Interim Report: C²Exchange Instructor Fall 2019 Post Survey

April 7, 2020

Lorna Rivera, External Evaluation

Lorna@LornaRivera.com

Overview

- Purpose: Collect baseline data from instructors on the initial wave of C^{2}E activity.

- Method: Online Survey

- Dissemination: March 4 – March 31, 2020

- Response Rate: 100% (8/8)

Q2.1 - Which C2Exchange subject area(s) did you review, teach, adopt, or develop courses and/or modules in Fall 2019? Select all that apply
N=8

Topic	Participated in review of course or module (i.e. development process)		Completed new course or module development		Adopted course or module from another instructor/ institution		Taught course or module		Total
Computational Chemistry and Molecular Modeling	38%	3	38%	3	13%	1	13%	1	8
Introduction to Modeling and Simulation	43%	3	29%	2	0%	0	29%	2	7

# Q2.1 - Which C2Exchange subject area(s) did you review, teach, adopt, or develop courses and/or modules in Fall 2019? Select all that apply
N=8

Topic	Survey Module: New Curriculum Development				Survey Module: Adopted existing curriculum from another instructor/institution				Total
	Participated in review of course or module (i.e. development process)		Completed new course or module development		Adopted course or module from another instructor/ institution		Taught course or module		
Computational Chemistry and Molecular Modeling	38%	3	38%	3	13%	1	13%	1	8
Introduction to Modeling and Simulation	43%	3	29%	2	0%	0	29%	2	7

Summary of Findings

General

- Most (88%) faculty are confident in their ability to integrate computational resources into their curriculum.

- Faculty expertise in computer programming varies (Mean=3.25).

New Curriculum Development

- Faculty participating in new curriculum development rated their experience positively across all factors.

- Most faculty (4/5) agreed the course content was at an appropriate level of difficulty, and separately rated the course as being somewhat (Mean=3.25) challenging for students at their institution.

- All faculty participating in new curriculum development report professional benefits (Mean=4.60).

- Access to computational resources was the highest rated C²E component followed by document sharing tools (i.e. Box.OSU.edu).

- While faculty rated the C²E Moodle positively, communication with their students took place primarily through campus software and face-to-face.
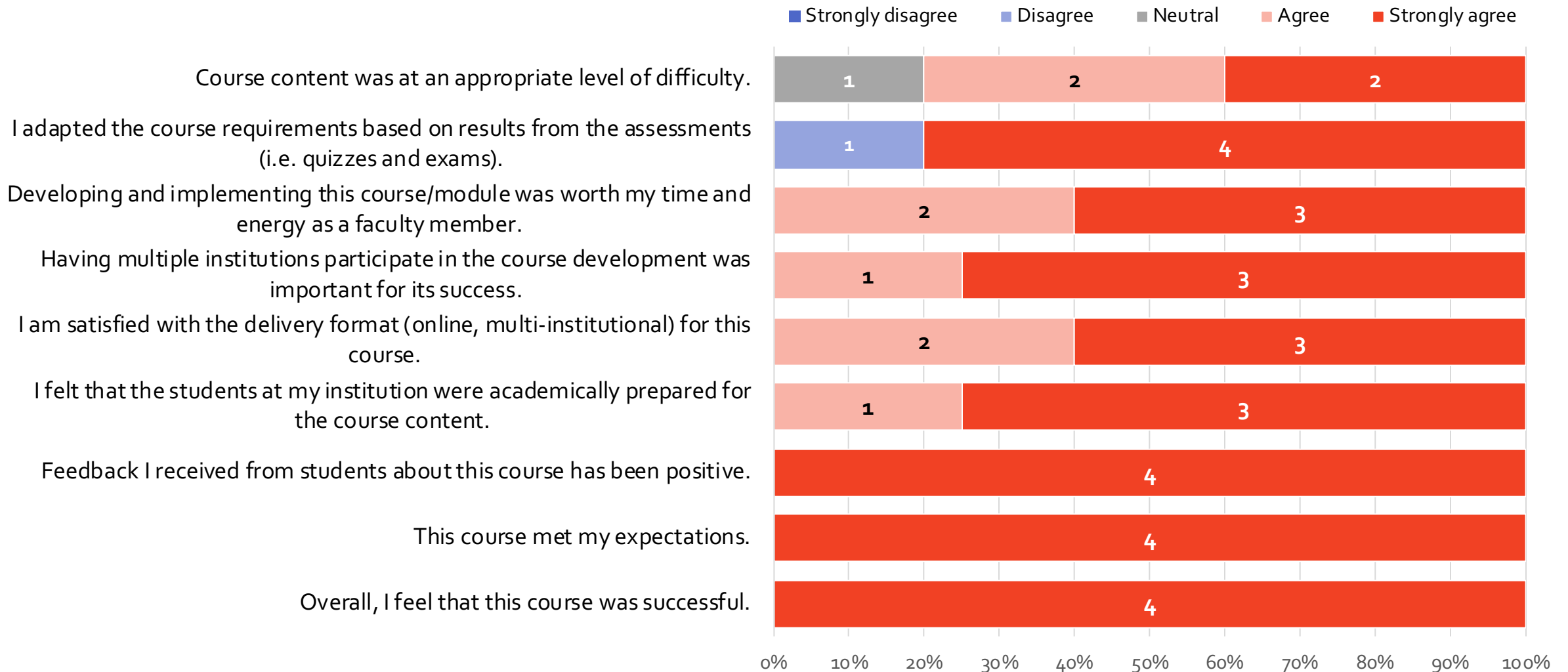
New Curriculum Development

