

12/22/2020

Fall 2020 Mechatronics/Engineering Workshops Feedback Survey



Institutional Research Office
SAN DIEGO MESA COLLEGE

Fall 2020 Mechatronics/Engineering Workshops Feedback Survey

Survey's Aim:

The purpose of the survey was to learn about student interest in and/or satisfaction with the workshops and help inform decisions about the future of this program hosted by the Innovation Research Lab.

Methodology:

The 30 students who RSVP'd to attend the Fall 2020 workshops were contacted via email and invited to complete an online survey via SurveyMonkey's platform. Data was collected from November 18th through December 6th, 2020. A total of 12 students responded to the survey, resulting in a 40% participation rate. Two of the 12 respondents did not finish the survey, but the responses they provided were included in the analysis. Because some students did not attend any/all the workshops, survey logic was applied to filter and only ask relevant questions based on a student's level of participation in the workshops. To motivate student participation, a \$20 opportunity drawing was offered as an incentive.

Main Takeaways:

- ✓ All students were specifically asked "If the workshops were offered as a one-unit course, would you take it or recommend it for the cost of one unit?" Most of the students (58%) said yes, 33% said maybe and 8% said no. Those who said yes felt like they learned new and useful skills from the program and would like to see that newfound knowledge reflected on their academic transcripts.
- ✓ Most students (78%) strongly agreed or agreed that they were satisfied with their participation and felt engaged in the workshops.
- ✓ Likewise, 66% of all students were satisfied with the workshop's curriculum.

Workshop Attendance:

- Five respondents (42%) attended all of the ten scheduled workshops; three (25%) attended 6-9 workshops; one respondent (8%) attended 2-5 workshops; one respondent (8%) attended one workshop; and two students (17%) were no-shows.
- The two main reasons cited by the no-shows for not being able to attend were a lack of time or scheduling conflicts. Those who attended some but not all the workshops cited illness, lack of awareness, or lack of intellectual rigor for skipping some of the workshops.
- The students who attended all the workshops did so because the workshop topics were designed for sequential learning. In addition, they wanted to learn new engineering and applications skills that they believed to be complimentary to their academic and professional endeavors.

Perceptions of Workshop's Value to Students:

- In response to how satisfied students were with their participation in the program and the workshop's curriculum, 56% of the students strongly agreed, and another 22% agreed that they were satisfied with the workshop's curriculum. However, 11% were either neutral or disagreed (were dissatisfied) about the utility of what they had learned in the workshops.
- When asked about how the workshop's content was taught, 22% strongly agreed and 44% agreed that they were satisfied with the teaching style. But, 11% strongly disagreed (were dissatisfied) while 22% were neutral (indifferent) to the course's teaching style.
- On the question of engagement, 22% of students strongly agreed and 56% agreed that the workshops were engaging. But, 11% were either neutral or strongly disagreed (were dissatisfied) with their level of engagement in the workshops.

Why Some Students Felt Disengaged:

- Instructor(s) appeared to have difficulty controlling the class in a virtual environment. As one student reported, "I realize there are challenges with organizing something like this over zoom, but at least give me something to do while the instructor is busy herding cats."
- Two students commented that their engagement would have been higher if prior to the workshops, they had been given the assembly instructions for the course required Arduino controllers by their instructors. They found it difficult to assemble their gadgets while simultaneously listening to the instructors.
- One student suggested that the workshop's curriculum needs to be expanded to include some basic coding since, "... It seems that one had to have a little bit of knowledge of C+ coding to fully understand the syntax of the projects."

Availability of Project Equipment:

- Most students (78%) said they picked up the Arduino kit. The students who reported not picking up their kits cited two reasons: (a) they had bought their own kits or (b) they already had one and simply added additional parts as needed.

Value Perception of Workshops to Students:

- Most of the students (82%) reported that the workshops would not help them fulfill any course requirements. While 9% reported that the workshop would meet a (a) major requirement, (b) transfer requirement, or (c) another requirement.

