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Teaching academic integrity: Lessons learned from a Canadian EAP program

Introduction: Background and rational

Academic integrity (AI), defined by the International Centre for Academic Integrity as 'a commitment, even in the face of adversity, to six fundamental values: honesty, trust, fairness, respect, responsibility, and courage' (Fundamental Values of Academic Integrity, 2019), is currently a topic of concern across global post-secondary contexts (McGrail & McGrail, 2015; Pecorari & Petrić, 2014), including Canada (Crook, 2019; McKenzie, 2018). With increasing 'internationalization' of English-medium university campuses, students who use English as an additional language (henceforth EALs) appear to be at greater risk of contravening academic integrity rules, particularly with regard to 'unintentional' or 'textual' plagiarism (Angélil-Carter, 2000; Howard, 1999; Pecorari, 2008). Researchers from the fields of L2 writing studies and applied linguistics have convincingly argued that many of the academic communication practices or 'academic literacies' (Lea & Street, 2006; Wingate, 2015) employed by EAL students are learned over time as students are 'socialized' into their new academic communities (Kobayashi, Zappa-Holman & Duff, 2017). As EAL students are learning to write in/for higher education contexts, they often engage in academic writing practices that are not judged to conform to institutional and culturally-bound norms for academic integrity (Bennett, 2011; Gu & Brooks, 2008; Hu & Lei, 2012; Li & Casanave, 2012; Sutherland-Smith, 2011). English as an additional language student awareness of these context-specific AI norms is the topic of the study described in this research article.

Academic integrity instruction, particularly with respect to accepted

textual production practices, appears to be taken up unevenly across higher education contexts, with professors either unwilling or unable to take up the task pedagogically (Löfström, Trotman, Furnari & Shephard, 2015), leaving much of the 'burden' to academic/language support specialists, such as EAP instructors (Abasi & Akbari, 2008; Davis, 2015). For their part, Canadian universities seem to be taking an increasingly pedagogical approach to building student awareness of AI (Eaton, Crossman & Edino, 2019; Griffith, 2013); however, there is little empirical work pointing to the efficacy of such pedagogies and policies either domestically or globally (Löfström *et al.*, 2015; Velliaris & Breen, 2016), including in pre-sessional EAP programs (Pecorari, 2013; Wette, 2010). The EAP Bridging Program (EBP), a 24-week Canadian post-secondary bridging program meant to support EAL students' transition into university studies, is an ideal site to investigate the impact of a particular program on students' AI awareness.

The EAP Bridging Program (EBP)

The EAP Bridging Program (EBP) is situated at a large, research intensive Canadian university (henceforth CCU), that is home to more than 80,000 students. Comprised of 2 12-week academic terms, the EBP is a content and language integrated learning (CLIL) EAP program serving approximately 300 students across 2 streams (see Appendix 1). Students in the EBP program are conditionally admitted to a faculty program (Arts & Science or Applied Science & Engineering), having failed to meet the university language requirement (IELTS 6.5 with a minimum of 6.0 on every band). Students enter the EBP with IELTS scores of between 5.0 and 6.5 on each band, with a minimum of a 5.5 in writing. Successful completion of the EBP program is a final grade of 60% in all EBP courses, thereby satisfying the university's language requirement for admission.

Study rationale, design, data collection and analysis

Following discussions between the EBP Director and EBP Research Officer, AI was identified as a topic of acute interest to the program, culminating in two main research questions: i) How is academic integrity addressed at Central Canadian University (CCU) and within the EBP? and ii) What is the impact of the EBP on EAL students' awareness of academic integrity?

Employing a mixed methods design (Jang, Wagner, & Park, 2014; Yin, 2014), data collection commenced with document analysis of Central Canadian University AI policy documents and EBP curriculum documents, followed by semi-structured interviews with relevant AI stakeholders at CCU and within the EBP (see Appendix 2). Next, building on pre- (N=174) and post- (N=146) program student surveys, semi-structured interviews were carried out with two Mandarin L1 EBP students over the course of the 2017–2018 academic year. Finally, a textual analysis of these two students' writing over time (multiple versions of a research paper) was employed to identify notable differences in students' ability to write with sources. Quantitative data was analyzed using a statistical test (t-test) while qualitative data was coded thematically using Nvivo 12 software. Quantitative and qualitative data sets were analyzed together, providing triangulated

perspectives and broad understandings of the impact of the EBP on students' academic integrity awareness.

