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Academic Probation: Evaluating the Impact of Academic Standing Notification Letters on the Experience and Retention of Students, Followup Report

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Tim Fricker and Shannon Brady conceptualized the project and have provided ongoing leadership and guidance. The process used to develop the psychologically attuned letter builds on previous work by Shannon Brady and her colleagues, acknowledged below. For Phase II of our project, Shannon Brady and Nicole Redmond facilitated the implementation of the Student Comparison Test, with support from collaborating institutions, and collectively wrote those sections of the report. Shannon Brady completed the statistical analysis and results sections of this report.

Tim Fricker and Melissa Gallo offered their insights on the administrative side of student success initiatives, contributing to organization of the study and providing edits and feedback each step of the way. Tim wrote the introduction, discussion and executive summary sections of this report.

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Executive Summary

What happens when institutions modify the way they communicate bad news — like being placed on academic probation — to students in a way that is more sensitive to students’ feelings and experiences? This report shows that the results are meaningful, that they can significantly reduce negative feelings like shame and increase positive behaviours like seeking support from an advisor, and can improve a student’s overall impression of the institution.

Building off original work by Shannon Brady and her colleagues in the United States, this is the second report from a research team at Mohawk College and Wake Forest University that is testing this kind of approach to institutional communications. The approach involved the creation and testing of new “psychologically attuned” academic notification letters sent to students at Mohawk College.

In Phase I of this work, reported in 2018, the team tested this approach for the first time at a community college and outside of the United States.² In the second phase of the work, the team extended its tests using the new Mohawk College letters with students at three additional institutions, representing community colleges and universities in both Canada and the United States.

This report extends knowledge about how the process of creating psychologically attuned letters relates to the academic probation process and impacts students’ feelings, actions and perceptions of the institution. It reports on the differences between the letter actually in use at an institution (what we call the “standard” letter throughout this report) and the new, student-focused, solutions-based communication (what we call the “revised” or “attuned” letter throughout this report) across diverse institutions in Canada and the United States.

When comparing to the old, standard letter, the key findings of this study as related to the new psychologically attuned letter are described below.

Positive effect on anticipated emotions. Students reported that the new letter reduced anticipated shame and increased anticipated hope to succeed.

Positive effect on behavioural intentions. Students were asked how likely they would be to take several actions soon after reading the new letter, which included likelihood of talking with an advisor, professor or other school staff member; seeking tutoring and considering dropping out of school.

² Language used in the US and Canada to label postsecondary institutions differs. In the US, the term “college” is commonly used when referencing four-year universities, whereas the term “community college” is used more commonly when referencing schools with two-year and three-year programs. In Canada, the terms “college,” “community college” and “vocational college” are commonly used when referring to schools with two- and three-year diploma programs; whereas the term “university” is used exclusively for four-year degree-granting institutions. For the purposes of this paper, we have used the terms “four-year university” and “two- and three-year community college” in order to develop some clarity and consistency around language used to describe postsecondary institutions involved in this multi-institutional and cross-national study.

Positive effect on the perceived sincerity of the institution. Students reported that the new letter felt more sincere.

Overall, the new letter works and has relatively consistent and meaningful effects across all four study sites. Such results shows promise for broader impact on other college and university campuses, should they wish to model the process (detailed specifically in the Phase I Report) to develop their own letters.

This report provides a summary of the potential implications for policy and practice, including the core argument that these are the kinds of outcomes to which faculty and administrators at colleges and universities need to pay attention. The process of creating “psychologically attuned” communications holds potential in a wide variety of areas, not just for students going through academic probation. Some of these areas are suggested as the focus of future research.

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Introduction

Nearly all higher education institutions in North America have an academic probation process (Lindo, Sanders, & Oreopoulos, 2010). Academic probation is a system designed to alert students when they are falling below a certain academic standard. While different schools and departments have different policies, commonly the requirement for satisfactory academic progress is maintaining a particular grade point average (e.g., 60% or a C average) or higher.

If students do not meet this requirement, they are placed on academic probation. At some schools, this academic status is referred to as jeopardy, academic warning, academic alert or by another name. For the purposes of this study, we will use the term academic probation. To inform students that they are on probation, they receive a notification letter from their school.

Recent research has indicated that academic probation notifications can make students feel ashamed and less likely to take productive academic actions (Brady et al., forthcoming). These negative emotions can lead to an increased risk of academic withdrawal (Brady et al., forthcoming); thus, it is vital that higher education institutions conduct research on and invest effort into creating communications that decrease these negative risks. We refer to this approach to communication letters as psychologically attuned because the language, tone and messages are purposely attuned to the anticipated feelings of the student who will receive the letter. These attuned letters are designed specifically to try to limit negative emotions and generate more positive feelings about themselves and their institution, while still maintaining a clear message that the student must take action to improve their academic standing at the school. For institutions continuously seeking to improve student satisfaction, engagement and success, this type of intervention could have a valuable role in those efforts.

The following report begins by providing an overview of previous research relating to the academic probation process in order to provide context for the current study. It includes background about the original work of Shannon Brady and her colleagues, who pioneered this work within four-year institutions in the United States. We also summarize the outcomes from Phase I of this project at Mohawk College, which represents the first time this psychologically attuned intervention was tested in a community college setting, and outside of the United States. We briefly present the results from this work, and explain how it served as the foundation for the second phase of the project, which includes an effort to evaluate the differences between the Mohawk College standard and attuned letters at multiple sites across Canada and the United States. The report from Phase I of this project addresses items that are not included in this report.

Specifically, the Phase I report details the process that was used to generate and validate the emotions felt by students receiving different letters, the student feedback and pilot testing used to improve the attuned letters, and an analysis of administrative data at Mohawk to understand if the new attuned letters had any effect on retention rates and academic outcomes. This is a purposeful, evidence-based process, that tests

and retests assumptions and effects multiple times to ensure the letters address students' feelings respectfully and appropriately.

After presenting some of the background research, this report presents the research questions, the Student Comparison Tests method used for our study and the results. We conclude with a discussion about the implications for policy and practice and then highlight avenues for future research.

Background Research

College administrators want the academic probation process to motivate students and help them get back on track academically (Brady et al., 2017). Yet research suggests that placement on probation may actually undermine students' academic efforts (Lindo, Sanders, & Oreopoulos, 2010; Schudde & Scott-Clayton, 2016). One reason for this may be that probation notification letters inadvertently lead students to feel ashamed (Brady et al., forthcoming; Brady et al., 2017). Past research suggests that feeling ashamed may lead students to disengage academically (Major & Schmader, 1998; Stone, 2002; Schmader & Lickel, 2006). In fact, shame has been described as an emotion that leads a person to want "to sink into the floor and disappear" (Tangney, Miller, Flicker, & Barlow, p. 1257) — likely a maladaptive response when students are needing to increase their commitment to school or try new academic strategies.

