Survey on self-assessment moments for CS1 Students

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What course are you enrolled in?

Rate how much you agree with each statement from Strongly Disagree to Strongly Agree

I'm certain I can master the skills taught in my CS 1 class this term.

| Strongly disagree | Disagree | Slightly disagree | Slightly agree | Agree | Strongly agree |

I'm certain I can figure out how to do the most difficult work in my CS 1 class.

| Strongly disagree | Disagree | Slightly disagree | Slightly agree | Agree | Strongly agree |

I can do almost all the work in CS 1 if I don't give up.

| Strongly disagree | Disagree | Slightly disagree | Slightly agree | Agree | Strongly agree |

Even if the work is hard in CS 1, I can learn it.

| Strongly disagree | Disagree | Slightly disagree | Slightly agree | Agree | Strongly agree |

I can do even the hardest work in CS 1 if I try.

| Strongly disagree | Disagree | Slightly disagree | Slightly agree | Agree | Strongly agree |

When you are programming, how do you know if you are doing badly on a problem or assignment? Please write 3-5 different ways that you know you are doing badly.

When watching someone program, how do you know if they are doing well on a problem or assignment?

In the next section, you will see a set of stories. Each story is followed by two statements. Please read each story. Then, rate how much you agree with each statement.

Jamar is working on a programming problem. He can't figure it out. So, Jamar uses Google and his class notes to help him. He is disappointed that he can't solve the problem without these resources. How much do you agree with the following statements:

When I have to use a resource to help me figure out how to solve the problem, I feel like I'm not doing well on the problem.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Jamar is not doing well on the problem because he had to use resources.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Jen is working on her programming assignment. She runs her code. An error pops up. She immediately realizes that she left out a parenthesis. She adds the parentheses and her code runs successfully. Jen thinks: "That was a stupid mistake. A good programmer wouldn't make small mistakes like this." How much do you agree with the following statements:

Jen is doing badly on the problem because she got a simple error.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

When I make simple errors, I feel like I'm not doing well on the problem.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Nadia is working on a hard homework problem. She plans out a solution. She writes a few lines of code. She realizes that her approach to the problem will not work. She decides to start over. Nadia feels frustrated that she wasted time. She erases all her code and starts again. How much do you agree with the following statements:

I feel badly about how I'm doing on a problem when I have to restart a section of code.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

I think Nadia is doing badly on the problem because she has to restart her solution.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Frank is working on a programming problem. He runs his code. An error pops up. Frank has no idea what the error message means. He is not sure what to try next. He thinks: "I'm doing so badly, I don't even know what this message means". How much do you agree with the following statements:

Frank isn't doing well on this problem because he doesn't understand the error message.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

This question is here to screen out random responding; please select slightly agree as your response to this question.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

When I struggle to understand an error message, I also feel like I'm not doing well on the problem.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Diego starts working on a programming problem. He writes a few lines of code. He realizes that he is confused about what to do next. He pauses and plans his next steps. Diego wishes that he did not have to stop writing code to plan. How much do you agree with the following statements:

When I have to stop programming to plan, I feel like it means that I'm not doing well on the problem.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Since Diego had to stop and think, he didn't do well on the problem.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Julie is working on her homework assignment. She gets stuck. Julie meets with an instructor to get help in order to finish the assignment. How much do you agree with the following statements:

Since Julie had to get help from an instructor or TA, she is not doing well on this assignment.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

When I have to get help from a TA or professor, I feel like I'm doing badly on the assignment

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Tamyra is working really hard on a programming problem. She solves the problem. She is proud of herself. Tamyra looks at the clock and realizes how many hours she spent on the problem. She feels upset because it took her so long to finish it. How much do you agree with the following statements:

When I take a long time to solve a problem, I feel like I did badly on the problem.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Since Tamyra took a long time to solve the programming problem, she did not do very well.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

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Miguel reads his programming homework assignment. He opens up the editor but has no idea where to start. Miguel feels disappointed in himself because he doesn't even know how to approach the problem. How much do you agree with the following statements:

I feel like I'm doing badly on a problem when I don't know where to start.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Miguel is not doing well on this assignment because he doesn't know where to start.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

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Arjun is working on a programming problem. He can't remember the syntax. He uses Google to look up the syntax. He is disappointed that he could not remember the syntax on his own. How much do you agree with the following statements:

I think Arjun is not doing well on the assignment because he had to use a resource to look up syntax.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

This question is here to screen out random responding; please select slightly disagree as your response to this question.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

I feel like I'm not doing well on a problem when I can't remember the syntax and have to look it up.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Jake is unsure how to begin his programming assignment. He spends time planning how to solve the problem. Eventually, Jake comes up with a plan and begins to write code. Jake wishes that he did not need to spend as much time planning before writing code. How much do you agree with the following statements:

Jake is not doing well on the problem because he had to spend time planning at the beginning.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

I feel like I am doing badly on an assignment when I have to spend time planning and can't start programming right away.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

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Isabella is working on a challenging problem. She runs into an error. She looks through the code but can't find it. After a long time, she realizes that it was a small typo. She thinks to herself: "Wow. I am so bad at programming. A good programmer would not take so long to find a simple error." How much do you agree with the following statements:

When I struggle with an error that turns out to be simple, I feel like I'm doing badly on the problem.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Isabella is doing badly on the problem because she spent a long time trying to fix a simple mistake.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

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Daniel is working on his programming homework. He runs his code and gets an error. He struggles to fix the error for a long time. When he runs the code, another error comes up. He struggles again. Eventually, he fixes it. Then, a different error comes up. How much do you agree with the following statements:

When I struggle to fix errors, that means I'm not doing well on the problem.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

I think Daniel is not doing well on the problem because he is struggling with errors.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Sirena is working on her programming assignment. She expects to finish it in one night. After a while, she decides to stop working because it got late. She feels upset that she was not able to finish it in one night. How much do you agree with the following statements:

Since Sirena could not finish the programming assignment in the time she expected, she did badly on the assignment.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

When I can't finish an assignment as quickly as I want to, I feel like I'm doing badly on the assignment.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

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Fatima reads her programming homework assignment. She does not understand what the problem statement is asking her to do. She feels upset and frustrated because she can't even understand the question. How much do you agree with the following statements:

Since Fatima does not understand the problem, she is not doing well on the assignment.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

When I do not understand a homework assignment, I feel like I'm doing badly.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Rate how much you agree with each statement from Strongly Disagree to Strongly Agree

I feel like I belong in computing.

| Strongly disagree | Disagree | Slightly disagree | Slightly agree | Agree | Strongly agree |

I see myself as a computing person.

| Strongly disagree | Disagree | Slightly disagree | Slightly agree | Agree | Strongly agree |

I feel like an outsider in the computing community.

| Strongly disagree | Disagree | Slightly disagree | Slightly agree | Agree | Strongly agree |

I do not have much in common with the other students in my computing classes.

| Strongly disagree | Disagree | Slightly disagree | Slightly agree | Agree | Strongly agree |

I feel welcomed in computing.

| Strongly disagree | Disagree | Slightly disagree | Slightly agree | Agree | Strongly agree |

Computing is a big part of who I am.

| Strongly disagree | Disagree | Slightly disagree | Slightly agree | Agree | Strongly agree |

Rate how much you agree with each statement from Strongly Disagree to Strongly Agree

You have a certain amount of programming intelligence, and you can't really do much to change it.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

You can learn new things, but you can't really change your programming intelligence.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

To be honest, you can't really change your programming intelligence.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

People have a certain amount of ability to learn computing, and they really can't do much to change it.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Anyone has the ability to learn computing and be good at it.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Computing comes naturally to some people but not others.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Not everyone is well-suited for computing.

Strongly disagree   Disagree   Slightly disagree   Slightly agree   Agree   Strongly agree

Pick the option which you believe most accurately finishes the sentences.

Professional programmers:
1. Often struggle with fixing errors and bugs in their code
2. Fix their errors and bugs quickly

Professional programmers:
1. Sometimes have to spend a long time looking for simple errors, like typos
2. Can easily locate simple errors, like typos

Professional programmers:
1. Rarely need to use Google or other resources to figure out how to solve their problems
2. Frequently rely on resources like Google when figuring out how to solve programming problems

Professional programmers:
1. remember the syntax they need and rarely have to look it up.
2. often forget the exact syntax and use Google and other resources to help them remember.

Professional programmers:
1. often get help from others.
2. can finish their problems on their own, without needing other people to help

Professional programmers
1. jump into writing code without having to think and plan much.
2. often take a long time to plan out their program before even writing one line of code.

Professional programmers:
1. program without having to stop to think.
2. often have to stop, think, or re-plan in the middle of a programming session.

Professional programmers:
1. use the right approach on the first try and rarely need to restart.
2. do not always get it right on the first try and often have to restart parts of their program

I believe that:
1. professional programmers type fast.
2. not all professional programmers are good at typing.

Professional programmers:
1. sometimes take a long time to write a program.
2. write programs quickly.

Professional programmers:
1. often have to fix little mistakes in their code, like typos and misspellings.
2. rarely make simple errors like typos

Professional programmers:
1. understand error messages relatively easily
2. are sometimes confused by error messages

Professional programmers:
1. know how to approach writing their programs
2. do not always know how to start writing their programs

Professional programmers:
1. sometimes take longer than they expect to write their programs.
2. write their programs in the time that they allot

Professional programmers:
1. understand the programming task that they are given
2. are sometimes confused by the programming task they are assigned

Please list any other computer sciences courses that you have previously taken or are currently taking:

Do you have any other experiences with programming (e.g. camps, internships, projects, online learning)?

What is your declared major?
- Computer Science
- Computer Engineering
- Software Engineering
- Cyber Security
- Not declared yet, but I plan to declare CS
- Not declared yet, but I do not plan to declare CS
- Undecided
- Other: ____

How many years have you been enrolled in a college or university? (If this is your first year, choose 1; if this is your second year choose 2; etc.)

What gender do you identify with?
- Female
- Male
- Nonbinary
- Prefer not to say

What is your race/ethnicity? (checkboxes)
- American Indian or Alaska Native
- Asian
- African American
- Native Hawaiian or Other Pacific Islander
- Latin American
- White
- Other

Who is your CS1 instructor?

Have you taken this course more than once? If so, how many times?

What is your age?