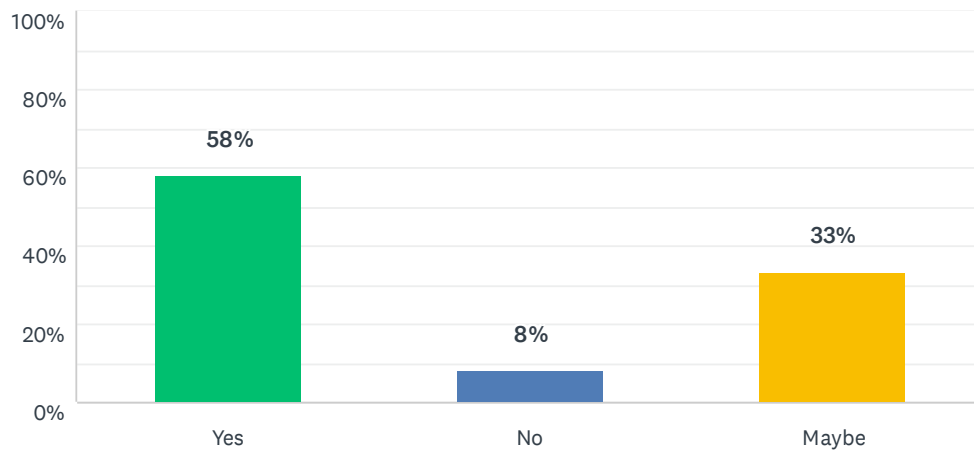
Workshop's Format and Resources:

- For future workshops, most students (80%) prefer face-to-face instruction while 20% favored a hybrid format.

- Forty percent of students reported watching the archived recordings of the workshops. Seventy-five percent of those who watched the recordings did so to review the material presented in the workshops, while 50% only watched the recordings if they missed a workshop.
- Sixty percent of respondents did not watch any of the session recordings at all. Why? Two-thirds of them said they were unaware of this resource, while the remaining one-third simply chose not to watch them at all.

Q1 If the workshops were offered as a one-unit course, would you take it or recommend it for the cost of one unit?

Answered: 12 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	58%	7
No	8%	1
Maybe	33%	4
TOTAL		12

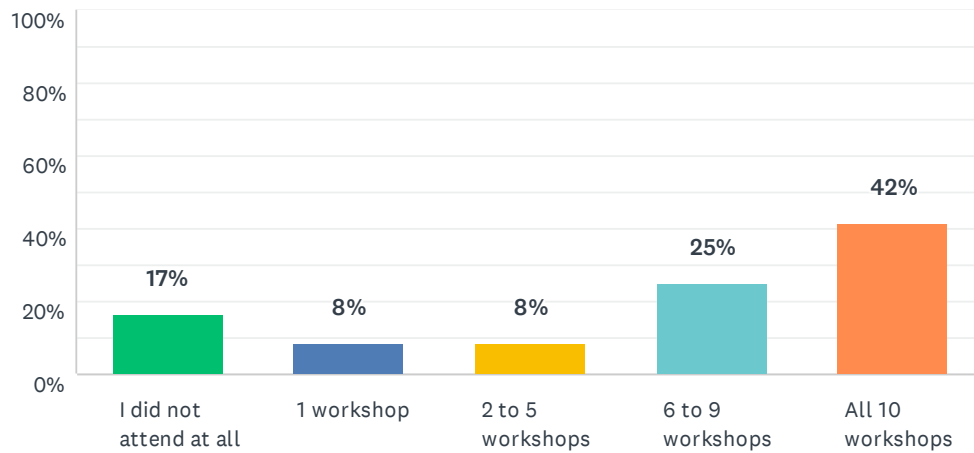
Q2 Briefly explain why you chose the answer above:

Answered: 10 Skipped: 2

#	RESPONSES	DATE
1	Yes It would be worth it to simplify the equipment rental	12/6/2020 6:00 AM
2	Yes It exposes you to the combination of devices that interact with the real world and microcontrollers that talk to them	12/3/2020 6:07 PM
3	Maybe I didn't find the course very engaging, but if there were grades maybe that would help with focus	12/3/2020 5:36 PM
4	No The material is not quite comprehensive enough to comprise a full course.	12/3/2020 1:03 PM
5	Maybe Not sure which is better	12/3/2020 12:32 PM
6	Yes The reason is because the time slot would be appropriate and it would be better to do so in person where a student can ask more help.	12/3/2020 11:31 AM
7	Maybe I like that they are workshops that can be do as extracurricular	11/19/2020 2:35 PM
8	Yes It was very useful to learning how Arduino controllers work.	11/18/2020 1:02 PM
9	Yes I think by having the workshops listed on my transcripts as a course that it would be more beneficial	11/18/2020 11:43 AM
10	Maybe It doesn't fit within my actual major class schedule. I would want to, but if this affected my GPA, I would reconsider.	11/18/2020 11:08 AM

Q3 How many Mechatronics/Engineering workshops did you attend?

