The International Dimension of Academic Integrity: An Integrative Literature Review

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Abstract

Over half a million international students now study in Canada. This rapid increase in international enrollments has intensified focus on academic integrity because the stakes are high for both international students and the institutions that host them. Academic integrity violations involving international students may garner scandalous attention, and the international students who become entangled in incidents of academic misconduct face potentially devastating life consequences, including expulsion from academic studies and dishonor in family life. International students studying in Canada, particularly those whose first language is not English, face several hurdles not experienced by their Canadian counterparts. Overcoming these cultural barriers is a shared interest and a top strategic priority because academic credentials are a signal that assert students have mastered the academic norms of the new culture. There remains considerable debate surrounding international students regarding their increased likelihood to commit academic integrity violations, and this integrative literature review explores the intersection of academic integrity and international students. It takes a broad and holistic approach to identify areas of conflict and knowledge gaps, with a focus on successful institutional interventions that proactively reduce the likelihood of academic misconduct. Little research details efficacious methods to reduce incidents of academic integrity violations involving international students, but taking stock of current interventions provides some guidance to institutions welcoming international students, and the faculty who teach them, so that they can both be successful in addressing academic integrity issues.

Keywords: Academic integrity violations; international students; Canada; literature review

The Rapid Rise of International Students in Canada

As of 2018, 572,415 international students were enrolled in Canada at all levels of study, an increase of 16 percent above 2017 (Canadian Bureau for International Education, n.d.). A large reason behind this rapid increase is that international students often pay more than triple the tuition paid by domestic students (Keung, 2018). As Figure 1 illustrates, international student tuition has grown enormously over the past decade, and international students have become an important part of the Canadian postsecondary funding model. Some institutions now receive more money from international students than provincial operating grants, and while "there is nothing intrinsically wrong with

turning to international students to fill the gap left by flagging government support ...we cannot continue to sleepwalk down this road" (Usher, 2018, p. 2). Refusing to sleepwalk is especially relevant to international students and academic integrity.

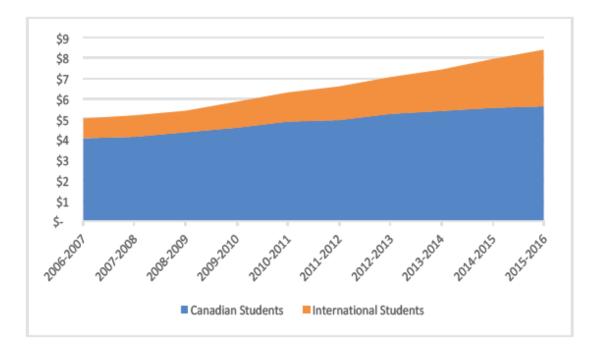


Figure 1. University tuition fees by source in Canada, 2006-2007 to 2015-2016, in figures in billions of constant \$2016 (Usher, 2018, p. 2). Reprinted with permission.

Accompanying the rise of international students studying in Canada is rising concern about academic integrity and contract cheating. Niagara College raised concerns over the validity of standardized language test scores submitted by 428 students applying from India after a review found inconsistencies in language proficiency. 428 students represents 33% of the 1,300 Indian students to whom Niagara offered admission (Keung, 2018). It is possible, and highly probable, that this high-profile Canadian example is little more than the tip of the proverbial iceberg. Other well-publicized stories from around the globe include incidents of international students paying others to take their English-language entrance exams, and employees were bribed to manipulate scores on the International English Language Testing System (IELTS) exam at Australia's Curtin University (Keung, 2018). A Wall Street Journal analysis (Jordan & Belkin, 2016) concluded that international students in the United States cheat at rates five times higher than domestic students.

These incidents raise important questions: Do international students commit academic integrity violations more often than domestic students, and if so, why? What preventative strategies have a positive impact in reducing academic integrity violations? This integrative literature review explores the extant literature to consider the prevalence of

academic integrity violations involving international students, the underlying causes, key areas of friction, and the recommended intervention strategies institutions employ to prepare international students for success in Canadian postsecondary institutions.

