UNIVERSITY OF CAMBRIDGE

Raspberry Pi Foundation

RASPBERRY PI COMPUTING EDUCATION RESEARCH CENTRE

UK and Ireland Computing Teachers Survey: survey results

Technical report

April 2023

Introduction

The teaching of computing in school is the focus of global attention. Over recent years, many countries have introduced computing into primary and secondary education, either as a mandatory or elective subject. The UK (England, Scotland, Wales and Northern Ireland) and the Republic of Ireland are no exception, and in the past decade we have seen significant policy and curriculum developments in these countries relating to computing at primary and secondary level.

The introduction of computing curricula is an important step forward, but arguably the greater challenge is to develop a qualified, confident and well-resourced teaching workforce to deliver computing in schools. A 2021 report by the Brookings Institution comparing computer science (CS) education around the world highlighted seven policy actions that nations should undertake to bring CS to young people effectively. Three of these related to the development of curricula and programmes to teach ICT and CS; the other four related to teacher education (both pre-service and in-service), CS education research and training and sustained government funding.

In early 2022, we initiated a project to look at the development of computing as a school subject in the UK and Ireland and, importantly, to gather computing teachers' own perspectives via a wide-ranging survey. This survey sought to explore many different aspects of computing teachers' experiences, from qualifications to professional development, support and resourcing to classroom practice. The data collected provides a rich source of information about the current state of the computing teacher profession in the UK and Ireland.

Whilst we are writing a number of papers and articles presenting our analysis and interpretation of the data, we are keen to make the survey results openly available to anyone who is interested. Thus in this publication we are sharing the results of the survey conducted in February and March 2022. The publication consists of:

1. This covering document; and
2. The survey results spreadsheet

UK and Ireland Computing Teachers' (UKICT) survey

The UKICT survey was conducted in February to March 2022, and was open to all teachers of computing in England, Scotland, Wales, Northern Ireland and the Republic of Ireland.

The goal of the survey was to explore the experiences of computing teachers in the UK and Ireland and understand more about how policy and curriculum developments affect teachers and the subject of computing in the classroom.

The survey was a localised and adapted version of the MEasuring TeacheR Enacted Computing Curriculum (METRECC) tool, a comprehensive and validated survey tool developed in 2019 to measure many aspects of how computing curricula are taught and the experiences of computing teachers across different countries.

The UKICT survey included ten sections, asking questions on topics such as teacher qualifications, support and resourcing, classroom practice and professional development.

758 teachers took part in the survey. After data cleaning, the final data set comprised 512 teachers.

An overview of the structure of the survey can be found in Appendix A, and the full list of survey questions can be found in Appendix B.

How to read the spreadsheet

The survey results spreadsheet is designed to allow anyone who is interested to explore the results of the UKICT survey via tables and data visualisations.

Spreadsheet layout

The **Index tab** of the spreadsheet provides a list of the survey sections and the questions in each section. You can use the Index to jump to a specific question.

The **numbered tabs** of the spreadsheet correspond to the survey questions. Each survey question is presented across two tabs, one containing data tables, and one containing visualisations of the results in the form of charts and graphs. Tabs containing visualisations are marked with an asterisk (*).

Results

The results for each survey question are presented both in total and broken down by study country.

Some of the questions were branched or shown/not shown in the original survey depending on the participant's response to a previous question. These are indicated in the Index tab and explained where appropriate in the numbered tabs.

Results from a small number of questions are excluded from this publication as they were purely free text questions, for which the data can't be published in raw form. These questions will be analysed and reported on as part of upcoming publications on this dataset.

Abbreviations

Throughout the spreadsheet, the following abbreviations are used:

ENG	England
IRE	Republic of Ireland
NI	Northern Ireland
SCO	Scotland
WAL	Wales
CS	Computer Science / Computing Science / Computing
PD	Professional development

Other publications

A previous paper on the results from the UKICT survey was published in September 2022:

1) Sue Sentance, Diana Kirby, Keith Quille, Elizabeth Cole, Tom Crick, and Nicola Looker. 2022. Computing in School in the UK & Ireland: A Comparative Study. In *Proceedings of the 2022 Conference on United Kingdom & Ireland Computing Education Research (UKICER '22)*. Association for Computing Machinery, New York, NY, USA, Article 5, 1–7. https://doi.org/10.1145/3555009.3555015

Further papers focusing on the survey data on classroom practice, professional development and CS self-esteem are currently in development.