Survey Module Response, N=6

To what extent do you agree with the following statements regarding developing and locally implementing a course or module?
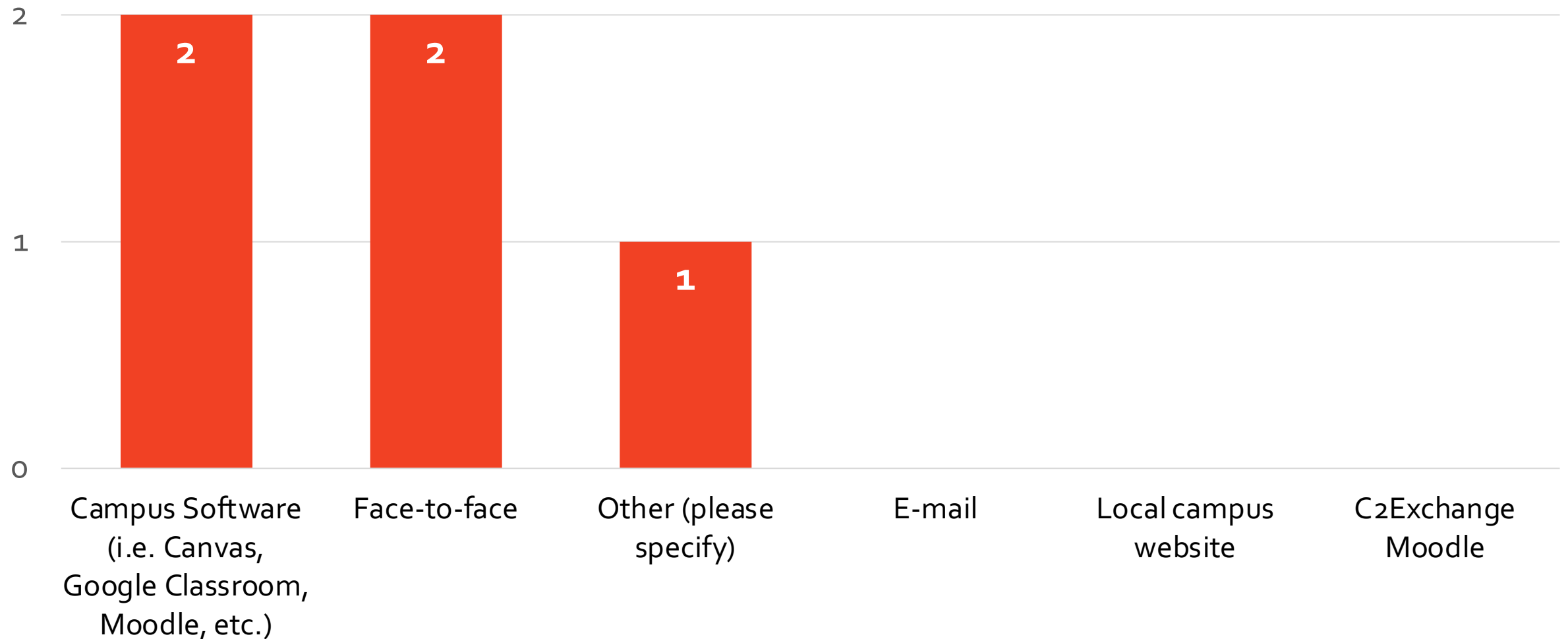# N=5

Legend: ■ Strongly disagree ■ Disagree ■ Neutral ■ Agree ■ Strongly agree

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Course content was at an appropriate level of difficulty.			1	2	2
I adapted the course requirements based on results from the assessments (i.e. quizzes and exams).		1			4
Developing and implementing this course/module was worth my time and energy as a faculty member.				2	3
Having multiple institutions participate in the course development was important for its success.				1	3
I am satisfied with the delivery format (online, multi-institutional) for this course.				2	3
I felt that the students at my institution were academically prepared for the course content.				1	3
Feedback I received from students about this course has been positive.					4
This course met my expectations.					4
Overall, I feel that this course was successful.					4

N/A response option not reflected in this chart.

