

UK Earth Sciences Recruitment / Outreach Strategies Survey 2008

Dr Helen King, Assistant Earth Science Senior Advisor, GEES Subject Centre

Introduction

Student recruitment is a key issue for many Earth Science departments in UK higher education. A variety of strategies are employed to attract students both to the discipline and to individual institutions. In order to support this work the GEES Subject Centre, through its Earth Science Senior Advisors, undertook a survey to identify and promote effective models of practice. All departmental contacts and heads of department were made aware of survey and it was also advertised via the Earth Science email newsletter and web page on the GEES Subject Centre website. The survey was made available to complete online through the 'Bristol Online Survey' tool.

16 responses were received from 15 departments out of a possible 39 members of Committee of Heads of University Geoscience Department (CHUGD: <http://www.chugd.ac.uk/institutions.php>) (38.5% response rate).

Summary

Effective Strategies for Promoting Earth Sciences to Potential Students

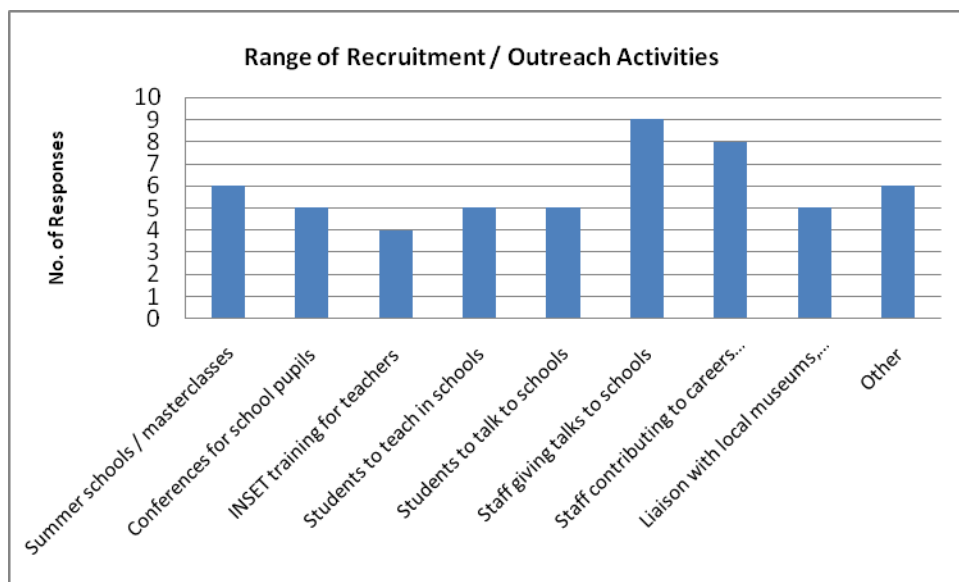
Respondents were asked to outline what they thought was their department's most effective strategy for promoting Earth Sciences to potential students. The most common responses involved potential students visiting the department and the department interacting with schools. A full list of responses is provided below:

- *Combination of University Open days, with pre-information and follow up through a Departmental website and electronic newsletter*
- *Direct mailing to schools and ucas lists*
- *Dynamic newsletter, personal note to all applicants, disseminating details of careers our graduates have followed, encouraging attendance at open days, sponsoring schools, RGS student ambassadors.*
- *Getting students to come to Keele*
- *i am not sure. But we get quite a few students every year transferring in from other degree programmes within the School (e.g. Environmental Sciences).*
- *Involvement with taster sessions days for pre-GCSE school students organised directly by ourselves or in conjunction with UoFL recruitment office. Most recent offerings given under heading "Dangerous Science" Currently getting involved with Seismometers for Schools project. Equipment installed in one school (a specialist science school so they will disseminate to other schools as part of their remit) and three more schools to be set up soon*
- *Open days*
- *Our visit days.*
- *School visits to departmental facilities (including test mine) and summer schools*
- *Selling Edinburgh as a place to live*
- *The personal impression we make when in direct contact with students. Our overall impression of enthusiasm, friendliness, and confidence that our courses are worth studying*
- *Tours of laboratories with demonstrations*
- *Use of our reputation among schools. We make several visits to local schools and participate in international trips to promote Imperial and Earth Sciences.*
- *We don't know as we have no way of measuring this.*
- *Web*

Range of Recruitment / Outreach Activities

Respondents were asked to select from a list which recruitment / outreach activities their department undertakes. The whole range of options were selected across all the departments responding, the most popular were staff giving talks to schools (9 departments) and staff contributing to careers events in schools (8 departments). The overall responses are detailed in the table and figure below:

Activity	No. of Departments
Summer schools / masterclasses for school pupils	6
Conferences for school pupils	5
INSET training for teachers	4
Opportunities for your students to teach in schools	5
Opportunities for your students to talk to schools	5
Staff giving talks to schools	9
Staff contributing to careers events in schools	8
Liaison with local museums, parks or other public learning space	5
Other	6



Other activities were:

- CPD training for teachers (1 day/year)
- Local Science Festivals
- none
- Seismometers for Schools project
- Seismometers for schools project.
- We have done most of the above at one time or another... none are systematically undertaken by Earth Science faculty however, most happen in a fairly random manor - but more in the context of the science faculty as a whole.

