

# **FLO FRIDAY – Using Alternative Assessments to Balance Technology, Academic Integrity, and Stress Management Goals**

Hosted by Helena Prins, Advisor, BCcampus

Facilitator: Dr. Elle Ting

Helena Prins

BCcampus

[hprins@bccampus.ca](mailto:hprins@bccampus.ca)

June 17, 2022



**BCcampus**

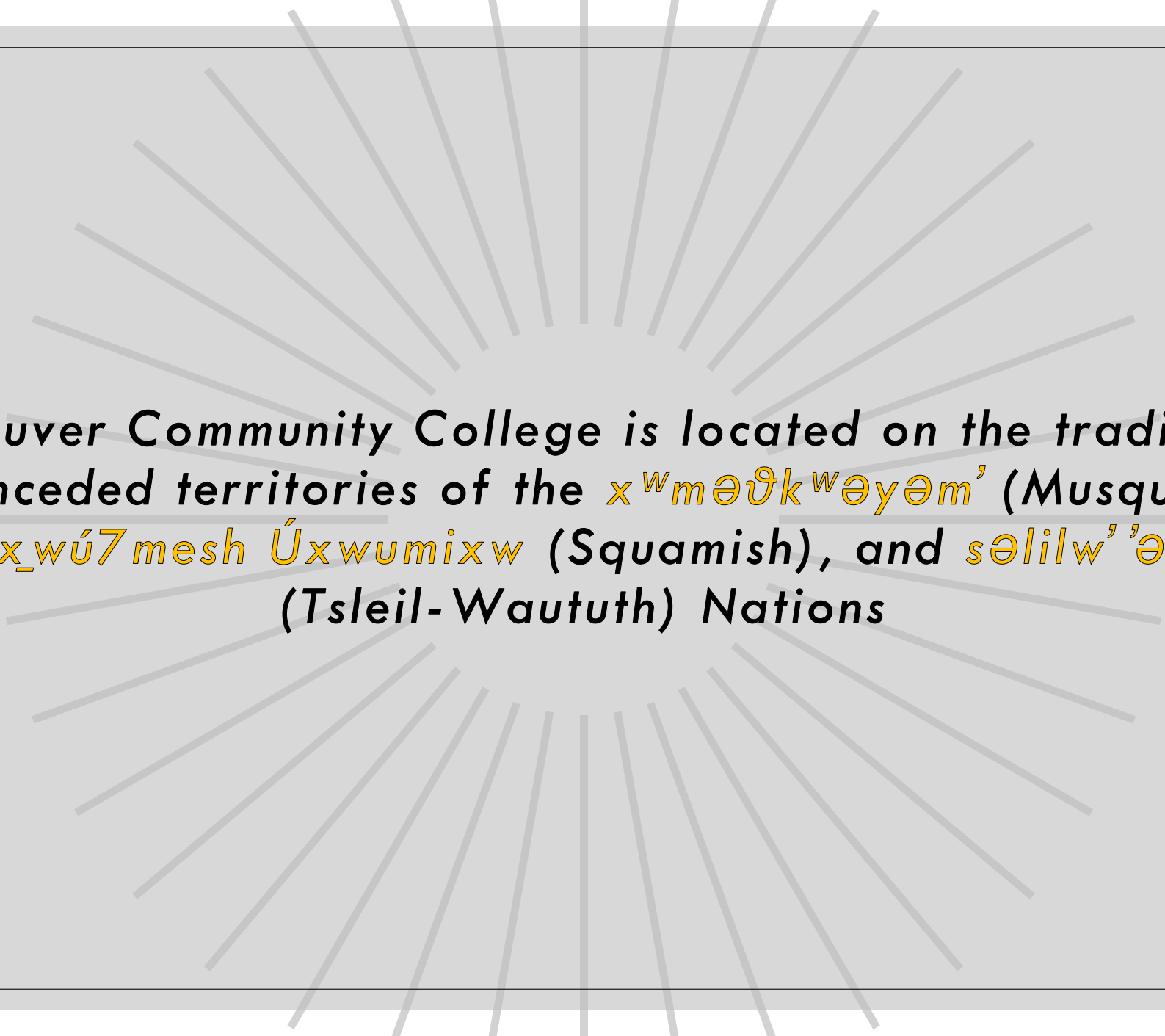
Learning. Doing. Leading.

