# Interview Sign-up Survey

**Student Experiences and Perspectives on Learning to Code in 2024**

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This is the survey disseminated in September 2024, aiming to attract undergraduate physics students to put themselves forward for interview. The original survey was a Jisc Online Surveys v3[1] survey, and has been converted to markdown format here. The Jisc survey was also directly exported to both PDF and JSON formats (the latter can be used to recreate the survey), which are available under 'Other Links' on the right navigation panel.

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## 1 Experiences of learning to code

Please complete this short survey to help us understand the range of experiences and perspectives of physics students at the University.

If you would be willing to share your perspectives in an informal interview (for which you would be reimbursed for your time), there is the option to register your interest on the final page.

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[1] https://onlinesurveys.jisc.ac.uk/

## 1.1 About this study

We are a group of researchers, including two recent graduates and a current MSc student based in the School of Physics and Astronomy.

We are interested in hearing about people's experiences of learning to code, developing as a programmer, and taking programming courses as part of a physics degree.

That is why we are looking for students who are willing to take part in an informal ~45 minute interview over Microsoft Teams to share their experiences and perspectives.

## 1.2 Safeguarding your privacy

The sole purpose of this study is research. Participating will have no effect whatsoever on your grades.

We have strict protocols in place to ensure that any information provided to us in this form, or in interviews, is done so with complete confidentiality. That means no identifiable information about you will ever be shared with any teaching staff. Our methodology has been approved by the School's ethics officer.

If you are selected for an interview, we will provide further details on how your privacy will be protected during the interview process.

## 1.3 I'm not interested in being interviewed!

That's ok! You can still take part in the study and help us out by completing the 3 minute survey on the next page.

We are grateful for any time you can spare to contribute to this research!

# 2 Survey (3 minutes)

1. For each of the following statements, check the box that best describes your **personal** view.

| | Disagree strongly | Disagree | Neutral | Agree | Agree strongly |
|---|---|---|---|---|---|
| I enjoy programming. | | | | | |
| Programming is likely to be important to my career. | | | | | |

| | Disagree strongly | Disagree | Neutral | Agree | Agree strongly |
|---|---|---|---|---|---|
| I enjoy taking the time to improve my code, even if it is already working and I would be unlikely to gain further marks from doing so. | | | | | |
| I sometimes feel anxious about asking for help with programming issues. | | | | | |
| I like to come up with my own strategies and solutions, rather than using existing code or tutorials. | | | | | |
| To me, programming is simply a tool for solving more interesting problems. | | | | | |
| I am not satisfied unless I understand what every single line or function is doing. | | | | | |
| I often feel creative when I am programming. | | | | | |
| I enjoy taking on challenging programming problems. | | | | | |
| I am proud of some of the code I have written. | | | | | |

2. The following questions concern 'Generative Artificial Intelligence' (AI) technologies, such as Chat-GPT and CoPilot. Which of these statements best describes your use of Generative AI technologies for programming?

☐ I regularly use Generative AI while I am programming.
☐ I occasionally use Generative AI while I am programming
☐ I tried to use Generative AI for programming once or twice, but did not continue to use it.
☐ I have never used Generative AI for any programming-related task.

3. In which ways did/are you using AI to help with programming?

☐ Explaining how existing code works
☐ Talking through a problem that I am struggling to solve
☐ Generating code which I can adapt to my needs
☐ Auto-completion.
☐ Helping to debug my code.
☐ Discovering useful functions, libraries or code snippets on the internet.
☐ Other uses not mentioned above.

4. For each of the following statements, check the box that best describes your **personal** view or experience.

|  | Disagree strongly | Disagree | Neutral | Agree | Agree strongly |
|---|---|---|---|---|---|
| I find Generative AI useful for explaining code and concepts. | | | | | |
| Generative AI has made me a better programmer. | | | | | |
| I find it helpful to ask Generative AI simple questions that I might be embarrassed to ask a person. | | | | | |
| Generative AI helps take care of the boring parts of programming. | | | | | |
| Generative AI increases my confidence to tackle more complex programming tasks. | | | | | |
| I use Generative AI when I am stuck and don't know how to proceed. | | | | | |
| I sometimes use Generative AI even when I know I could solve the problem without it. | | | | | |

5. For each of the following statements, check the box that best describes your **personal** view or experience.

|  | Disagree strongly | Disagree | Neutral | Agree | Agree strongly |
|---|---|---|---|---|---|
| Introductory programming courses should include lessons on how to use Generative AI for programming. | | | | | |
| The best programmers use Generative AI. | | | | | |

6. What is your degree programme? *

☐ Physics
☐ Astrophysics
☐ Computational Physics
☐ Mathematical Physics
☐ Physics with Meteorology
☐ Theoretical Physics
☐ None of the above

7. Which year of your degree are you currently in? *

☐ 1st
☐ 2nd
☐ 3rd
☐ 4th

☐ 5th

8. Which SoPA programming courses have you taken so far? (tick all that apply)

☐ Computer Simulation
☐ Numerical Recipes
☐ Computer Modelling
☐ Modelling and Visualisation
☐ Computational Astrophysics
☐ Data Analysis and Machine Learning

9. What are your preferred pronouns? *

☐ He/him
☐ She/her
☐ They/them
☐ None of the above
☐ Prefer not to say

## 3 Interview sign-up

If you would like to put yourself forward for a 45 minute interview, thank you!

Please select 'yes' as your response to the question below, and then provide your UUN so we can contact you.

If you take part in an interview you will receive a £20 Amazon voucher to compensate you for your time.

10. I have read the above and wish to put myself forward for an interview. *