

SURE III Survey, annotated

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Like most surveys, the introductory text of this survey was an attempt to explain the survey and reassure the student respondent of their right to withdraw. We presume a new user will modify the text to fit their needs. Notice that any review by an Institutional Review Board is the responsibility of the faculty/staff user.

Thank you for choosing to complete the SURE III survey. We greatly appreciate your participation. Please read through this introductory information before beginning the survey.

We will begin with a section that asks a few questions about you. Responses will be grouped by school and program, so we need these identifiers. We also ask for other personal characteristics that will help us to determine whether different groups of students are having similar or different experiences, find similar or different aspects of the research summer of greater value, etc. After we ask about you, we ask you about your mentor experiences, if applicable. Next, we ask you to evaluate the benefits of having the summer research experience. As you will see, each item is evaluated on a scale of 1 to 5. These data will be analyzed statistically to discover patterns and trends. After that, we ask about some of the other activities that may have been offered during your summer research program. The data will be aggregated and, along with any anonymous comments you have provided, will be reported to your institution. Your name will not be attached to the data in any way.

Your participation in this survey is completely voluntary, and you have the right to decline to participate. In addition, you may decide not to answer any particular question in the survey simply by checking the box labeled "Not applicable / Prefer not to answer". Please use this option if needed — if you leave blanks, we may wonder if you just forgot to respond to that item. If you have any questions about the survey, now or later, please contact David Lopatto at lopatto@grinnell.edu.

Thank you for providing this valuable information. Your thoughtful responses are greatly appreciated. The number of students participating from your institution may be small, so every response counts. By filling in all or part of the information requested in the survey, you are agreeing that we may use your responses as part of the aggregate data. Aggregate data for your institution (along with anonymous comments you may provide) will be sent to your program director, and aggregate data for all responses will be sent to all program directors; we will write up a report for the program directors which may subsequently be published in the education literature. Thanks very much! Your participation will help us make summer research programs more effective, and will help us to provide good experiences for the students that follow in your path.

Note that you should at least replace the “Lopatto” reference with a local reference, that you should decide if you will align the Preflection with the later SURE results, and if you need to convey Institutional Review Board information to your students. As a research initiative the student’s cooperation was not connected with grading or other consequences. Instead, we offered a raffle for those who completed the SURE. Raffle winners were sent an Amazon gift certificate.

As the student begins, we ask for information that situates who they are and where they work. A name or identifier aids in matching Preflection information to SURE information. Notice that our questions allowed us to sort students into institutions and programs. If you are working with one program only you may not need all of these questions.

Please enter your name or program identifier:

Name or identifier _____

Please indicate the college or university where you are regularly enrolled:

Institution _____

Did you carry out your research at the college or university where you are regularly enrolled?

- Yes
- No

If you answered "No", please indicate the institution, location, or laboratory where you carried out your research:

Research institution _____

Please indicate the *funding source* for your research:

If you have more than one source of funding, please enter the additional source of funding below:

Many research programs, including those funded by grants, make statements about inclusion of all genders and ethnicities. Sometimes it is necessary to tally genders and ethnicities in the service of documenting inclusion. We conformed to the usually binary taxonomy of gender and to the NSF recommendations for ethnic categories. We also found it useful to ask students their educational level (“current status”). Change or keep as you see fit.

Gender:

- Male
- Female
- Prefer not to answer

Ethnicity:

- Alaskan Native
- American Indian
- Asian American
- Black or African American
- Filipino
- Foreign National
- Hawaiian
- Hispanic/Latino
- Pacific Islander
- White
- Two or more races
- Other
- Prefer not to answer

What is your current status?

- I am a high school student.
- I am a first-year college undergraduate.
- I am a second-year college undergraduate.
- I am a third-year college undergraduate.
- I am a fourth-year college undergraduate.
- I am a graduate or medical student.
- Other
- Not applicable / Prefer not to answer

For research purposes, as well as occasionally narrowing a comparison group, we asked the student two questions, their major and their research area (which are not always similar). Depending on the scope of your project you may or may not need this information.

What is your academic major (best fit):

- Biology
- Chemistry
- Physics
- Earth & Planetary Sciences
- Math
- Computer Science
- Biochemistry
- Bioinformatics
- Psychology
- Neurobiology
- Engineering
- Education
- Other: Social Sciences
- Other: Humanities
- Other: Natural Sciences
- Other
- Undecided
- Not applicable / Prefer not to answer

What is your field of research (best fit)?