Since time immemorial, the səliłwətaʔt təməx<sup>w</sup> (Tsleil-Waututh), Skwxwú7mesh-ulh Temíxw (Squamish), x<sup>w</sup>məθk<sup>w</sup>əyəm (Musqueam), WSÁNEĆ (Saanich), and the Esquimalt and Songhees Nations of the Lək<sup>w</sup>əŋən (Lekwungen) Peoples have walked gently on the unceded territories where we are grateful to live, work, and play. We are committed to building relationships with the first peoples here, based in honour and respect, and we thank them for their hospitality.



# USING ALTERNATIVE ASSESSMENTS TO **B A L A N C E** TECHNOLOGY, ACADEMIC INTEGRITY, AND STRESS MANAGEMENT GOALS

Elle Ting  
Vancouver Community College (VCC)  
BCcampus FLO Friday: 2022 June 17



Vancouver Community College is located on the traditional  
and unceded territories of the *x<sup>w</sup>məθk<sup>w</sup>əyəm'* (Musqueam),  
*Skwxwú7mesh Úxwumixw* (Squamish), and *səlilw'ətaʔt*  
(Tsleil-Waututh) Nations


An abstract graphic on the left side of the slide. It features several overlapping circles. One circle has a pattern of concentric lines, another has a solid grey fill, and a third has a pattern of small grey dots. A large yellow circle is also present, partially overlapping a circle with diagonal grey lines. The text 'SPECIAL THANKS' is centered over the graphic.

## SPECIAL THANKS

To **BCCAMPUS** for supporting this project through its Research Fellowship Program and to the **VCC RESEARCH FUND** for helping to resource this work...

To the other members of the research team:  
**ANDY SELLWOOD**, **ANDREW DUNN**,  
**SHAUN WONG**, and **ALEXANDRA CAI**...

And to all those at **VCC** who took the time to participate in this project.



In **five words** or less, what is something you're hoping to take away from today's FLO session?

\* Please check out the [FLO Friday Sandbox](#), too!

# WORKSHOP OUTCOMES

- Describe the interplay between technology, stress, and academic integrity
- Identify tech tools and assessment designs that can help minimize student stress, improve student engagement, and protect academic integrity

# THE PANDEMIC AND THE “PIVOT”



- The COVID-19 pandemic has led to school closures for about 84% of the world’s students—about **1.6 billion** learners: the average duration of closure has been 22 weeks, or about 67% of a school year (UNESCO, January 2021)
- The ongoing\* and evolving health emergency has necessitated a rapid adoption of online education (\*118+ weeks—**828 days**)
- At VCC, we shifted from delivering ~98% of programming face-to-face to **~98% online/hybrid**, virtually overnight



