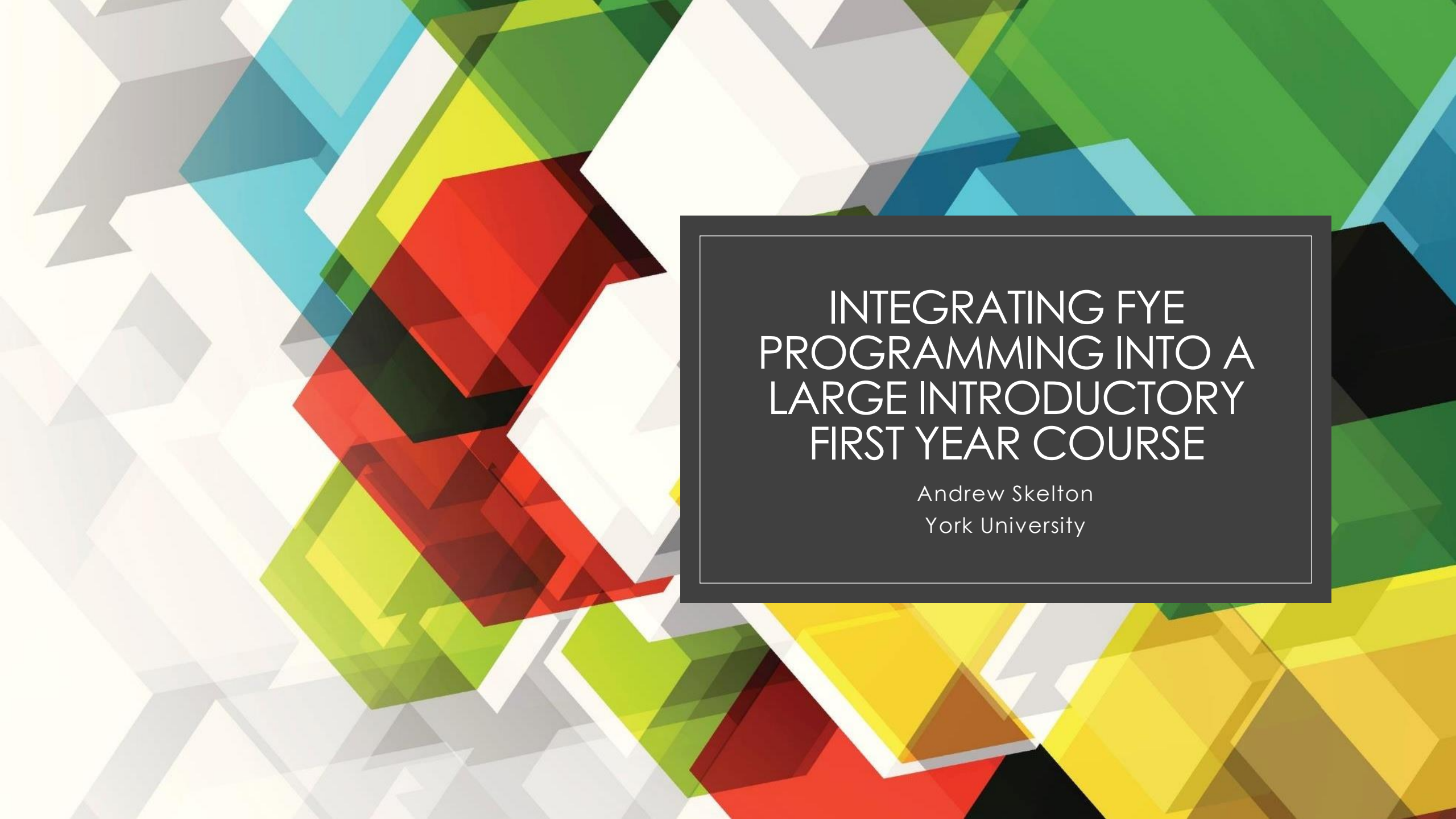


INTEGRATING FYE PROGRAMMING INTO A LARGE INTRODUCTORY FIRST YEAR COURSE

Andrew Skelton
York University

York University Toronto, Canada

3rd largest in Canada

~53,000 students

~7,000 faculty and staff

48% First Generation

75% Commuters (31% >1hr)