Recent research by Shannon Brady and her colleagues (forthcoming) suggests, however, that a meaningful portion of students' negative responses in the academic probation process may be due not to placement on probation *per se* but rather how one's institution communicates about probation — in ways that inadvertently evoke strong negative emotions. Brady and her colleagues illustrate this by developing "psychologically attuned" probation notification letters and showing that students respond more favorably to those attuned letters than they do "standard" probation notification letters.

Psychologically attuned probation notification letters are designed to provide clear and adaptive answers to key psychological questions students could reasonably worry about when placed on probation ("How am I viewed by my institution?" and "What does probation mean for me and my relationship with my institution going forward?"), thereby mitigating shame. Four principles guide the development of attuned letters: (1) Frame probation as a process of learning and growth; (2) Communicate that it is not uncommon to experience difficulties in college; (3) Acknowledge a variety of specific, non-pejorative reasons for academic difficulty; and (4) Offer hope of returning to good standing. Attuned letters emphasize these themes both in the letter itself as well as through an appended page of "student stories" that share the experiences of other students previously placed on probation.

Previous US-based Studies

The idea for psychologically attuned probation notification letters grew out of a collaboration between Brady, her colleagues and administrators at a selective private university in the United States. Accordingly,

the attuned letters were first tested in that context (Brady et al., forthcoming). In two scenario-based experiments, students reported that they anticipated experiencing less shame from receiving the attuned letter than from receiving the university's previous "standard" notification letter. Furthermore, they said they would be less likely to consider dropping out after receiving the attuned (versus standard) letter. In the first cohort of a randomized controlled trial of students conducted among students actually being placed on probation at that university, students who received the attuned letter were more likely to still be enrolled and to be on a better academic status a year later than students who received the standard letter.

In subsequent studies, Brady and her colleagues have demonstrated that the psychological benefits of attuned letters extend beyond the initial selective private university. First, using the letters developed for the selective private university, they showed that other populations of students — including students at two large public universities in the US and people self-identifying as US college students on the Mechanical Turk crowdsourcing platform (www.mturk.com) — also anticipated less shame, less concern, and were less likely to consider dropping out of school from the attuned letter than from the standard letter (Brady et al., forthcoming). Second, they partnered with six new institutions and developed attuned letters for each institution, tailored to that institution's particular context. Then, in scenario-based experiments, they tested each school's previous "standard" letter against the attuned letter developed for that school. Across schools, the attuned letters led students to anticipate less shame and a lower likelihood to consider dropping out of school than the standard letters, although the magnitude of effects differed across institutions (Brady et al., 2017). In the studies conducted not at the selective private institution, there were sometimes effects on positive outcomes, such as feelings of hope and of being supported by one's school, but the effects on positive outcomes were typically of smaller magnitude than the effects on negative outcomes.

Previous Canada-based Studies

A key impetus behind the present research was that, when the project began, no research on psychologically attuned academic standing notifications had been conducted at two- and three-year colleges or at postsecondary institutions outside the United States.

In Phase I of this project (Waltenbury et al., 2018), some findings aligned with past US research but some also diverged. Overall, students previously placed on academic probation at Mohawk College reported feeling relatively ashamed ($M = 4.42$ on a 7-point scale) and embarrassed ($M = 4.26$) and not very respected ($M = 2.87$). Generally, these patterns were consistent with data from the US, although they are somewhat less extreme. (The results from a similar study at four-year schools in the US on the same 7-point scale were as follows: $M_{\text{ashamed}} = 5.32$, $M_{\text{embarrassed}} = 5.37$, $M_{\text{respected}} = 2.34$.)

The same survey of students previously on probation tested students' responses to standard and attuned letters. In contrast to most past research, students did not report that they would feel less ashamed after

reading the attuned letters than the standard letters. Moreover, their overall reports of how ashamed they would feel after reading the letters either were quite low (e.g., Mashamed = 3.63 on a 7-point scale at Mohawk, compared to Mashamed = 4.70 in a similar study at four-year schools in the US). However, there were still some benefits of attuned letters that mirror past results: students said they would feel more hopeful and more supported by their school after reading the attuned letter (versus the standard letter).

What explains these divergent results? We have already noted two possibilities: Mohawk is the first two- and three-year school and first institution outside the US at which this research has been conducted. Perhaps one or both of these factors explains the overall less extreme emotional responses and the lack of effects for negative outcomes in students' anticipated responses to the letters. But there are other possibilities as well. First, for the study at Mohawk, we had recruited students who had experience with at least one of three different academic standings: Promote with Advice, Academic Probation or Compulsory Withdrawal. At other schools, studies have focused only on those students who have experienced probation. Second, the vast majority of the research on students' psychological response to the letters has been conducted with students from the general population, not those who specifically have previous experience with academic standing. This is likely only a partial explanation at best, however, since the numbers cited from the four-year schools in the US in the previous paragraph are from a study with students' previously on probation. Finally, the standard and attuned letters used at Mohawk were different than those used in the previous studies. Subjectively, we on the research team believe even the standard Mohawk letter prior to any revisions to be somewhat "attuned" in its language, in comparison to the language of letters sent by many other institutions.

Encouragingly, despite these divergent results, initial analyses of student academic records at Mohawk College before versus after the institutional adoption of the attuned letter were consistent with an academic benefit of the attuned letter. While there was no statistically significant difference in students' likelihood to re-register or graduate in the subsequent term (before implementation of attuned letter: 73%; after implementation of attuned letter: 74%), there was a statistically significant improvement in students' subsequent term grades (before: 54.6%; after: 60.4%).

Research Questions and Approach

For Phase II of our project, we focused on two of our overarching research questions:

1. How do different kinds of notification letters about failing to maintain good academic standing (standard versus psychologically attuned) affect students' feelings, behaviours and academic outcomes?
2. Do the effects of psychologically attuned notification letters vary at different schools?

To address these questions, we conducted and analyzed a scenario-based experiment of students' reactions to standard and attuned notification letters at four different institutions: three institutions in Ontario and

one in North Carolina. Two of the institutions are two- and three-year community colleges in Ontario, and the other two are four-year universities, one in Ontario and the other in North Carolina. As explained below, we refer to this as a “student comparison test.” We address these efforts and the resulting findings below.