Background to the Purpose and Approach

The Canadian community college where I work is, like many others, feeling the impacts of increasing its international student population as a way to diversify its funding. This increased international enrollment has generated tension and discussion about international students and their unintentional and intentional participation in behaviours that constitute academic integrity violations. Strengthening the culture around academic integrity fell within my role as Chair of our newly formed Academic Integrity Advisory Committee, and out of a real need, I sought to determine if international students are more prone to committing academic integrity violations, and if so, why? Most importantly, I sought to answer, what could be done about it? Using my experience as a librarian and doctoral candidate, I conducted an integrative literature review. Integrative literature reviews are a distinctive form of research that generates new knowledge by reviewing and synthesizing literature on a topic in order to develop new frameworks and perspectives (Torraco, 2016).

This review's purpose is to analyze conflicting perspectives relating to international students and academic integrity to identify similarities and differences between domestic and international students. The synthesis identifies the literature's strengths and weaknesses on this topic, and in short, much is known about who is likely to commit academic integrity violations, why, and the increased pressures faced by international students. There is little research, however, on successful interventions to reduce incidents of academic integrity violations. This review seeks to capture key disagreements and unknowns on the intersection of academic integrity violations and international students in order to inspire new research on successful approaches that positively address academic integrity issues involving international students.

Cheating (and Figuring Out How to Stop It) is a Global Phenomenon

Academic integrity is the moral code of academia and can be defined as the use, generation, and communication of information in an ethical, honest, and responsible manner (Brown et al., 2018, p. 14). Academic integrity violations (including cheating, fabrication of information, facilitating academic misconduct, and plagiarism) have reached an alarming level that threatens to undermine the value of postsecondary credentials (Winrow, 2015). While academic integrity has reached a new height of concern, the situation is far from new. Whitley (1998) reviewed the prevalence of cheating in 107 studies from 1970-1996, and the prevalence of total cheating in these studies ranged from 9% to 95% of students,

with a mean of 70.4% students admitting to committing some form of academic integrity violation (p. 238). More recent research from the International Centre of Academic Integrity concluded 40% of students admitted to committing academic integrity violations (Brown et al., 2018 . 40 percent is consistent with Whitley's (1998) finding that 43.1% of students cheated on exams, 40.9% of students cheated on homework, and 47% of students engaged in plagiarism.

Winrow (2015) reviewed the published research on the prevalence of academic misconduct, and she determined the high prevalence of academic integrity violations is not strictly cultural or confined to North American contexts. Table 1 (Winrow, 2015) highlights that academic integrity is a world-wide phenomenon, and it should be noted that most of these studies used self-reporting methodologies to determine the rate of cheating. Self-reporting studies may under-report, so it is conceivable the percentage of students who actually cheated is higher than documented in some of these studies. While the exact prevalence of academic integrity violations will never be known, it is safe to assume it is higher than funders, employers, faculty and academic administrators would find acceptable.

Table 1

Global Academic Cheating (Winrow, 2015, pp. 3-4). Reprinted with permission.

(Graphic produced by	(Graphic produced by Andrea	(Graphic produced by Andrea
Andrea Woods).	Woods).	Woods).
Taiwan	61.72%	Lin & Wen, 2007
Russia	60.31%	Grimes, 2004
Romania	85% (observed cheating)	Teodorescu & Andrei, 2009
Canada	45%	Christensen Hughes & McCabe, 2006
Japan	55.4%	Diekhoff, LaBeff, Shinohara &
		Yusukawa, 1999
Hong Kong	30.2%	Chapman & Luptop, 2004
Kyrgyzstan	80.10%	Grimes, 2004
Croatia	45.45%	Grimes, 2004
Albania	42.48%	Grimes, 2004
Belarus	87.39%	Grimes, 2004
Latvia	92.48%	Grimes, 2004
Lithuania	87.65%	Grimes, 2004
Ukraine	89.58%	Grimes, 2004
Poland	84%	Lupton, Chapman & Weiss, 2000
Singapore	94.4%	Lim & See, 2001
Portugal	62.4%	Teixeira & Rocha, 2008
Spain	79.7%	Teixeira & Rocha, 2008

The high global prevalence of academic integrity violations has generated mounting urgency to strengthen academic integrity and reduce corruption in higher education. This urgency arises from both the potential real-world damage caused by unprepared students, as well as the damage to the reputation of postsecondary institutions and their credentials. There are real world consequences to academic integrity violations; studies suggest a relationship exists between students who cheat in an academic setting and the level of unethical conduct displayed in the workplace (Winrow, 2015), and this "extended incompetence could seriously jeopardize human safety" (Katkins, 2018, p. 269).