Findings and discussion

Academic integrity across Central Canadian University (CCU)

Drawing on document analysis and interviews with university stakeholders, the task of raising AI awareness among the broad population of students at CCU is taken up by the Student Academic Integrity Centre (SAIC), a teaching assistant (TA) training program, as well as various faculty-specific writing centres, with student- and instructor-facing documents provided in order to clarify university AI policy and support students' academic writing. Among administrators from these various centres, there was a broad acknowledgement (though not total agreement) that EAL students were at greater risk of committing academic integrity offences, as Catherine (SAIC Director) explains:

> *It [academic integrity] is a huge issue. And it's complex, because it ranges from egregious, intentional cheating to rather innocent, unintentional cheating. So, in my view, not understanding the conventions of creating knowledge or building knowledge is the main culprit or reason … and yeah, I think obviously they [EAL students] are at more risk.*

Further, many agreed on the general reasons why EAL students might engage in contravention of academic integrity norms (low language proficiency, poor research practices, poor time management; etc.). However, there was also a recognition that, i) the different entities at CCU responsible for supporting the development of students' academic integrity awareness were not necessarily working in lockstep to support both faculty and students; ii) these entities had little awareness of the pedagogies employed by EAP experts at the EBP; and iii) CCU faculty were not necessarily attending to the AI needs of students in their courses. In line with a trend noted in the available literature, CCU appears to be taking a pedagogical approach to supporting AI awareness for all students (Eaton, Crossman & Edino, 2019; Griffith, 2013); however, questions remain as to how successful such a university-wide approach may be in raising EAL students' AI awareness without a targeted approach that draws more directly on L2 writing expertise (Davis, 2015).

Academic integrity at the EBP: Pedagogies and policies

At CCU, the EBP operates in somewhat of a 'third space', at the periphery of the university (Ding & Bruce, 2017; Hadley, 2015), housed within one of its colleges, both part of the university (students are conditionally admitted) and not (courses are generally not taught by faculty, but rather by tutors with EAP expertise). Academic integrity is explicitly addressed pedagogically in both the EBP content and language courses, as Ben (EBP tutor) explains:

> *I think this program has a big impact on students' awareness and academic writing … so nobody's really great at paraphrasing when they begin … we continuously recycle opportunities for them to try paraphrasing from texts that we've been studying in class and look at the successes and where they may have fallen short … So that continuously happens, week by week … all the way through the term and year. It's a building thing … practice, practice, practice … and then you have the final paper that you have to submit after going through drafts and steps throughout, in addition to the in-class practice that we do continuously.*

Notably, EAL students' academic research and writing skills are scaffolded not only across the curriculum, but over time, with multiple low-stakes drafts leading to a final research paper that demonstrates student ability to write with sources. This ostensibly process-oriented approach underscores a recognition of the need for exposure to academic writing opportunities as EAL students develop their ability to weave sources into their writing while developing their evolving authorial voices (Bloch, 2012; Li & Casanave, 2012; Pecorari, 2013).

Policy-wise, the EBP takes a triage approach to AI 'infractions', somewhat mirroring the broader university approach. A 'three strikes' approach is employed, where students must meet with the EBP tutor who identified the infraction and the EBP director (following a second offence) before potentially losing their offer of admission to the university upon a serious third offence. However, few students have ever lost their offer of admission, and in combining particular pedagogies and policies, 'the EBP attempts to mindfully take a pedagogical, rather than punitive, approach' (Andrew, EBP Director) to increase students' awareness of academic integrity norms, in line with the trend at Canadian post-secondary institutions (Evans-Tokaryk, 2014; Griffith, 2013). Given these findings, one wonders whether CCU may not be well served by adopting AI approaches employed by the EBP, ones that recognize the natural development of EAL students' academic writing (Angélil-Carter, 2000; Gu & Brooks, 2008; Howard, 1999; Shi, 2004).

Impact of EBP on students' AI awareness: Survey data

What does the data tell us about the impact of the EBP approach on students' AI awareness? This sub-section outlines and discusses findings derived from pre- and post-course student surveys, 3 interviews with 2 Mandarin L1 students, and a textual analysis of their research writing over the span of the 24-week program.

First, pre- vs. post-course survey data points to a significant increase in EAL students' awareness of academic integrity norms, both with regard to cheating (see Table 1) and plagiarism (see Table 2). Although this is a relatively small sample, these findings are a strong initial indicator of an increase in EAL student awareness across the two major AI categories (cheating and plagiarism), suggesting the potential impact of EAP programming on students' AI awareness (Davis, 2015; Wette, 2010). Also noteworthy are survey results that show a concomitant, significant rise in students' self-rated academic proficiency (reading, writing, listening, speaking, research skills) alongside their increased AI awareness (see Table 3). These results are unsurprising given the duration of EBP programming; nonetheless, they should be buoying for the EBP program, in particular with respect to the increase in student ratings of their academic writing and research skills, two main areas of emphasis across the curriculum in the CLIL model.

