SurveyMonkey Prebview of Survey used for "Introductory Progrmaming Courses" 2016

R. Mason and G. Cooper (Southern Cross University),
adapted with permission by Ellen Murphy and James H. Davenport,
University of Bath

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The survey was provided to Murphy & Davenport by Masoc & Cooper. It was re-coded into Survey Monkey (whch necessitated a few changes in logic) by Murphy, the intent being to be as faithful as possible to the original.

This version was printed by Davenport form the SurveyMonkey preview feature.

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* 1. **Introduction**

My name is Prof. James H. Davenport and I am conducting research into introductory programming, as discussed with Prof. Sally Fincher, Vice Chair of the Council of Professors and Heads of Computing (CPHC) committee. The anonymous results of the survey will be shared with CPHC.

This survey is motivated by the surveys undertaken in Australia and New Zealand over the past number of years (see http://dl.acm.org/citation.cfm?id=2667507). The questions in this survey closely follow the questions in the latest Australian and New Zealand survey to allow us to compare trends in the UK with those in Australia and New Zealand. I am very grateful to Raina Mason, who generously provided us with the survey questions.

This study is designed to determine what languages, tools, and paradigms are in use in UK introductory programming courses and the reasons for these choices. It is hoped that this survey will be taken on a regular basis so that a clearer picture of trends in this area can be created to help those involved in teaching introductory programming.

Procedures

Your participation in this study is sought, to provide information about your course and the teaching of the first introductory programming unit in this course. This will involve this online survey which will take approximately 15 minutes.

Should you choose to participate, your answers with those from other academics will create a clearer picture of trends in this area to help those involved in teaching, and the students in learning.

Things you should know, should you choose to participate:

- The results of this study are not intended for commercial benefit;
- It is intended to publish the findings of this study, in summary form;
- Your individual responses to questions will not be identifiable. All data will be anonymised and kept in password-protected files so that it will remain secure, private and confidential.
- No adverse results of the study are expected to be experienced by you;
- The study poses no foreseeable risk to you over and above the normal risks of everyday life, computer and internet use;
- You may withdraw from the study at any time;

- A summary of the findings of the study will be made available to you on completion of the study;

Questions about the Research

You can make further enquiries about this research or submit concerns by contacting me at:

Prof. James H. Davenport
Department of Computer Science
University of Bath
Bath
BA2 7AY
United Kingdom

+44 1225 386181
J.H.Davenport@bath.ac.uk

I have read, understood, and retained a copy of, the above consent form and desire of my own free will to participate in this study.

- ◯ Yes
- ◯ No

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2. The following questions will help us match answers from this survey to the future surveys we intend to run, as the ongoing Australia and New Zealand effort has done. All individual responses will be kept confidential.

What is your University?

3. **For the rest of the questions, the terminology "course" is used for the basic unit of study that is completed by students towards a degree, usually studied over the period of a semester or session, in conjunction with other units of study.**

Course Code (e.g.: PRO1234):

4. Course Name (e.g.: Principles of Programming):

5. Course URL (e.g.: www.my_university.ac.uk/computing/PRO1234):

6. Faculty or School (immediate organisational unit) offering this course:

7. Approximately how many students are undertaking this course in academic year 2015/2016 (across all cohorts and locations)?

* 8. Which programming language(s) is/are being used in the first programming course that students encounter in their studies? (More than one may be chosen if necessary):

- [ ] Actionscript
- [ ] Ada
- [ ] Alice
- [ ] C
- [ ] C++
- [ ] C#
- [ ] Delphi/Object Pascal
- [ ] Eiffel
- [ ] Fortran
- [ ] Haskell
- [ ] Java
- [ ] Javascript
- [ ] jBase

- [ ] Lisp
- [ ] Matlab
- [ ] Objective-C
- [ ] Perl
- [ ] PHP
- [ ] Processing
- [ ] Python
- [ ] Ruby
- [ ] Visual Basic/VB.NET
- [ ] Other (please specify)

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9. Which of the following is true?

	Language is used for the whole of the first programming course	Language is used for the first part of the first programming course, followed by another language	Language is used after another language in the first programming course
C	◯	◯	◯
Java	◯	◯	◯

10. This question asks about why each language was chosen for your course. Please select the reasons considered important. Please scroll to the right to see all possible reasons.