Student Comparison Test: Design and Methods

We recruited 405 students from the general student population at Mohawk College to participate in an online study about “college communications.” Students were asked to imagine that they had a difficult academic term; they then check their academic standing and find that they are no longer in good standing. Students were randomized to first view either the standard letter or the psychologically attuned letter, and were asked to read it, imagining that they are really receiving it themselves. They were then asked how they would feel and respond.

We refer to this survey as a student comparison test (SCT) because it allows us to compare students’ responses to different academic standing letters (“standard” unrevised letters versus “psychologically attuned” letters developed as part of this project). In several ways, this student comparison test is similar to part of the previous student survey we conducted during Phase I. However, the way the survey was implemented at Mohawk College during Phase II allowed us to (a) include additional questions to understand students’ experiences and perceptions, (b) increase statistical power and (c) reach a wider student population. During Phase I of the study, our student population sample was limited to only those students who had been previously placed on an academic standing other than Good Standing.

In Phase I of our project, some of the findings relating to our primary research question — How do different kinds of notification letters about failing to maintain good academic standing (standard versus psychologically attuned) affect students’ feelings, behaviours and academic outcomes? — differed from the past research on psychologically attuned academic standing letters. Specifically, students’ reports of how ashamed academic standing notification letters would make them feel were overall quite low. Although psychologically attuned letters still led to more adaptive student responses than standard letters, they did so primarily by improving positive outcomes (e.g., making students feel more supported and motivated) than by reducing negative outcomes (e.g., making students feel less ashamed). As previously discussed, a partial explanation for this could be the sample population for Phase I, students previously placed on an academic status other than Good Standing. In previous studies, letters were tested with the general student population. This led to our first modification for Phase II – recruiting from Mohawk’s general student population.

A second explanation for the difference in our findings during Phase I is that all previous studies were conducted at postsecondary institutions in the US. This led the research team to seek out Phase II research partners in Ontario to see if data trends from Mohawk College could be replicated in these neighbouring institutions. Conducting the student comparison test at two additional postsecondary institutions in Ontario and one postsecondary institution in the US allowed us to gather data to understand how the effects of

psychologically attuned notification letters may vary in different institutional contexts (e.g., an Ontario university versus an Ontario community college; an Ontario university versus a US university).

Seeking out additional research partners in Ontario and the United States also allows us to address our second research question — Do the effects of psychologically attuned notification letters vary at different schools? This second research question supports and extends the understanding of our primary research question by exploring how these effects might vary at different kinds of schools — and thus, how effects may generalize across institutions.

The research team began reaching out to potential partners in June 2018. When seeking partners for the Phase II SCT, we wanted to have the opportunity to explore:

- US versus Canada (Ontario, specifically)
- Two-year and three-year community colleges in comparison with four-year universities

We kept these two components in mind when reaching out to colleagues at various postsecondary institutions. We attempted to secure research partners with programs, academic expectations and student populations similar to either Mohawk College (two-year and three-year community colleges) or to contexts similar to previous studies (four-year universities) in both Canada and the US. For example, Lambton College, though smaller than Mohawk College, offers a similar range of programs to Mohawk, and its expectations for academic “good standing” are similarly aligned. Likewise, University of Waterloo offers a comparable academic context (programs offered; academic expectations) to those schools involved in previous US studies. Wake Forest University, the US-based four-year institution, met the same criteria. We also sought to include community colleges from the United States in this study, but implementation timeline challenges prevented that from occurring in time for inclusion in this report.

Study Sites

In total, we conducted the SCT at four postsecondary institutions. Three Canadian institutions were included (Mohawk College, Lambton College and the University of Waterloo) and one US-based institution (Wake Forest University). Table 1 provides more information about the different sites, including information regarding how students at each institution were recruited for the study.

To ensure accuracy of survey contents, the research partners at each site tested their version of the survey prior to implementation.³

³ Details of survey administration and timelines for implementation are available in Appendix A.

Table 1: Key Information about Study Sites

	Mohawk College	Lambton College	University of Waterloo	Wake Forest University
Abbreviation	C2-MC	C2-LC	C4-UW	C4-WFU
Location	Ontario, Canada	Ontario, Canada	Ontario, Canada	Eastern United States
Type	two- to three-year public college	two- to three-year public college	four-year public university	four-year private university
Full-time Student Enrollment	~16,500 students registered in full-time programs	~3,400 students enrolled in full-time programs	~30,500 full-time undergraduate students	~5,100 full-time undergraduate; ~3,000 graduate and professional
Participant Recruitment	Recruited via email to all students enrolled in full-time programs	Recruited via email to all full-time students	Recruited via Psych Dept. subject pool	Recruited via Psych Dept. subject pool
Participant Compensation	\$10 CAD credit on Student Card	\$10 CAD gift card to Tim Hortons	Course credit	Course credit
Institutional Collaborator	Mohawk Research Team (authors)	Kurtis Gray	Dr. Christine Logel, Katie Mathias	Shannon Brady (author)

Participants

Across four sites, 1,250 students were recruited into the study (405 at Mohawk; 300 at Lambton, 297 at Waterloo, 248 at Wake Forest); however, 892 students provided usable data for our main analyses of interest. To be deemed usable data for the paired-samples analysis, a participant needed to answer questions related to both the standard and attuned letters. Table 2 provides demographic information for the students included in primary analyses at each site.

Beyond the general differences in the institution type and locations, the participant data shows that each sample is unique across a number of demographic factors. This was anticipated and purposeful in the research design to answer our question about differences across institutions and locations. Of note, the average age of university participants was 20–21 years old, while the average age of college participants was approximately five years older, at 25–26 years old.

Table 2: Participant Characteristics

	Mohawk College	Canadian College	Canadian University	US University
Number of Participants	405	154	148	185
Class year				
1	3%	36%	32%	73%
2	62%	33%	35%	23%
3	24%	18%	17%	3%
4	8%	9%	12%	<1%
5+	4%	4%	4%	<1%
Full-time student	97%	99%	99%	100%
Average age	26	25	21	20
Gender				
Man	40%	34%	29%	46%
Woman	59%	64%	71%	52%
Identifies another way	1%	3%	<1%	1%
Person of color	19%	8%	48%	23%
First-generation student	32%	32%	27%	10%
International student	11%	5%	14%	15%
Ever placed on probation	30%	25%	19%	3%
Ever at risk of probation	32%	28%	32%	17%

Note: Not all students answered demographic questions. “Prefer not to respond” answers are excluded from calculations.