The UKICT project research team

The UKICT project was conducted by a team of researchers from across the five study countries (England, Scotland, Wales, Northern Ireland and the Republic of Ireland). The team brought together experience of the development of computing as a school subject in their respective countries as well as quantitative research experience.

The team comprised:

RASPBERRY PI
COMPUTING EDUCATION
RESEARCH CENTRE

Sue Sentance, Director of the Raspberry Pi Computing Education Research Centre at the University of Cambridge

Raspberry Pi Foundation

Diana Kirby, Research Assistant at the Raspberry Pi Foundation

OLLSCOIL TEICNEOLAÍOCHTA BHAILE ÁTHA CLIATH
DUBLIN
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Keith Quille, Senior Lecturer in Computing at Technological University Dublin

Swansea University
Prifysgol Abertawe

Tom Crick, Professor of Digital Education & Policy at Swansea University

Elizabeth Cole, researcher at the Centre for Computing Science Education (CSSE) at the University of Glasgow

University of Glasgow

Nicola Looker, Lecturer in Secondary Education at Edgehill University and a PhD student at the CCSE

In addition, Dr Irene Bell of Stranmillis University College, Belfast, assisted the team to ensure that the survey was applicable for teachers in Northern Ireland.

To contact the team, send us a message at rpcerc-enquiries@cst.cam.ac.uk.

Appendix A: Overview of survey structure

Section	Questions	Topics covered
Information and consent	1	Consent to participate
Demographics	2-19	Teacher/educator status Country Gender Age Ethnicity* School location School- and student-level disadvantage Type of school Gender profile of school Year groups taught*
Current work	20-22	Years of teaching experience Areas of expertise Years of CS teaching experience
Qualifications	23-24	Qualifications held Assessment of own level of qualification to teach CS
Support and resourcing	25-34	Availability of devices for CS teaching Use of different resources and motivations for selecting resources Classroom time per week spent teaching CS Topics covered in CS Cognitive and affective skills fostered in CS Use of CS in supporting Gaelic/Irish/Welsh language skills* Unavailable resources
Assessment of student learning	35	Use of assessment practices
Classroom practice	36-43	Use of cross-disciplinary teaching approaches Use of CS-specific teaching approaches Use of programming languages/environments^ Motivations for selecting programming languages/ environments
CS self-esteem	44	CS self-esteem
Professional development (PD)	45-53	PD activities undertaken in the last year Engagement with national PD providers* Barriers to PD participation Highest-impact PD activity undertaken in the last year Length and characteristics of this activity^

** Branched questions: different versions shown based on country*

^ Question shown/not shown based on previous answer

Appendix B: Survey questions

1 Consent: Before commencing the survey, please confirm that you consent to the use of your anonymised data for research purposes.There is a growing international movement to provide access to open-source data for other researchers and educators to use to compare and contrast with their own contexts. Therefore we are asking for consent to use anonymised data both for this study and for wider research purposes.

- ☐ I am at least 18 years old. I consent to taking part in this survey. I consent to the use of my anonymised data in this research study for research purposes. I consent to making my anonymous data available open-access for others to use outside of this research study, to enable others to conduct additional research.
- ☐ I am under 18 years of age → *disqualified from survey participation*
- ☐ I do not consent to take part in this study → *disqualified from survey participation*

2 Are you a teacher/educator?

- ☐ Yes (qualified)
- ☐ Yes (unqualified)
- ☐ No → *disqualified from survey participation*

3 Which country is your school based in?

- ☐ England
- ☐ Northern Ireland
- ☐ Republic of Ireland
- ☐ Scotland
- ☐ Wales
- ☐ Other (please specify)