The other real world consequence is growing doubt about the value of the postsecondary credential. A postsecondary credential is a signal to employers and graduate schools, and the parchment can be a strong signal or a weak signal depending on the prevalence of students graduating with academic integrity violations who have not mastered the knowledge, skills, and competencies promised by their parchment. As Caplan (2018) explains in *The Case Against Education: Why the Education System is a Waste of Time and Money:*

Signaling explains why cheating pays – and why schools are wise to combat it. In the signaling model, employers reward workers for the skills they *think* those workers

possess. Cheating tricks employers into thinking you're a better worker than you really are. The trick pays because *unless everyone cheats all the time,* students with better records are, on average, better workers.

Why discourage cheating? Because detecting and punishing cheaters preserves the signaling value of your school's diploma. When more of your students cheat their way to graduation, firms that hire your students are less likely to get the smart, hardworking team players they're paying for. Every time your school expels a cheater, you protect the good names of your graduates – past, present, and future. (p. 29) [emphasis in the original]

Widespread agreement exists that enforcing academic integrity is a universal problem, but there remains significant confusion, disagreement, and the need for further research on effective interventions, especially for international students. A recent disagreement between scholars at the University of California San Diego (UCSD) brings many of these issues into focus.

A (Partial) Disagreement About International Students and Academic Integrity

Tricia Bertram Gallant directs the Academic Integrity Office at UCSD, and she is one of the leading researchers and writers on academic integrity. Unlike many of the self-reported cases outlined above, Bertram Gallant, Binkin, and Donohue (2015) used data from registrar's office at a large U.S. research university (one assumes the university in question is UCSD) and linked it to the database used for students who had other-reported incidents of cheating. The study included five academic years and 23,000 students, and it categorized students by gender, international student status, major, and GPA. The researchers isolated students who had no violations, those with reported violations, and those with serious violations leading to suspension or dismissal.

Among their conclusions is the suggestion that being an international student is a risk factor for committing an academic integrity violation. In their findings, international students were twice as likely to have an academic integrity violation than their domestic counterparts. They suggest the international student population is "particularly vulnerable because they may be unfamiliar with behavioral standards in western educational institutions and given their previous educational experiences, may not share the same fear of punishment as our domestic students" (Bertram Gallant et al., 2015, p. 226).

Barry Fass-Holmes is a psychologist interested in international education who is also at UCSD. He disagrees. Fass-Holmes (2017) challenges the conclusion that cheating by international students is pervasive, and he provides an alternative interpretation to the rise

of academic integrity violations (AIVs) involving international students. The number of international students reported for academic integrity violations (AIVs) did increase, but the increase was proportional to the total enrollment of international students, which had increased six-fold over the five academic years investigated in the Bertram Gallant et al. (2015) study. True, Fass-Holmes found that international students accounted for one-fifth of the university's reported academic integrity violations, but this was not necessarily alarming or significant. A closer look at that five year period reveals that the percentage of international students reported for academic integrity violations remained relatively flat, and relatively low. The percentage of international students reported for AIVs remained steady between 3.7% and 7.2%, leading Fass-Holmes to conclude:

The University's total number of international students reported for AIVs amounted to less than 7.5% of the total number who were enrolled. These findings indicated that AIVs were reported to a lesser degree than what would be expected if cheating were a vulnerability to international students. (Fass-Holmes, 2017, p. 660)

Where one falls on this disagreement about whether international students are at greater risk than domestic students has important implications for institutional response strategies and policy, and this is the bigger disagreement between Bertram Gallant (2008) and Fass-Holmes (2017).

Bertram Gallant's organizational theory (2008) endorses a teaching and learning approach, rather than a punitive one that focuses on a student's character or behaviour. The teaching and learning strategy "attends not just to the rule compliance or integrity of the individual student or student population but to the integrity of the environment as a whole" (Bertram Gallant, 2008, p. 88). The teaching and learning approach to academic integrity, and its attendant organizational strategy, shifts responsibility for academic integrity from the students to the faculty and the organization.