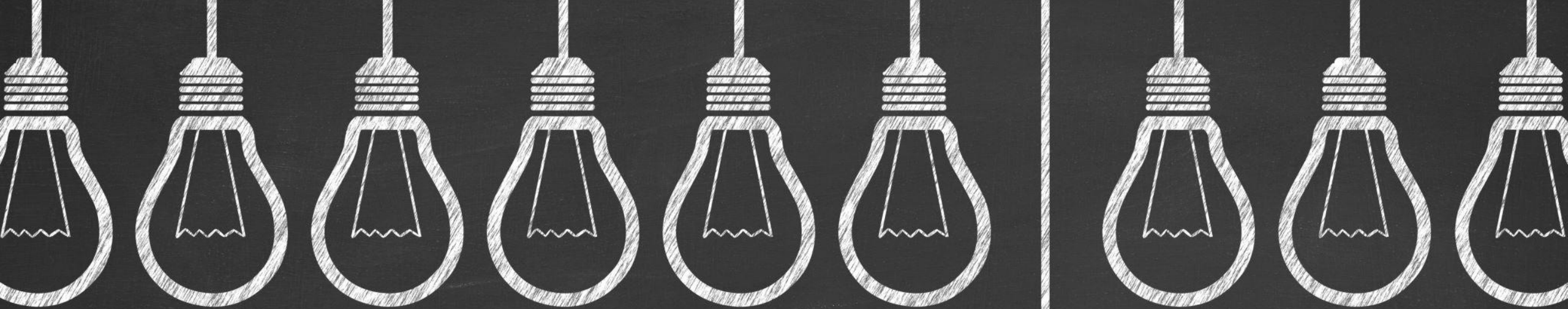
# Research Challenges/Questions

---

- ACCESS[IBILITY] AND ACADEMIC INTEGRITY EMERGED AS KEY ISSUES IN THE AFTERMATH OF REMOTE EMERGENCY LEARNING (AND CONTINUE TO BE AREAS OF CONCERN)
- OPPORTUNITY TO TEST THE POSITIONING OF PLUG-AND-PLAY TECH OPTIONS AS “MAGIC BULLET” SOLUTIONS
- *IN REAL TERMS, WHAT MAKES THE DEPLOYMENT OF AN ALTERNATIVE ASSESSMENT TOOL/METHOD “SUCCESSFUL” VERSUS “UNSUCCESSFUL” FOR INSTRUCTORS AND STUDENTS, AND WHAT EDUCATIONAL TECHNOLOGY SUPPORTS CAN HELP FACILITATE DEPLOYMENT OF THESE?*