64% Spend <10 h/w on campus outside of class

30% Identify as White

Decentralized Services

College System

My History at this Conference

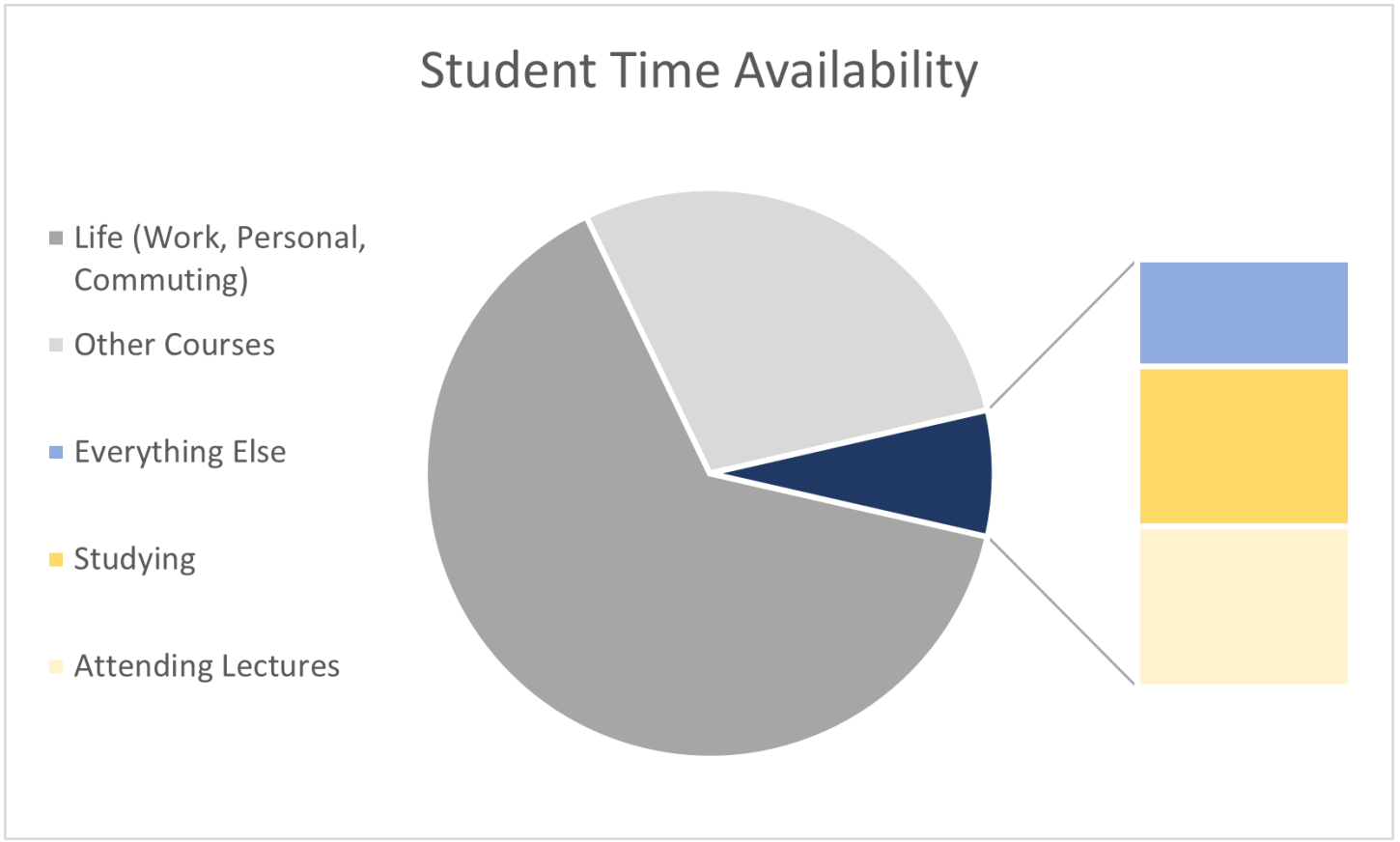
First Year Seminars in Canada
(a far from comprehensive list)

- York University
  - FND 1000 3.00 Fundamentals of Learning: Essentials for a Successful University Experience (24 students x 5 sections)
  - BC 1800 3.00 First Year Success Seminars in Science (20 students x 2 sections)

- Carleton University
  - First-year seminar (FYSM) courses are small classes (usually with 30 students) designed to give students the opportunity to discuss and research topics of interest in a core subject area.
- University of Guelph
  - A First Year Seminar (FYS) is a first-year course that you take in the Fall or Winter semester of your first year. It counts as an elective. There are no exams. Course topics vary widely. The maximum enrolment in an FYS is 22 students. They offer unique topics that you will not find in your specific program of study.
- McGill University
  - These courses are designed to provide a closer interaction with professors and better working relations with peers than are available in large introductory courses. These 30-student seminars endeavour to teach the latest scholarly developments and expose participants to advanced research methods

Curricular Integration of FYE Content

What are the obstacles?



Student Cost
Time

Optimal Case

Assuming 40 h/w "full-time student" and 5 courses

Student time is an valuable commodity

MATH 1013
Applied Calculus I – Fall 2019

- 1200 students in 5 sections
- 85% first-year students
- Attendance Rates 90% -> 65%
- Enrollment
  - 50% Engineering
  - 30% Science
  - 10% Health
  - 10% Computer Science

Course Design

- 10% In-Class Participation using Clickers, Tests (15%+20%+25%), Final Exam (30%)
- 3 x 50 minute live lectures per week

Pilot Phase 1 – Fall 2019

Integrating First Year Experience Modules

- 8 activities available, encouraged to complete up to 5
- Each activity grounded in literature with focus on Lizzio and HIP whenever possible
- For each activity completed:
  - transfer 3% value from lowest-scoring test/exam to highest-scoring test/exam
- Potential final grade impact of up to +15%
  - average impact on final grade was +3.6%

Modules

- Values Affirmation (x2)
- Bloom's Taxonomy (x2)
- Notetaking
- Time Management
- Campus Resources
- Common Read

