

What makes the best lecturer in Geography, Earth or Environmental Sciences

The essays of the joint winners of the the competition are reproduced below. These and the essays of the runners-up are on the GEES website at: www.gees.ac.uk/projtheme/sawards/2005/sawards05.htm

Frances Mansfield

The best learning experience for anyone should be both enjoyable and productive, and should develop analytical, communication and organisational skills applicable in a wider range of situations than the one in which learning takes place. For a student in Geography, Earth or Environmental Sciences this entails the acquisition of specialist knowledge and skills as well as 'life skills' beyond the scope of the degree course. Although it is the syllabus that provides the framework for learning, it is most importantly the lecturers, assistants and fellow students that create each individual learning experience. In my case, studying under the guidance of some very helpful and enthusiastic lecturers, supervisors (members of the faculty who teach in small groups) and demonstrators (PhD students helping out in practical classes and on field trips) and participating in classes with motivated students has led to a very productive and enjoyable learning experience.

Gaining the confidence to ask questions and answer them without being inhibited by being 'wrong' or appearing 'stupid' is commonly the first step – you learn from your mistakes. For me, this came about primarily by one-to-one interaction with demonstrators in practical classes and with supervisors. In these sessions I was encouraged to trust and make use of my own observations and thoughts, not merely repeating lecture material 'parrot-fashion'. Over time, you discover the 'terrible truth' (that there is rarely, if ever, one correct answer) by embarking on tasks such as comparing fossils or sedimentary sequences with their modern equivalents (or are they? This is the type of question that I have been trained to ask and justify my answer), or by comparing conflicting yet logical articles in journals upon the recommendation of lecturers.

Encouragement and opportunity to explore further is definitely a 'must', despite the very real danger of being labelled a 'geek'. Directed learning, via being set essays to write or being asked leading questions ('do you think it unusual to find hydrous minerals in this slide?'), taught me how to synthesise and analyse specific subject areas. The provision of on-the-spot verbal feedback, essay marking and subsequent advice, model answers and termly supervision reports I have found invaluable for both short- and long-term improvement. Seminars, public talks (e.g. on the geophysics of the Sumatra earthquake and tsunamis), a well-stocked library with a superbly helpful librarian and cited references from lecture handouts give everyone the chance to delve deeper into what interests them most, without unwelcome or unnecessary pressure. The syllabus structure leads a student through from very basic to highly advanced techniques: from using a petrographic microscope to tackling modelling software and beyond, undertaking both supervised and independent field- and lab-work, analysing current literature, giving presentations and leading academic discussions among peers and superiors (all of which seem very daunting when you first start out!). These tasks do much to develop both specialist and general skills useful for life after graduation, be it academic research or something entirely different.

Being taught by and with people who are interested and take pride in what they are doing is undeniably important: enthusiasm is infectious! A well-prepared talk or lecture (unfortunately, not all of them are) would be appropriately geared towards the audience or class, and would typically involve use of a handout closely following the structure of the talk. All the relevant diagrams and references would be included, and their particular significance explained. Insightful comments that draw together different Earth Science subjects and/or relate the lecture material to topical issues (such as field trip localities, recent seismic events or debates in other research areas) enhance a broader and more intimate understanding of the subject, and hence greater satisfaction in pursuing it.

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One aspect which makes learning Earth Sciences so rewarding is not only being able to visit exotic locations for field work (don't be put off by being sent to Scotland in the first year!), but also being able to recognise the implications of what you are learning, e.g. rising levels of carbon dioxide and temperature as deduced from Antarctic ice cores are directly relevant to today's atmosphere, and are possibly responsible for the recent climatic disturbances such as increased winds and flooding affecting communities on a local scale. Other examples of direct application are volcanology (when will the Yellowstone supervolcano erupt?), seismology (how strong will the next earthquake be along the San Andreas Fault and will the buildings be able to withstand the tremors without toppling?), through to hydrology and oil exploration (is there likely to be a reservoir under this impermeable rock?) and restoration (if I replace this brick with a different type of sandstone, will the lower porosity cause increased erosion of the surrounding ones?). Being able to justify education and research as a means to application in this way is as valuable a skill as any, as becomes apparent when applying for project funding or a paid job.

However, it is not just the usefulness of the subject that makes for a good learning experience: it is the love of learning that can make study so enjoyable. Personally, I love being able to identify a fossil or mineral in a wall that doesn't usually get a second glance. I feel a sense of awe when I try to imagine the glacier forming that U-shaped valley, or how lethal T-rex's jaws would have been!

In my opinion, based on my own time at university, the main factor in making the best learning experience is this: enthusiasm for and pride in what you are doing.

Frances is in her final year as an MSc student at the University of Cambridge, with particular interests in petrology, geochemistry and mineralogy. Before embarking on a PhD she intends to explore a range of geological opportunities in both industry and academia, and is open to offers and suggestions!
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Rob Marten

Carabiner clips fastened to the belt. Beard. Map. Moustache. Cycling to the campus. None of these things make a good geography lecturer. They may, however, make a bad geography lecturer feel better. This 'answer' may read a little more like a journal than an academic essay. I'm not trying to be radical. But it makes more sense that way. A formally written essay isn't always appropriate, and especially not for such a personal account. I'm not referencing academic literature; I'm telling what happens in my world, using examples to illustrate what teaching and learning techniques have worked well for me over the last two and half years.