- *WHAT HAVE WE LEARNED FROM INSTRUCTORS’ EXPERIENCES MOVING TO ONLINE THAT WE CAN APPLY MORE GENERALLY TO OPTIMIZE ASSESSMENT FEATURES/FORMATS TOWARDS PROTECTING ACADEMIC INTEGRITY AND SUPPORTING AUTHENTIC LEARNING?*

CORRELATION  $\neq$  CAUSATION





# Methodology

PHASE 1 - DECEMBER 2020:  
SURVEY (146 PARTICIPANTS)

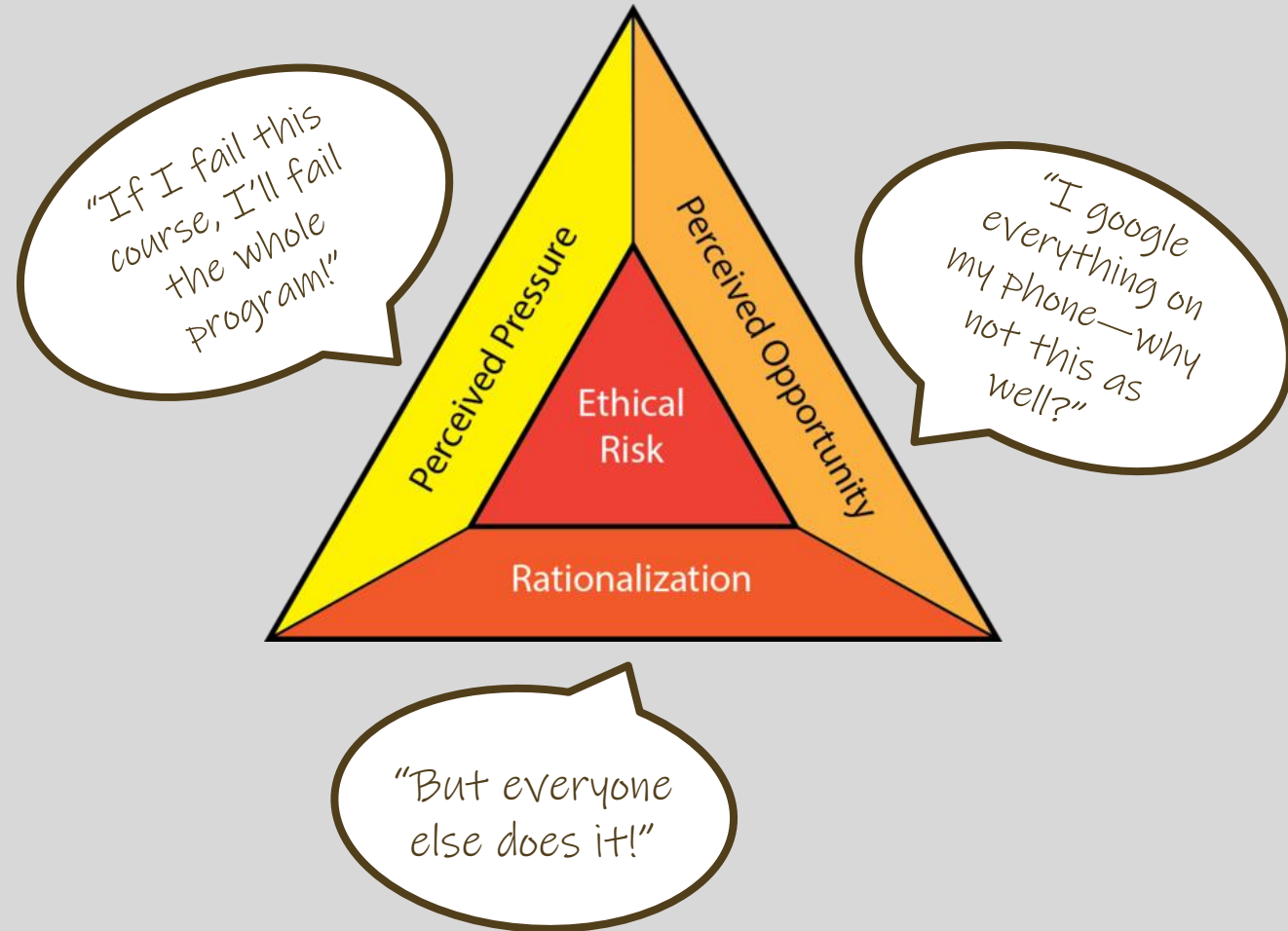
PHASE 2 - FEBRUARY 2021:  
FOCUS GROUPS (8 PARTICIPANTS)