Resources Used for Recruitment / Outreach Activities

The Senior Advisors were interested to know which of the following resources were being used by the Earth Science HE community. Four departments are involved with the BGS Schools Seismology project but most departments use their own resources (see 'Other' list below)

Resource	No. of Departments
Geologist Association PowerPoint materials	0
BGS Schools Seismology Project	4
Other	12

The departments involved in the BGS Schools Seismology Project are:

- Imperial College London
- Keele University
- University of Liverpool
- University of Southampton

Other responses were:

- *Career's posters and newsletter*
- *generate our own*
- *In house exercises*
- *In house presentations tailored to the needs of the school visiting*
- *na*
- *Open days*
- *Our own in-house material*
- *Our own website/e-newsletter* <http://www.gla.ac.uk/departments/gesinfo/>
- *Our own.*
- *Own developed resources*
- *Practical demonstrations (e.g. what makes up a beach)*
- *We have simply developed our own.*

Involvement in 'Ambassador' Outreach Schemes

8 departments stated that they were involved in Ambassador-type outreach schemes, the most popular (6 departments) being the Undergraduate Ambassador Scheme (NB this was incorrectly listed as the 'University Ambassadors Scheme' on the survey).

Involvement in Ambassador Scheme	No. of Responses
Don't Know	2
No	4
Yes - University Ambassadors Scheme	6
Yes - Student Associates Scheme	1 Imperial College London
Yes - GA (Bristol) Scheme	0
Yes - Geography Ambassadors Scheme	1 Aberystwyth University
Other	2

The departments involved in the Undergraduate Ambassadors Scheme are:

- University of Derby
- University of Glasgow
- Imperial College London
- Keele University
- Lancaster University
- University of Southampton

Other responses were:

- *No : Not yet, but being discussed*
- *No : Only available in England, but putting measures in place to organise the introduction into Wales.*

Comments and Suggestions for Collaborative Activities

Respondents were asked whether they thought a more collaborative approach would boost interest in the Earth Sciences in the UK and, if so, what activities they thought might be effective. The overall response was strongly in favour of the need for a collaborative / centrally-organised approach to support an increased awareness of the Earth Sciences in general. All responses are listed below:

- *Core resources*
- *Not sure - are schools receptive to these ideas - I get the feeling that they are busy enough as it is.*
- *Our intake is largely regional, and we focus on it.*
- *Possibly more interaction with the Earth Sciences Education Unit at Keele*
- *The Geological Society has singularly failed to effectively promote Earth Science in this country, they should and could be doing several orders of magnitude more - any collective approach should come from them*
- *We all need to be in the schools*
- *We are in competition for students - but if the general interest in Earth Sci could be increased that would do us all good. We need more school teachers to know the difference between geography and geology! We need them also to know the nature of the employment field for Earth Scientists.*
- *Yes in principle. Hard to know in reality. In some ways it is a competitive market. If we could carve out specific niches - that would be good*
- *yes, if it raised the number of students studying geology at A level and Highers level. No one size fits all works - Scotland needs a different approach to England and is well supplied with input from SESEF. More support for this organisation from UK scale initiatives should be encouraged.*
- *Yes, it would be useful to have the Geological Society more involved in the teaching of Earth Sciences in schools with discussion on curriculum.*
- *Yes. Collaborative summer schools with experts on a theme. Just general awareness raising (particularly of the Earth Sciences)*
- *Yes. We need to have materials that schools can use whereby science teachers (physics, chemistry, biology) can use earth science problems to help understanding of their science. The seismometers for schools is a great example of this, but lots of interesting things can easily be developed for chemistry and physics in particular.*
- *yes; any promotion and awareness raising of the discipline across the UK would help.*

Other Comments

Three respondents provided additional comments, two of these suggested ideas for general awareness raising for the Earth Sciences. The third noted that the Scottish system of higher education provided an opportunity for Earth Science departments to 'recruit' students during level one, as they state "Enabling this transition from ES as one of 3 first-year subjects through to Honours is an important advantage of [the Scottish] system." The three comments are provided in full below:

- *BBC progs are doing a good job at the moment. Could do with someone such as Ian Stewart doing high school tours perhaps.*
- *I guess coordination with work at National level in the STEM subjects to promote science in general is important for us to be involved in.*
- *Our recruitment levels are very healthy - record numbers of students at Level 1 (over 200; taking 3 subjects of which Earth Science is only 1) through to Honours (58 in 3rd year - nearly all will continue to final year in 2009-10). Many students come to Glasgow intending to take other subjects, discover ES in Level-1 and stay with us. Enabling this transition from ES as one of 3 first-year subjects through to Honours is an important advantage of our system.*