How challenging do you feel the course was for students at your institution?
N=4, Mean=3.25 , SD=0.50
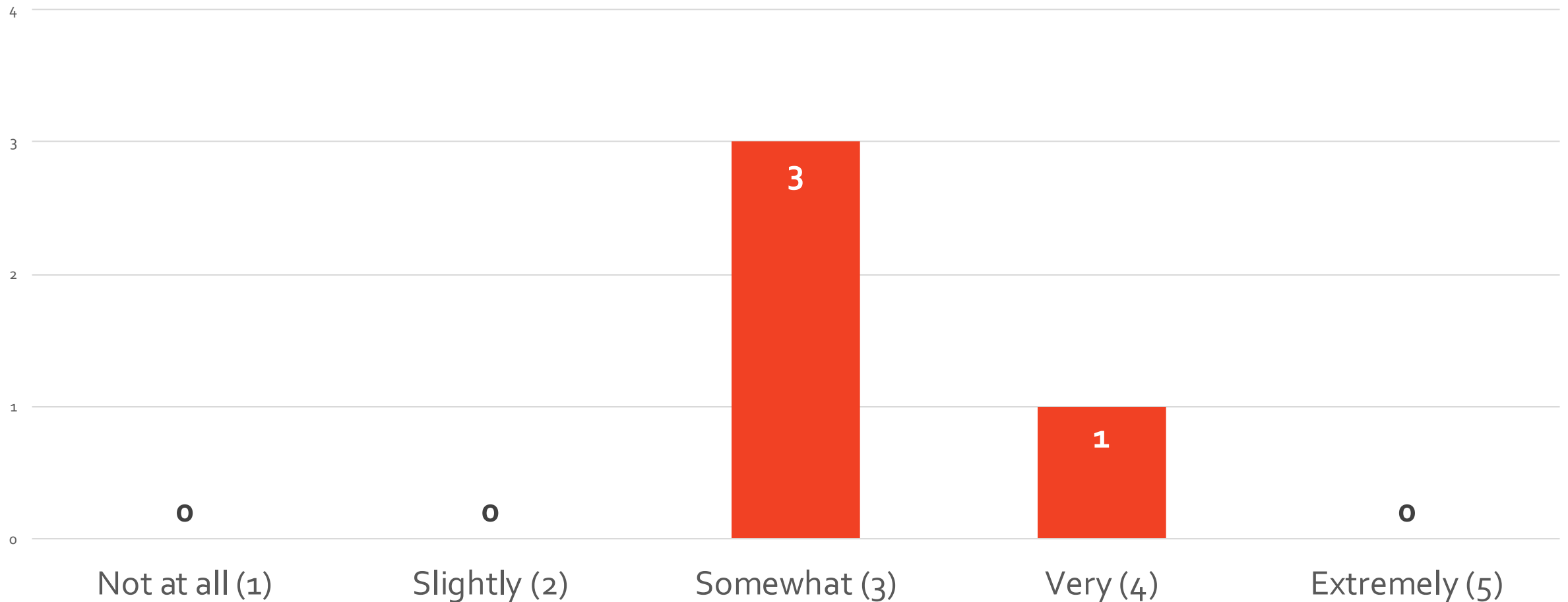
N/A response option not reflected in this chart.

How were students recruited for the course at your institution? N=5

- "In the Fall 2019 the Introduction to Modeling and Simulation course was offered in the Mathematics Seminar course (MATH 499). MATH 499 is housed in one of the three course groups that students majoring/minoring in Mathematics are required to take."

- "The course was advertise via campus email, it was offered as an elective topics course as part of the Computer Science program. A description of the course and the list of topics was presented, and that the basic skills taught in the course were the foundation for other courses in the area of Data Science and Computational Science. It would also help them getting prepared to do undergraduate research, and will learn Python."

- "From University Catalog, departmental faculty advisors."

- "NA"

