

UNDERGRADUATE AMBASSADOR SCHEME

2003/4 EVALUATION

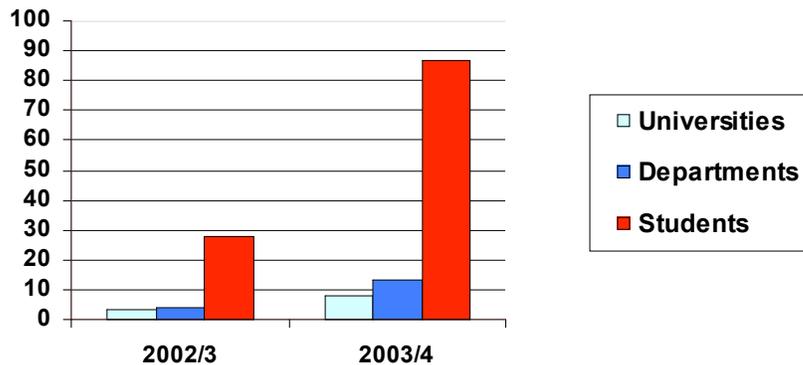


Introduction

Following on from its successful pilot in 2002/3 the UAS scheme grew considerably in its first full year of operation. Those undergraduates taking the module clearly found it valuable (Appendix 1) and the scheme was equally successful for those departments and schools involved, all of whom wish to participate in the module again in 2004/5.

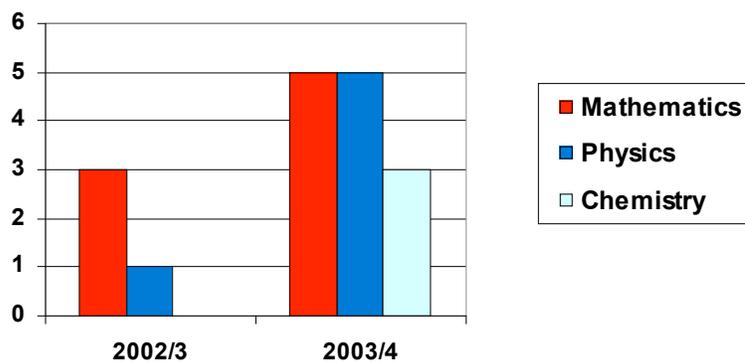
1. UAS Growth

2003/4 saw the scheme triple in size as three more universities became involved and the scheme spread within Southampton University:



2. Universities and Departments

The first Chemistry departments joined the scheme whilst the number of Physics and Maths departments increased:

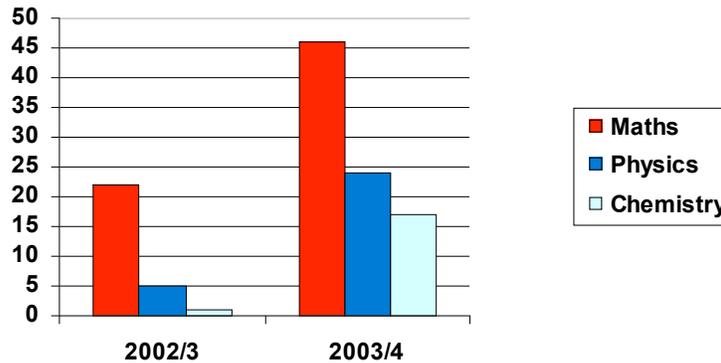


The universities and departments involved in UAS in 2003/4 were as follows:

University	Department
King's College London	Mathematics
Royal Holloway, University of London	Mathematics
	Physics
University of Birmingham	Mathematics
University of Hull	Chemistry
University of Leeds	Chemistry
	Physics
University of Leicester	Physics
University of Southampton	Mathematics
	Physics
	Chemistry
University of Surrey	Mathematics
	Physics

3. Undergraduates

Eighty seven undergraduates completed the the UAS module; the subject split between these undergraduates is shown below:



Undergraduate Interest in Teaching

Tutor feedback indicates that out of the 87 undergraduates involved, the level of interest in teaching registered at the start of the module was as follows:

Interest in teaching	58%
Undecided about teaching	21%
No interest into going into teaching	21%

Out of the 69 undergraduates who were interested or undecided at the start of the module 20% (14 undergraduates) are known to have gone on to a teacher training course whilst a further 17% (12 undergraduates) had applied for teacher training but graduated before the outcome was known by university staff.

Those students who did not want to go into teaching were interested in the valuable transferable skills the module enabled them to develop, such as communication, organisation and presentation skills, all sought after by graduate employers.

“This scheme has also provided me with a unique opportunity to improve my management and presentation skills...” Fiona, King’s College Mathematics graduate

Special Projects

These included practical sessions within the classroom and in university laboratories, utilisation of interactive methods of teaching such as PowerPoint and the interactive whiteboard, and studies of the ways in which pupils of different age groups learn within the classroom. Examples of the types of Special Projects conducted by the undergraduates can be found in Appendix 2

4. Schools Involvement

A total of 54 schools were involved and students worked with pupils in Year 7 through to Year 12. All placements were carried out in secondary schools which included mixed, girls' and boys' schools. The types of school students worked in included comprehensive schools, community colleges, grammar schools and specialist technology colleges. A list of those schools and colleges known to have participated can be found in the Appendix 3.

APPENDIX ONE

Sanju – University of Southampton - Mathematics

Sanju is continuing at university to study an MSc in Operational Research and Finance.