Module Spotlight

SUCCESS
Time Management

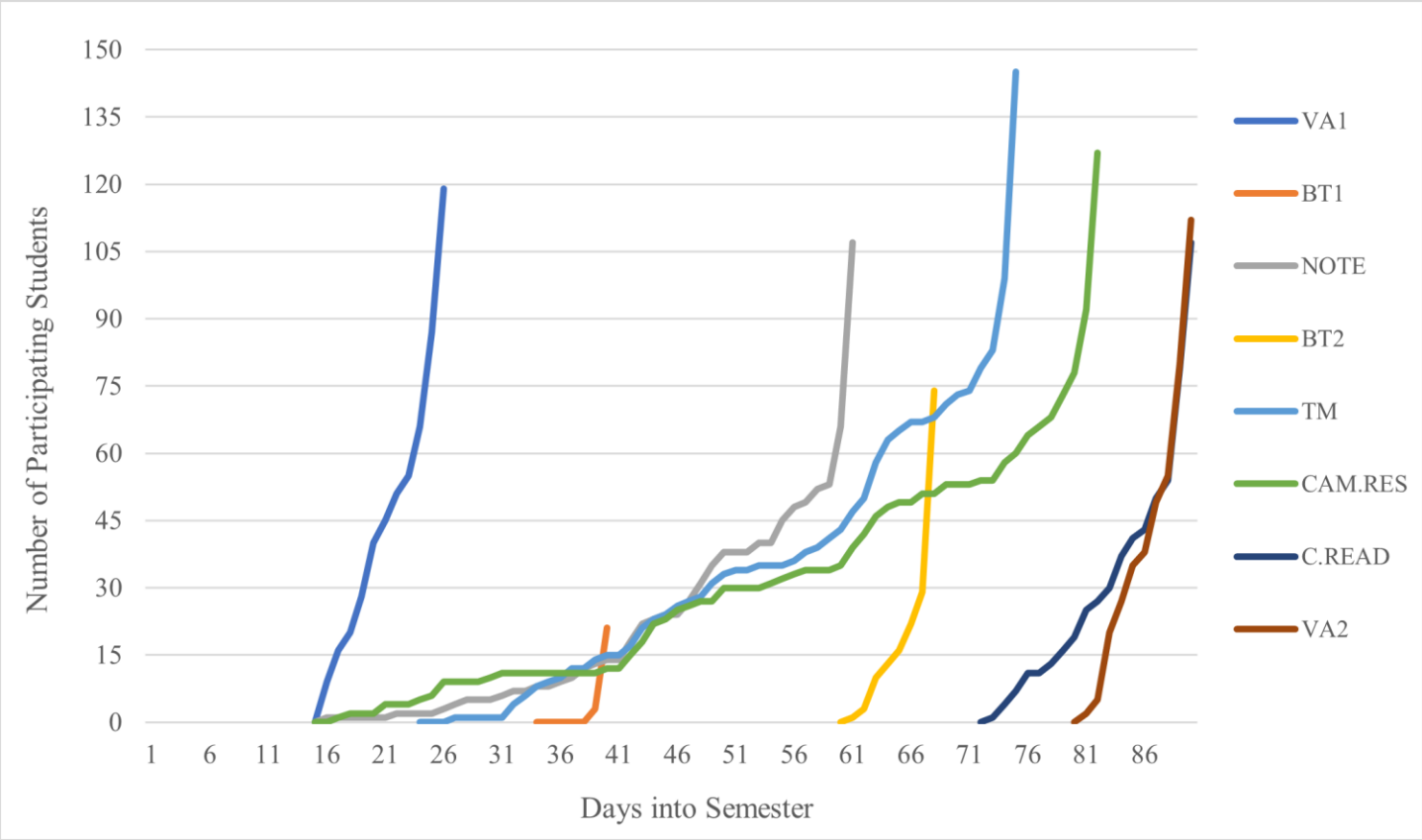
FAILURE
Bloom's Taxonomy

Module Spotlight

SUCCESS
Notetaking

FAILURE?
Values Affirmation #2

Participation Timeline



*190/232 students (82%) gave ethics approval for their data to be analyzed

Modules

Values Affirmation #1 (n=119)

Bloom's Taxonomy #1 (n=21)

Notetaking (n=107)

Bloom's Taxonomy #2 (n=73)

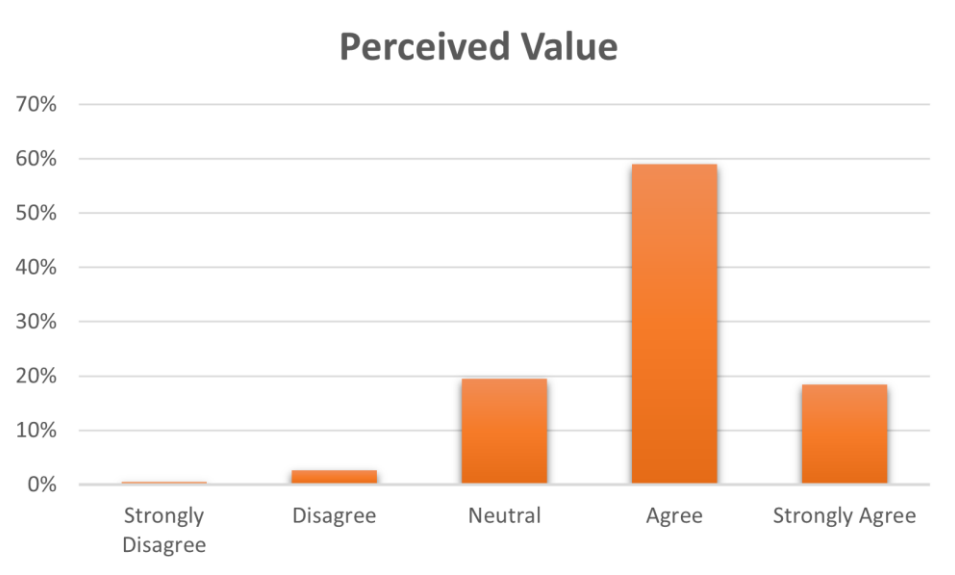
Time Management (n=144)