	Availability/Cost to students	Department politics	Ease of installation	Easy to find appropriate texts	Extensions/Libraries available	GUI interface available	Interpreted language	Marketable to students
C	☐	☐	☐	☐	☐	☐	☐	☐
Java	☐	☐	☐	☐	☐	☐	☐	☐

11. If "other", what is the reason?

C

Java

12. How difficult do you think each language is for students to learn?

	Extremely Easy	Moderately Easy	Slightly Easy	Neither Easy nor Difficult	Slightly Difficult	Moderately Difficult	Extremely Difficult
C	◯	◯	◯	◯	◯	◯	◯
Java	◯	◯	◯	◯	◯	◯	◯

13. How useful do you think each language is for teaching the fundamental concepts of programming?

	Extremely Useful	Moderately Useful	Slightly Useful	Neither Useful nor Useless	Slightly Useless	Moderately Useless	Extremely Useless
C	◯	◯	◯	◯	◯	◯	◯
Java	◯	◯	◯	◯	◯	◯	◯

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* 14. Do you encourage students in this first programming course to use environments and/or tools beyond simple text editors and command line compilers?

- Yes
- No
- Not applicable

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15. Which environment or tool do you use? Please select all that apply:

- [ ] AdaCore-GPS
- [ ] Alice
- [ ] App Inventor
- [ ] Bloodshed Dev C++
- [ ] BlueJ
- [ ] Browser and extensions
- [ ] Eclipse
- [ ] Homegrown/Custom IDE
- [ ] Greenfoot
- [ ] Idle
- [ ] JCreator
- [ ] Jeroo
- [ ] Jython/JES
- [ ] KTechLab
- [ ] Matlab
- [ ] Mindstorms NXT or EV3
- [ ] MS Visual Studio
- [ ] MySQL Workbench
- [ ] Netbeans
- [ ] Pelles C
- [ ] Processing

- [ ] Quincy
- [ ] Wing101
- [ ] Xcode
- [ ] Other (please specify)

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16. What paradigm is being taught (regardless of what is traditionally thought to apply to the language being taught)?

- Functional
- Logical
- Object-Oriented
- Procedural

Please add any further comments on this question

17. How many years have you been involved in teaching of introductory programming?

- under 2 years
- 2 – 5 years
- over 5 years – 10 years
- over 10 years – 20 years
- over 20 years – 30 years
- over 30 years

18. Do you offer external delivery of your course? (i.e. do you have options for your course where students are not

required to attend regular lectures, workshops, labs or tutorials?)

- Yes
- No

* 19. Do you consider the possibility that when doing assignments, students or groups of students may be receiving unauthorised assistance (e.g. from other students in the class, from people outside the class, or via the internet)?

- Yes
- No
- Not applicable

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20. How concerned are you at the thought that students or groups of students might be receiving unauthorised assistance on assignments?

Not concerned | Somewhat concerned | Very concerned

21. What steps do you take to try to determine whether students have received unauthorised assistance on assignments?

- [ ] none
- [ ] notice unexpected elements in the code
- [ ] notice unlikely similarities between different programs
- [ ] use a software similarity detection system
- [ ] interview some students/groups selected at random
- [ ] interview some students/groups when suspicions are aroused
- [ ] interview all students/groups

Other (please specify)

22. What action do you take if you determine that students/groups have received unauthorised assistance,

and do you feel well supported by your institution in taking these actions?

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23. Which of the following resources do you provide for your students? (Choose all that apply):

- [ ] Assignment hints
- [ ] “Cheat sheets” (student produced notes) in exams
- [ ] Discussion Boards/Forums
- [ ] Lecture slides or notes - provided by TEXTBOOK PUBLISHER
- [ ] Lecture slides or notes – provided by LECTURER
- [ ] Mailing list
- [ ] Open book examinations
- [ ] Online examinations
- [ ] Online tutorials
- [ ] Recorded lectures
- [ ] Self-assessment questions
- [ ] Textbook is specified
- [ ] Topic summaries
- [ ] Worked examples of programming problems/solutions

Other (please specify)

24. What do you consider to be the 3 most important aims of an introductory programming course?

Aim 1:

Aim 2:

Aim 3:

25. How well does your current programming language/s help you to meet these aims?

	Very unhelpful	Unhelpful	Somewhat unhelpful	Neutral	Somewhat helpful	Helpful	Very helpful
Aim 1	◯	◯	◯	◯	◯	◯	◯
Aim 2	◯	◯	◯	◯	◯	◯	◯
Aim 3	◯	◯	◯	◯	◯	◯	◯

Please add any further comments on this question.

26. If there are any other comments you would like to offer about the teaching of introductory programming, please use the space below.

27. If you would like a summary of the results of this study, please enter your email address here:

Thank you for your participation in the survey. If you know of any other introductory programming courses at your university, it would be appreciated if you could pass the invitation to participate in this survey to them.

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