4 What best describes your gender?

- ☐ Female
- ☐ Male
- ☐ Prefer not to say
- ☐ I identify as _____

5 How old are you?

- ☐ 18-29
- ☐ 30-39
- ☐ 40-49
- ☐ 50-59
- ☐ 60 or over

6 ENGLAND/WALES What is your ethnic group?

- ☐ White
- ☐ Mixed or Multiple ethnic groups

- ☐ Asian or Asian British
- ☐ Black, African, Caribbean or Black British
- ☐ Other ethnic group

7 SCOTLAND What is your ethnic group?

- ☐ White
- ☐ Mixed or Multiple ethnic groups
- ☐ Asian, Asian Scottish or Asian British
- ☐ African
- ☐ Caribbean or Black
- ☐ Other ethnic group

8 NORTHERN IRELAND What is your ethnic group?

- ☐ White
- ☐ Irish Traveller
- ☐ Mixed / Multiple ethnic groups
- ☐ Asian / Asian British
- ☐ Black / African / Caribbean / Black British
- ☐ Other ethnic group

9 IRELAND What is your ethnic or cultural background?

- ☐ White
- ☐ Black or Black Irish
- ☐ Asian or Asian Irish
- ☐ Other, including mixed background

10 Which of the following would your school location be classified as?

- ☐ Rural (e.g. village)
- ☐ Town / Suburbs
- ☐ City (urbanised area, built up)
- ☐ Other/unsure (please describe) _____

11 Is your school considered a disadvantaged school in your country? Disadvantaged schools are defined as schools in which the average socio-economic background of students is below the national average.

- ☐ Yes
- ☐ No
- ☐ Unsure

12 As an estimate, how many students in your school would be considered low-socioeconomic status? (e.g. receive government funding, receive school meals, etc)

- ☐ 0% - 24%
- ☐ 25% - 49%
- ☐ 50% - 74%

- ☐ 75% - 100%
- ☐ Unsure

13 What type of school do you teach in? (select all that apply)

- ☐ State-funded school
- ☐ Private or independent school
- ☐ Special school
- ☐ Other (please specify) _____

14 What is the gender profile of your school?

- ☐ Mixed-gender school (both female and male)
- ☐ Single-gender school (female)
- ☐ Single-gender school (male)

15 ENGLAND Please tick the boxes for the years that you currently teach (select all that apply)

- ☐ Early years (nursery and reception)
- ☐ Key stage 1 (years 1-2)
- ☐ Key stage 2 (years 3-6)
- ☐ Key stage 3 (years 7-9)
- ☐ Key stage 4 (years 10-11)
- ☐ Key stage 5 (years 12-13)

16 SCOTLAND Please tick the boxes for the years that you currently teach (select all that apply)

- ☐ Early Level (nursery and P1)
- ☐ First Level (P2-P4)
- ☐ Second Level (P5-P7)
- ☐ Third / Fourth Level (S1-S3)
- ☐ Senior Phase (S4-S6)

17 WALES Please tick the boxes for the years that you currently teach (select all that apply)

- ☐ Foundation Stage (nursery, reception, years 1-2)
- ☐ KS2 (years 3-6)
- ☐ KS3 (years 7-9)
- ☐ KS4 (years 10-11)
- ☐ Post-compulsory (years 12-13)

18 IRELAND Please tick the boxes for the years that you currently teach (select all that apply)

- ☐ Junior Infants or Senior Infants
- ☐ First Class-Sixth Class
- ☐ Junior Cycle (First Year-Third Year)
- ☐ Transition Year/Fourth Year

- [ ] Senior Cycle (Fifth Year-Sixth Year)

19 NORTHERN IRELAND Please tick the boxes for the years that you currently teach (select all that apply)

- [ ] Pre-school
- [ ] Foundation Stage (years 1-2)
- [ ] KS1 (years 3-4)
- [ ] KS2 (years 5-7)
- [ ] KS3 (years 8-10)
- [ ] KS4 (years 11-12)
- [ ] KS5 (years 13-14)

20 How many total years of work (teaching) experience do you have, regardless of whether you worked full-time or part-time?

