example, a several-page discussion of the linguistic and cognitive costs of multilingualism ends with the paradoxical admonishment that these should "not be interpreted as disadvantages" (p. 111). The chapter concludes with a much-needed discussion of specific language impairments among multilingual children and a reiteration of the benefits of supporting children's multilingual development. However, due to the deficit-oriented and sometimes confusing information presented earlier in the chapter, a skeptical reader is unlikely to be convinced.

The volume ends on a high note with a clear and succinct discussion of practical topics such as lesson preparation, classroom organization, and teaching multilevel classes. This chapter complements the preceding, more theoretically oriented, chapters, offering strategies for teaching print and phonemic awareness and conducting formative assessment. This makes for a strong conclusion that delivers on the book's promise to incorporate theory and research into practice.

In all, Peyton and Young-Scholten's volume covers a lot of ground in less than 200 pages, although it may be too densely written for readers who are not already familiar with the concepts it covers. Conspicuously lacking is a chapter on trauma-informed pedagogy, a topic of great interest and importance to teachers of migrant adults. In addition, within each chapter, topics are often not synthesized, but presented sequentially instead. This can leave the reader unsure what conclusions to draw or how the information can inform their teaching practice. That being

said, a major strength of the book is the inclusion of numerous connections and cross-references across chapters. This lends coherence despite the volume's wide-ranging subject matter and reinforces key principles throughout the book.

The lack of research on the literacy development of adults presents a barrier for both research and pedagogy. Peyton and Young-Scholten's volume successfully integrates the research that does exist, resulting in a comprehensive introduction to the language learning of adults with limited formal education. It provides a theoretical and empirical foundation that will encourage future scholarship in this area. The glossary and the inclusion of numerous outside resources highlight the editors' intention to create a book that is accessible to experts and laypeople alike. At the same time, its deep dives into research in first- and second-language literacy development provide a welcome entry point for researchers in adjacent fields who want to extend their knowledge of adult migrant education. The book is a unique, valuable, and timely contribution to an increasingly necessary area of inquiry.

KATHERINE HARDIN, *McGill University*

BOOK REVIEW / COMPTE-RENDU

SACHS, J., & CLARK, L. (Eds.). *Learning Through Community Engagement: Vision and Practice in Higher Education.* Sydney: Springer. (2017). 326 pp. $119.00USD (Paperback). (ISBN 9-98-10-0999-0).

Learning Through Community Engagement: Vision and Practice in Higher Education is an excellent co-edited collection of 19 inter-connected chapters exploring the process of Professional and Community Engagement (PACE) program implementation in higher education contexts. PACE programs are mutually beneficial to students and community organizations. Programs pair students with community organizations to work on an identified project exploring a societal issue or theme. In the first section of the book, the authors explore the history of community engagement practices in Western higher education. The second section highlights important considerations to take prior to, during, and following implementation of faculty-wide or institution-wide PACE programs in contemporary higher education contexts. Finally, the third section engages the reader in critical reflections related to PACE program implementation, identifying the benefits and potential risks involved. The authors then discuss the process of implementation of an institution-wide PACE program at Macquerie University (Sydney, Australia), as the primary case example they draw on throughout the book; however, they also source other global examples. Each chapter is carefully crafted to model a critically reflexive approach to PACE program implementation. Emphasis is placed on the importance of sustainable, reciprocal, equitable, power-sharing, and socially relevant practices. Readers are provided with the 'how to' knowledge needed for such implementation, which the authors enrich through real-world examples. As such, this book provides a practical guide for those seeking to implement a PACE program within a higher education context.

The strength of the book lies in the authors' detailed exploration of the potential advantages of PACE programs for students, higher education institutions and community partners, as well as their identifying of potential risks inherent in such programs (i.e., perpetuation of stereotypes, reproduction of oppressive power dynamics, forced dependency, and reproduction of colonial relations). Importantly, the authors explore the personal (i.e., attitudinal, etc.) and institutional (i.e., academic tenure criteria, etc.) barriers frequently faced by those seeking to implement such a program within a higher education context.

Realistic recommendations aimed at resolving these barriers are provided by the authors, which also makes this book a practical guide for higher education administrators involved in the implementation process.

The authors make a convincing argument for the value-added nature of PACE programs for students, community partners, and higher education institutions. The authors contend that such programs can decrease the opportunity gap for students with less access to volunteer and/or work experiences. They do so by providing students with real-world experiences that can contribute to greater employability upon graduation. Furthermore, the authors argue that PACE programs have the potential to bridge the gap between theoretical (i.e., abstract classroom) knowledge and real-world application, allowing students to develop problem-solving skills that are transferable, including across disciplines. The authors include numerous student perspectives throughout the book that support these arguments, though more attention could have been given to the challenges and/or barriers to participation that some students may face when participating in PACE programs. Greater insight into these would allow stakeholders looking to implement PACE programs to be proactive in addressing these challenges and/or barriers.