“Communicating and teaching mathematics has been a truly enjoyable and worthwhile experience. It has given me an opportunity to gain first hand experience of life as a teacher and as such has allowed me to make an informed decision about my career choice. I have opted to stay on at University to do an MSc in Operational Research and Finance, but I plan to remain aware of the teaching profession and the standards of mathematics education at secondary schools. It has given me an insight into the qualities vital to a mathematics teacher, which I hope to possess should I consider going into teaching later in my career.”

Sara – University of Southampton – Mathematics

Sara is undecided about teaching as a career now but has said that she would consider going into teaching later on.

"This module was really dependent on the amount of work that you put in, not the final answer, unlike other maths units whereby you can work really hard and not get a great mark. It showed me that I do have the skills to work with young people as I aim to do. I do not intend to work as a teacher but would consider it later on. I feel that I need to know more about real life to be a better teacher. I do not think it is appropriate to become a teacher at 22/23 without any experience outside of education. I would definitely recommend this course. Not only have I built up my confidence with young people, but I have positively affected the ability and hopefully the exam results of the groups of Year 11 GCSE groups that I worked with."

Saira– University of Surrey - Mathematics

Saira is applying to do a PGCE starting in September 2005.

“The scheme gave me the opportunity to experience teaching in a secondary school before applying for a PGCE. I would recommend the scheme to anyone considering a PGCE as teaching is a lot harder than it seems. The experience was very rewarding and gave a variety to the modules on offer in the final year. The module boosted my confidence and I feel much happier to stand up in front of a class of 30 students.”

Adam – University of Southampton – Chemistry

Adam is completing his MChem degree before going on to teacher training.

“From the course I gained the chance to see if I was suited to teaching. It enabled me to find out if I enjoyed interacting with the children in a school setting and to gain valuable experience of school set-up and teaching standards and requirements. The whole experience was valuable to me with respect to my future career. It allowed me to confirm my interest in teaching, it also helped me to decide on my preferred area as I was leaning towards secondary/A levels and this placement confirmed this for me. The scheme is considerably different from most others available at the university, especially in terms of assessment. I can think of very few other science related courses that are assessed by a presentation and an outside opinion. I chose to do the module because it would give me valuable insights into my capabilities and would either destroy or reaffirm my desire to be a teacher. It also gave a huge improvement in useful skills like time management and presentation that are essential for teachers.”

APPENDIX TWO

Bacon's College
Bushey Meads School
Slough Grammar School
The Magna Carta School
Christ's College
Guildford High School
George Abbot School
St Peter's Catholic Comprehensive School
Guildford County School
King's College for the Arts & Technology
The Bishop David Brown School
Broadwater School
Jubilee High School
Fullbrook School
Humphrey Perkins High School
Abington High School
English Martyrs RC High School
Crown Hills Community College
Wreake Valley Community College
Kendrick Girls' Grammar School
Langley Grammar School
St Anne's Convent School
St George's School
Cantell School
Millbrook School
Redbridge Community School
Woodlands Community School
Woolston Secondary School
Sholing Technology College
Alderman Quilley School
South Wiltshire Grammar School
Graveney School
Strodes College

APPENDIX THREE

UNDERGRADUATE AMBASSADORS SCHEME CASE STUDIES BASED ON SURREY UNIVERSITY

Mark – University of Surrey

Mark was a third year Physics student who chose to do his special project with a class of 'top set' Key Stage 3 pupils and two Year 12 pupils. He devised theoretical and practical lessons introducing concepts of energy conservation, mechanics and material properties, which were based on squash balls. The students began by looking at actual quality control tests carried out by the World Squash Federation to ensure that all squash balls passed the 'bounce' test. Working in teams, the Key Stage 3 pupils were given squash balls and asked to plan and conduct an experiment to investigate the effect of different temperatures on the rebound height of the balls, showing which ones would pass the bounce test. With his Year 12 pupils, Mark spent a couple of lessons covering the theory of Thermal Physics before moving onto the same practical quality control experiment as the KS3 pupils but asking them to carry out a suitable error analysis, look at what factors caused the change in energy and to calculate the loss of potential energy and the maximum kinetic energy of the ball. With both groups Mark was pleased to have introduced a new way of approaching the subject which both encouraged team work and enabled him to test their understanding of the theory he had taught them in an interesting and practical way.

Peter – University of Surrey

Peter was a third year Physics student who, due to limited experimental equipment in school, was unable to show his pupils many of Physics' landmark experiments. Instead, his pupils had to rely on text book examples. For his special project Peter wanted to excite his pupils about the subject and decided that the best way to do this would be for the class to perform some of these important experiments for themselves. Pupils in his class researched a famous experiment and went into the university to conduct it with the help of university students. Having collected their results the pupils participated in a scientific debate to prove and explain their results to the rest of the class. The results of their experiments were published in a variety of forms including posters, letters and even a newspaper article bearing the headline 'Speed of Light Wrong!' The pupils enjoyed being able to conduct the experiments rather than reading about them in a textbook and were able to retain the key concepts much more effectively having come up with the principle, equation and answer themselves.

Lisa – University of Surrey

Lisa, a third year Physics student who worked with 30 lower ability Year 8 pupils on the refraction of light. Her work with different year groups within the school had shown her the different ways in which students learn – kinaesthetic, visual and auditory – and the effectiveness of practical lessons in helping pupils to retain information. With this in mind she created a series of 'Magic Tricks' that allowed pupils to use all three methods of learning and the opportunity to carry out the experiments themselves. By using the work sheets she had created they investigated how a pencil appears to bend as the light rays slow down when hitting the water and how light going through a ray box also bends. With a laser, a fish tank filled with water and a little milk she was able to show the pupils how light 'bends' through different mediums.

ENDS