Free text box

21 Which subject areas are your area(s) of expertise? (select all that apply)

- [ ] English Reading and Composition
- [ ] Mathematics / Numeracy
- [ ] ICT or Digital Literacy ("using technology")
- [ ] Digital Competence
- [ ] Engineering and Design / Design and Technology
- [ ] The Arts (e.g. Music, Drama, Art)
- [ ] Modern Foreign Languages
- [ ] The Sciences (e.g. Biology, Physics, Chemistry)
- [ ] Physical Education or Health and Wellbeing or Health Humanities (Social Studies/Sciences, Civics)
- [ ] Computer Science / Computing / Computing Science
- [ ] Primary education
- [ ] Other (please specify) _____

22 Including this year, for how many years have you taught CS (either on its own or as part of another subject)?

- [ ] I have not yet taught CS
- [ ] 1 year (this is my first year)
- [ ] 2-3 years
- [ ] 4-5 years
- [ ] 6-10 years
- [ ] 11-15 years
- [ ] 16+ years

23 What qualifications / certifications do you hold (if any) in CS or a related discipline? (select all that apply)

- [ ] None/Not applicable

- ☐ Bachelor (or equivalent) in CS
- ☐ Masters (or equivalent) in CS
- ☐ PhD (or equivalent) in CS
- ☐ Diploma/Certificate in CS
- ☐ Major in CS (within another discipline)
- ☐ CS Professional Development (e.g. NCCE , PDST)
- ☐ Post-16 Computing/Computer Science
- ☐ Other (please specify) _____

24 At this current point in time, how do you respond to the following statement: "I feel qualified to teach CS"

☐	☐	☐	☐	☐
Strongly disagree				Strongly agree

25 Which of the following apply when you are teaching CS? (select all that apply)

- ☐ Students have access to their own computer in CS lessons
- ☐ There is a dedicated computer room / computing space in my school that I have access to when teaching CS
- ☐ Students use laptops or desktops for studying CS
- ☐ Students use tablets for studying CS
- ☐ There is a maker space / physical computing facility in my school that I have access to when teaching CS

26 Do you use any of the following resources for teaching CS?

	No, I don't use these	Yes, I have used these	Yes, I use these regularly	Yes, these are in my top 3 resources
Artificial Intelligence / Machine Learning resources (MLforKids, Google's Teachable machine, etc.)	☐	☐	☐	☐
Online programming sites (Scratch, Code.org, Codeacademy, Replit, Edublocks, etc.)	☐	☐	☐	☐
Online programming apps (Kodu, Lightbot, etc.)	☐	☐	☐	☐
Online curriculum materials (Teach Computing Curriculum, Technocamps, Barefoot, etc.)	☐	☐	☐	☐
Textbooks	☐	☐	☐	☐
Online quizzes (Quantum, Kahoot, Socrative)	☐	☐	☐	☐
Challenges or competitions (Bebras, Olympiad, Lego Robotics)	☐	☐	☐	☐

Physical computing or programmable devices (e.g. Micro:bit, Raspberry Pi Pico, Arduino, etc.)	☐	☐	☐	☐
Robotics (e.g. BeeBots, Ozobot, Cubotto, etc.)	☐	☐	☐	☐
Virtual Reality sets	☐	☐	☐	☐

27 For your top three resources, what is it about them that particularly influences your use of them?

Free text box

28 How much of your classroom time per week do you spend teaching CS? You can consider time allocated to teaching CS in relation to other topics.