Answered: 12 Skipped: 0



ANSWER CHOICES	RESPONSES	
I did not attend at all	17%	2
1 workshop	8%	1
2 to 5 workshops	8%	1
6 to 9 workshops	25%	3
All 10 workshops	42%	5
TOTAL		12

Q4 Why did you decide not to attend any workshops?

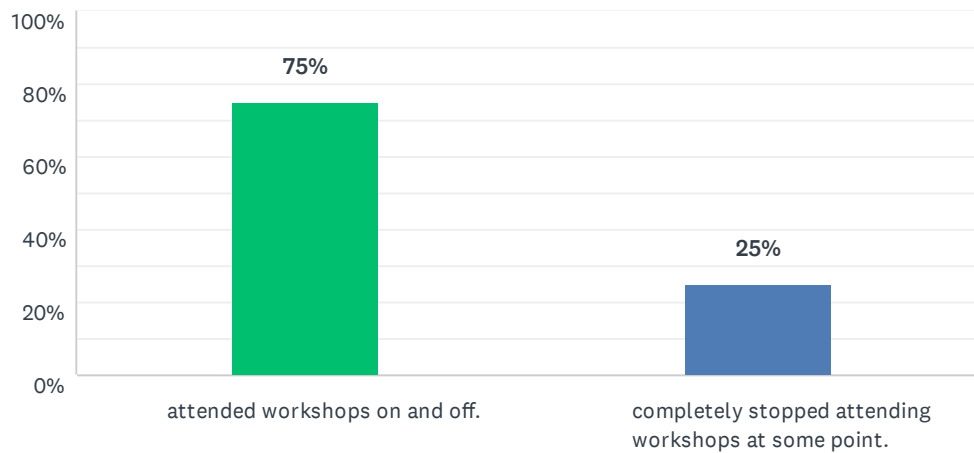
Answered: 2 Skipped: 10

#	RESPONSES	DATE
1	I could not arrange my schedule, then withdrew.	12/3/2020 12:33 PM
2	Do not had the time to go.	11/18/2020 12:10 PM

This question was asked when Q3 = "I did not attend at all."

Q5 Please select the option that best reflects your experience attending the Fall 2020 Mechatronics/Engineering workshops:

Answered: 4 Skipped: 8



ANSWER CHOICES	RESPONSES	
attended workshops on and off.	75%	3
completely stopped attending workshops at some point.	25%	1
TOTAL		4

This question was asked when Q3 = "1 workshop" or "2 to 5 workshops" or "6 to 9 workshops."

Q6 Please explain why you {{ Q5 }}

Answered: 4 Skipped: 8

#	RESPONSES	DATE
1	I was learning more on my own than I did in the workshop. Eventually, waiting for everyone else to catch up was no longer worth it.	12/6/2020 6:02 AM
2	had another commitment for one class	12/3/2020 6:08 PM
3	Neither statement fits my experience. I wasn't aware of workshop until the second meeting. Then I attended all subsequent meetings	12/3/2020 5:37 PM
4	I recently had a heart surgery and there was one appointment that landed in the same time slot as the workshop and I believe my health is more important.	12/3/2020 11:32 AM

This question was asked when Q3 = "1 workshop" or "2 to 5 workshops" or "6 to 9 workshops."

Q7 What motivated to attend all 10 workshops?