Procedure

Once students decided to participate in the study, they were directed to an online survey, hosted on Qualtrics (www.qualtrics.com) and tailored for their specific institution. This survey was based on previous research by Shannon Brady and her colleagues and adapted for this study by Shannon Brady and Nicole Redmond, with input from other members of the research team as well as our local collaborators at each institution.

At the beginning of the survey, students were randomized to view either a standard probation letter (based on Mohawk College's probation letter *prior to* spring 2017⁴) or a psychologically attuned letter (based on the attuned letter developed for Mohawk College in winter 2018⁵) and were asked to vividly imagine receiving the letter. The letters were as similar as possible across institutions while still providing accurate information relevant to their institution (i.e., names of the institution, resource links and departments named in the letters were changed to read as if the letter came from the student's home institution). After viewing the letter, students were asked a series of questions about how the letter would make them feel, respond and think if they were to actually receive it. Then, the same procedure was repeated for the other letter not yet viewed (standard or attuned). This within-subjects design allows us to maximize statistical power. Counterbalancing the order in which letters are viewed by participants ensures that results are not due to the particular order in which students viewed the letters.

Measures

For the present analyses, we focus on the outcomes of students' anticipated feelings of shame and hope, what actions they would take soon after receiving the probation notification letter, and the extent to which they saw the letter as sincere.

Anticipated emotions. Anticipated shame and hope were measured with one item each, "After reading the letter, to what extent would you feel...[ashamed/hopeful]?" (scale: 1 = not at all to 7 = extremely).

Behavioral intentions. Students were asked how likely they would be to take several actions soon after reading the letter. Here, we focus on three actions: talking with an advisor, professor or other school staff member; seeking tutoring and considering dropping out of school.

⁴ In spring of 2017, the research team collaboratively crafted an initial set of psychologically attuned notification letters for Mohawk College students being placed on Probation (PB) and Compulsory Withdrawal (CW). Mohawk's probation letter prior to spring 2017 is considered a "standard letter," as it had not yet entered the iterative development process.

⁵ By the end of the winter 2018 term, the research team used student feedback to collaboratively craft a revised set of psychologically attuned notification letters for Mohawk College students being placed on Promote with Advice (PA), Probation (PB), and Compulsory Withdrawal (CW) statuses. The research team used data from both the first online student survey, as well as student interviews and focus group discussions to inform the revisions to these letters.

Letter sincerity. Letter sincerity was measured with one item, “To you, how sincere does the letter feel?” (scale: 1 = not at all sincere to 7 = extremely sincere).

Student Comparison Test: Results

This section describes key findings from the SCT conducted at the four institutions involved in Phase II. Given that each student provided reactions to both standard and attuned letters, we used paired-samples t-tests for analyses. Figures 1–7 show the results across the four institutions for each of the outcomes measures, and a summary table (Table 3) is provided at the end of this section with relevant statistical data.

Students’ Responses to Standard and Attuned Letters

Attuned letters productively shifted students’ anticipated behaviors (see Figures 1–7 and Table 3). Across all four schools, students said they would be quite likely, on average, to talk with a professor, advisor or other school staff soon after placement on probation; however, the attuned letter increased students’ reports of this likelihood even further. At each school, this difference was statistically significant ($ps < .05$). Effect sizes ranged from $d = 0.18$ at Mohawk College to $d = 0.51$ at the US university. Similarly, students at all four schools said they would be more likely to seek tutoring after receiving the attuned letter than after receiving the standard letter. At each school, this difference was statistically significant ($ps < .05$). Effect sizes ranged from $d = 0.19$ at the Canadian college to $d = 0.37$ at the Canadian university. Across all four schools, students said they would be quite unlikely, on average, to skip class soon after placement on probation; however, the attuned letter decreased students’ reports of this likelihood even further. At each school, this difference was statistically significant ($ps < .05$). Effect sizes ranged from $d = 0.17$ at the Canadian college to $d = 0.30$ at Mohawk College. Finally, across all four schools, students said they would be less likely to consider dropping out after receiving the attuned letter than after receiving the standard letter. At each school, this difference was statistically significant ($ps < .005$). Effect sizes ranged from $d = 0.31$ at the US university to $d = 0.42$ at Mohawk College.

In addition, students saw the attuned letter as more sincere than the standard letter across all four schools. At each school, this difference was statistically significant ($ps < .001$). Effect sizes ranged from $d = 0.47$ at the Canadian college to $d = 0.68$ at the US university.

