Theme 4: Enhancing Students’ Self-efficacy

Moderator: Russell Thomson

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Embedding Wellness and Transition to University Content in a First-year and Second-year Cohort

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Quizzing and Well-being

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The Role of Pedagogy in Building Student Resilience

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Embedding a wellness and transition to university component in a first-year and second-year engineering cohort

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Chair, APSC Stream, Vantage College

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- Gabriel Smith (Psychology)
- Peter Ostafichuk (Mechanical Engineering)
Background: I teach in two different cohort-based engineering programs at UBC Vantage College and Mech 2.

First-year + language support
50-90 international students (engineering)

Second-year mechanical engineering
120 students

What my colleagues and I observed:

• Students stressed about academics [1]
• Students in distress after receiving a mark below their expectations - even if passing [2]
• First-year students struggling how to learn - e.g. "I studied for this test yet did poorly"

Our interventions: (1) embed mental health literacy and stress management

• **Class visit** by Diana Jung (Health Promotion and Education) or Maggie Brennan (Student Counseling) to present student wellness resources. [1]

• **In-class stress management workshop**, co-delivered by the course instructor (Mech. Engineering) and Diana Jung (Health Promotion and Education). [1,3]

• **In-class workshop on applying engineering design to life design** (Burnett & Evans [4]) co-delivered by the course instructor (Mechanical Engineering), Kimberley Rawes and Irene Navarro (Career Centre and Professional Development). [5]

• Assignment: students watch Kelly McGonigal TED talk video on "How to make stress your friend" (reframe stress response) and write a reflection on it. [1]

Our interventions: (2) embed transition to university learning

First-year students watch 15-minute videos prepared by Pete Ostafichuk (Mechanical Engineering) [6] on wellness and transition to university learning.

How to learn:
1. Growth vs. fixed mindset and grit
2. Neuroscience: how the brain learns (memory, focus)
3. Learning perspectives and metacognition

Wellness:
1. The stress response
2. Sleep, diet, and exercise

Students complete short reflection and review exercises after each video [3].

What we measured

Did second-year students find the stress workshop helpful?

The content in the workshop was 40% new and 80% helpful [1]

Did first-year students find the videos helpful?

The content in the videos was 55% new and 75% helpful [3]

What we are measuring now (in progress) [3]

Student academic buoyancy (resilience to everyday academic setbacks) [7] through the year

“I don't let a bad mark affect my confidence”

“I don't let study stress get on top of me”

“I think I'm good at dealing with schoolwork pressures”

“I'm good at dealing with setbacks (e.g., bad mark, negative feedback on my work)”


Reference


Quizzing and Well-being

Dr. Ivona Mladenovic
Why quizzing?

• To keep students on track with the course topics
• To let students get a feeling of exam-type questions
• To learn what to expect on the exams
• To earn grades
• To test students’ knowledge

• To promote students’ well being
The types of quizzes I used

1. Do the quiz individually -> do it again in pairs
2. **Discuss** quiz questions for 10 min together -> split questions in half -> each student does one half only
3. Review the topics that are to be covered on the quiz **together** -> take the quiz individually
4. **Self-mark** the quiz
5. Work in **pairs** to solve problems
6. **Students to write a question** on a quiz and provide correct answer -> best ones are used in real tests
7. On-line quizzes which students take **whenever** they want to
Quiz autopsy

Promotes metacognition

Promotes self-confidence
What I thought of these quizzes

- Students benefit by building individual and collective knowledge; positive relationship with peers; self-esteem and self-confidence.

What students thought of these quizzes

- Boost confidence
- Gained more knowledge
- Discussed confusions and uncertainties
- Loud discussion
- Analytical approach
- Lessens anxiety
- Correct answers “confirmed”
- “It helped as I could select questions I knew”
The Role of Pedagogy in Building Student Resilience

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While the focus on student mental health and well-being has been channeled largely through student services, it behooves instructors to consider our role in fostering student well-being. There is all manner of content that students may find stressful; my experience teaching responses to the climate crisis suggests that more explicit and active consideration of the (emotional, psychological) weight of such content would benefit student (and course) outcomes. Although the instructor’s role is not, and should not be, one of a mental health practitioner, instructors can (and should) consider how active pedagogy could support student well-being while also attending to course learning outcomes. This session interrogates what may be gained from thinking through the possibilities offered by collaborative learning, experiential or actionable projects, and other creative pedagogical strategies, where the intended outcome is to engage students in a) wrestling with the issues raised by stressful course content while b) building student confidence in their own resilience. My presentation in the session would include a short summary of literature that describes how the relationship between pedagogy and student resilience is defined, described, and measured.
Handing over control: Student co-design of participation assessment

Participation, 20% of total course grade

You have identified A-, B-, C-range work, based on the parameters/opportunities for participation. The standards that apply to everyone are listed below as well. There will be approximately 20 opportunities to participate during the semester. They are:

- in-class (synchronous) discussion, large group & small group break-outs (9)
- annotations (9)
- data analysis exercises (3)

At the conclusion of the term, by December 12, each student will write a self-assessment (500 words max), assigning themself a grade and justifying that grade based on the criteria listed in the rubric. A couple of other relevant points:

- I reserve the right to adjust the grade you assign yourself up or down the grading scale based on what I have observed of your participation.
- Because you will be doing self-assessment, I will not assign grades to the individual participation (discussion or data analysis) exercises.
  - If you are concerned about my assessment of your participation, I am happy to share a provisional mid-term participation grade with you during
Recognizing resident experts: Inviting student expertise

12. Please rank the following types of assignments from most assigned in your courses within your program to the least assigned assignments in your program (1 being most assigned and 6 being least assigned). *

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13. Please indicate if you strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree with the following statements. *

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<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
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Metrics of success?
Discussion

1. Any questions for the presenters?

1. How can you apply the conversations that took place today to the context of your learning or teaching?
Final Reflections & Discussion

Mentimeter Activity:
Open a new web browser or on your phone web browser and go to menti.com.

1. What is your key takeaway from our discussion today?
Thank-you!

#thrivingbeyondcampuses

Stay tuned for our 2021 events in late January and early February! More details soon.

https://covid19.bccampus.ca/thriving-beyond-campuses/