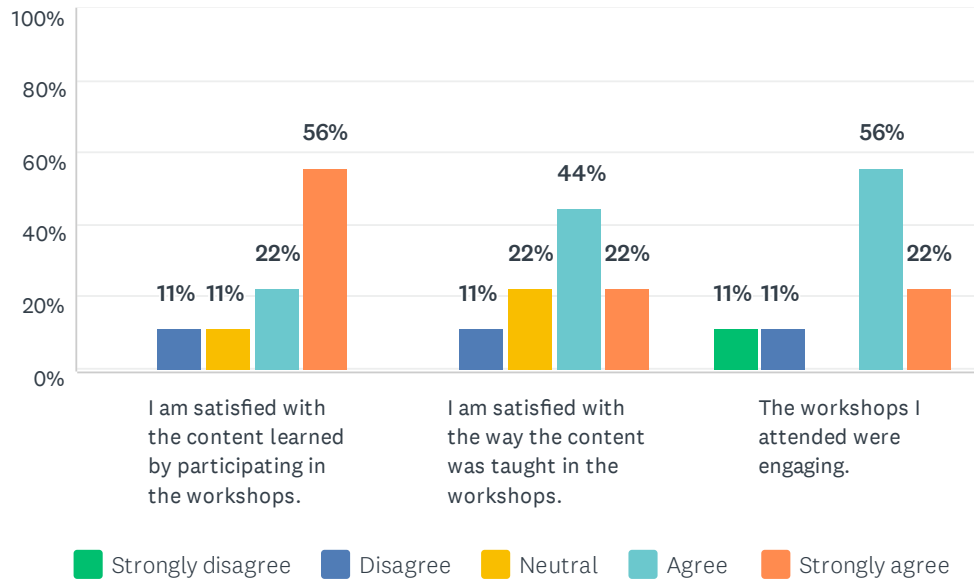
Answered: 5 Skipped: 7

#	RESPONSES	DATE
1	Each workshop had info that fed into the next, so I felt it was important to attend them all.	12/3/2020 1:03 PM
2	I wanted to learn something new and I thought they might help me for the future	11/19/2020 2:35 PM
3	Learning the basics of Arduinos and how they function. A little more emphasis on the coding aspect would have been helpful.	11/18/2020 1:02 PM
4	I want to have as many skills as possible to improve my chances of gaining internships and showing employers/universities that I'm taking extra steps towards my major.	11/18/2020 11:44 AM
5	This is a skill I really want to learn! I also know that having these engineering skills under my belt will help me be more desirable for internships.	11/18/2020 11:09 AM

This question was asked when Q3 = "All 10 workshops."

Q8 Rate your agreement with the statements below:

Answered: 9 Skipped: 3



	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	TOTAL	WEIGHTED AVERAGE
I am satisfied with the content learned by participating in the workshops.	0% 0	11% 1	11% 1	22% 2	56% 5	9	4.22
I am satisfied with the way the content was taught in the workshops.	0% 0	11% 1	22% 2	44% 4	22% 2	9	3.78
The workshops I attended were engaging.	11% 1	11% 1	0% 0	56% 5	22% 2	9	3.67

This question was asked when Q3 NOT = "I did not attend at all."

Q9 If you would like to share additional comments about your satisfaction or engagement with the workshops, please enter them here:

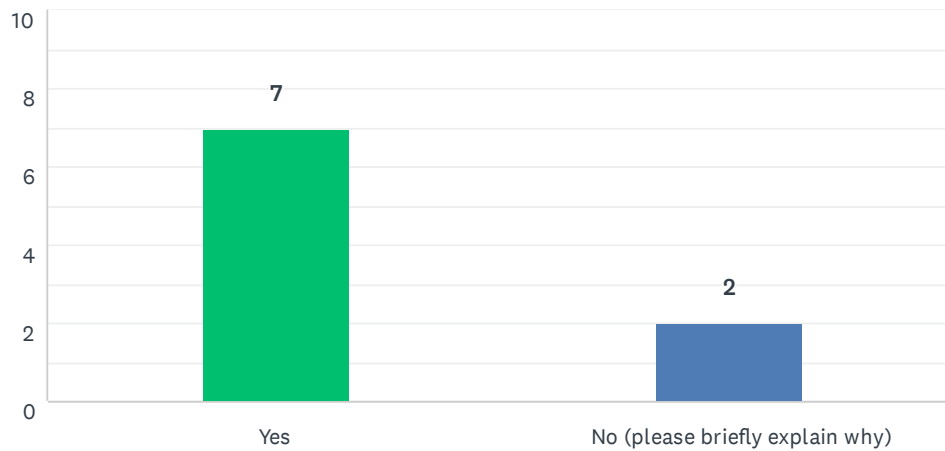
Answered: 3 Skipped: 9

#	RESPONSES	DATE
1	I realize there are challenges with organizing something like this over zoom, but at least give me something to do while the instructor is busy herding cats.	12/6/2020 6:05 AM
2	would like to have more material available ahead of time. would like to be able to assemble the circuit before rather than during class. hard to listen and work at the same time.	12/3/2020 6:10 PM
3	The only comment i can add is that i wish there was a more basic coding portion to the workshop. It seems that one had to have a little bit of knowledge of C+ coding to fully understand the syntax of the projects.	11/18/2020 1:03 PM

This question was asked when Q3 NOT = "I did not attend at all."

Q10 Did you pick up the Arduino kit required for workshop participation?

Answered: 9 Skipped: 3



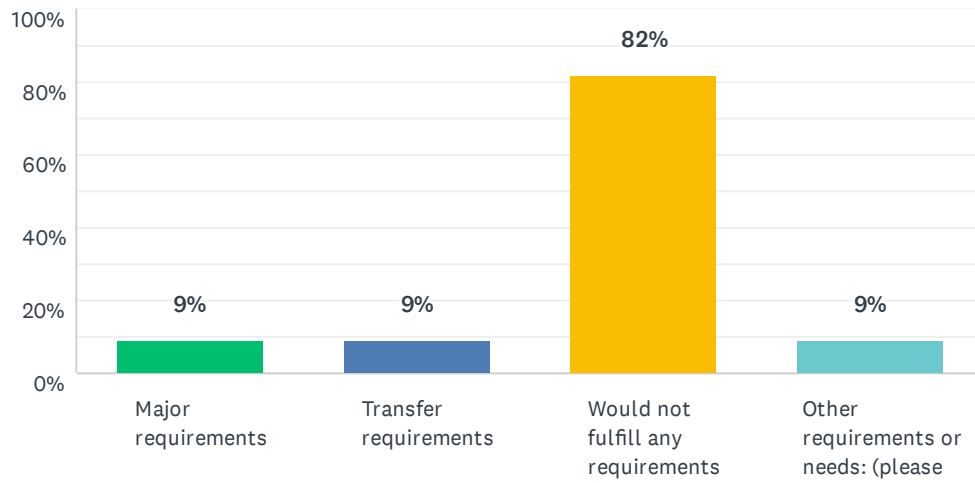
ANSWER CHOICES	RESPONSES	
Yes	78%	7
No (please briefly explain why)	22%	2
TOTAL		9

#	NO (PLEASE BRIEFLY EXPLAIN WHY)	DATE
1	Purchased my own	12/6/2020 6:05 AM
2	I had a basic arduino already -- got some extra parts separately	12/3/2020 6:11 PM

This question was asked when Q3 NOT = "I did not attend at all."

Q11 Would completing the workshops help you fulfill any of following requirements: [Select all that apply]