Figure 1: Students' Anticipated Feelings of Hope

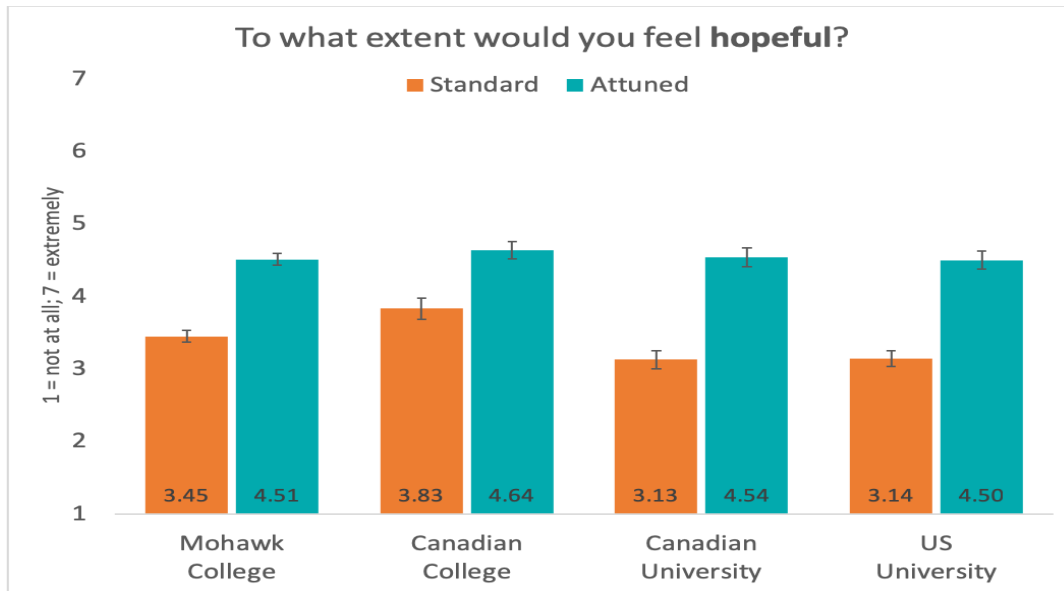


Figure 2: Students' Anticipated Feelings of Shame

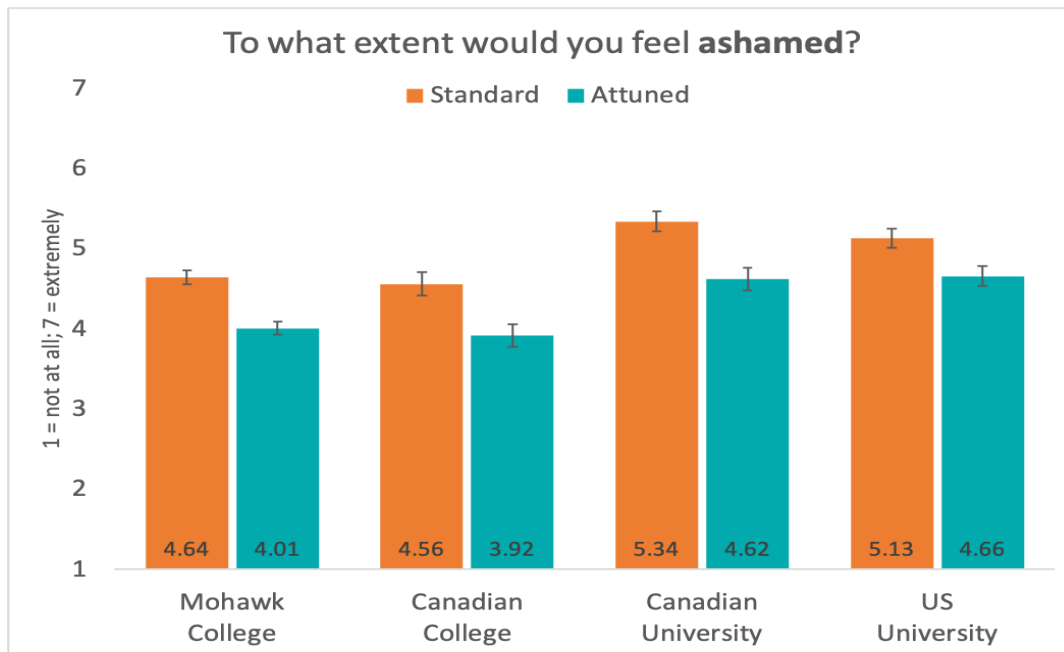


Figure 3: Students' Anticipated Action of Talking with a Professor or Advisor

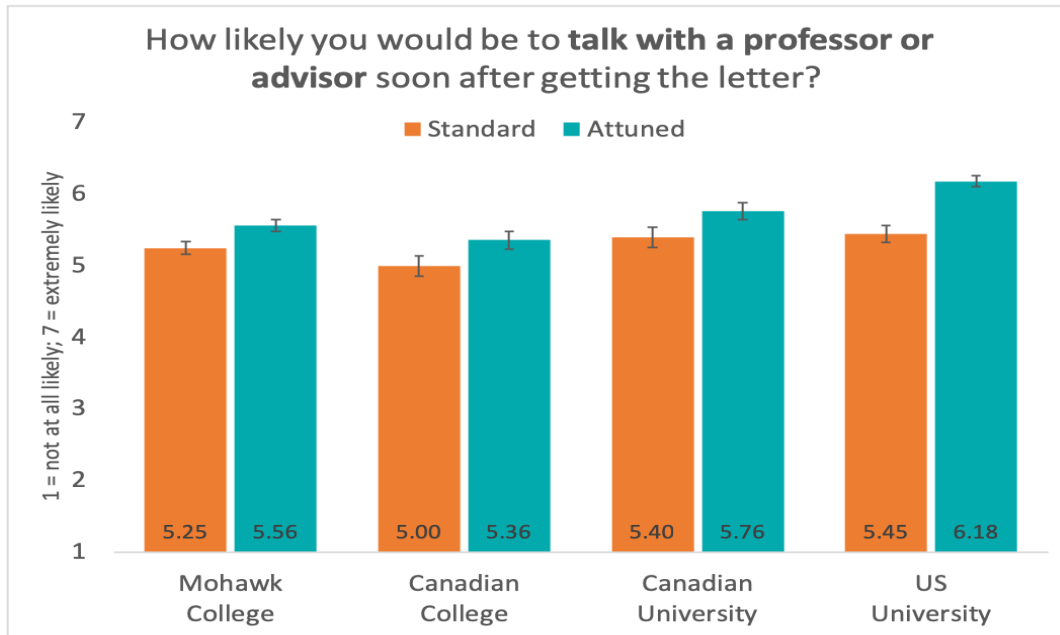


Figure 4: Students' Anticipated Action of Seeking Tutoring

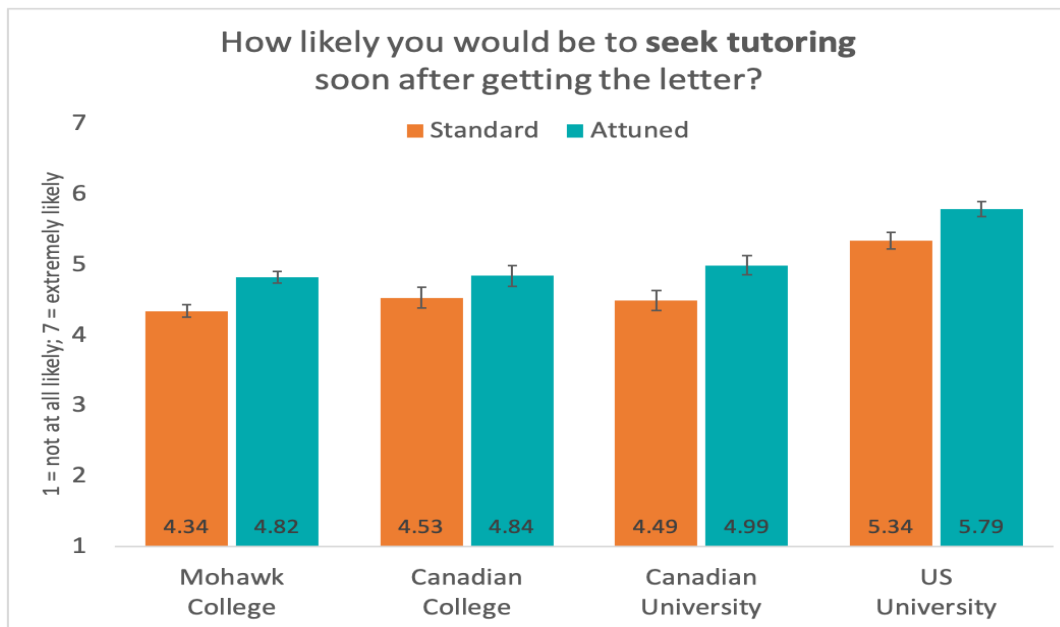


Figure 5: Students' Anticipated Action of Skipping Class

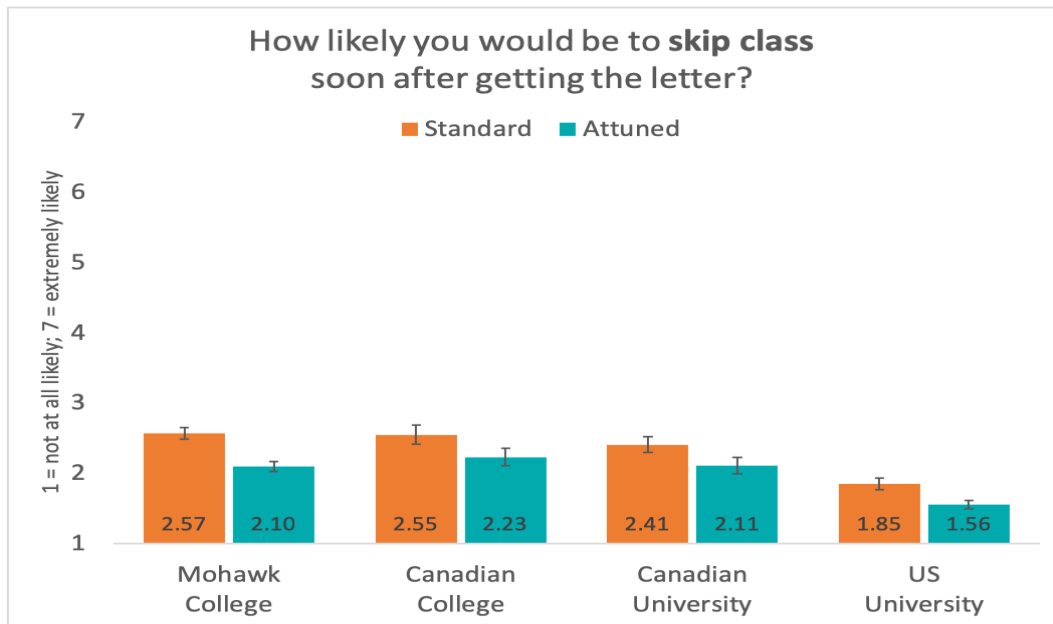


Figure 6: Students' Anticipated Action of Dropping Out

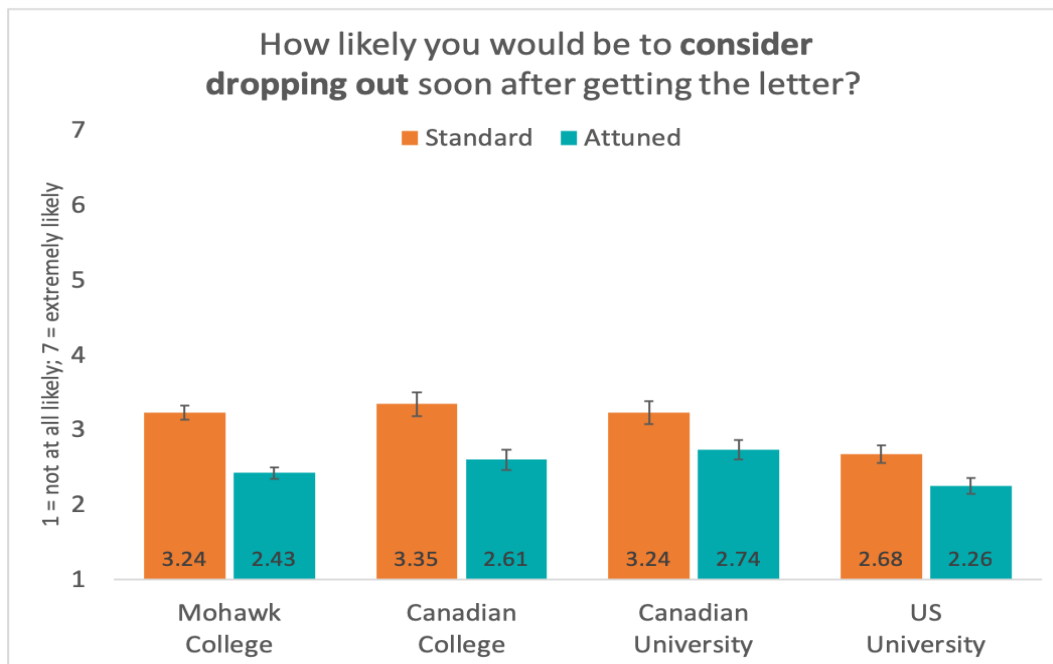


Figure 7: Students' Interpretation of Letter Sincerity

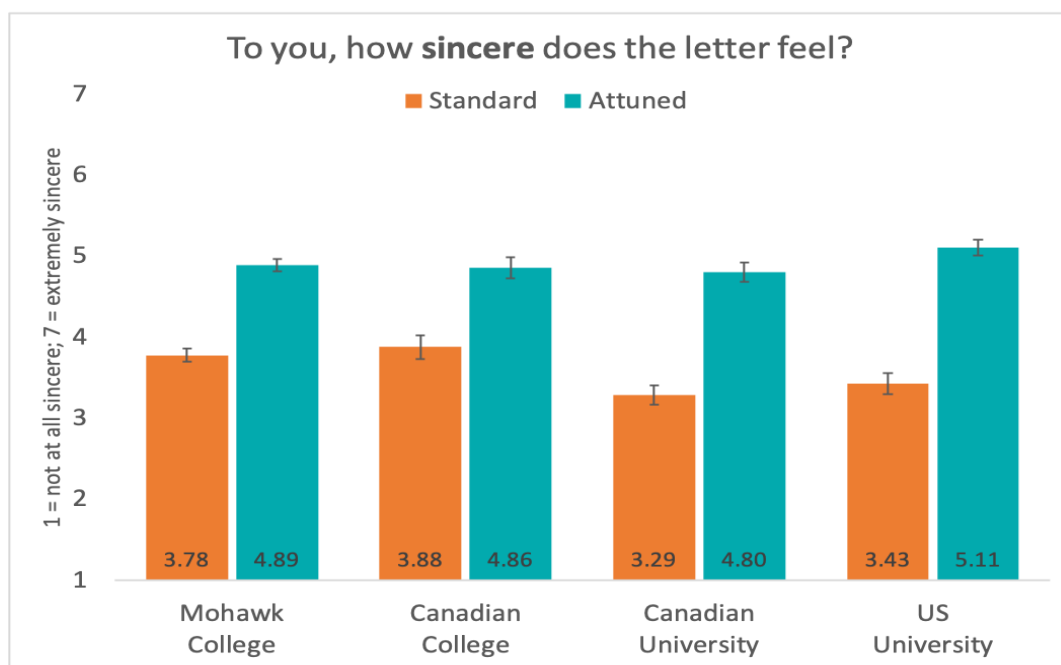


Table 3: Summary Table of Statistical Results from SCT by Location

	Standard Mean	Standard SD	Attuned Mean	Attuned SD	t	p	d
Shame							
Mohawk College	4.64	1.77	4.01	1.69	-6.43	<.001	0.32
Canadian College	4.56	1.81	3.92	1.74	4.06	<.001	0.33
Canadian University	5.34	1.55	4.62	1.72	4.66	<.001	0.38
US University	5.13	1.62	4.66	1.69	3.19	0.002	0.24
Hope							
Mohawk College	3.45	1.66	4.51	1.65	10.44	<.001	0.52
Canadian College	3.83	1.85	4.64	1.47	4.88	<.001	0.39
Canadian University	3.13	1.51	4.54	1.59	8.02	<.001	0.66
US University	3.14	1.50	4.50	1.68	9.23	<.001	0.68
Behavioral intention:							
Talk to advisor/professor							
Mohawk College	5.25	1.73	5.56	1.63	3.63	<.001	0.18
Canadian College	5.00	1.76	5.36	1.53	2.36	0.02	0.19
Canadian University	5.40	1.69	5.76	1.45	2.68	0.008	0.22
US University	5.45	1.60	6.18	1.06	6.94	<.001	0.51
Behavioral intention:							
Seek tutoring							
Mohawk College	4.34	1.75	4.82	1.66	6.01	<.001	0.30

	Standard Mean	Standard SD	Attuned Mean	Attuned SD	t	p	d
Canadian College	4.53	1.81	4.84	1.78	2.38	0.02	0.19
Canadian University	4.49	1.75	4.99	1.69	4.49	<.001	0.37
US University	5.34	1.65	5.79	1.41	4.67	<.001	0.34
Behavioral intention:							
<u>Skip class</u>							
Mohawk College	2.57	1.61	2.10	1.34	6.01	<.001	0.30
Canadian College	2.55	1.71	2.23	1.53	2.13	0.03	0.17
Canadian University	2.41	1.37	2.11	1.37	2.86	0.005	0.24
US University	1.85	1.16	1.56	0.81	3.83	<.001	0.28
Behavioral intention:							
<u>Consider dropping out</u>							
Mohawk College	3.24	1.88	2.43	1.53	8.28	<.001	0.42
Canadian College	3.35	1.96	2.61	1.68	4.56	<.001	0.37