= CROSS-SECTION OF VCC INSTRUCTORS



# FRAUD TRIANGLE

- Based on the work of criminologist Donald Cressey (~1950)
- Describes three risk factors for fraud
- Applied to academic misconduct (Varble, 2014; Feinman, 2018)
- Increasing the pressure on any one side of the triangle increases the risk of violating academic integrity



# ASSESSMENT POST-PIVOT

---

- Dramatic drop initially in in-person assessment (-33%)
- Slight overall increase in the use of entirely or mostly multiple choice question (MCQ) tests (+4-5%) and a net decrease in mostly long-answer assignments (-9%), entirely long-answer assignments (-3%), and essays (-2%)
- Use of high-stakes MCQ exams ( $\geq 30\%$  total course grading weight) has decreased by 6%
- Fewer take-home assignments are being used (-6%)



# ALTERNATIVE ASSESSMENTS

- Open-book quizzes, tests, and exams
  - Reducing the weighting of final exams
  - Increasing the number of assessments
  - Higher-order thinking questions
  - More project-type assignments
  - Oral exams
- 

- Most common strategy: **open-book** quizzes/tests/exams
- Other popular options: **project-type** assignments and **higher-order thinking** questions (e.g., case studies and scenario-based questions)

# ALTERNATIVE ASSESSMENTS

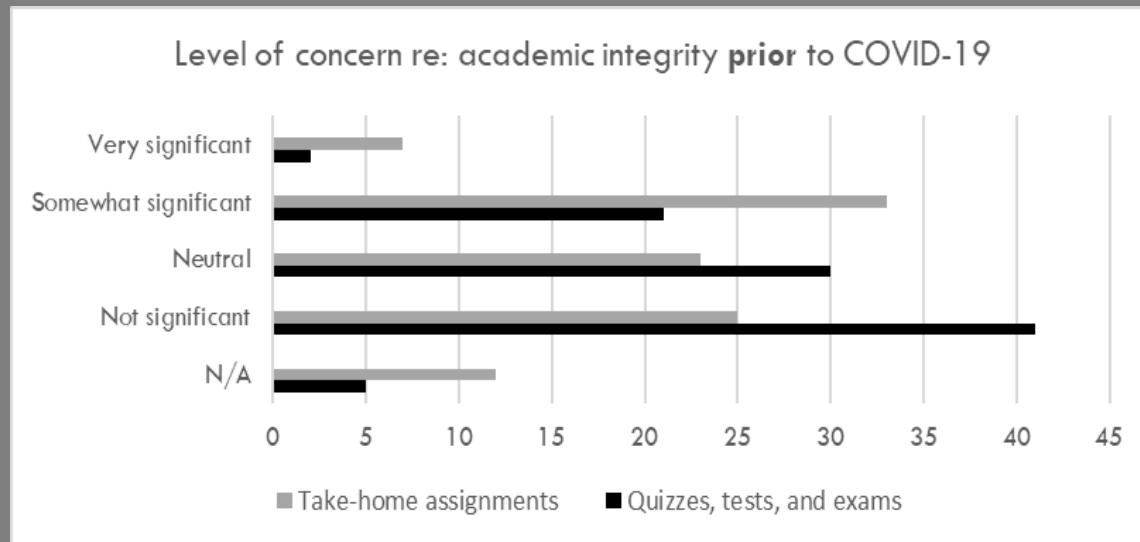
- 81% of respondents felt their modifications/alternative assessment strategies had been **effective** to some degree
- Those who responded that alternative assessments had been “somewhat effective” described the need for more time to develop and measure the effectiveness of these assessments
- Comments from instructors who felt that alternative assessments were “very effective”:
  - *Create evaluation procedures that focus on critical thinking – aligns with adults who want to learn*
  - *Great learning happens through alternative assessments – students show problem solving skills based on real world problems*
  - *Students like putting material into their own words, as opposed to selecting the right answer*
  - *A blend of different assignment types (assignments, projects, tests) evens the playing field*

# ALTERNATIVE ASSESSMENTS

- The most common **barriers** encountered by instructors when building in alternative assessments were
  - **Lack of time to do curriculum development**
  - **Need for additional training to use online tech (e.g., Moodle)**
  - **Fear that new questions/assessments will be immediately compromised**

Which assessments  
seem the most *secure*?

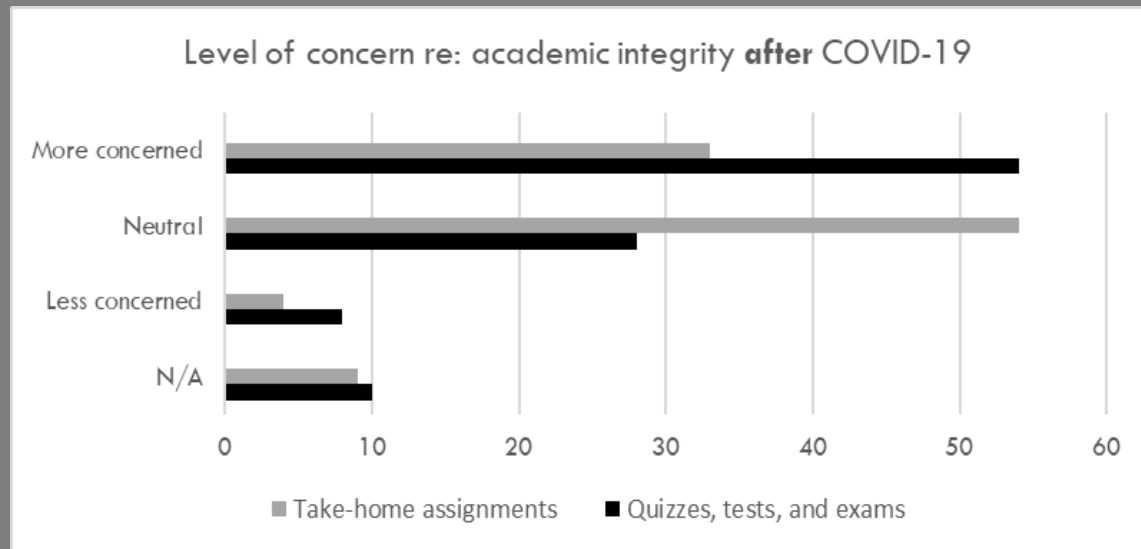
# ACADEMIC INTEGRITY BEFORE



- Prior to the pivot, instructors felt that *the risk of academic misconduct was significantly higher in take-home assignments (40%) than in quizzes, tests, and exams (23%)*
- For **71%** of the respondents, risk of academic fraud was “neutral” or “not significant” when it came to **quizzes, tests, and exams**
- Conversely, 48% of respondents described having a “neutral” or “not significant” level of concern in using take-home assignments
- Therefore, instructors’ **baseline confidence in the take-home format was low** prior to the shift to online delivery



