

STIMULUS Project Progress Report 2009/10

Science, Technology, Informatics & Mathematics
Undergraduate Links between University and Schools

May 2010




STIMULUS is a community service programme which gives Cambridge University students the opportunity to work with pupils in local schools, helping with Maths, Science, ICT or Technology lessons. STIMULUS students work as volunteer Teaching Assistants in the classroom, alongside the class teacher.

In the 2009/10 academic year STIMULUS created 237 placements for 178 University of Cambridge students (107 placements were filled in the Michaelmas Term and 130 in the Lent Term) in 22 primary and secondary schools, 2 sixth-form colleges, one special school and Cambridge United Football Club's education programme. All placements are located within the city of Cambridge and nearby villages.

STIMULUS volunteers have been recruited from a wide range of disciplines: the majority are reading Mathematics, Engineering, Natural Sciences, Medicine, Computer Science, Chemical Engineering or Economics.

“Fantastic scheme - it's so rewarding to see a smile on a child's face when they understand something just that bit better after you've explained it to them.”

STIMULUS volunteer 2009/10



“I really love taking part in the STIMULUS scheme. It is such a rewarding experience - I think I’m learning more than the class is when I’m helping out!”

STIMULUS volunteer 2009/10

The main aims of the STIMULUS programme are:

- to provide support for the teaching of Mathematics, Science, ICT and Technology in schools;
- to provide pupils with positive role models of young scientists, mathematicians and technologists;
- to encourage all pupils to develop and maintain an interest in Mathematics, Science and Technology;
- to contribute to enrichment opportunities for school students;
- to give university students opportunities to develop their communication and interpersonal skills;
- to give university students experience in the classroom and a better understanding of education;
- to provide a link between the University and the local community.

The project also provides valuable experience to those students who are considering a teaching career and often helps them decide whether to make this career decision. Each year we have some students who go on to follow a PGCE course, to participate in the Teach First scheme and Graduate Teacher Programme or to participate in the Students Associate Scheme placements during their vacation. STIMULUS scheme experience proves to be an extremely positive aspect in their applications.

There are many different ways the STIMULUS volunteers are used in the classroom.

Examples include:

- Helping generally in a classroom with pupils stuck with their work
- Assisting with practical work
- Encouraging pupils to talk about their work, using key vocabulary
- Asking questions which help pupils develop their understanding
- Encouraging uninterested pupils to engage with the task
- Helping sixth-formers during a lunchtime “surgery”
- Taking practical materials in from a university department
- Taking a small group to work on extension topics
- Working one-to-one with an exceptionally able pupil
- Discussing university applications with sixth-formers
- Helping with after school Science Clubs and Homework clubs

“I found the placement very useful and very good experience... this was exactly the kind of experience I wanted for deciding whether to pursue teaching as a career.”

STIMULUS volunteer 2009/10

The skills volunteers acquire from participating in the scheme:

- The most significant impact is on communication skills. The ability to communicate their subject to non-specialists is likely to be important in most career paths, and volunteers also learn to listen to pupils to establish what they already understand.

72% of students responding to the programme evaluation in the 2009/10 academic year believed that STIMULUS had **improved their communication skills**, and **75%** that their placements had **improved their ability to pitch explanations to different audiences**.

- Organisation skills are honed, as volunteers need to organise their work around their visits.
- Interpersonal skills develop; volunteers are working alongside teachers, and learn to work with them as colleagues. Successful teaching involves building good relationships with pupils, and volunteers develop this skill during their placements.
- STIMULUS can also help to develop and support volunteers' confidence and leadership skills: **65%** of students responding to the 2009/10 evaluation felt that their STIMULUS placement had made them **more confident**, and **61%** that it had made them **better at taking the initiative**.
- Many students will be involved in teaching in different contexts during their careers, and develop their teaching skills through their STIMULUS placement.