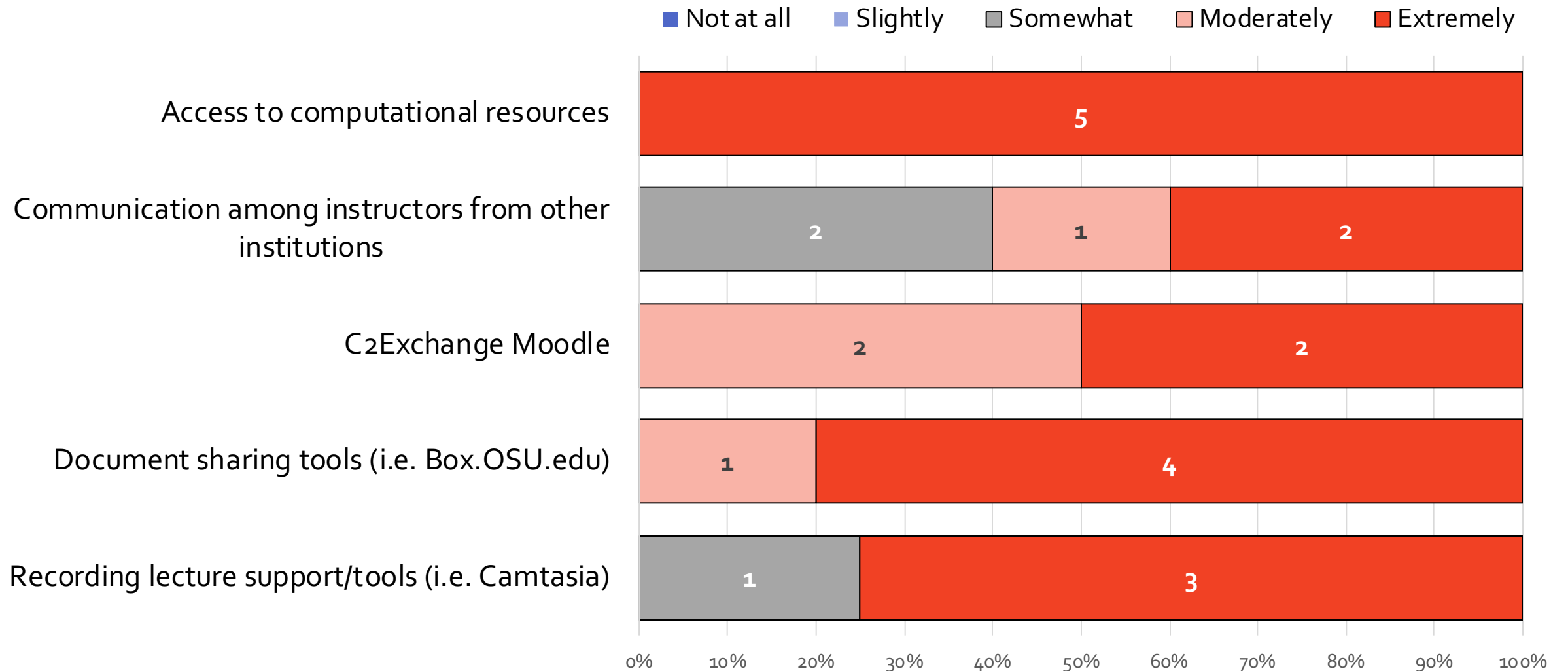- "Course materials was offered to students enrolled in existing courses."

In what ways did you tailor the course to fit the unique needs of your institution? N=4

- "Chemistry and biology majors who are in junior or senior level. This course covers the overview of computational techniques that are applied to small molecules to large systems of biological interest, nonbonding interactions. Computational labs (hands on training) is accompanied with the lecture. Therefore, the class size is maximum of 14 students."

- "NA"

- "The course was enhanced to provide additional examples and mathematics applications as those enrolled in the course were advanced mathematics students."

- "Even though there are advance courses in mathematical modeling, there are no foundation course, that will teach the basic skill in mathematical modeling and programming. Having no major requirement (other than college algebra) allow a broader group of students to get started in the field of Computational Science."

# To what extent were you pleased with each of the following components available for course development?
N=5

Legend: Not at all, Slightly, Somewhat, Moderately, Extremely

- Access to computational resources: Extremely 5
- Communication among instructors from other institutions: Somewhat 2, Moderately 1, Extremely 2
- C2Exchange Moodle: Moderately 2, Extremely 2
- Document sharing tools (i.e. Box.OSU.edu): Moderately 1, Extremely 4
- Recording lecture support/tools (i.e. Camtasia): Somewhat 1, Extremely 3

N/A response option not reflected in this chart.