This shift from the student to the teaching and learning environment positions instructional design, pedagogy, and assignments as responsible components for why students engage in academic integrity violations.

Researchers have found that students who admit to cheating perceive their classroom environment to be "less personalized, less involving, less cohesive, less satisfying, less task oriented, and less individualized (Pulvers & Diekhoff, 1999, p. 495). Thus, rather than convincing students to stop cheating, the goal of the teaching and learning strategy is to foster a learning-oriented environment that will motivate students to engage in the course material. (Bertram Gallant, 2008, p. 89)

This philosophical shift of responsibility from the student to those responsible for creating the learning environment "should be given primary consideration in efforts to encourage

academic integrity" (Christensen Hughes & McCabe, 2006, p. 3) because the quality of the educational experience (e.g. quality of the professor, the teaching and learning activities, and the assessment approach) may influence a student's decision to violate academic integrity.

This philosophical shift of responsibility has profound implications for faculty workload and faculty development, especially in an era characterized by the significant use of part-time faculty. Taking the example of student assessments, to create a holistic academic integrity environment requires faculty to plagiarize-proof their assignments by including individualized elements into assignments, requiring annotated bibliographies before the due date, and collecting writing examples in stages using weekly journals (Moore, 2019). These are all sound pedagogical suggestions, but they entail more time, energy, and effort. This is not necessarily a reason not to do them, but the larger issue becomes that, in accepting this responsibility, ensuring academic integrity moves from the student to the faculty. The teaching and learning approach has significant workload and training implications, and this organizational strategy is not guaranteed to work.

Fass-Holmes (2017) argues that Bertram Gallant's organizational strategy has failed to reduce academic integrity violations at the studied university. Furthermore, as the institution's focus shifts towards fostering a more engaging teaching and learning environment, and away from students' conduct, faculty might be less likely to report incidents of academic integrity because the learning design becomes responsible for encouraging or enabling student cheating. The volume of AIVs is also likely higher than is known due to faculty underreporting. Also not covered in the Bertram Gallant et al., (2015) study is the role of implicit bias, prejudice or racism. In attempting to understand why students of colour appear to have a disproportionate number of incidences compared to domestic students, the University of Windsor's academic integrity review (Christensen Hughes, 2010) notes that "some faculty may be over zealously pursuing charges against visible minority students" (p. 13).

This disagreement focuses attention on areas where significantly more research is needed in Canada, including whether international students are at-risk, if they commit AIVs at higher levels proportional to other student groups, and if the teaching and learning approach should guide the preferred organizational philosophy and response strategy to academic integrity violations. Despite their disagreement around these issues, Fass-Holmes (2017) and Bertram Gallant et al., (2015) agree about the intensified pressures faced by international students. International students face the same issues as domestic students, including finances, health, and housing conditions; they also face unique stresses, including acculturative stress, cultural and language barriers potentially leading to alienation and isolation, compliance with immigration regulations, and a lack of familiarity with western pedagogical approaches and expectations (Fass-Holmes, 2017; Bertram

Gallant et al., 2015). Because international students have shared and unique stressors, it is necessary to draw a profile of who commits AIVs and why.

Why Do Students Cheat (or Not?): An Integrated Model

Several theories have been offered to explain why students cheat, including:

- *Deterrence theory* The magnitude of punishments can reduce the frequency of cheating.
- *Rational choice theory* Students decide to cheat after conducting a logical costbenefit analysis.
- *Neutralization theory* Cheating happens when students decide it is morally inoffensive.
- *Planned behavior theory* Students are presented with situations where they are likely to get away with it.
- *Situational ethics theory* Students decide to cheat in academic circumstances which do not apply to ordinary life.
- *Self-efficacy theory* Students make judgments about their ability to achieve a desired outcome.
- *Goal theory* Students hold a notion for their education's purpose.
- *Intrinsic motivation theory* students possess a genuine desire to understand and master their academic studies (Fass-Holmes, 2017, p. 648).

These theories may have limited application to international students (Fass-Holmes, 2017), but taken together, they provide a useful model (if partial and incomplete) for understanding the different motivations for why students do or do not cheat.