- Biology
- Chemistry
- Physics
- Earth & Planetary Sciences
- Math
- Computer Science
- Biochemistry
- Bioinformatics
- Psychology
- Neurobiology
- Engineering
- Education
- Other: Social Sciences
- Other: Humanities
- Other: Natural Sciences
- Other
- Undecided
- Not applicable / Prefer not to answer

Have you participated in research prior to your most recent research experience?

- No, I have not had a prior research experience.
- Yes, during one academic semester (typically ~10 hr/wk).
- Yes, during multiple academic semesters (typically ~10 hr/wk).
- Yes, during a summer research program (typically full-time for at least 5 weeks).
- Yes, during a prior academic semester (or semesters) and a summer.
- Yes, during prior years and/or several summers.
- Not applicable / Prefer to not answer

**Do you have plans to continue your education beyond your undergraduate degree?
Please check the most likely plan for what you will do *immediately following* graduation.**

- My goal is to go to graduate school for a Ph.D. degree in a biology-related field.
- My goal is to go to graduate school for a Ph.D. degree in the physical sciences (including engineering, math, and computer science)
- My goal is to go to graduate school for an MA in the life sciences.
- My goal is to go to graduate school for an MA in the physical sciences (including math, engineering, computer science, etc.)
- My goal is to go to graduate school for an MA or Ph.D. degree in a field other than science
- My goal is to go to medical school for an M.D. degree.
- My goal is to go to school for an M.D./Ph.D.
- My goal is to go to school for other health professions.
- My goal is to go to school for a professional degree such as law or business.
- My goal is to teach or to go to school to obtain a teaching certification.
- My goal is to join the Peace Corps, Teach for America, or similar organization.
- My goal is to work, then go to school for my M.D., Ph.D., or other professional degree.
- I plan to work in a science related career without going to school after college.
- I plan to work in a non-science career without going to school after college.
- Not applicable / Prefer not to answer

The next two questions are intended to gather information on your *immediate* plans for continuing your education, along with how your research experience may have influenced those plans. For each question, please choose the one option which best matches your research experience, opinions, and plans for the next few years.

Before I started the research project,

- I had not considered options for post-undergraduate education
- I planned not to pursue post-undergraduate education
- I had plans to pursue a Master's degree in a science-related field
- I had plans to pursue a Doctoral degree (PhD) in a science-related field
- I had plans to pursue a Master's degree in a non-science-related field
- I had plans to pursue a Doctoral degree (PhD) in a non-science-related field
- I had plans to pursue a medical degree
- I had plans to pursue a law, architectural, or other professional degree
- Not applicable / Prefer not to answer

This question below is helpful for understanding how the research experience may have encouraged or discouraged the student from pursuing further work in science.

After having the experience of my research project,

- I have not considered options for post-undergraduate education
- I now plan not to pursue post-undergraduate education
- I now plan to pursue a Master's degree in a science-related field
- I now plan to pursue a Doctoral degree in a science-related field
- I now plan to pursue a Master's degree in a non-science-related field
- I now plan to pursue a Doctoral degree in a non-science-related field
- I now plan to pursue a medical degree
- I now plan to pursue a law, architectural, or other professional degree
- Not applicable / Prefer not to answer

These next 2 questions describe the respondent's work setting. The second question was used as a branching question. If the student described themselves as a peer mentor, they were to answer the peer mentor questions that follow. If the student reported that there was a peer mentor within the group they were to answer the questions evaluating the peer mentor.

Select the one option which best describes your research work environment:

- I work individually.
- I work with other undergraduate students on similar but independent projects.
- I work with graduate students on similar but independent projects.
- I work with other undergraduate students and graduate students on similar but independent projects
- I work with a group of undergraduate students on a single project.
- I work with a group of graduate students on a single project.
- I work with a group of undergraduate and graduate students on a single project.
- Not applicable / Prefer not to answer

If you work with other undergraduate students, do you all share approximately the same role in the project?

