

Student Focus Group Protocol¹

CPATH Project Title:

Grantee Institution(s):

Interviewee Name/Title/Contact Information:

Interview Date:

Interviewer(s):

Introductory Remarks:

Hi, my name is [your name] and I'm here with [other site visitor], and we are researchers from SRI International, a non-profit research firm that is responsible for the evaluation of the NSF CPATH Program. The purpose of our time together is for us to learn more about computing education here, your experiences, and the effect that computing education has been having on you and other students at your institution.

We will record this conversation in case we miss something in our notes, but only [other site visitor] and I will listen to the recording. We will keep everything you say here confidential and ask you to make the same commitment—to keep what is said in this room confidential and not to repeat it to anyone else so that people can feel free to share their opinions. Throughout our discussion, please feel free to ask any questions you have or include information that you believe we should know.

Before we start, I need to have you each review and sign a consent form. The form puts in writing our guarantee that we will never directly identify or quote you based on what you tell us today. SRI International's Institutional Review Board (IRB) has approved this project as well as the U.S. government's Office of Management and Budget. Your signature on this form indicates that your participation in this interview is voluntary and that you understand that whatever you share with us will be kept confidential.

After they review consent form: Do you have any questions before we get started?

Introduction and Background

Let's start by going around the room and giving your name, year in college, and your major. *(For each student note the following: First Name, Gender, Year in College, Major)*

Project Participation

1. (1a) What courses have you taken, or are currently enrolled in that involve computing?
2. (1a) What other non-classroom activities have you participated in, or are currently participating in that involve computing?

¹ Throughout this interview protocol, numbers and letters in parentheses—e.g., (1a, 3d) refer to research questions and are included as a tool for evaluation analysts.

Student Outcomes

Students from different institutions may have varying degrees of understanding of the CPATH project being implemented at their institution. If necessary, questions should be tailored to accommodate their degree of knowledge of the CPATH project.

3. (1f) How have you benefitted from these computing courses and activities? What do you think you have gained through your participation? *Probe using the following:*
 - a. Have your experiences increased or enhanced your interest in computing? If so, how?
 - b. Have your courses improved your computing ability? If so, how?
 - c. How have your courses and experiences prepared you for your future career?
 - d. Have your experiences changed your career aspirations or changed your perception of the role of computing in your career? Please explain.
 - e. Have your experiences provided you contact with companies, faculty, or other organizations?
 - f. Have you obtained jobs/internships/interviews/mentoring through the CPATH project?
 - g. Do you think your classmates would say the same thing? Why or why not?
4. (2a) Describe a learning experience in the classroom or lab that involved computing. Note: this can be any discipline but should involve computing. *Probe using the following:*
 - a. What was the activity, and how was computing involved?
 - b. What resources and tools were used?
 - c. What was the role of the instructor(s)/TA(s) during the activity?
 - d. How did you work with your peers during this activity?
 - e. How did this learning experience fit in with the larger unit of instruction and the overall course?
 - f. What did you like about this learning experience?
 - g. How do you hope to practically apply what you learned from this experience? (What real-world value does this learning experience have?)
5. (1g, 2a, 3a) How do your current computing courses and experiences compare to previous ones? *Probe using the following:*
 - a. What differences have you noticed between your experiences in this project and previous computing courses/experiences?
 - b. Have you noticed a different caliber of student in classes associated with this project compared to other computing classes you have taken? If yes, please explain.
 - c. Are the classes here more or less diverse in terms of females, ethnic minorities, disabled students, or non-computing majors?
6. (1c) What does the term “computational thinking” mean to you? How have your courses and experiences shaped your understanding of “computational thinking”?
7. (1f, 2a) *If students have an understanding of the CPATH project at their institution:* What do you think the CPATH project’s goals are for students (i.e. what do you think they hope you will get out of your participation)? How and to what extent do you think they are meeting their goals?

Future Plans

8. (3a) Do you plan to continue to be involved in computing courses and activities? Why, or why not? *Probe using the following:*
 - a. What other courses involving computing do you plan to take?
 - b. Are there other computing activities that you plan to become involved with?
9. What do you plan to do after graduation? *Probe using the following:*
 - a. Attend graduate school
 - b. Obtain a job using computing
 - c. Obtain a job in a non-computing specialty
10. How have your courses and experiences here influenced your plans after graduation?

Closing

11. Is there anything else that we didn't ask you that you would like to share with us about your computing courses and experiences here?

Thank you for your time.