To what extent has developing and offering the course locally benefited **you** professionally?
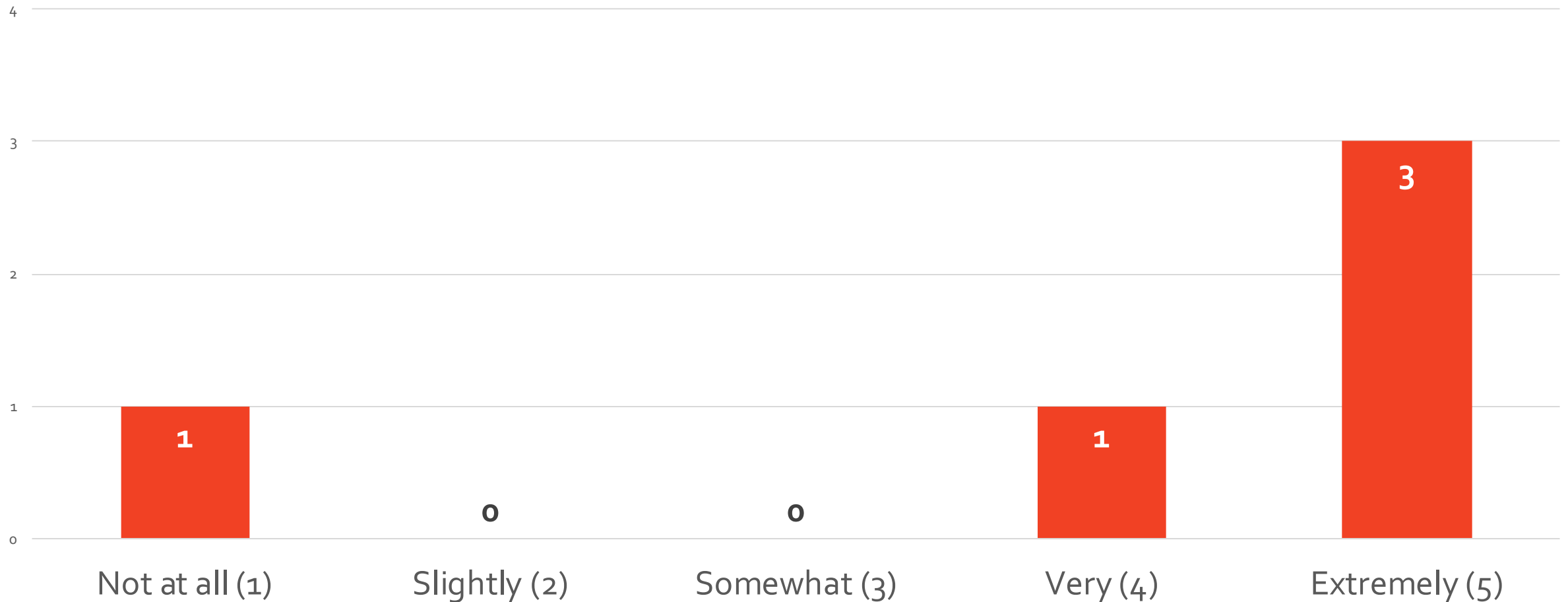N=5, Mean=4.60, SD=0.55
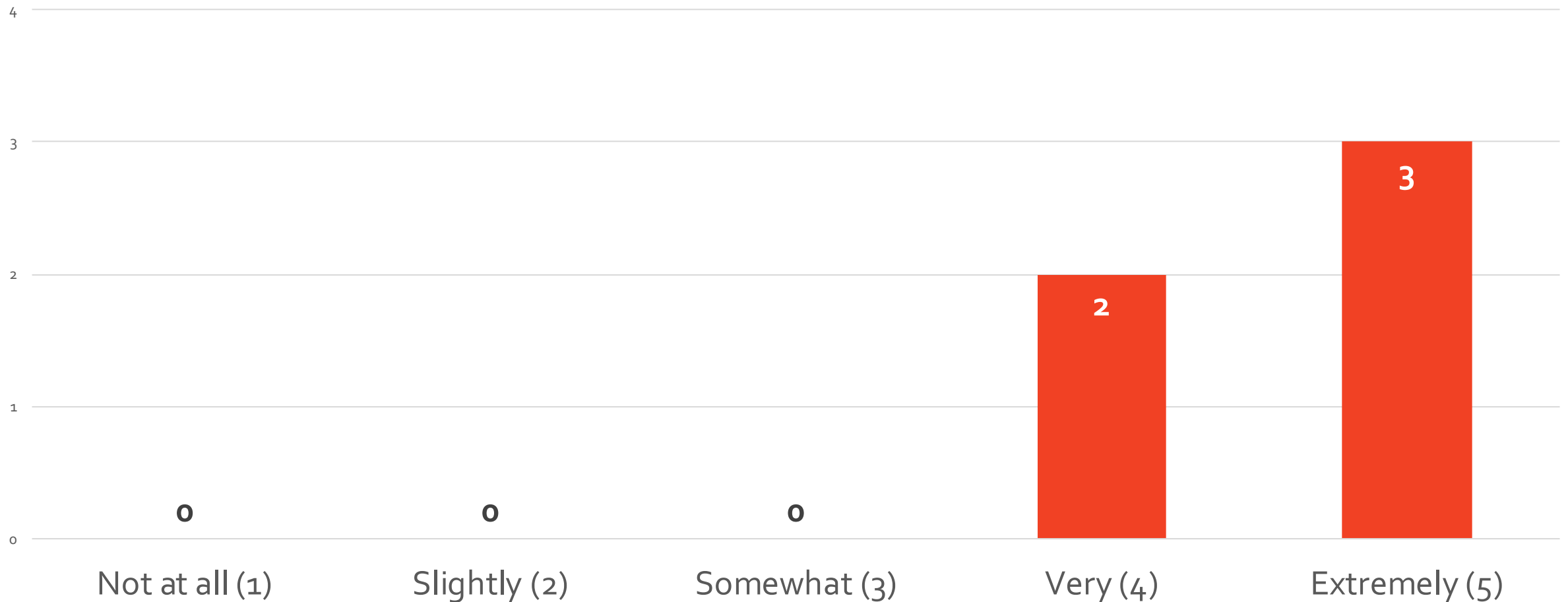
N/A response option not reflected in this chart.