- ☐ Up to 25%
- ☐ Up to 50%
- ☐ Up to 75%
- ☐ Up to 100%
- ☐ 100% of my teaching is in CS

29 What topics do you cover in CS? Please select all content topics that you incorporate in your teaching of CS.

- ☐ Programming skills and concepts
- ☐ Algorithms
- ☐ Cybersecurity
- ☐ Robotics
- ☐ Artificial Intelligence / Machine Learning
- ☐ Networks and Digital Systems
- ☐ Information Systems
- ☐ Web Systems
- ☐ Hardware
- ☐ Ethics
- ☐ Data representation (e.g. digital data- binary)
- ☐ Privacy
- ☐ Databases
- ☐ Data analysis and visualisation
- ☐ Computational Thinking (explicitly)
- ☐ Design process (or Design Thinking)
- ☐ Other (please specify) _____

30 What cognitive and affective skills do you foster and develop when teaching CS?

- ☐ Decomposition
- ☐ Analysing solutions
- ☐ Abstraction
- ☐ Problem-solving

- ☐ Generalization
- ☐ Empathy
- ☐ Sequencing
- ☐ Persistence/ Reslience
- ☐ Pattern recognition
- ☐ Creativity
- ☐ Logic
- ☐ Mindset
- ☐ Collaboration
- ☐ Self-regulation/ independence
- ☐ None of these
- ☐ Other (please specify) _____

31 SCOTLAND How do you use CS to support children's fluency in Gaelic as well as developing their skills, knowledge and understanding in CS through Gaelic?

Free text box

32 WALES How do you use CS to support children's fluency in Welsh as well as developing their skills, knowledge and understanding in CS through Welsh?

Free text box

33 IRELAND How do you use CS to support children's fluency in Irish as well as developing their skills, knowledge and understanding in CS through Irish?

Free text box

34 What would you like to support your CS teaching that is currently NOT available to you?

- ☐ Non-CS specific technology equipment (e.g. computers, tablets)
- ☐ CS-specific technology (e.g. robotics, CS software)
- ☐ Improved technology infrastructure (e.g. Internet)
- ☐ Professional development
- ☐ Classroom lesson resources (activity ideas, lesson plans)
- ☐ CS Professional Mentor
- ☐ School collaboration/peer support
- ☐ Support for classroom research
- ☐ Network/Community
- ☐ None of these
- ☐ Other (please specify) _____

35 Which of the following assessment practices do you use for CS?

- ☐ Programming assignments
- ☐ Proctored/supervised tests or exams
- ☐ Open-book tests or exams
- ☐ Checklists, scales or charts
- ☐ Puzzle or problem-based learning

- ☐ Peer evaluation
- ☐ Rubrics
- ☐ Student self evaluations
- ☐ Student portfolios
- ☐ Student presentations
- ☐ Teacher observations
- ☐ Artefact analysis
- ☐ (Program) comprehension activities
- ☐ Other (please specify) _____

36 How often do you use the following approaches when teaching CS?

	Never	Sometimes	Often
Whole class lecture	☐	☐	☐
Teacher demonstration (incl. modelling code, walkthrough)	☐	☐	☐
Individual student work	☐	☐	☐
Small group work	☐	☐	☐
Tests, quizzes	☐	☐	☐
Field study, out of class investigation (incl. work integrated learning)	☐	☐	☐
Whole class discussion	☐	☐	☐
Student demonstrations, presentations	☐	☐	☐
Homework done in class	☐	☐	☐
Multimedia presentations (e.g. film, video, computer, interact)	☐	☐	☐
Whole class simulations (e.g. role-play, games, real-world simulations)	☐	☐	☐

Other (please specify) _____

37 Have you used any of the following CS-specific approaches when teaching CS? Please check the boxes of all those you have used.

- ☐ Modelling (incl. live coding, simulation, highlighting, demo, code walkthrough or review)
- ☐ PRIMM (Predict-Run-Investigate-Modify-Make)
- ☐ UMC (Use-Modify-Create)
- ☐ Targeted programming tasks (e.g. debugging, sabotage, reading and tracing code, fill-in-the-gaps, annotation, Parson's Problems, worked examples)
- ☐ Socially relevant computing projects
- ☐ Using narratives, case studies or stories

- ☐ Questioning techniques
- ☐ "Unplugged" learning activities (e.g. embodiment, acting out, sequencing cards)
- ☐ Studio-based learning (the design and development of a creative product of any kind)
- ☐ Paired programming
- ☐ Algorithm design and representation (e.g. flowcharts, tactile sorting)
- ☐ Project planning and management (e.g. time management, use of GitHub)

38 This question relates to your teaching of programming skills and programming constructs for CS in the last 12 months. Please indicate how often you have used the following languages/environments in your teaching.