Campus Resources (n=127)

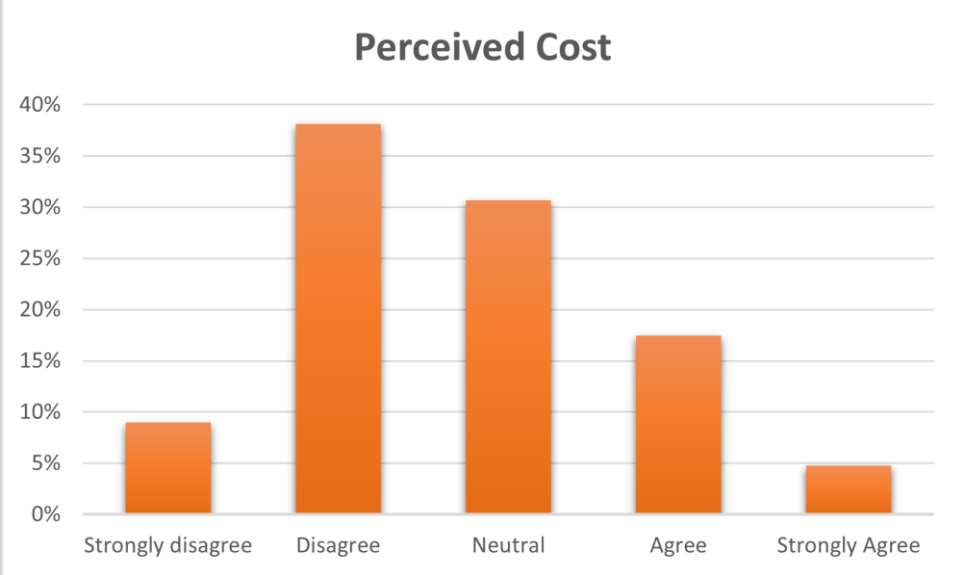
Common Read (n=107)

Values Affirmation #2 (n=112)

Student Cost and Benefit

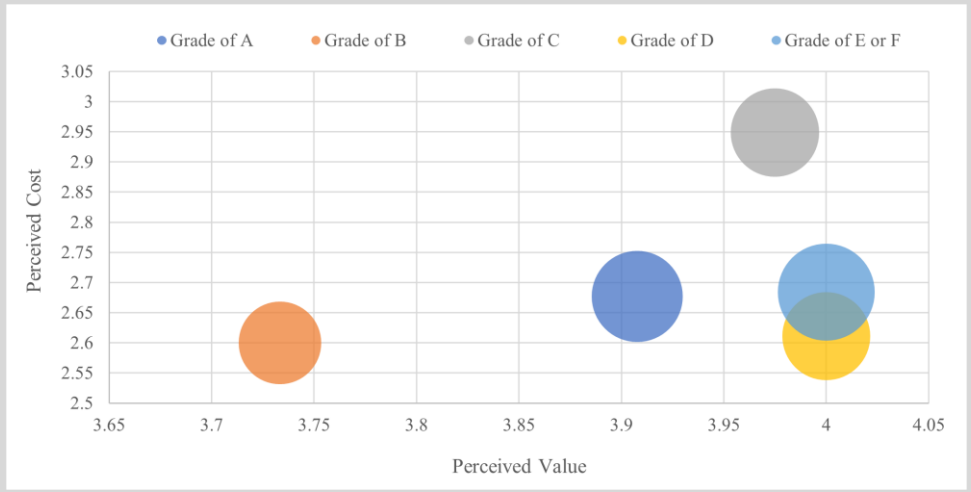


The First-Year Experience Modules Were Valuable to Me.



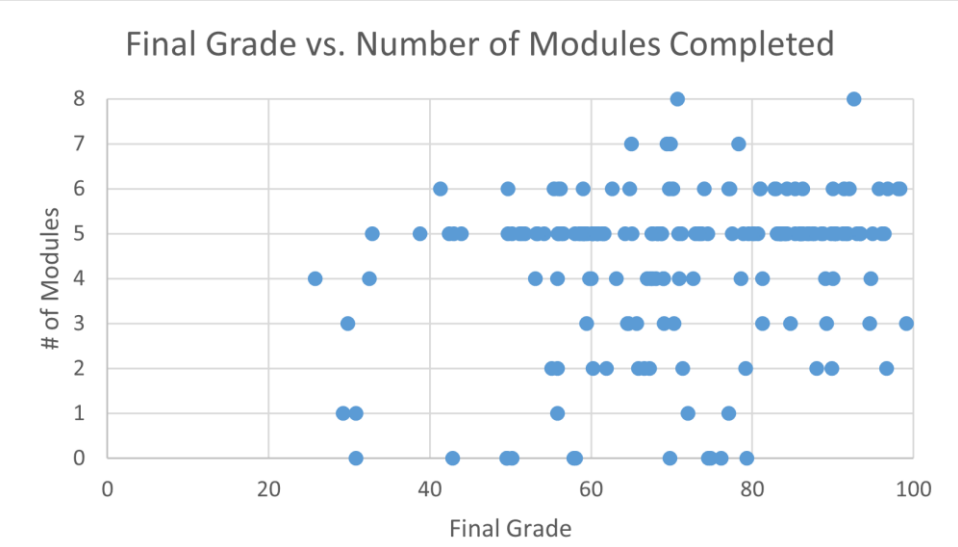
Given the Value of the FYE Modules, They Took Too Much Time to Complete.