Canadian University	3.24	1.85	2.74	1.64	4.05	0.001	0.33
US University	2.68	1.61	2.26	1.45	4.19	<.001	0.31
Letter sincerity							
Mohawk College	3.78	1.67	4.89	1.49	11.19	<.001	0.56
Canadian College	3.88	1.78	4.86	1.57	5.83	<.001	0.47
Canadian University	3.29	1.49	4.80	1.45	9.43	<.001	0.78
US University	3.43	1.75	5.11	1.34	11.49	<.001	0.84

Differences by Institutional Characteristics

We were interested in examining whether institutional characteristics (two- and three-year college versus four-year university; Canadian institution versus US institution) seemed to explain any patterns across schools. We did this by visually inspecting means and effect sizes.

In general, the findings were incredibly robust, with significant differences in the predicted direction emerging for every outcome at every school. For several outcomes, effect sizes were even quite similar across schools. For example, for shame, effect sizes only ranged from $d = 0.24$ to $d = 0.38$. For considering dropping out, effect sizes only ranged from $d = 0.31$ to $d = 0.42$.

In light of this, institutional characteristics did not seem to explain many patterns across schools. Effects were not consistently larger or smaller at the Canadian institutions than at the US institution, nor were they larger or smaller at the colleges than at the universities. The only generalization that seemed to hold was that students at universities reported more extreme anticipated emotions in response to the standard letter (higher shame, lower hope). One partial explanation for this could be the difference in average age noted in our sample population in colleges versus universities. As students in the college samples classify as “mature students,” this student population may be more academically seasoned and less reactive to the academic standing process in general. Students in the university samples, who were on average five years younger

than the college samples, may have been more reactive in their emotional response to the academic standing process conceivably because they are less familiar with facing academic challenges.

Conclusions from the Student Comparison Tests