Some students use the scheme to find out more about teaching as a career, and to help them decide whether to apply for a PGCE, Teach First or Student Associate Scheme placement. **40%** of the students responding to the 2009/10 programme evaluation replied that they were **now more likely to teach**.

- Students also value the opportunity to give something back to the local community.

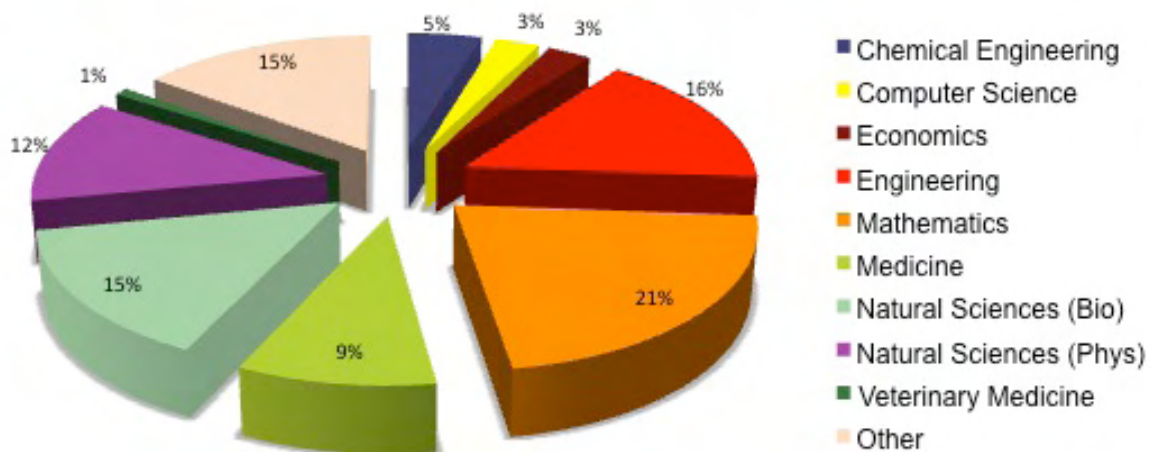
“[This term's STIMULUS volunteer] helped with small groups conducting many different Science experiments. He was amazing. We want him back please! The children loved him.”

Primary school teacher 2009/10

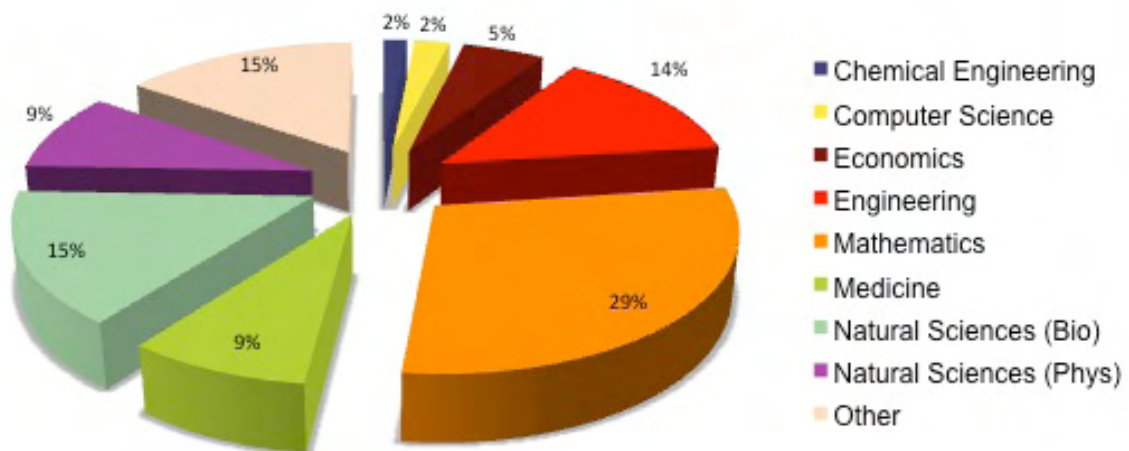
“The most satisfying thing about STIMULUS is seeing the progress the children make each week. It’s far more noticeable than you’d think! I’ve really enjoyed it.”