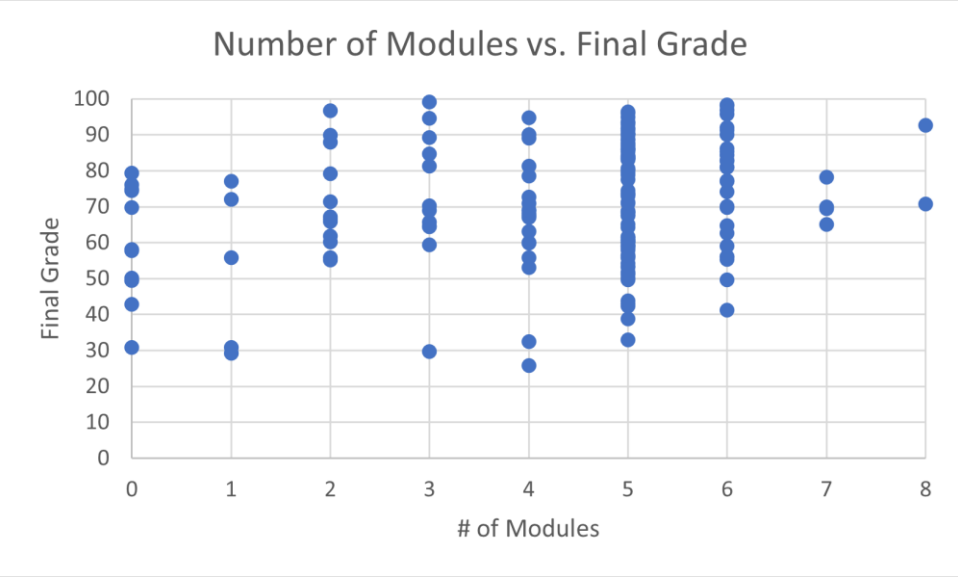
Student Cost and Benefit



Value vs. Cost by Final Grade

Given the Value & Cost, is a 15% Grade Transfer an Appropriate Reward?





Module Completion and Grades

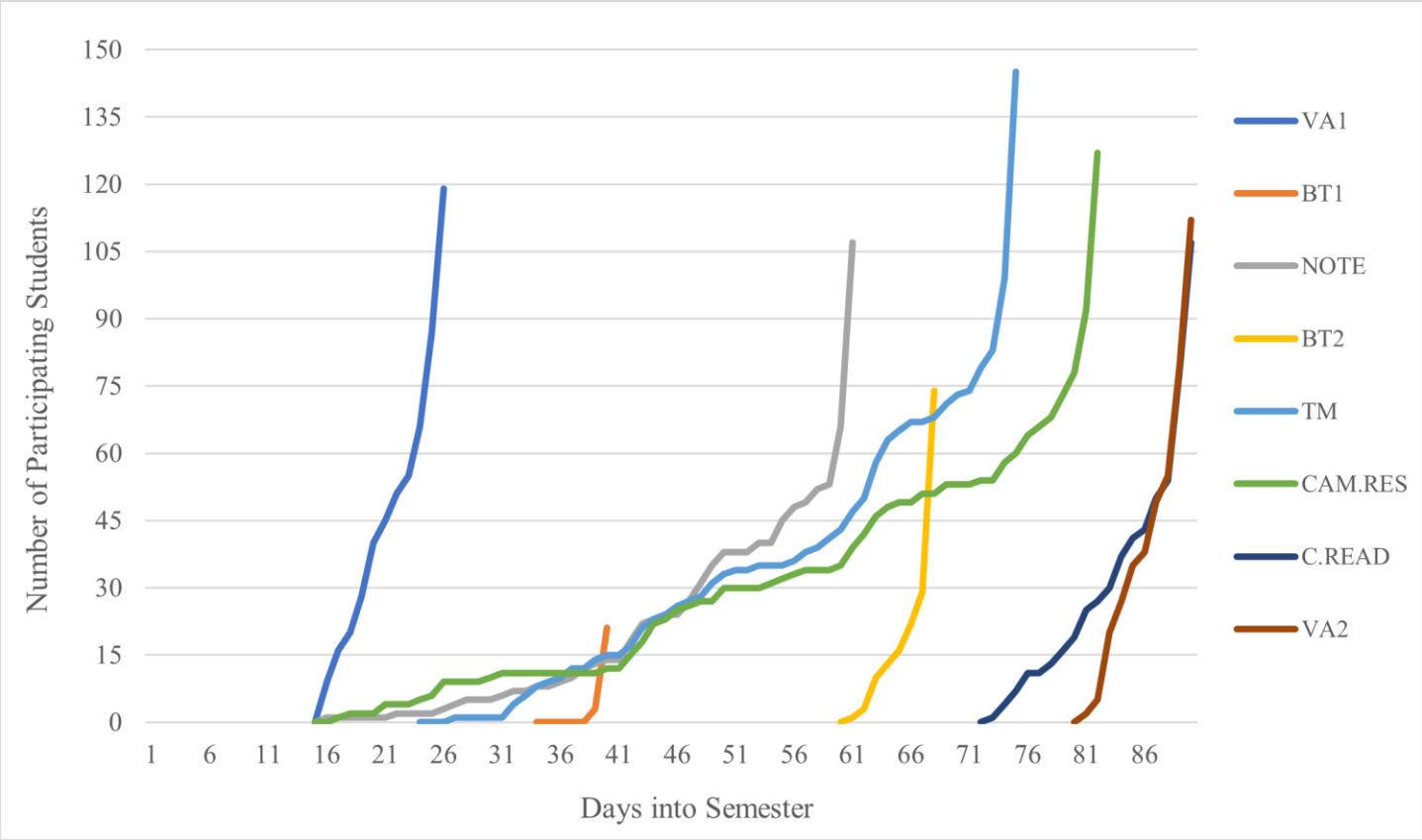
Modules Completed	# Students
0	12
1	5
2	13
3	13
4	22
5	92
6	27
7	4
8	2