Answered: 11 Skipped: 1

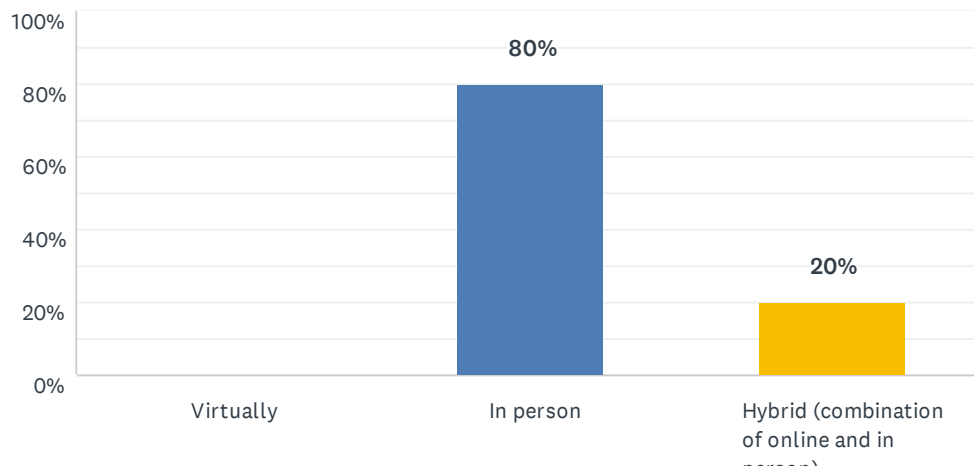


ANSWER CHOICES	RESPONSES
Major requirements	9% 1
Transfer requirements	9% 1
Would not fulfill any requirements	82% 9
Other requirements or needs: (please describe)	9% 1
Total Respondents: 11	

#	OTHER REQUIREMENTS OR NEEDS: (PLEASE DESCRIBE)	DATE
1	not working toward (another) degree - so don't have requirements	12/3/2020 6:13 PM

Q12 When the pandemic is no longer a problem, what is the best format to offer these workshops?

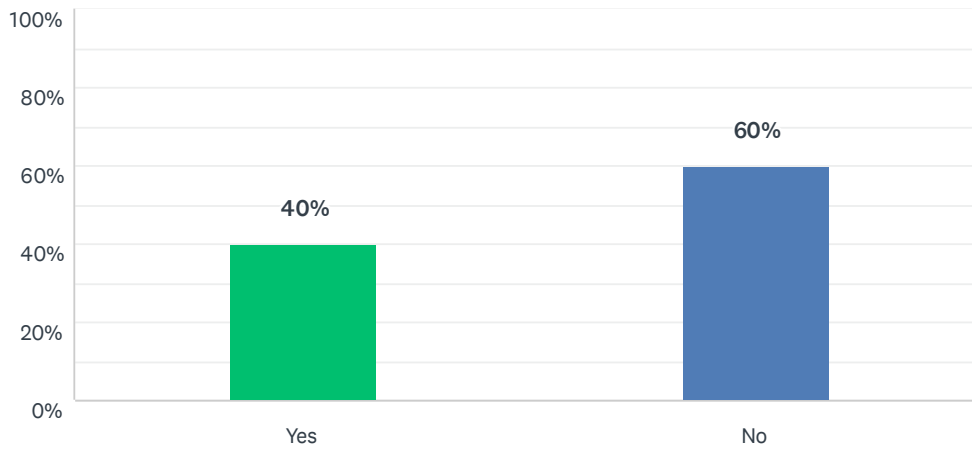
Answered: 10 Skipped: 2



ANSWER CHOICES	RESPONSES	
Virtually	0%	0
In person	80%	8
Hybrid (combination of online and in person)	20%	2
TOTAL		10

Q13 Did you access any of the workshop recordings posted to the IRL webpage?

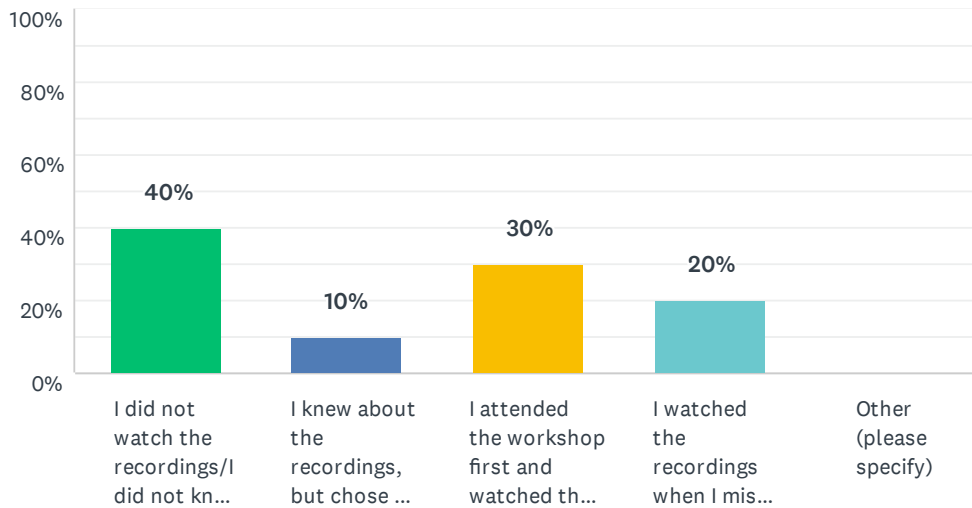
Answered: 10 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	40%	4
No	60%	6
TOTAL		10

