Mathematicians Need Careers

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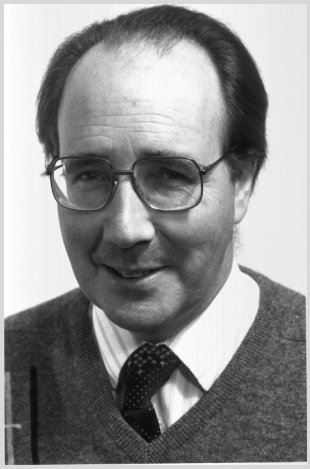

Mathematicians of course go out into the world and enter employment, in a range of careers which might surprise many. However, it seems to be a characteristic of the breed that they are not always the best at pointing out their own virtues. In 2001 the Mathematics degree programme at Reading began a new module designed to hone its students' career management skills and their experience of working in teams.

This began life as part of a University-wide policy and, to be quite honest, a policy which met with some scepticism and even a measure of outright opposition when it was first proposed. After all, we subject experts knew what was good for the students, didn't we? However, it has been evident for some time that the things we "know" to be good for student mathematicians are not always held in the same esteem by students. We went ahead with career management skills, and added to it a mathematical part, nothing to do with careers, but which in fact linked rather well with the other half.

The career management skills were taught, through workshops and some web-based exercises, by members of the Careers Advisory Service with further input from the Mathematics staff. Much additional information and some assessed tasks (and their marking criteria) were available on the web. The mathematics input allowed some of the material to be focussed on mathematicians and made it clear to the audience that this was to be taken seriously, not just a "bolt on" option which could be given minimal attention. The careers information is built around three themes "finding your profile", "finding the fit" and "effective applications", focussing students on their own character, on what sorts of careers are available to people like them, and on ensuring that they are aware of the skills and attributes they possess, formally obtained or not, which might be relevant to particular cases. Our students reacted in much the same way as their academic colleagues: some initial scepticism, followed by a realisation that the work was an interesting change from usual and filled a gap in most students' skills. It did make most students ask questions about themselves and their characters, ambitions and abilities. The work took place most naturally in small groups, and led to a rather greater interaction between one student and another (and the staff) than with standard mathematics topics, perhaps because the students did not believe, to the extent that they often can with mathematics, that others "knew the answer".

This set the tone for the mathematics part, which consisted of a small group project, based on extending the work of one of the mathematics modules the students had recently completed. The aims here were firstly for the participants to work as a group, dividing the effort appropriately, and to produce a well written account of an area of mathematics, with a uniform style. It was not a requirement that much new mathematics be learned, although some students chose to do this.

Feedback both from the students and from the Careers Advisory Service has been very positive. This will become a regular feature of our Mathematics programme from now on, but it is pleasing to note that in the year when we began this further focus on students' skills, the Mathematics graduates from the latest year for which data were then available, 2000, had a 100% employment record.