A good geography lecturer imposes their personality upon the topic, without explicitly imposing his/her views upon their audience. There's nothing worse than coming away feeling like you've just seen a party political broadcast. We ... and I say 'we', though you can scrub yourself out at will ... should be taken on a journey and shown the different deviations the path takes, not forced down them, but offered a ... wait for it ... map to show where they might lead. Whoa, don't get excited. I'm not going to mention maps again. Simon vs. Elhrich, to use a popularly taught example, should be presented like an intellectual boxing match that we can sit back and watch with a Ginsters and a can of Coke. That way we might be tempted to dip into both texts, not just back one horse. Horses boxing? I'll stick to one metaphor at a time, perhaps.

Back to the imposition of personality. This semester a lecturer was describing the poor conditions of agricultural workers in west Africa; "they have a hard life... a bit like you students..." followed by the bellowing of... "ONLY YOU DON'T DIE WHEN IT DOESN'T RAIN!". We laughed. We laughed because of the way it was delivered. A change of pace that even Kelly Holmes would have been proud of. But it was a hard-hitting point. And so I'll remember that lecture come the summer. Such changes in pace and tone may seem relatively insignificant, but like all stage performances, it's all in the delivery.

This idea of a stage performance is important; they're not called lecture theatres for nothing! Even the most mundane topic can be made interesting. I remember a first year lecturer who had two different projections of notes on the go, as well as drawing diagrams on acetate. He moved around the equipment like a gym workout. And it kept us interested. Another example. Last year I was lucky enough to see the debut lecture of young member of staff. He was very animated, used the occasional blue word, and, at one point he showed us some old film clips to demonstrate a point about changing architectural styles. People at the back nudged the ones kipping and we were captivated until the end. I spoke to one of his PhD students a few months later, who told me the lecturer had been "sh*tting himself about it" beforehand. But it was great. It was a new style of delivery. It was a learning experience. And it worked. It must have taken hours to achieve the fluidity he did, with the film clips set up in the right place and so forth. It was a show. This is a far cry from the old "hang on a minute whilst I buzz IT to get them to put this PowerPoint thingy from this thing onto this thing so I can start"; something that is all too familiar for so many of us.

If the performance is nailed then we're on to a winner. But what helps is the ability, or rather the chance, to engage with the lecturer. One particular lecturer this year keeps asking us "am I going through this too fast?" and "do you know this bit, shall I move on...?" and similar questions that at first we thought were

rhetorical, but soon came to realise that he was actually waiting until people nodded, grunted, or, even, heaven forbid, spoke.

Learning techniques. Pedagogies. This brings me on to my final example; something that has compelled me to write this journal. A third year module that finished at Christmas changed everything I thought I knew about, not only geography, but about learning as a process. The following is an excerpt from my final assessed journal from that module:

I'm beating myself up about coffee. I should sue the uni. I talked about 'voting in the isles' in journal 3 because Sainsbury's had become like a polling booth for me. And the manifestos I'd heard in the election campaigns (re: semester) were both equally as bad... so I didn't vote at all. What sort of mega-consumer am I now? There are no good/bad decisions if there are so many facets to both. Binary opposites are bad. Not good. Haha. Made myself chuckle. Now, tall guy, that's why I've gone mad. I've become depoliticised because I know too much, and, paradoxically, that knowledge is that I know nothing at all. It's not the tall guy's fault I've gone mad. Far from it. The tall guy's just another cog in the machine, an actor in the web. Whether I took this course or not, I'd still be affecting people in some way or another – I just wouldn't have thought about it so much. I'm still a mega consumer. I'm linked to guzillions of usually unseen others. I know I'm making a difference in whatever action I take. But I don't know how to control it. I felt powerful when I had no knowledge at all. Now I have information. And I don't know if that equates to knowledge or not. knowledge = power? I'm not so sure.

'And this is geography?!'... I hear you say. Yes it is. It's the end product of a different type of learning. We indulged in cyborg pedagogy for a term. We sat in a circle. The lecturer (referred to as 'tall guy' in the excerpt) walked around the edge of the circle. We were not allowed to talk to him. Or look at him. We could only talk to our fellow students. We talked about the geographies of material culture and our relationships with previously unseen others. We read outside the class and met with groups to share our readings, and then shared those collated readings with a new group in the class. We wrote four non-academic journals about our life, not too dissimilar to what you're reading now, only with academic footnotes putting our lives in the context of academic discourse. We were encouraged to share our ideas with the lecturer in his extensive office hours; subsequently he had queues outside for hours. He offered us a new style of learning, and I truly believe that this particular topic, and its aim to make us think about the consequences of every little action we take, could not be tackled so effectively with a more conventional approach. Without doubt, it's the single most beneficial academic experience I will take away with me in to the big wide world.

And just as that big wide world is changing, so is geography as a taught discipline, and its lecturers need to mirror that change with their own dynamics. And I think for the most part they are. Innovative techniques are indeed beneficial, but perhaps most importantly of all; as long as a lecturer keeps his/her door a-jar then they can sport all the carabiner clips, facial hair and cycling equipment that they so desire! Us students need to feel that we come first, and a lecturer's research comes second. Even if that's not always the case!

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