	Never	Sometimes	Often
Symbolic (text-free) visual programming (e.g. ScratchJR, KIBO, BeeBot, Kodu, Lightbot)	☐	☐	☐
Block-based visual programming (e.g. Scratch, AppInventor, Snap!)	☐	☐	☐
Hybrid visual to junior text programming or frame-based (e.g. Stride, Pencil Code)	☐	☐	☐
General Purpose/Text-based Programming (e.g. Processing, JavaScript, Java, Python, C#, C++, Visual Basic)	☐	☐	☐

39 Which symbolic visual programming environments have you used for teaching?

- ☐ ScratchJR
- ☐ KIBO
- ☐ BeeBot
- ☐ Kodu
- ☐ Lightbot
- ☐ Other (please specify) _____

40 Which block-based visual programming environments have you used for teaching?

- ☐ Scratch
- ☐ AppInventor
- ☐ Snap!
- ☐ Other (please specify) _____

41 Which hybrid programming environments have you used for teaching?

- ☐ Stride
- ☐ Pencil Code
- ☐ Other (please specify) _____

42 Which general purpose / text-based programming languages have you used for teaching?

- ☐ Processing

- ☐ JavaScript
- ☐ Java
- ☐ Python
- ☐ C#
- ☐ C++
- ☐ Visual Basic
- ☐ Other (please specify) _____

43 What are the top 3 driving motivations for why you select particular programming environments and languages to use with your students? (select up to 3)

- ☐ Appropriateness for age or reading level (e.g. text or no text)
- ☐ Cost or availability
- ☐ Scaffolding learners (e.g. lesson sequence, course level)
- ☐ School determined approach (e.g. already selected)
- ☐ Curriculum determined (e.g. says to use a particular type at year level)
- ☐ Supporting resources available (e.g. lesson plans or online tutorials)
- ☐ My confidence level (in programming with the environment or language)
- ☐ What students can do in the environment (e.g. tutorial-led or open creation)
- ☐ Other (please specify) _____

44 The following lists different statements regarding your self-esteem in CS. Self-esteem is concerned with your confidence in your own worth or abilities. Self-esteem can fluctuate in points of time. Please select the answer that best fits each statement for you as you feel about your self-esteem in CS today, from "strongly disagree" on the left to "strongly agree" on the right.

	Strongly disagree			Neutral			Strongly agree
On the whole I am satisfied with my Computer Science progress	☐	☐	☐	☐	☐	☐	☐
At times I think that I am no good at all at Computer Science	☐	☐	☐	☐	☐	☐	☐
I feel that I have a number of good Computer Science qualities	☐	☐	☐	☐	☐	☐	☐
I am able to complete Computer Science tasks as well as most other colleagues	☐	☐	☐	☐	☐	☐	☐
I feel that I do not have much Computer Science ability to be proud of	☐	☐	☐	☐	☐	☐	☐
I certainly feel useless at Computer Science at times	☐	☐	☐	☐	☐	☐	☐

I feel that I am a person of worth, at least on a (level) plane with other colleagues	☐	☐	☐	☐	☐	☐	☐
I wish I could have more respect for my Computer Science ability	☐	☐	☐	☐	☐	☐	☐
All in all, I am inclined to feel that I am a failure at Computer Science	☐	☐	☐	☐	☐	☐	☐
I take a positive attitude towards my Computer Science ability	☐	☐	☐	☐	☐	☐	☐

45 For the activities listed below, please indicate whether they have been included in your professional development (PD) activities for CS education during the last 12 months and if not, whether you feel you need access to these activities.