STIMULUS volunteer 2009/10

**Student volunteers Michaelmas Term 2009/10:
subjects read**

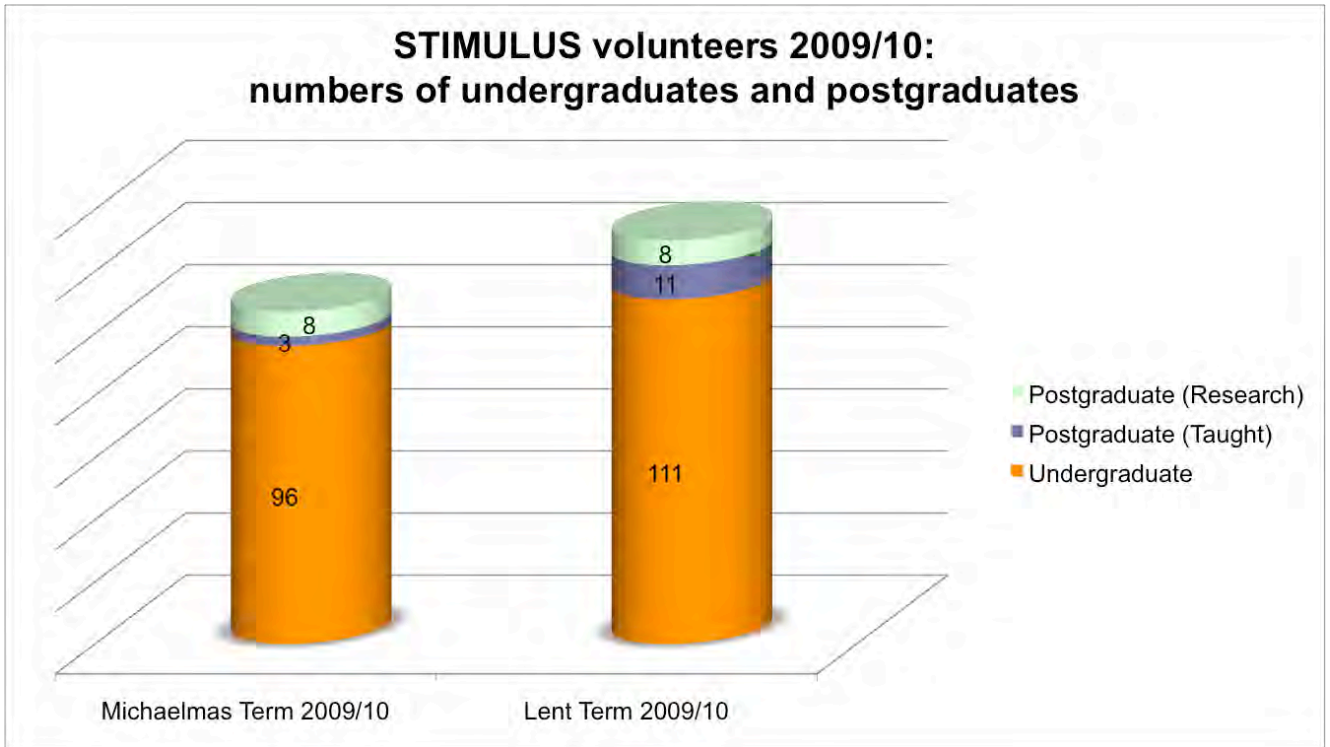


**Student volunteers Lent Term 2009/10:
subjects read**



“It was great to get away from work for 2 hours to help the kids work on their engineering projects (building an egg boiling device out of Lego!) and see how far they could come in just 6 weeks of lessons!”