Kolb, Longest, and Singer (2015) developed a framework to assess why students abide by academic integrity policies. Some students have a hard time imagining how they would get away with it (*planned behavior*). Others do not cheat because they do not think it is worth the risk (*rational choice*). Other students remain honest out of fear of the consequences (*deterrence*). Some students respect the policies of the institution and/or refrain from cheating because they realize violating academic integrity goes against their learning goals and their ethical beliefs (*intrinsic motivation and goals*) (Kolb, Longest, & Singer, 2015). Maturity also plays an important role; "younger students of all origins have a greater tendency to cheat, whereas students over 25 years of age are more likely to have knowledge of academic integrity" (Brown et al., 2018, p. 16). Older students who are married, employed, and financially independent also report lower levels of cheating (Christensen Hughes & McCabe, 2006).

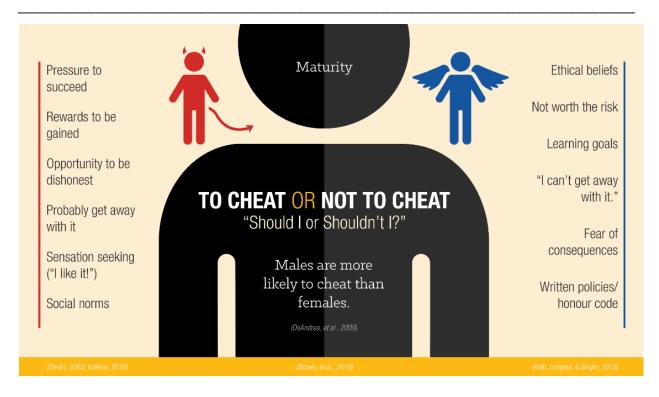


Figure 2. To cheat or not to cheat. (Graphic produced by Andrea Woods).

This integrated model outlines the research-based reasons why students choose to commit or not commit academic integrity violations. Most have some theoretical correlation. International students face intensified pressures around success, rewards to be gained (permanent residency), and social norms (some may come from countries where corruption is commonplace). Conversely, some international students may have stronger ethical beliefs related to respect for authority.

Conversely, students decide to violate academic integrity policies for various reasons. Devlin (2003) identified five factors that influence dishonesty among students. Some students face extreme family pressure to succeed and face penalties for failure (*rational choice*). They may expect a reward to be gained that they would not be able to achieve through their own intelligence and hard work (*self-efficacy*). For some, the convenience and temptation to engage in dishonesty is simply too great; it is very easy to do, and many students – based on their experience and observation – see a good probability of getting away with it (*situational ethics*). Tied to this is the growing acceptance that cheating is "normal" in a culture where corruption is endemic and education is viewed as an expensive commodity (*neutralization*) (Katkins, 2018). Beyond these motivations, students commit academic integrity violations based on personality characteristics. There may be a relationship between a student's sensation-seeking or prudence orientation, a stable personality trait where some students will choose to cheat because of the excitement and perceived pleasure of doing so (DeAndrea, Carpenter, Shulman, and Levine, 2009). Finally,

gender is unavoidable; males are more likely to commit academic integrity violations than females (DeAndrea et al., 2009).

Why do International Students Commit Academic Integrity Violations?

This generic portrait in only a starting place. International students face all the same challenges and temptations of domestic students, but they may experience them with a greater intensity. Katkins (2018) customizes Devlin's (2003) five factors to focus specifically on international students. High family expectations and being a financial burden on one's family can increase pressure, especially when a student faces disgrace or dishonor for failure. The pressure to achieve the highest academic qualifications in order to procure professional employment and permanent residency can also increase pressure on international students. International students may come from countries where corruption in business and education is commonplace, and this can be compounded by the international students' awareness (discussed in the introduction) that they are upholding the solvency of many postsecondary institutions. The "conflict of interest here can be difficult to reconcile" (Katkins, 2018, p. 271). International students study in an environment where cheating and academic dishonesty is, by all accounts, rampant (Bretag, 2019), and they may originate from country contexts where copying is a legitimate form of business. Contract cheating, for these students, might be viewed as a "unique version of white collar crime" (Katkins, 2018, p. 272), one that is socially accepted both in their native and adopted contexts.

The added pressure may make international students particularly susceptible to contract cheating. The text of a recent ad from a contract cheating company illustrates the similarities and the differences.