Table 1 Cheating awareness (pre- vs. post-course)

% of respondents who said that they should be allowed to use notes during exams.		% of respondents who said that they should be allowed to use phone during exams.		% of respondents who said that they should be allowed to copy answers from classmates during the exams.	
Pre-course	**Post-course**	**Pre-course**	**Post-course**	**Pre-course**	**Post-course**
36	6*	20	4*	12	1*

*significant t-test result $p<0.05$

Table 2 Plagiarism awareness (pre- vs. post-course)

% of students who do not know how to give credit to others' ideas.		% of the students who believe they should be allowed to use others' exact words without giving them credit.		% of respondents who believe they should be allowed to pay someone to complete an assignment (e.g., write a course paper) for them.	
Pre-course	**Post-course**	**Pre-course**	**Post-course**	**Pre-course**	**Post-course**
48	12*	23	3*	13	4*

*significant t-test result $p<0.05$

Table 3 Self-ratings of academic skills (pre- vs. post-course) as either 'good' or 'very good'

Reading		Speaking		Listening		Writing		Research Skills	
Pre-course	**Post-course**	**Pre-course**	**Post-course**	**Pre-course**	**Post-course**	**Pre-course**	**Post-course**	**Pre-course**	**Post-course**
37%	58%	39%	60%	50%	73%	20%	45%*	33%	53%

*significant t-test result $p<0.05$

Survey results do not provide sufficient evidence to suggest the overwhelming impact of the EBP programming on students' AI awareness. However, they do point to a pattern of (self-perceived) increasing awareness of AI as part of students' evolving academic literacies and discourse socialization (Kobayashi, Zappa-Hollman & Duff, 2017; Marshall & Marr, 2018; Wingate & Tribble, 2012).

Impact of EBP on students' AI awareness: Interviews and textual analysis

From interviews with two Mandarin L1 students, Stewart and Kevin, along with an analysis of three versions of their research papers over the span of six months, three main trends were identified vis-à-vis AI awareness. First, both students displayed an improved ability to attribute ideas to the original authors while paraphrasing. Second, both showed growing awareness of both Chicago and APA style guidelines as they attempted to meet the demands of instructors from content (History) and language (Academic Reading & Writing) courses at the EBP. This improved understanding manifested itself in both improved in-text citations and style-appropriate references sections. Third, and perhaps most importantly, both students displayed an improved ability to effectively weave sources into the body of their papers, in particular an ability to 'chunk' sources at the end of sentences in the introduction and discussion sections of their papers (See Appendix 3). Overall, Stewart and Kevin's research papers over the course of an academic year are evidence of the positive impact of the EBP on their AI awareness. Nowhere was this clearer than in students' evolving ability to write with sources, a foundational academic literacy practice across disciplines (Pecorari & Petrić, 2014; Wingate, 2015).

One additional finding of note from textual analysis of students' research papers was a distinct absence of direct quotation in later drafts. When asked to reflect on why they had chosen not to include any direct quotations from their sources, they both explained that, as a result of feedback from both content and language instructors about unintentional plagiarism, it was perhaps safer for them to simply paraphrase without the inclusion of authors' exact words. Student concerns about unintentional plagiarism suggest an elevated level of AI awareness among these Mandarin L1 students, something noteworthy given this particular student population's challenges on this front (Gu & Brooks, 2008; Hu & Lei, 2012; Shi, 2004). However, these findings also raise the question of whether or not particular instructional practices may be dissuading EAL students from engaging in more complex, effective writing practices that can (and often do, for several rhetorical purposes) include instances of direct quotation. This finding may present food for thought for EAP tutors looking to both improve the complexity of their students' writing with sources, as well as protect their students from being sanctioned for an AI infraction as they develop their L2 writing skills.