Overall, the student comparison test results indicated that students responded more productively after imagining receiving attuned letters than standard letters. This was the case for every single outcome tested at all four schools. That said, the magnitude of the effects varied. Many were close to a third of a standard deviation. However, the effects for the behavioral intentions were often smaller, closer to a fourth or fifth of a standard deviation. The largest average effect was for letter sincerity; the attuned letter was seen as two-thirds of a standard deviation more sincere than the attuned letter.

This study was designed, in part, to provide a window into the results obtained in the previous student survey study in Phase I, in which the attuned letter improved some positive outcomes but did not shift negative outcomes among students at Mohawk College with previous experience not making good academic standing. With greater power in a sample of students without specific previous experience not making good academic standing, we found effects on both positive and negative outcomes. That said, it is worth noting that, in the present study, the effects on hope are approximately twice as large as the effects on shame — in contrast to past research, where the magnitude of effects is usually larger for negative outcomes than for positive outcomes. This may have something to do with particularities of the letters themselves. For example, perhaps the standard letter used here is less shame-inducing than other standard letter that have been used in other similar studies. Or, perhaps the attuned letter is missing an element that is particularly effective at reducing shame.

Discussion and Conclusion

At the close of the SCT, students were presented one final open-response prompt: “If there is anything you'd like to share with the research team about our study (including any technical difficulties you encountered or anything else), please write it in the box.” One student’s response to this prompt serves to highlight the importance and impact of this research: “What an interesting study that hits home for me; hopefully you guys can create the change and bring the need to be more sincere during a stressful time up to [schools].” That this student offered such an authentic and positive response to the study and, more specifically, psychologically attuned communications attests, we believe, to the power of this approach and the desire for it from students.