All college students face the same problem — the impossible task of getting straight A's, networking, supporting themselves and enjoying their youth all at the same time. With the job market more competitive than ever before, [contract cheating company] has found that more and more students are turning to the platform as a cry for help within an unforgiving institution — America's education system. ...The issue at hand is not students cheating more often, but the fact that our college system makes living a mentally healthy life impossible. Students need help, and [contract cheating company] has been there to help them when administration would not." (Kelly, 2019, para. 4)

This ad capitalizes on the appealing rationales offered by neutralization theory, situational ethics, and planned behaviour. As a result of technological developments, today's students all have greater opportunity to be dishonest, but the unforgiving system is to blame, so take advantage of the comprehensive range of academic materials/assignments that can now be

ordered and purchased, including essays, oral presentations, literature reviews, dissertations, and research papers. As Katkins (2018) details, many of these companies specifically target international students, and it is safe to assume that international students, on many occasions, knowingly pay for these academic outsourcing services, fully aware that the non-plagiarized nature of their service is nothing more than a marketing strategy (Katkins, 2018).

Students who engage in contract cheating may then find themselves involved in blackmail and extortion schemes, but the consequences to international students may be more detrimental. International students engaging in contract cheating may find themselves pushed further away from their hopes and goals for academic success. As Katkins (2018) notes,

habitual reliance on such commercial services make students vulnerable to academic exclusion in the sense that the development of students' language whether through oral or written means is inextricably linked to their enculturation and socialisation into academic discourse communities and therefore the maturation of their academic identities and consequent acceptance into those communities (Duff 2010). In the case of international students who usually have to overcome even greater challenges in trying to gain such acceptance, the use of essay mills while seemingly facilitating their academic progress is actually promoting a dangerous academic isolation while also increasing the potential risks of detection. (p. 276)

The greater challenges faced by international students include acculturation stress, adapting to new educational expectations, and language barriers. Each of these are briefly discussed before considering interventions.

The Unique Barriers and Challenges Faced by International Students

It is difficult (and most likely impossible) to separate culture from language from educational systems operating within a culture. Language and educational practices are an extension of a culture; indeed, educational systems reinforce and pass on a cultural tradition. Still, attempting a separation provides some value to differentiate the many barriers to be overcome when equipping international students with the knowledge and skills necessary to avoid violations of academic integrity.

Culture

Gunawardena (2014) provides an excellent description of the stark contrast between Western conceptions of pedagogy and those familiar to international students:

Most Western learners and instructors, believe that each learner (a) is a distinct individual, (b) controls his or her behaviour, (c) is responsible for outcomes of behaviour, (d) is oriented toward personal achievement, and (e) frequently believes group membership compromises goal achievement (Nisbett, 2003). Many learners from Asian countries, on the other hand, believe success is a group goal as well as a national goal. Attaining group goals is tied to maintaining harmonious social relations. (p. 87)

People from different cultures learn to learn differently (Gunawardena, 2014), and the challenges this presents are compounded when an academic institution hosts international students from many different countries.

Not all international students are the same, and there are significant differences among different nations' perceptions of cheating (Winrow, 2015). Asian students may believe that writing a paper for a classmate does not constitute cheating, and 80% of Asian students did not view collaborating on an exam without the instructors' permission as misconduct (Winrow, 2015). In addition to these examples, undergraduates studying business in Eastern European or Central Asian countries may have a "lower standard of honesty" than their North American counterparts (Fass-Holmes, 2017, p. 648). This diversity makes applying the aforementioned theoretical frameworks difficult, but it also presents challenges when determining when culture is contributing to academic integrity violations, and how to proactively address it.

One of the biggest cultural divides surrounds intellectual property and copyright. A collectivist view of text ownership sees information as "owned by the whole society" (Mundava & Chauduri, 2007, p. 171). Asian students may copy another's words as a sign of respect. Many international students come from languages where there is no linguistic equivalent to *plagiarism*, and their arrival in Canada may be their first introduction to the term. In one study, even though 40% of international students said they understood plagiarism, 80% believed that cutting and pasting information into academic papers was acceptable (Amsberry, 2010).