Conclusions

This small, mixed methods study points to the clear impact EBP programming has had on students' academic literacies, including their increased awareness of AI, as they are socialized into the academic community at CCU. Quantitative analysis of survey data

highlights an increase in student awareness of general university rules and regulations around both cheating and plagiarism. Qualitative analysis of interviews with a triangulated set of stakeholders associated with the EBP, alongside textual analysis of two EAL students' research writing across the academic year, suggests an increased ability to adhere to academic writing codes and conventions when writing with sources, another indicator of AI awareness. Overall, though these results are not generalizable beyond this particular context, EBP's AI across the curriculum pedagogies and 'triage' approaches to AI contraventions among its student population appear to be impactful and suggest potential lessons that could be learned by other stakeholders attempting to address AI at Central Canadian University and beyond. However, as much of the research into second language writing suggests, academic integrity appears to be a complex, nuanced concept that is learned over time as students develop more advanced academic writing skills as part of their broader academic literacies. As they are socialized into the discourse practices of post-secondary institutions, graduates of the EBP will surely continue to develop an increasingly diverse set of academic literacy practices while attempting to meet the disciplinary writing expectations in their program. Thus, it is important to note not only the impact of this EAP instruction over the course of the bridging program, but also the potentially longer-term impact of programming aimed at these conditionally-admitted plurilingual students, something beyond the scope of this study. Further, as practitioners on the 'front lines' of raising EAL students' AI awareness as they move into/through university studies, we should: i) be aware of how our collective and individual pedagogical practices may impact student ability to meet institutional academic writing norms; ii) temper our expectations for development of academic literacies over short periods of time (do we ever have enough time with these students?); and iii) share our knowledge of effective pedagogical approaches and academic writing development trajectories of EAL students with our institutional colleagues who may not share our EAP experience and expertise (see Appendix 4).

The EBP's approach to raising students' AI awareness was enacted within a 'third space' at this top-tier university. One wonders at the potential of greater bi-directional knowledge and resource sharing between the EBP and other intra-university centres (e.g., writing centres, the student academic integrity office). This enhanced collaboration – particularly the sharing of the EBP's expertise in supporting EAL students – may be beneficial to not only students, but also student support staff across the university who are responsible for supporting an increasingly culturally and linguistically diverse population of university students. Indeed, as EAP programs and practitioners strive to achieve greater legitimacy within and across institutions of higher education, we should aim to share our expertise, including potentially effective pedagogies and policies for raising student awareness of academic integrity.

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Appendix 1 EBP curriculum

Courses	Weekly hours	Duration in weeks	Instructional hours	
			Stream 1	Stream 2
Themes in World History (Stream 1)	2: lecture 1.5: tutorial	24	48 36	
Engineering Strategies and Practices (Stream 2)	3: Lecture 2: tutorial	26		78 52
University Skills & Strategies	3	24	72	72
Critical Reading & Writing (1)/ Written English Discourse (2)	6	24	144	144
Academic Listening & Speaking	6	24	144	144
Discipline-specific courses. Stream 1 (one of): mathematics, economics, political science, digital literacy. Stream 2: mathematics.	3	12	36	36
Total program instructional hours			480	526

Appendix 2 Data collection and analysis

Data Source	N	Data Type	Analysis
Document analysis	26	Program curricula & academic integrity documents	Textual analysis
EBP Academic Director/Assistant Directors	3	Semi-structured interviews	Thematic coding
EBP Assistant Director Recruitment/Admin	1		
College Administrators	2		
Student Academic Integrity Centre Representatives	6		
Teaching Excellence Centre Representatives	2		
EBP Language Instructors	4		
EBP Content Instructor	1		
Teaching Assistant (content course)	1		
EBP students	174	Pre-survey	T-tests; descriptive statistics
	131	Post-survey	
	5	Focus group	Thematic coding
	2	Multiple individual interviews (2 students x 4 interviews)	Textography

Appendix 3 Student profiles

Student	Educational Background	IELTS Scores	Impact of AI Instruction
Stewart	Mandarin L1 Grades 1–10 in Guangzhou, China. Grades 11–12 at Canadian high school in Vancouver.	Overall: 6.5 Writing: 5.5	• increased confidence w/L2 writing • increased confidence w/research • increased confidence working w/sources • appreciated content and language experts' feedback on writing w/sources
Kevin	Mandarin L1 Elementary and middle school in Nanjing, China. Grades 9–12 following North American High School Curriculum in Nanjing.	Overall: 6.0 Writing: 6.0	• increased confidence w/L2 writing • increased confidence w/research • increased confidence w/APA style • frustrated by 'redundant' language classes • appreciated feedback in EBP language courses, including on research skills

Appendix 4 Recommendations for EAP programs and instructors

1. Understand complex landscape in which students operate (pressures, resources and technology).
2. Recognize extended trajectory of AI awareness development, particularly in relation to 'plagiarism' in EAL students' writing.
3. Provide explicit, in-class academic integrity instruction.
4. Provide access to resources across the university.
5. Collaborate with writing centre experts and academic integrity offices.