# ACADEMIC INTEGRITY AFTER



- 54% of instructors were more concerned after the pivot about academic misconduct happening during quizzes, tests, and exams
- While 33% of instructors note that they became more concerned about protecting academic integrity in take-home assignments post-pivot, the majority (54%) reported that their level of concern towards this format was “neutral”
- There has been a **lower level of confidence towards take-home assignments** (viewed as less secure before COVID and even less reliable following the pivot), as well as **heightened concern regarding the integrity of quizzes, tests, and exams post-COVID**, formats that had previously been regarded as more secure

# ONLINE QUIZZES, TESTS, AND EXAMS

- Moodle includes options for deploying and invigilating quizzes, tests, and exams
- The most common feature/option used in Moodle was the timer
- Other popular choices:
  - Reminding students about academic integrity
  - Using Zoom to invigilate
  - Randomizing questions

# ONLINE QUIZZES, TESTS, AND EXAMS

- There was a direct correlation between the perceived effectiveness of a feature/option and how commonly the feature/option was used
- Some instructor comments:
  - *Time limit for exams means students have less time to search for answers or seek other help (i.e., cheat)*
  - *Different students getting different questions means that it is harder for students to share answers*
  - *Mature students understand how it is self-defeating to cheat*
  - *Many instructors feel watching their students on Zoom will lead to less cheating*
  - *Some instructors don't think anything will be effective*

# ONLINE QUIZZES, TESTS, AND EXAMS

- (Mostly) direct correlation between the perceived effectiveness of a feature/option and student concerns regarding the feature/option
- Typical student stressors:
  - Inability to finish on time (very common response)
  - Tech issues
  - Inability to return to a previous question
- Features/options instructors found to be effective and caused less student stress:
  - Questions are randomized
  - Questions include random numerical variables/values for different students
  - Students are reminded of academic integrity or agree to an academic integrity statement

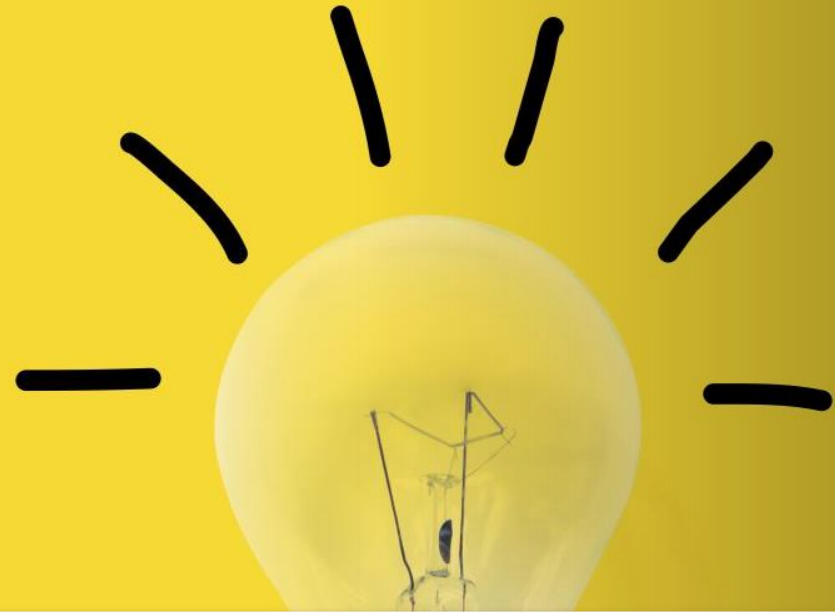
# ACADEMIC INTEGRITY PROTECTION: FINDING THE SWEET SPOT