To what extent has developing and offering the course locally benefited **students** at your institution?
N=5, Mean=4.00, SD=1.73

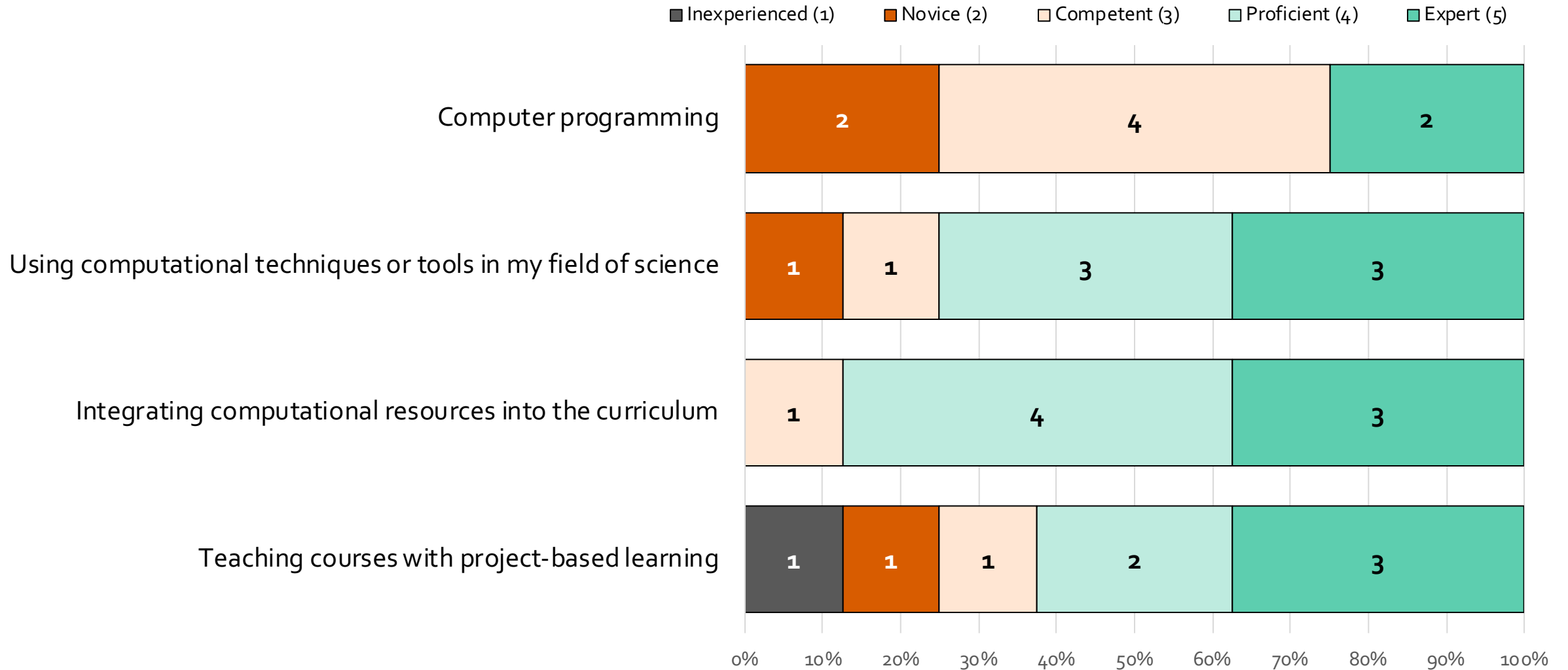N/A response option not reflected in this chart.