In our final section, we summarize the findings from the SCT in relation to our research questions and offer a discussion of the impact of these findings for institutional policy and practice, as well as the direction of future research.

Summary and Findings

Our first research question asked:

- How do different kinds of notification letters about failing to maintain good academic standing (standard versus psychologically attuned) affect students' feelings, behaviours and academic outcomes?

Our SCT findings demonstrated that, across a diverse set of schools, attuned letters have a positive effect on each of the emotions measured. Attuned letters can reduce students' feelings of shame and increase their feelings of hope. Importantly, these improved outcomes are also mirrored in behavioral intentions: Students expect to respond more productively to attuned letters than standard letters, being more likely to reach out to professors and seek tutoring and less likely to skip class or consider dropping out. The attuned letters also had a positive effect on students' perceived sincerity of the institution. Our previous research, reported in Phase I of this project, also showed the promise that attuned letters could have an effect on academic outcomes. We are continuing to look into data on this topic and plan to report on those outcomes in a future report.

This research extends the research on attuned probation letters to Canadian higher education institutions and to two- and three-year schools and finds broadly similar results as previous studies at US four-year institutions have. The comparatively larger magnitude of effects on hope than shame stand out as one difference: Future research could investigate whether these differences are due to the particular stimuli used (based on letters used at Mohawk College) and, if so, exactly which features of the stimuli yield this result.

Our second research question asks:

- Do the effects of psychologically attuned notification letters vary at different schools?

Our findings suggest that there is substantial similarity of findings relating to students' anticipated responses to the psychologically attuned letter across the four institutions that participated in this study. Although mean levels of responses varied somewhat across schools, the consistency of the direction of effects and — in many cases — the magnitude of effects for a particular outcome were striking. While there were only four institutions that participated in this study, there was representation across the US and Canada, which included community colleges and universities. The student participants were relatively diverse. Absent from the data in this study was a US-based two- or three-year community college. We are actively working with two right now and hope to add this data to a future report.

Implications for Practice

Shannon Brady and her research partners at Stanford University and the College Transition Collective have developed a low-cost intervention that shows strong evidence of and potential for meaningfully improving

student success, retention and well-being. The report from Phase I of our study serves as an introduction to the process of creating psychologically attuned academic standing letters. We now know that this intervention replicates across institutions — in colleges in Ontario and universities in both Canada and the United States. It is our hope that this report from Phase II of our study will inspire others to reflect on their existing communication practices and to develop psychologically attuned student-facing institutional communications.

This report adds to previous work on this intervention and continues to demonstrate that institutional communication — what we say, how we say it and how it is received by students — is complex and needs requisite care and purposeful attention, especially when we are communicating about crucial moments in students' academic experiences. This growing body of research shows that there is a process to attune letters that creates a more sincere and supportive feeling for students that leads to more positive emotions and productive behaviours. In short, for faculty and administrators concerned about student satisfaction, engagement and success, creating psychologically attuned academic standing letters is a promising practice.

It is possible that there are other scenarios where the lessons from this research could be applied. Materials within this report offer great opportunity for professional development for those who are involved in the creation of institutional communications — staff in admissions and financial aid, academic advisors, administration and faculty alike. While yet to be tested, it is conceivable that other letters, which could be deemed bad news or received negatively by students, could benefit from such a process. For recruitment and admissions staff, letters about missing requirements or offers to second choice programs could be an avenue for investigation. Similarly, faculty and academic advisors who send out “early alert” emails related to missing class or low scores on early course assignments could find similar value in the process. Another potential opportunity for both research and application is within the Student Conduct office, which often sends letters to students to address problematic behaviours. Such an approach designed with the process explained in the first report could be of value.

It is our plan to continue this important work at Mohawk College by revising and creating additional psychologically attuned institutional communications. Aligning key institutional communications with the process used to create psychologically attuned communications may help to increase enrolment, engagement with support services and retention, as well as improve students' perceptions of the institution. Furthermore, establishing internal support and knowledge of these processes will increase the influence this theory has on the overall culture at Mohawk College.

While the focus of Phase II has remained on completing the cross-institutional SCT, we also engaged in additional activities — such as the presentation of a workshop on creating and evaluating psychologically attuned communications to internal and external audiences — to build strong research partnerships and disseminate the knowledge and skills we have honed through this HEQCO-funded project. We plan to continue these activities to strengthen existing partnerships and foster new ones — both internally and externally — to widen the impact of this important research.

Directions for Future Research

We have discussed a number of opportunities for future research throughout this report, such as conducting further studies that include more students from a larger and more diverse group of institution types. We have also cited a number of areas where we are still actively doing more research, including the continued analysis of academic outcomes for students at Mohawk College and supporting two US-based community colleges in replicating this study. This new data offers us the opportunity to explore further questions related to student responses to academic standing letters, providing further insight into the impact of psychologically attuned academic standing letters at Mohawk College with different student populations.

There are some differences between community colleges and universities in our data that are interesting and may be worth examining further. This could be done via a variety of approaches, including followup surveys, focus groups, and perhaps an analysis of current academic probation letters at each participating institution. This could help generate a stronger understanding of the baseline experiences of students who may have previously received these letters.

Another group who may have a different response to being placed on academic probation includes those who have previously accessed academic support services. Future research could explore this variable by adding a question to the survey that enquires about students' previous engagement with academic support services. Gathering information that explains how different subsets of student populations interpret the academic probation process would allow for the development of targeted communications about academic challenges.

An important consideration moving forward is whether these results systematically differ by student or institutional factors. Larger samples from each institution, and from a greater variety of institution types and from various locations across Canada and the US, would allow us to parse demographic data and engage in deeper analysis of the impacts of psychologically attuned notification letters for specific groups of students. Although past research has not found moderation of results by student demographics, it is possible that those who identify as racialized, who live with a disability, who are older, who are first-generation college students, or who are international students may respond differently to these letters.

Supporting other institutions creating attuned probation letters and then conducting a student comparison test for the attuned (versus standard) letters would not only add weight to the evidence base, but would also serve as potentially valuable learning for the faculty and staff that participate in the process. Such activities, which we undertook as part of our Phase II work, proved to be a great way to bring diverse staff from across the province and each institution together to learn about one approach to fostering student success. In an era when a "campus-wide approach to student success" is promoted as a best practice, this serves as a practical example of one meaningful way to accomplish this. Continuing this work with partner institutions will deepen our understanding of how this intervention can have a ripple effect throughout an institution, with potential positive implications for student success, retention and engagement.

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