Several of the book chapters (e.g.,14, 16, and 18) emphasize the importance of adopting a bottom-up approach to PACE program implementation, with the goal of creating socially relevant programs. The authors encourage readers to redefine and decentralize the idea of 'knowledge holder.' They present an alternative tri-partite model of PACE program implementation. The model stresses the importance of stakeholder ownership of and contribution to the knowledge-creation and learning processes involved in PACE program implementation, emphasizing the importance of equal involvement of students, community members, and higher education institutions (including faculty). The theoretical contributions of this model for PACE program implementation in higher education provide a solid structure that organizers can use to guide an implementation process aimed at promoting equal power sharing and reciprocal benefits from project inception to completion.

Missing in the model for this reader, though, is an acknowledgment of the inherent power dynamics between some of the actors included in the model, especially those that would be challenging to meaningfully address (i.e., between students and faculty). The model also misses foregrounding the influence of local and global societal contexts that can impact the PACE program implementation process (i.e., legislations, social norms, historical power relationships, etc.). Perhaps stand-alone chapters could have explored in greater depth the effects of historical / contemporary power dynamics between the actors involved so as to enhance the book's utility. The fact is that PACE programs often focus on social justice issues with marginalized communities. Though the authors provide a critical analysis of such power dynamics in relation to Indigenous

community partners, missing is an in-depth analysis of power dynamics with other historically (and/or presently) marginalized communities (i.e., 2SLGBTQIAA+ individuals, racialized individuals, individuals without housing, individuals living in poverty, etc.).

The authors state that PACE programs that utilize a tri-partite approach can provide community partners with the resources needed to solve identified problems and/or improve functioning and efficiency, even as the community maintains shared ownership of the process. Shared ownership, however, is difficult when resource allocation is controlled by one party (i.e., funds, 'labour-power'), and where it is typically higher education institutions. Ways to redress these inequitable power dynamics are not provided, thus weakening the case for *feasible* collaborative and reciprocal partnerships. Furthermore, the authors do not consider whether the allocation of resources from higher education institutions to community programs could negatively affect resource allocation from other sources (i.e., public agencies). For example, I work in a healthcare department that is interested in having healthcare students participate in a PACE program within an already established volunteering program at a local hospital. Could the long-term involvement of healthcare students in a hospital-based PACE program affect funding provided to that hospital by public agencies to hire nursing staff? The authors do discuss the risk of dependency that can develop through PACE programs, but do not address the secondary losses (i.e., withdrawal of public funding sources) that could place the very sustainability of some community organizations at risk. This could be especially important for PACE programs whose community partner is situated in a low-income context.

Despite the noted important gaps, the book remains exceptionally well-written, uses accessible language, models and fosters critical discussions, and provides helpful and practical guidelines for faculty, program administrators, and community partners interested in PACE program implementation in higher education contexts. *Learning Through Community Engagement* provides readers with an exploration of the history of community engagement practices in Western higher education, highlights the important considerations to take prior to, during and following implementation of PACE programs in contemporary higher education contexts, and engages readers in important critical reflections related to implementation.

MARIE-LYNE GRENIER, *McGill University*

BOOK REVIEW / COMPTE-RENDU

BÉRUBÉ, M., & RUTH, J. *It's Not Free Speech: Race, Democracy, and the Future of Academic Freedom*. Baltimore, MD: Johns Hopkins University Press. (2022). 304 pp. $29.95 (Hardcover). (ISBN 9781421443874).

Academic freedom and freedom of speech are hot button issues on campuses across North America. Academic freedom is often a right ascribed exclusively to faculty members with tenure, which allows them to effectively do and say what they please as part of their scholarly endeavours. In contrast, freedom of speech is a right of almost universal application. Every person, no matter their status at the university, enjoys some degree of freedom of speech. A challenge arises when these two ideas collide. Which one is granted a higher priority? Can one trump the other? Depending on who you ask, and what is at stake, answers will differ.

In Bérubé and Ruth's book, this conflict is examined by looking at a slowly simmering issue in academia: In the past decade or so, there has been a clever ploy underway from the alt-right to question the legitimacy of discourse on campus. The argument goes that certain schools of thought are being ignored, and that, because of academic freedom and freedom of speech, these competing marginalized worldviews should receive their fair share of dialogue in the marketplace of ideas. The irony is that these same voices on the alt-right have been working ceaselessly to shut down the proliferating lines of thought, such as critical race theory, trying to challenge established White hegemony on campus. The alt-right is, in effect, chastising those who are using academic freedom and freedom of speech to advance ideological arguments, while they are in fact using the very same tactics.

Ultimately, the alt-right is trying to rebrand anything that is critical of racism as anti-American, and this tactic is surprisingly making ground. Or, as Bérubé and Ruth put it:

> What we know is that in the long history of human hypocrisy, the right-wing moral panic about campus "cancel culture," followed by a nationwide attempt to ban an entire school of thoughts from classrooms from kindergarten to college, deserves a special place. (p. 16)

Here we see academic freedom and freedom of speech being used as cudgels to legitimize the advance of ideology, but only if it is the right kind of ideology. The pervasive nature of this strategy forms a critical plot point in the book.