STIMULUS volunteer 2009/10



STIMULUS principally creates student placements in the Michaelmas term and the Lent Term. This year 237 placements were created for 178 University of Cambridge student volunteers.

Although we only ask the students to commit to one term at a time just under half the student volunteers this Michaelmas term chose to continue their placement into the Lent term (52 placements continued). A small number of students requested more than one placement a term. At the students' request, over 30 volunteers have continued in the Easter term 2009/10 too.

STIMULUS students also help with events during the Cambridge Science Festival, and with other occasional extra activities. One student in particular this year, a Choral Scholar who had been working on a mathematics placement supporting a very gifted Year 5 child in a local primary school, stepped in at very short notice to run singing classes for Years 3 to 6 when the music specialist resigned suddenly shortly before the end of term - this was greatly appreciated by the school.

“Without [our STIMULUS volunteer] the Science Club would not be viable”

Primary school teacher 2009/10

Schools taking STIMULUS volunteers, with number of placements in each term	Michaelmas term 2009/10	Lent term 2009/10
Cambridge United FC learning centre		3
Castle School (special school)	3	3
Chesterton Community College		8
Coleridge Community College	2	
Grove Primary School	4	2
Hills Road Sixth Form College	6	6
Impington Village College	9	10
Kings Hedges Primary School	2	3
Long Road Sixth Form College	13	23
Manor Community College	7	5
Mayfield Primary School	2	4
Milton Road Primary School	3	2
Morley Memorial Primary School	3	2
Newnham Croft Primary School	8	6
Parkside Community College / Parkside Federation	12	5
Queen Edith Community Primary School	1	5
Sawston Village College		1
Shirley Community Nursery and Primary School	2	1
St Alban's RC Primary School	3	2
St Bede's Inter-Church Comprehensive School	2	3
St Laurence's RC Primary School	2	3
St Luke's C of E Primary School	2	2
St Matthew's C of E Primary School	5	10
St Paul's C of E Primary School		5
St Philip's C of E Primary School	12	12
The Netherhall School	4	4
Total number of placements	107	130

Numbers of STIMULUS student placements per term by college	Michaelmas term 2009/10	Lent term 2009/10
Christ's College	5	7
Churchill College	13	9
Clare College	5	8
Corpus Christi College	4	3
Darwin College	1	1
Downing College	2	2
Emmanuel College	7	5
Fitzwilliam College	3	4
Girton College	4	4
Gonville and Caius College	7	7
Homerton College	4	5
Hughes Hall	1	
Jesus College	4	6
King's College	1	2
Magdalene College	4	3
Murray Edwards College (New Hall)	1	4
Newnham College	5	8
Pembroke College	6	4
Peterhouse	1	4
Queens' College	7	13
Robinson College	1	2
Selwyn College	4	2
Sidney Sussex College	1	2
St Catharine's College	1	4
St Edmund's College		1
St John's College	8	5
Trinity College	6	13
Trinity Hall	1	2
Total number of student placements per term	107	130

“Thank you for running STIMULUS. I’ve had placements this term and last Lent and have found it a wonderfully positive experience.”

STIMULUS volunteer 2009/10

Acknowledgements

We are very grateful to all our supporters, past and present, whose generosity has enabled hundreds of volunteer Cambridge students to help in local schools. We would like particularly like to thank all those who have supported us over the past year:

Mr Neil Thomason;

Colleges of the University of Cambridge: Christ's College, Churchill College, Clare Hall, Corpus Christi College, Darwin College, Downing College, Girton College, Gonville and Caius College, Homerton College, Jesus College, Magdalene College, Murray Edwards College (formerly New Hall), Newnham College, Pembroke College, Peterhouse, Queens' College, Robinson College, Selwyn College, St Edmund's College, St John's College, Trinity College;

University of Cambridge Departments, Faculties and Schools: Biological Sciences, Computer Laboratory, Education, Engineering, Genetics, Physics;

Cambridge Assessment.

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