Q14 Select the options that describe your experience with the workshop recordings: [Select all that apply]

Answered: 10 Skipped: 2

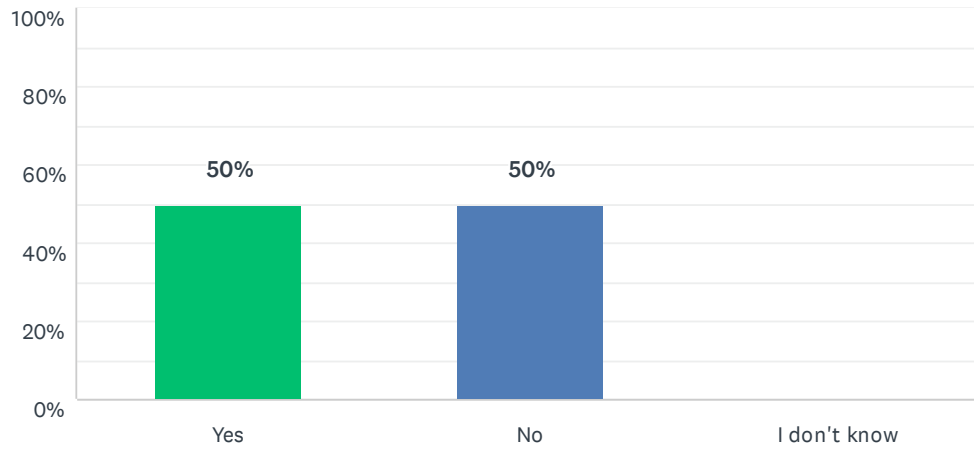


ANSWER CHOICES	RESPONSES	
I did not watch the recordings/I did not know the recordings were available online	40%	4
I knew about the recordings, but chose not to watch them	10%	1
I attended the workshop first and watched the recording for review afterwards	30%	3
I watched the recordings when I missed a workshop	20%	2
Other (please specify)	0%	0
Total Respondents: 10		

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

Q15 Do you identify as a low-income student?

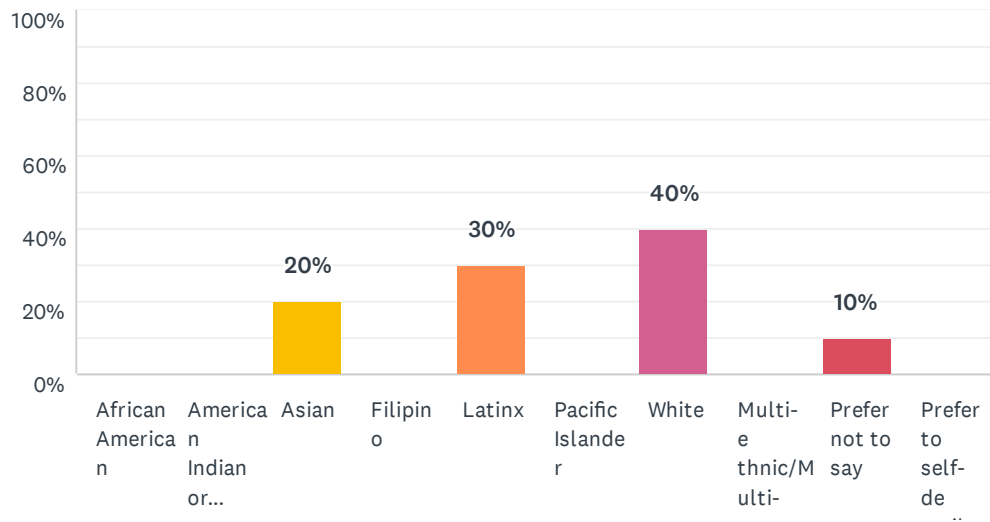
Answered: 10 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	50%	5
No	50%	5
I don't know	0%	0
TOTAL		10

Q16 Please select the ethnicity to which you most closely identify.