Average Grades by Module Completion
Overall Class Average 70%

Module	Participating Students	Non-Participating Students
Values Affirmation #1	74%***	65%
Bloom's Taxonomy #1	84%***	69%
Notetaking	74%***	67%
Bloom's Taxonomy #2	74%***	69%
Time Management	72%**	67%
Campus Resources	71%	70%
Common Read	70%	72%
Values Affirmation #2	71%	71%

Significance Levels: *p<0.10; **p<0.05; ***p<0.01

Participation Timeline



*190/232 students (82%) gave ethics approval for their data to be analyzed

Modules

Values Affirmation #1 (n=119)

Bloom's Taxonomy #1 (n=21)

Notetaking (n=107)

Bloom's Taxonomy #2 (n=73)

Time Management (n=144)

Campus Resources (n=127)

Common Read (n=107)

Values Affirmation #2 (n=112)

Average Grades by Module Completion

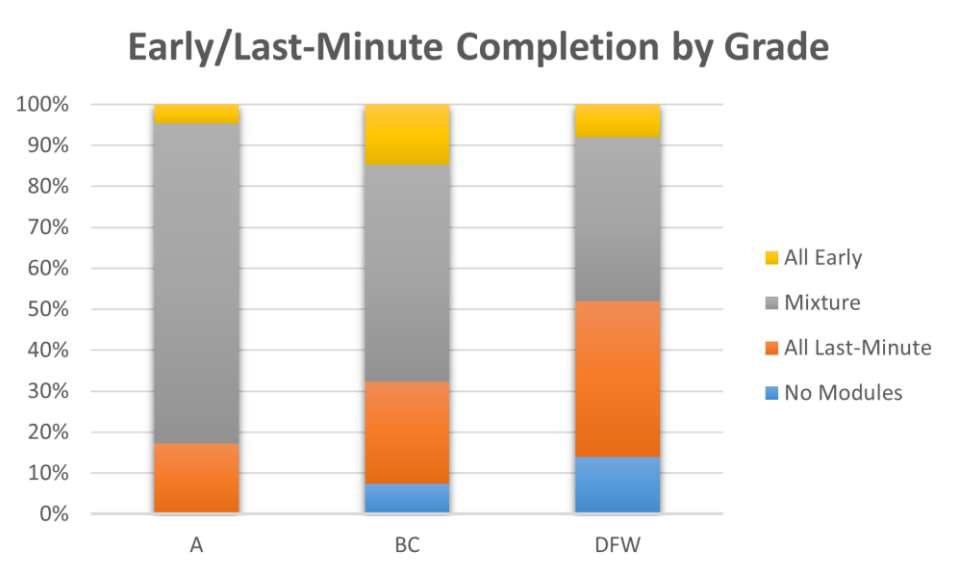
Overall Class Average 70%

Module	Early Participating Students	Last-Minute Participating Students	Non-Participating Students
Values Affirmation #1	75%	73%	65%
Bloom's Taxonomy #1	84%		69%
Notetaking	75%	73%	67%
Bloom's Taxonomy #2	76%*	73%	69%
Time Management	74%*	70%	67%
Campus Resources	71%	71%	70%
Common Read	72%*	68%	72%
Values Affirmation #2	74%**	68%	71%

Significance Levels: *p<0.10; **p<0.05; ***p<0.01

Early Alert Potential?

If a student completes just one module early, they are significantly less at risk.



	Final Grade	%DFW
All Last-Minute (n=47)	65%***	43%***
At Least 1 Completed Early (n=135)	74%	23%

Significance Levels: *p<0.10; **p<0.05; ***p<0.01

MATH 1013
Applied Calculus I – Fall 2020

- 1200 students in 5 sections
- 85% first-year students
- Enrollment
  - 50% Engineering
  - 30% Science
  - 10% Health
  - 10% Computer Science

Course Design

- 10% In-Class Participation using Echo 360/Zoom, 50% Weekly Quizzes, 15% Assignments
- 5% First-Year Experience Modules
- 2 x 25 minutes asynchronous videos + 1 x 50 minute live lecture per week