- Yes, we are equal partners.
- No, I am a peer mentor within my group.
- No, there is a peer mentor within my group. (Other than myself.)
- I don't work with others / Not applicable / Prefer not to answer

Peer Mentoring Experience (for peer mentors only)

Peer Mentoring (check all that apply):

- My job explicitly included mentoring or training other undergraduates.
- I did some peer mentoring informally.
- I taught or trained at least one other undergraduate.
- I offered coaching or social support.
- I was a role model; students followed my example.
- I was responsible for the results of a group of undergraduate researchers.
- I was given assignments or materials to teach to other students.
- I was alone with other students as their teacher or trainer.

Preparation (check all that apply):

- I was assigned to be a peer mentor.
- I had training on how to mentor.
- I attended a seminar on how to mentor undergraduates.
- Mentoring was part of my performance evaluation.

If you are a mentor within your group, please rate your experience as a mentor:

- Very negative
- Moderately negative
- Neutral
- Moderately positive
- Very positive
- Not applicable / Prefer not to answer

If you are a mentor, would you choose to participate as a mentor in future research?

- Yes, I would choose to serve in a leadership or mentor role in future research.
- No, I would not choose to serve in a leadership or mentor role in future
- Not applicable / Prefer not to answer

As a mentor, please indicate how strongly you agree or disagree with the following statements.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N/A or Prefer not to answer
I enjoyed the responsibility.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoyed teaching.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I gained self-confidence as a researcher.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt that my supervisor did not prepare me for the mentoring role.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My oral communication skills improved because of my role as a peer mentor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was given responsibility beyond my experience.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt pressure to make sure the other undergraduates did well.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt responsibility for the research.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I was on my own too often.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My role as a peer mentor deepened my understanding of the research project.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My role as a peer mentor increased my motivation to work on the research.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I did well as a peer mentor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you are a mentor, could you briefly comment on that experience?

Summer/Academic Year: It is of interest to recruit student opinions about doing research during the summer months, when many students have no classroom obligations, compared to academic year research. If this comparison is not of interest then the section could be deleted.

Please indicate how strongly you agree or disagree with the following statements.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N/A or Prefer not to answer
Summer research experiences are more stressful than academic year experiences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academic year experiences take less time than summer experiences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The college or university should never interfere with a student's summer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During the academic year it was difficult to balance research and coursework.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During the academic year it was difficult to get sufficient time with my mentor to discuss the project.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During the academic year it was easy to plan and schedule work with my research team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall, research is more interesting than course work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I learned more from my courses than from my research experience.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please comment briefly on the similarities and differences between summer research and academic year research:

Confidence in my potential to be a teacher of science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Overall Experience These are important for recruiting the student's evaluation of the program.

Here are six questions about your overall experience.

Think about the *expectations* you had about the research experience before it began. Use the scale below to evaluate your current feelings.

- The experience was worse than I expected.
- The experience was a little worse than I expected.
- The experience met my expectations.
- The experience was a little better than I expected.
- The experience was much better than I expected.
- Not applicable / Prefer not to answer

Think about the person who was your most direct or primary supervisor. How would you describe this person?

- He or she is a college or university professor.
- He or she is a post-doctoral student (a "postdoc").
- He or she is a graduate student.
- He or she is a professional researcher or practitioner.
- Other
- Not applicable / Prefer not to answer

Think about the person who was your most direct or primary supervisor. Evaluate the performance of your direct supervisor.

- I feel that my supervisor was not a good teacher and mentor.
- I feel that my supervisor was below average as a teacher and mentor.
- I feel that my supervisor was about average as a teacher and mentor.
- I feel that my supervisor was above average as a teacher and mentor.
- I feel that my supervisor was an outstanding teacher and mentor.
- Not applicable / Prefer not to answer

Think about the undergraduate students you worked with during the research experience. Choose a statement that describes your experience with other students.

- Working with other students was one of the worst part of the research experience.
- Working with other students moderately detracted from my research experience.
- Working with other students did not affect my research experience one way or another.
- Working with other students moderately enhanced my research experience.
- Working with other students was one of the best parts of the research experience.
- Not applicable / Prefer not to answer

Evaluate your overall sense of satisfaction from your research experience by choosing one statement below.

- I am very dissatisfied with this experience.

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Comments

Please write any additional comments you have about your research experience here. (If there are several programs on your campus, please mention the name of your program or source of funding along with your comments. Also, if you have any comments regarding the survey itself, please enter them here.)