General Information
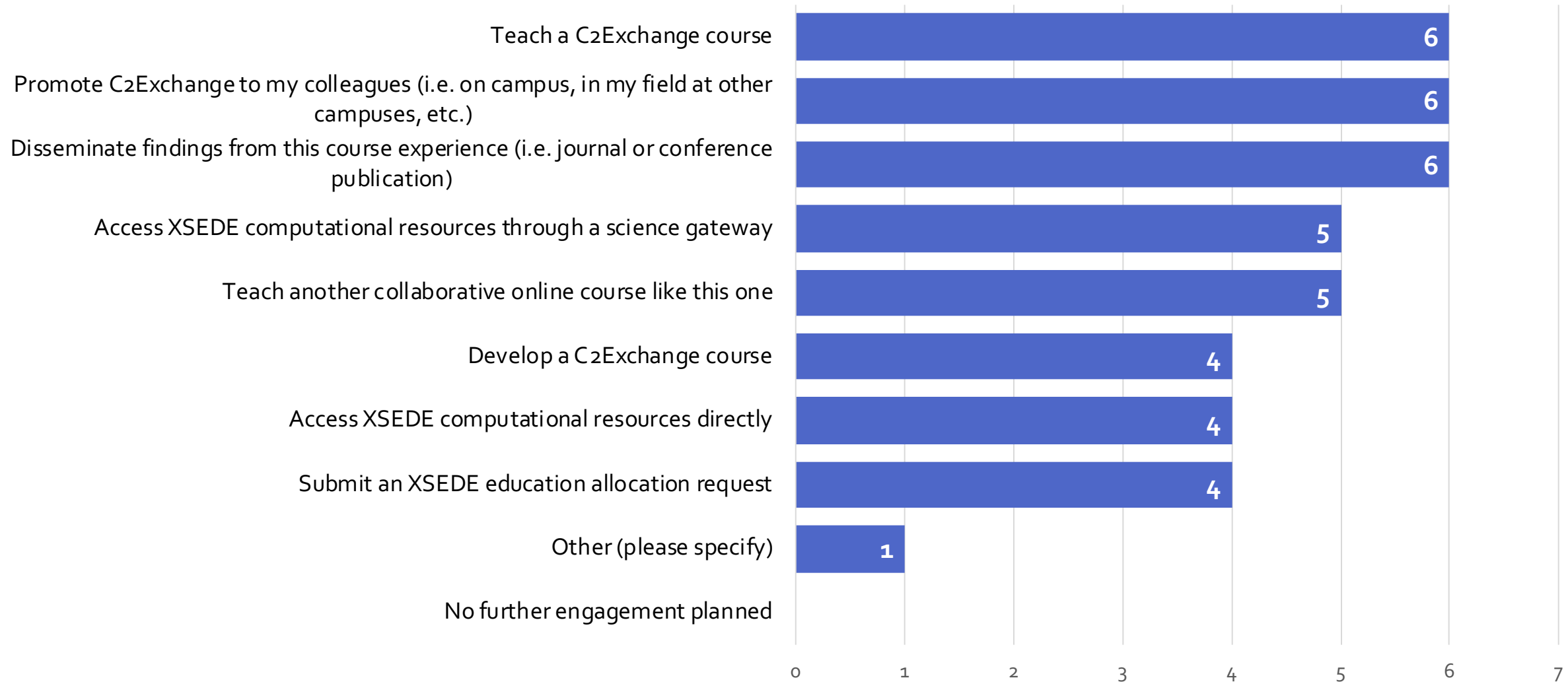
Survey Module Response, N=8

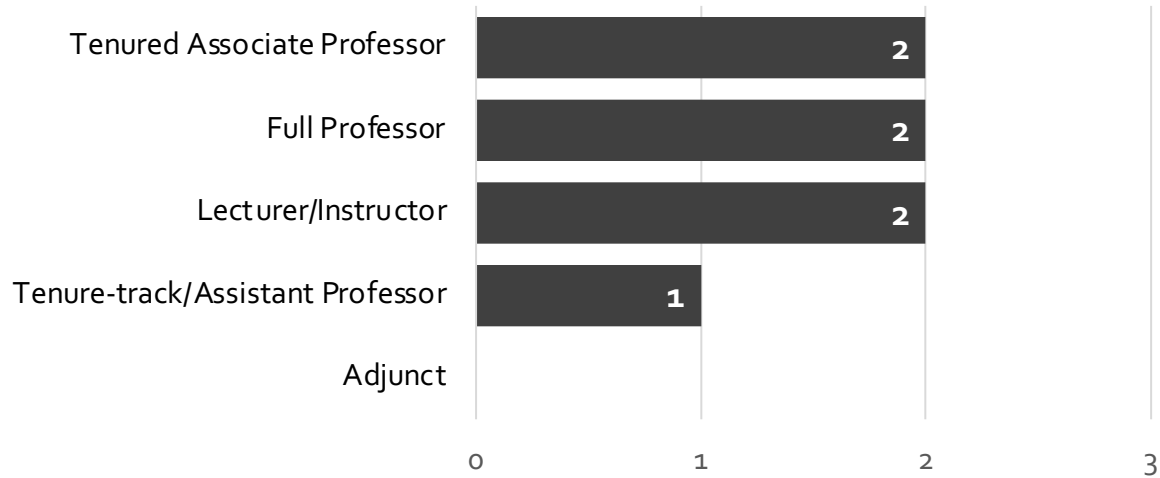# What is your level of experience in each of the following areas?
N=8