Pilot Phase 2 – Fall 2020

Integrating First Year Experience Modules

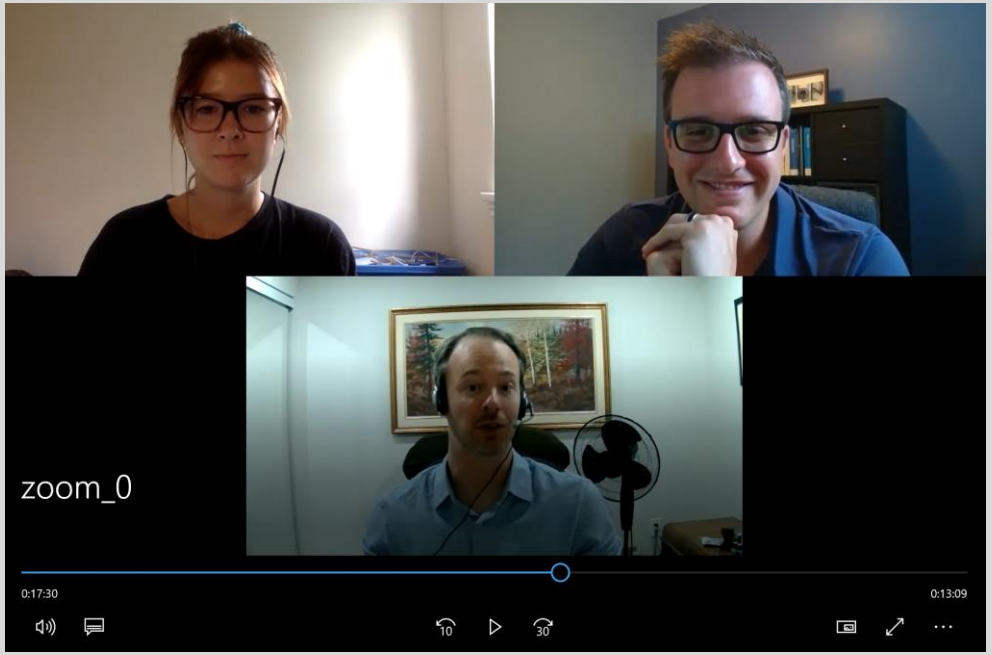
- 10 activities available, encouraged to complete up to 5, variable schedule
- Each activity worth 1% of final grade for a total of 5%
- Class had average of 4.5/5 on this component (compared to +3.6% grade boost in Fall 2019)

Modules

- Procrastination
- Values Affirmation
- Memorizing v Understanding
- Notetaking
- Time Management
- Quiz Wrapper
- Test Anxiety
- Campus Resources
- Advice from Faculty
- Professional Communication

Module Spotlight

SUCCESS
Test Anxiety



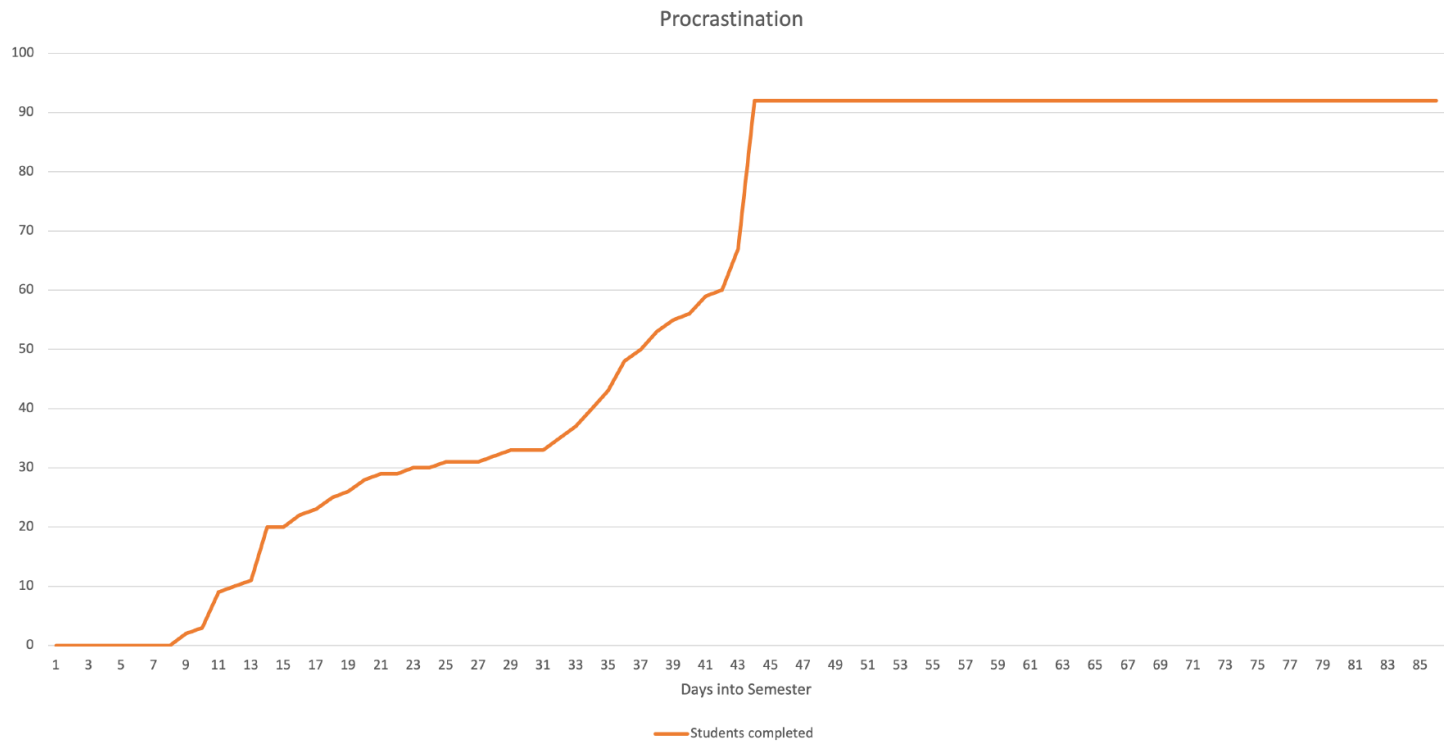
FAILURE
Notetaking

Module Spotlight

SUCCESS?
Professional Communication

FAILURE?
Campus Resources

Participation Timeline



*125/241 students (52%) gave ethics approval for their data to be analyzed

Modules

Procrastination (n=92)