Culture may also play a positive role, however. In a comparative study involving 603 domestic students and 98 international students in an Australian physical therapy program, the researchers found:

No significant differences were observed between students' view of authoritative standards, public meaning, and common values. All students considered that the right behaviour consists of doing one's duties, that it is important to treat authorities with respect, and that meeting the expectations of others has value. On the moral practice subscale, the statistically significant difference in the respective

scores indicates international students' stronger belief in the importance of, and adherence to, moral values and rules. (Brown et al., 2018, p. 17).

This suggests that ethics-based interventions to academic integrity may hold some promise, and that there must be contributing factors beyond culture at play in academic integrity violations.

Pedagogy

Amsberry (2010) argues that "the reasons international students may employ inappropriate source use are complex and cannot easily be attributed to 'culture'" (p. 32). If cultural differences were solely responsible for plagiarism, for example, Canadian students not facing cultural hurdles would have a deeper grasp of plagiarism and its nuances (Amsberry, 2010). Amsberry (2010) cites one study where a majority of American students (87%) considered verbatim copying to be plagiarism compared to only 43% of Chinese students. But when asked whether changing some words and syntax in a text source without citation was sufficient to avoid plagiarism, the responses were similar; 48% for American students and 55% for Chinese students. This suggests that "although American students may have a different view of the general *concept* of plagiarism, in practical application their understanding of when citation is necessary seems similar to that" of international students (Amsberry, 2010, p. 34). It is likely the same can be said of Canadian students. This prompts a closer examination of a culture's educational practices.

Some students may copy because it was the way they were taught in their own countries (Amsberry, 2010, p. 35). Western approaches to teaching and learning, including debate, critical questioning, collaboration, and discussion may prove difficult for students from other cultures. "Turkey's culture and oral traditions have emphasized the sacredness of the text, honour the responsibility of the professor to interpret the text, and expect students to memorize the professor's words," [which means that the Western educational paradigm of the independent learner is] "not a value-free, neutral idea" (Gunawardena, 2014, p. 87). Such educational systems may not provide adequate or sufficient writing instruction or practice because a student's predominant method of assessment is performance on examinations. Consequently, writing assignments and group work present significant challenges (Gunawardena, 2014). The only remedy for the institutions hosting students coming from such educational systems is to meet this omission head on and provide the writing instruction necessary for students to be successful on writing assessments, and provide clear guidelines as to what acceptable and unacceptable collaboration looks like.

Language

Language barriers, more than culture or educational practices, may contribute to greater amounts of plagiarism. *Patchwriting* refers to a coping strategy employed by international students struggling to express themselves in English (Amsberry, 2010). Patchwriting occurs when the student believes the original author conveys meaning far better than the student can. Patchwriting becomes a combination of the student's and the original author's writing "in which the student has substituted words or phrases but maintained the structure of the original work" (Amsberry, 2010, p. 36). Students unfamiliar with academic English and stock academic phrases may not yet know the difference between patchwriting and verbatim copying. Patchwriting may also occur because students reading in a second language can decode words and phrases at the sentence level but fail to grasp the overall meaning and purpose of the text (Amsberry, 2010, p. 37). This may be especially true when students are unable to determine the differences between technical terms and nontechnical academic English. Patchwriting may be thought of as a developmental stage related to the writers' own confidence, or lack thereof, that their own writing will not blend well with the copied text (Amsberry, 2010, p. 37).

Taken together, international students may copy or collaborate inappropriately due to different cultural attitudes about textual ownership, educational systems that encourage copying as a learning strategy, and linguistic challenges that present difficulties in expressing the writer's ideas (Amsberry, 2010, p. 37). Considering the multifaceted nature of academic integrity and its potentially harmful effects in the workplace, to academic institutions, and to international students themselves, it becomes difficult but necessary to discuss what can be done to overcome the many formidable cultural and language barriers to build the academic skills necessary for success.

A Survey of Interventions

Very little research has been done regarding the efficacy of specific academic integrity interventions for international students. What follows is a list of promising approaches and comprehensive strategies for proactively addressing academic integrity for international students.

New Student Orientations

The University of Pennsylvania begins lessons on academic honesty before students travel to the United States. Staff lead orientation workshops including interactive sessions on academic integrity involving role-play and small group discussions. The curriculum focuses on the university's expectations. This information is then repeated for all students when they arrive on campus (Bowman, 2017). These substantive orientations can be complemented by program orientations, course orientations, and information literacy instruction to discuss expectations and address plagiarism issues before they occur.

