

UCL CODE workshops (2014)

Overview and Context

CODE provided an opportunity for 47 young people (13 – 18 year olds) to take part in interactive, stimulated sessions on the subject of coding at Stratford Library. Six sessions were held, each run by staff and students at UCL – the sessions gave the young people a chance to learn from, meet, and question leading researchers and practitioners in coding. For instance Dr Martin Austwick from our Centre for Advanced Spatial Analysis ran a session alongside his students on virtual reality, and Dr Rae Harbird from UCL Computer Science ran a session on how to programme a sensor using an engduino (an education coding tool developed at UCL).

This case study identifies key findings from the activities and makes recommendations for future events.

The specific aims of CODE were to:

- Teach coding skills to 60 young people (13 – 18 year olds) from East London
- Run a fun and engaging summer holiday activity for young people in East London who might not consider engaging with a university
- Break down barriers about university, computer science, and careers in digital industries
- Give young people access to cutting edge technology and university experts
- Encourage computer science academics at UCL to engage with communities in East London

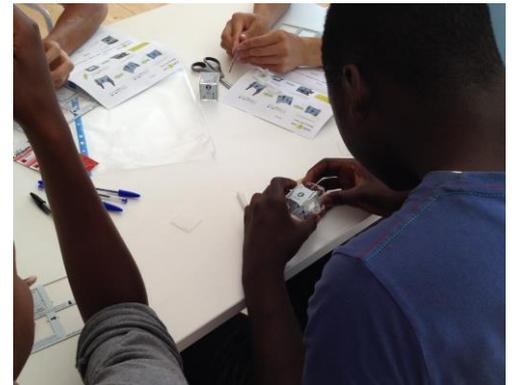
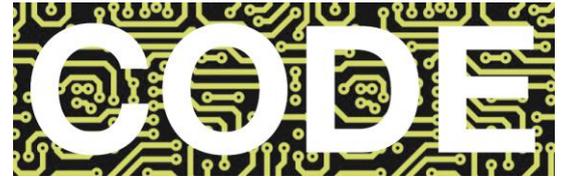
The objectives were to:

- Develop a marketing plan to reach as many young people local to Stratford as possible
- Partner with local youth charity (Community Links) and employ local youth worker to support local young people at workshops
- Run 6 hands on workshops in Stratford Library's computer suite led by UCL academics
- Evaluate extent to which workshops broke down barriers for young people

What happened?

We partnered with Community Links to run 6 coding workshops in the school summer holidays in Stratford Library:

- **Sensing, making and physical coding.**
24th July 2014. Attended by 13 young people. Lead by Venus Shum, UCL Computer Science
- **Virtual Reality**
31st July 2014. Attended by 17 young people. Lead by Oliver Dawkins, UCL Centre for Advanced Spatial Analysis
- **Controlling software with your mind**
7th August 2014. Attended by 6 young people. Lead by Panos Mavros, and Katerina Skroupelou, UCL Centre for Advanced Spatial Analysis
- **Get creative with programming**
14th August 2014. Attended by 15 young people. Lead by Elpida Makrygianni, UCL Engineering
- **Programme your own sensor**
21st August 2014. Attended by 8 young people. Lead by Rae Harbird, UCL Computer Science
- **3D Game Programming**
28th August 2014. Attended by 3 young people. Lead by Giancarlo Amati, UCL Culture



Facts and Figures

6 coding workshops were held in Stratford library

The workshops were attended by 47 young people

83% of the attendees were from East London

By the end of the workshops 98% of the young people disagreed with the statement 'I don't know much about technology'.

Emerging themes from the evaluation

We carried out a voting exercise with the young people to gauge the difference the workshops were making to them. Before and after each session we read out 4 statements and asked the young people to hold up agree or disagree voting cards, we then measured the difference in their responses. The statements were:

'I don't know much about technology'

'Computers are dull'

'Coding is confusing'

'I would consider a career in technology'

We found that for most of the statements the young people felt more positively after the session than before. The results were:

- 'I don't know much about technology' – 98% of those attending disagreed with this statement (a 13% increase in those disagreeing after the session than before)
- 'Computers are dull' - 99% of those attending disagreed with this statement (a 3.5% increase in those disagreeing)
- 'Coding is confusing' - 78% of those attending disagreed with this statement (29% increase in those disagreeing)
- 'I would consider a career in technology' - 85% of those attending agreed with this statement (unfortunately 2% fewer people agreed with this statement after the sessions. This could be because we needed to explain more what a career in technology would be like, and we didn't talk much about that).

We reached fewer young people than we aimed to. The coding club was run as a drop in programme, we expected that we would have different young people at each session, but in fact we had a core group of young people who came to every session, and then a smaller group of people who came to one or two sessions of their choice. So the number of workshop places filled was 74 out of a possible 84, but the number of individuals involved was 47 (the aim was 60).

If we ran this again the booking process should be managed more carefully. The young people booked their own places on the workshops online on Eventbrite. A keen group of boys booked every workshop, which meant that we had to start a waiting list very quickly. This excluded other people from coming, meant we didn't have a very good gender balance, and didn't reach people who might not consider engaging with a university. The engineering department run similar events, and they specify half of the tickets are for girls and half for boys, because coding is a subject at which girls are underrepresented. This may be a good way forward in future. It may also be a good idea to overbook each workshop slightly, because even though we reminded people regularly about their booking, there were inevitable last minute drop outs, meaning not all the spaces were filled despite there being a waiting list.

The youth worker from Community Links was excellent, lifted the energy of the sessions a lot, and really engaged the young people. A different approach may be to use the community partner (Community Links) more, and run the workshops at their youth clubs with young people they already work with. That way we would engage people who may not have thought of engaging with a university.

It may also be good to ask the youth worker to run training in advance for the academics leading the sessions. Some had never worked with this age group before and the young people were clearly more engaged at the sessions run by academics with experience working in schools and youth settings.

Learning from the Process

What worked well?

- Getting academics involved from a range of departments to run a varied and interesting programme of workshops

- Employing a youth worker from our partner charity Community Links helped get the young people engaged

- Most young people heard about us through their school – marketing to schools (Heads of IT) before summer holidays went well

- Holding it in Stratford Library meant it was accessible to local people and a non-threatening environment. The library have since created a specific IT workshop space as they want to do more things like this.

- It gave academics a platform to do engagement in East London, and to reach a more diverse audience than usual, and some of them expressed a desire to do more in East London.

What could be done differently?

- Manage the booking process more carefully to ensure good gender balance and that we're reaching target audience

- Overbook sessions to negate against drop outs

- Provide training for academics in how to engage this age group.

- Provide more information about progression routes – careers and university courses in technology

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