	Yes, I have accessed	I have not accessed and have no need to	I have not accessed, but I would like to
Courses, workshops or seminars in-person	☐	☐	☐
Remote courses, workshops or seminars (synchronous)	☐	☐	☐
Online courses, workshops or seminars (asynchronous)	☐	☐	☐
Education conferences	☐	☐	☐
Formal qualification programme	☐	☐	☐
Observation visits to other schools	☐	☐	☐
Observation visits to businesses/industry	☐	☐	☐
Peer and/or self observation and coaching in school	☐	☐	☐
Participation in a teacher PD network	☐	☐	☐
Reading professional/research literature	☐	☐	☐

Other (please specify) _____

46 ENGLAND As part of your CS professional development in the last 12 months, have you accessed any National Centre for Computing Education (NCCE) courses, resources or other PD support? You may have accessed these via the NCCE website http://teachcomputing.org.

	Yes, I have accessed	I have not accessed and have no	I have not accessed, but I would

		need to	like to
NCCE face-to-face or remote CPD courses	☐	☐	☐
NCCE online courses (hosted on FutureLearn)	☐	☐	☐
Teach Computing Curriculum lessons	☐	☐	☐
NCCE pedagogy resources	☐	☐	☐
NCCE certification options	☐	☐	☐
Isaac Computer Science	☐	☐	☐

47 WALES As part of your CS professional development in the last 12 months, have you accessed any Technocamps resources, training and professional development?

- ☐ Yes, I have accessed Technocamps resources, training and professional development
- ☐ I have not accessed Technocamps resources, training and professional development and have no need to
- ☐ I have not accessed Technocamps resources, training and professional development, but I would like to

48 IRELAND As part of your CS professional development in the last 12 months, have you accessed any Professional Development Service for Teachers (PDST) courses?

- ☐ Yes, I have accessed PDST courses
- ☐ I have not accessed PDST courses and have no need to
- ☐ I have not accessed PDST courses, but I would like to

49 SCOTLAND As part of your CS professional development in the last 12 months, have you accessed any Education Scotland courses, whether online, remote or face-to-face?

- ☐ Yes, I have accessed Education Scotland courses
- ☐ I have not accessed Education Scotland courses and have no need to
- ☐ I have not accessed Education Scotland courses, but I would like to

50 How strongly do you agree or disagree that the following present barriers to your participation in CS professional development (PD)?

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I do not have the prerequisites (e.g. qualifications, experience)	☐	☐	☐	☐	☐
PD is too expensive	☐	☐	☐	☐	☐
There is a lack of employer support	☐	☐	☐	☐	☐

PD conflicts with my work schedule	☐	☐	☐	☐	☐
I do not have time because of family responsibilities	☐	☐	☐	☐	☐
There is no relevant PD offered	☐	☐	☐	☐	☐
There are no incentives for participating in PD	☐	☐	☐	☐	☐
Distance to travel to participate in PD	☐	☐	☐	☐	☐
Resources (equipment, network access) to participate in PD	☐	☐	☐	☐	☐

Other (please specify) ____

51 We'd like you to think of the professional development (PD) activity that had the greatest impact on your CS teaching during the last 12 months.What is the name of the PD activity that had the greatest impact on your teaching in the last 12 months? (If you haven't undertaken any PD activities in the last 12 months, please write "N/A")

Free text box

52 What was the length of this activity?

Free text box

53 Which of the following statements applied in relation to this activity? (select all that apply)

- ☐ It built on my prior knowledge
- ☐ It adapted to my personal development needs
- ☐ It had a coherent structure
- ☐ It appropriately focused on content needed to teach my subjects
- ☐ It provided opportunities for active learning
- ☐ It provided opportunities for collaborative learning
- ☐ It provided networking opportunities
- ☐ It provided opportunities to practise/apply new ideas and knowledge in my own classroom
- ☐ It provided follow-up activities
- ☐ It took place at my school
- ☐ It involved most colleagues from my school
- ☐ It took place over an extended period of time (e.g. several weeks or longer)
- ☐ It focused on innovation in my teaching.
- ☐ It addressed pedagogy
- ☐ It addressed assessment of student learning
- ☐ None of the above