How do you plan to engage with C2Exchange in the future? (Select all that apply) N=8
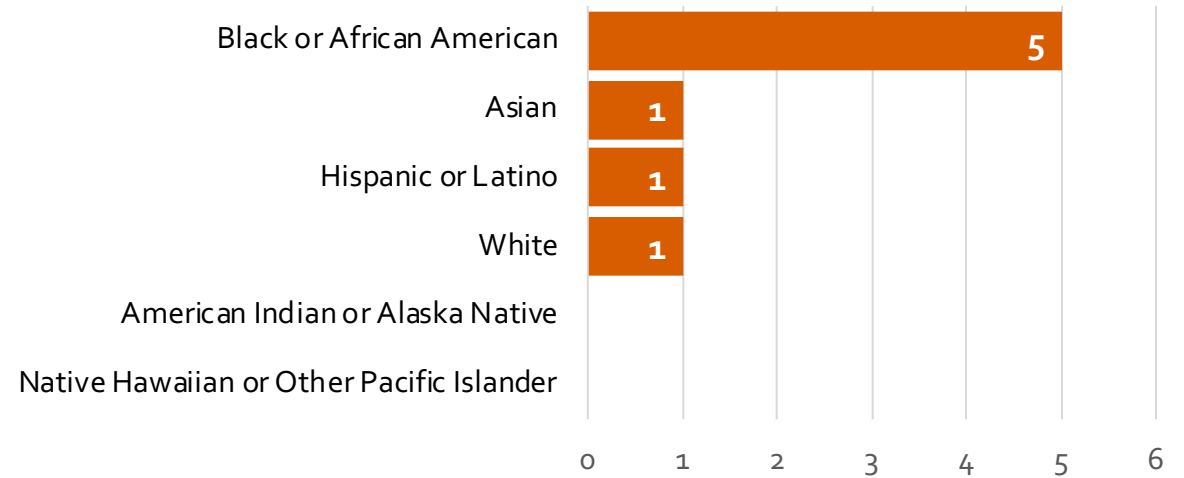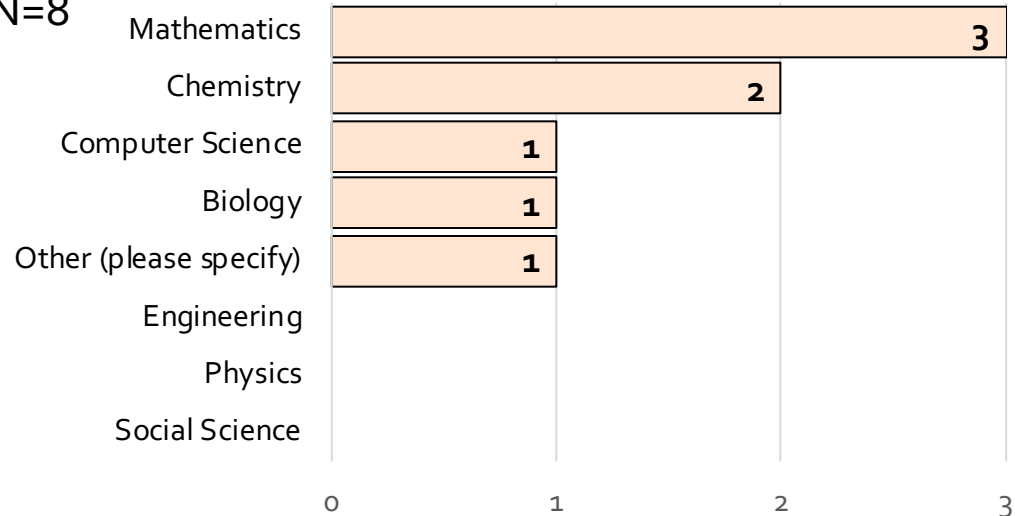
Respondent Demographics

Current rank/classification, N=7

Rank	Count
Tenured Associate Professor	2
Full Professor	2
Lecturer/Instructor	2
Tenure-track/Assistant Professor	1
Adjunct	

Race/ethnicity, N=8

Race/ethnicity	Count
Black or African American	5
Asian	1
Hispanic or Latino	1
White	1
American Indian or Alaska Native	
Native Hawaiian or Other Pacific Islander	

Field, N=8

Field	Count
Mathematics	3
Chemistry	2
Computer Science	1
Biology	1
Other (please specify)	1
Engineering	
Physics	
Social Science	

Gender, N=8

Male 50%
Female 50%