	USE	EFFECTIVENESS	STUDENT CONCERN
TIME LIMIT	85%	68%	65%
ZOOM INVIGILATION	62%	45%	25%
RANDOMIZING ORDER/SET	62%	44%	9%
RANDOMIZING VARIABLES/VALUES	17%	16%	2%
NO BACK-FORTH	17%	17%	18%
SAFE EXAM BROWSER	10%	7%	3%
ACADEMIC INTEGRITY REMINDER	72%	45%	8%



# ADDITIONAL CONSIDERATIONS

- Online proctoring and privacy
- Student vulnerability
- “Determined cheaters”
- Risk-based decision-making
- Academic misconduct as “symptom”



# Some Takeaways



- INSTRUCTORS HAVE REPORTED SUCCESS USING ALTERNATIVE ASSESSMENTS, BUT MANY FEEL THEY NEED MORE TECHNICAL TRAINING AND CURRICULUM DEVELOPMENT TIME
- SOME MEASURES FOR PROTECTING ACADEMIC INTEGRITY ARE STRESSFUL FOR STUDENTS (ZOOM INVIGILATION, TIME LIMITS) AND MAY ACTUALLY **INCREASE** THE RISK OF ACADEMIC MISCONDUCT
- ASSESSMENTS THAT FEATURE RANDOMIZATION OR ACADEMIC INTEGRITY REMINDERS CREATE LOWER LEVELS OF STRESS FOR STUDENTS AND HAVE BEEN FOUND BY INSTRUCTORS TO BE EFFECTIVE
- INSTRUCTORS HAVE HAD NEW INSIGHTS INTO WHAT MAKES GOOD ASSESSMENT AND ARE MORE COMFORTABLE THAN EVER ACTING AS FACILITATORS TO LEARNING

# ALTERNATIVE ASSESSMENT TOOLKIT



# RESOURCES

- Eaton, Sarah Elaine and Julia Christensen Hughes (eds). *Academic Integrity in Canada. Ethics and Integrity in Educational Contexts*, vol 1. Springer, 2022. [https://doi.org/10.1007/978-3-030-83255-1\\_20](https://doi.org/10.1007/978-3-030-83255-1_20).
- Feinman, Yelena. "Security Mechanisms on Web-Based Exams in Introductory Statistics Community College Courses." *Journal of Social, Behavioral, and Health Sciences* 12:1 (2018): 153–170. <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=1345&context=jsbhs>. Accessed 22 June 2020.
- Morrison, Sara and Rebecca Heilweil. "How teachers are sacrificing student privacy to stop cheating." Vox. <https://www.vox.com/recode/22175021/school-cheating-student-privacy-remote-learning>. 18 Dec 2020. Accessed 20 Oct 2021.
- Novick, Peter et al. "Maximizing Academic Integrity While Minimizing Stress in the Virtual Classroom." *Journal of Microbiology and Biology Education*. <https://journals.asm.org/doi/full/10.1128/jmbe.00292-21>. DOI: <https://doi.org/10.1128/jmbe.00292-21>. 7 Apr 2022. Accessed 3 June 2022.
- Rickard, Brian. "Academic Integrity: A Proactive Lesson in Risk and Reward." <https://academicintegrity.org/resources/blog/99-2022/may-2022/367-academic-integrity-a-proactive-lesson-in-risk-and-reward>. *International Center for Academic Integrity*. 7 May 2022. Accessed 1 June 2022.
- United Nations Educational, Scientific, and Cultural Organization (UNESCO). "UNESCO figures show two-thirds of an academic year lost on average worldwide due to Covid-19 school closures." UNESCO.org. <https://en.unesco.org/news/unesco-figures-show-two-thirds-academic-year-lost-average-worldwide-due-covid-19-school>. 21 Jan 2021. Accessed 19 Oct 2021.
- United Nations Educational, Scientific, and Cultural Organization (UNESCO). "COVID-19 Impact on Education." UNESCO.org. <https://en.unesco.org/covid19/educationresponse>. Accessed 19 Oct 2021.

PLEASE  
CONNECT!

Elle Ting  
[eting@vcc.ca](mailto:eting@vcc.ca)