In fact, the authors' main thesis is scaffolded around this strategy. Academic freedom is usually described as having four constituent components: freedom to teach, freedom to research, freedom to perform intramural speech, and freedom to perform extramural speech, the most important in this work. Extramural speech is often explained as the notion that faculty members can engage in the public sphere while recognized as members of their respective institutions, but with the understanding that, although affiliated with the institution, they do not represent it. This creates a scenario in which utterances from faculty members carry implicit institutional approval because of their academic status, despite how racist, or sexist, their comments may be. This phenomenon is the focus of Bérubé and Ruth's book. The authors provide abundant examples of academic freedom-protected professors who have made a name for themselves claiming outlandish and racist notions. The seemingly resultant paradox of these utterances is that, if academic freedom is more or less inviolable, what kind of recourse and/or sanction can be levied against such a professor?

Bérubé and Ruth speak with some authority on the topic as both were members of the American Association of University Professors (AAUP) Committee A. This committee is charged with adjudicating academic freedom concerns. In their many years of service, they would have participated in cases of this nature, thus providing the driving motivation for the book.

However, why do we need another title on academic freedom? Their *It's Not Free Speech* differs from other treatises on academic freedom in that it presents a nuanced argument about how academic freedom should be seen in this day and age. Right from the introductory chapter and throughout most of the book, the authors investigate the paradox of academic freedom and extramural speech. Faculty members are assured academic freedom, which is protected vehemently up until the individual is no longer fit to perform their duties as assessed by their peers. However, when a faculty member makes an utterance that is outside of their direct area of expertise in the public sphere, they are also protected by academic freedom, regardless of its content. This is because their fitness is not being adjudicated when making statements outside of their research and teaching area. What is particularly vexing is that these extramural utterances could cross over into racist and sexist language. All this gives the illusion that faculty enjoy carte blanche.

Bérubé and Ruth delve even further, arguing that some things should not be excused by the absoluteness of academic freedom as they are highly detrimental to the progression of society and to the achievement of the goals of higher education. For example, even under the guise of academic freedom, no reasonable person would tolerate actions that directly contribute to the proliferation of systematic

racism as no ends can justify such a means. In practice then, there are some ideas that are out of bounds, and we need to understand that exceptions exist. A crucial additional detail to this running example used throughout the book is that the United States saw a strong resurgence of racist action during the Trump administration, underscoring the fact that everyone still needs to understand that racism is just as rampant as it ever was. Developing this narrative is the focus of the first five chapters of the book, with the final chapter outlining a possible remedy to this situation.

But what exactly could such a remedy be? A compromise on academic freedom? Not quite. Bérubé and Ruth suggest that universities create academic freedom committees, which would pass judgement on these thorny topics. If left to administratively focused equity, diversity, and inclusivity units, which presently do feature on most campuses, the verdicts found in investigating these situations would undoubtedly favour hush-hush settlements and minimizing liability. The authors counter-propose that if the same case was in the hands of an academic freedom committee, composed of faculty peers, a level-headed final verdict that actually addresses the outstanding issue is more likely. In other words, academic freedom issues can be resolved using the time-honoured traditions of collegial self-governance. In this way, the definition and stature of academic freedom does not need to be compromised or weakened when dealing with extramural utterances that clearly have crossed the line. Or more succinctly, as the authors put it: "The lesson of the past decade, we believe, is that it is more imperative than ever for universities to differentiate between high-value and low-value speech, or, if you prefer, legitimate ideas and utter bullshit" (p. 194).

In short, Bérubé and Ruth have written a compelling work which adds to the pantheon of literature devoted to academic freedom. Quite often, works on this topic are lengthy tomes outlining the history and advances of academic freedom during pivotal times in the birth of the modern university from the mid to late 20th century. The authors resist this urge and instead concentrate on chronicling how racism and the academy live in each other's orbit. A history of contemporary critical race theory is developed, replete with descriptions of reactionary White faculty of both supportive and oppositional political stripes. The scenario they describe is truly tense. If we are to continue to believe that academic freedom is vital to the livelihood of the academy, something must be done about how much racism still continues under the protection of that same freedom.

Where their argument perhaps falls apart is in the suggested solution: the academic freedom committee. Universities are bureaucratic monoliths, and this proposed solution could become yet another bureaucratic, process-heavy mechanism. It might not be the proverbial light at the end of the tunnel to reassure readers. Presently, the usual trajectory for an academic freedom complaint is that the faculty association gathers the facts of the case and files a grievance that cites the collective agreement. In response, the university will typically disagree with the

merits of the grievance; after an established timeline passes, an arbitrator will then hear both sides of the situation and determine a remedy that could include financial components. This clearly is a drawn out, expensive way of dealing with these situations. The suggested academic freedom committee model has a certain appeal as it avoids expense and keeps the issue within the purview of peers, presumably knowledgeable about academic freedom and other important components of academic life. The difficulty, of course, is determining how this committee would function, something Bérubé and Ruth do not discuss. Still, *It's Not Free Speech* constitutes an important entrant in the presently very lively debate around academic freedom and freedom of speech. It will especially be of interest to those who study, or are concerned with, policy development or governance of post-secondary institutions. The book does an admirable job of describing what is at stake and providing a possible solution worth thinking about.

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