Culturally Sensitive Student Supports

"Cultures differ in help seeking behaviours" (Gunawardena, 2014, p. 95). Students may not seek help out of fear others will perceive a lack of ability, and this requires institutions to focus on and emphasize the socio-emotional needs of students (Gunawardena, 2014). This may sound simple enough, but Gunawardena (2014) suggests "the socio-emotional needs of students are recognized as part of the classroom design in other cultures" whereas "Western teachers are expected to perform academic duties and generally are unconcerned or at least not responsible for students' behaviours or problems outside of school" (p. 95). This has serious implications for reconceiving student expectations, faculty roles, and facilitating students towards available support services.

Comprehensive Plagiarism Education

Different cultural conceptions of textual ownership requires exposure to Western conceptions of textual ownership, and the concept that information can be individually owned, that scholarship is a conversation, and that information has value (ACRL, 2016). Many academic libraries currently perform some level of training, and academic librarians are "the most likely members of the campus community to observe the information needs of students" (Amsberry, 2010, p. 38). These workshops include activities that compare cultural definitions of plagiarism, and examples of where appropriate text use ends and plagiarism begins. No matter how much training is offered, plagiarism often remains a fuzzy concept.

These workshops often centre around definitions and warnings, but these have proven ineffective and insufficient (Amsberry, 2010). Instead of warnings, academic integrity instruction may focus on the good nature of the student, the positive expectations of the institution, and how violating academic integrity guidelines undermines students' values, goals, and is ultimately self-defeating.

Authentic Assessments

Many students now see educational attainment as a means to an end, and during the learning process they can become overwhelmed by busy work (Katkins, 2018). Even though I am wary of shifting too much responsibility for ensuring academic integrity from the student to the faculty because students must be presented with opportunities to be honest, the authenticity (relevance to real-world contexts) of assignments can help shift student motivation from extrinsic to intrinsic. Integrating individualized components into the assignment may reduce the inclination and possibility of cheating because "unauthentic assessment materials that do not ask the learner to relate in a personal or sustained fashion to the material at hand—are more likely to encourage and enable cheating,

whether in face-to-face or distance assessment" (Conrad & Openo, 2018, p. 101). Authentic assessments are not a magic solution, but assessments that are less likely to be outsourced (assessments requiring personalization, unique tasks, and reflection) are the assessment forms most rarely used (Bretag, 2019).

Targeted Interventions

Academic integrity violations affect all academic programs and all postsecondary institutions, mandating universal approaches. Universal approaches may be coupled to a more sophisticated and sustainable response, such as targeted interventions at specific programs and specific courses, as recommended by Katkins (2018). Bertram Gallant et al. (2015) also support targeted interventions because they found that "male, international students who major in computer science, economics or engineering, have a lower grade point average and are newer to the institution are more likely to be other-reported for cheating than their peers" (p. 226). Targeted interventions at certain students in specific majors may have more impact than generalized, universal approaches, but this must be done with sensitivity to the potential dangers of stereotyping and profiling.

Conclusion

The rapid increase of international students studying in Canada forces host colleges and universities to develop strategies that help international students succeed without resorting to academic behaviours classified as academic dishonesty and academic misconduct. Significant challenges remain, and strengthening the culture of academic integrity will require a concerted effort by librarians, teaching and learning centres, faculty, and, of course, academic leaders. This review sought to consider the similarities and differences between international and domestic students concerning academic integrity. International students share all of the challenges faced by domestic students, plus cultural, pedagogical, and linguistic barriers. Unfortunately, there is little literature on the effectiveness of interventions designed to reduce academic integrity violations, which remain consistently high and threaten to undermine the value of Canadian postsecondary credentials. Any research into the efficacy of academic integrity interventions with international students will be incredibly difficult to conduct because it requires establishing a causal chain of evidence linking students who might have committed an academic integrity violation to a direct connection with a particular intervention. Despite the complexity involved in such research, more successful, evidence-based strategies are sorely needed to support institutions, faculty and international students in achieving their academic goals. It is unclear what to do, but what seems crystal clear is that if Canadian institutions are going to continue to welcome increasing numbers of international students, the cultural impact on academic integrity will be a rich area for research and exploration.

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