Answered: 10 Skipped: 2

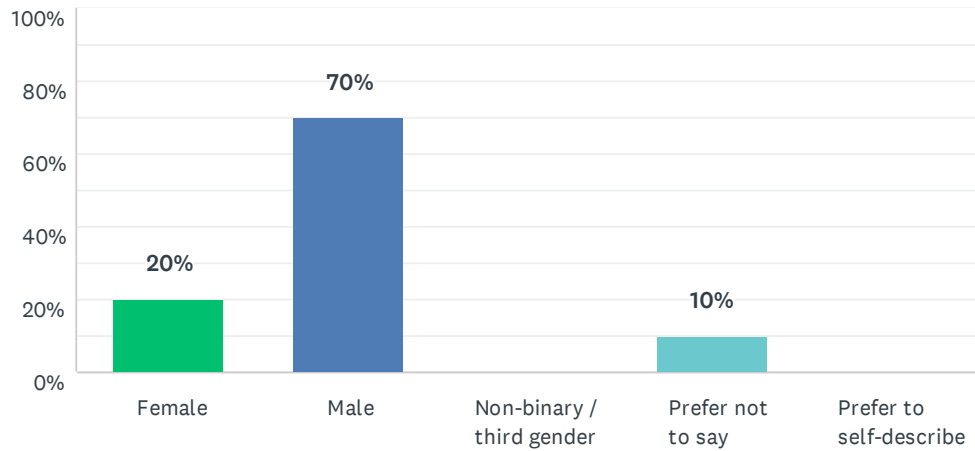


ANSWER CHOICES	RESPONSES	
African American	0%	0
American Indian or Alaska Native	0%	0
Asian	20%	2
Filipino	0%	0
Latinx	30%	3
Pacific Islander	0%	0
White	40%	4
Multi-ethnic/Multi-racial	0%	0
Prefer not to say	10%	1
Prefer to self-describe	0%	0
TOTAL		10

#	PREFER TO SELF-DESCRIBE	DATE
	There are no responses.	

Q17 What is your gender?

Answered: 10 Skipped: 2

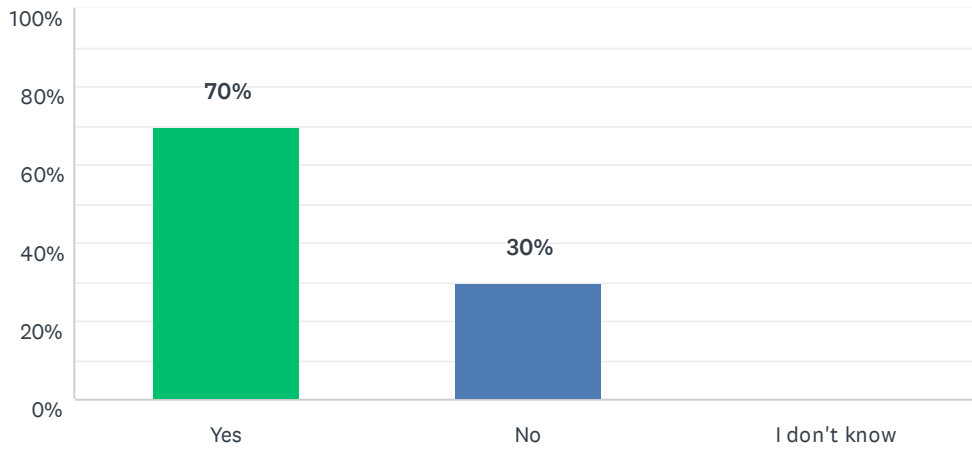


ANSWER CHOICES	RESPONSES
Female	20% 2
Male	70% 7
Non-binary / third gender	0% 0
Prefer not to say	10% 1
Prefer to self-describe	0% 0
TOTAL	10

#	PREFER TO SELF-DESCRIBE	DATE
	There are no responses.	

Q18 Did any of your parents attend college?

Answered: 10 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	70%	7
No	30%	3
I don't know	0%	0
TOTAL		10