Values Affirmation (n=46)

Memorizing v Understanding (n=46)

Notetaking (n=17)

Time Management (n=67)

Quiz Wrapper (n=86)

Test Anxiety (n=56)

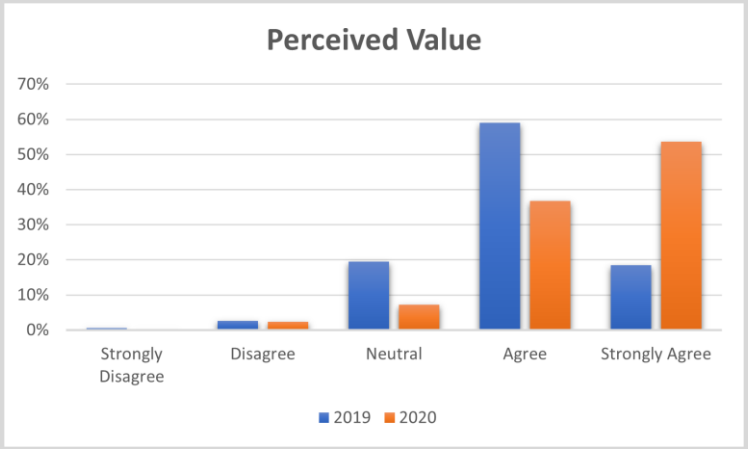
Campus Resources (n=63)

Advice from Faculty (n=74)

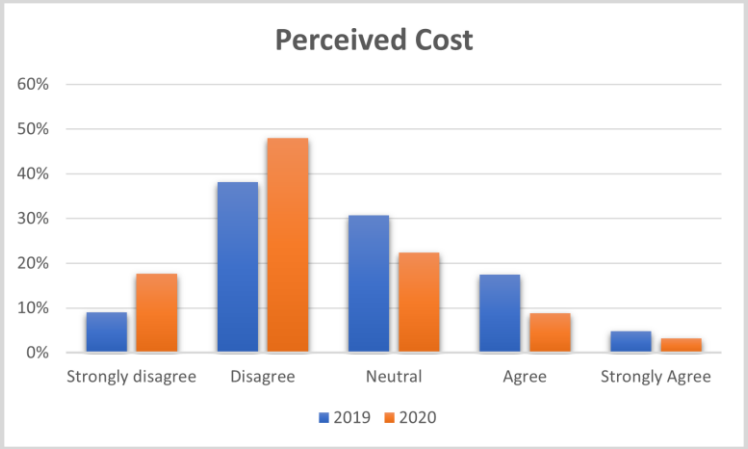
Professional Communication (n=62)

Student Cost and Benefit

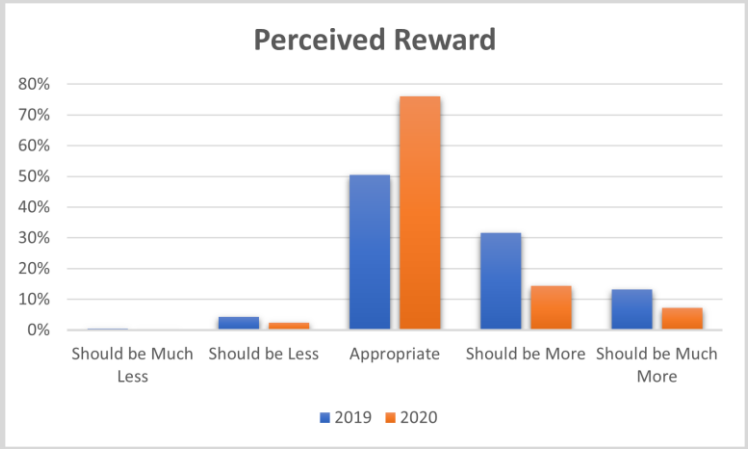
Fall 2019 vs. Fall 2020



The First-Year Experience Modules Were Valuable to Me***



Given the Value of the FYE Modules, They Took Too Much Time to Complete***



Given the Value & Cost, is a 5% Final Grade Component an Appropriate Reward?***

Significance Levels: *p<0.10; **p<0.05; ***p<0.01

Cost and Benefit to Faculty

COSTS

- Grading/Response Time
  - +2 h/w extra work for me
- TA Resources
  - used 33% of TA hours
- Emotional Energy
  - It's exhausting!
- Other?

BENEFITS

- Learn More About Our Students
- Improved Class Atmosphere
- Improved Retention, Outcomes
- Strengthen Campus Connections
- Intangibles?
- Other?

Next Steps

Winter 2021

- FYE activities directly linked to assignments
- Reach expanded to five instructors

Factors Affecting Faculty Adoption

- Open Source, Content Agnostic, Portable Modules
- Study Cost/Benefit of Faculty
  - Investigate why an instructor may or may not include FYE content in their course
  - How can you make it sustainable?