Philosophy Self-Assessment Exercises on the Web

Philosophy is a compulsory component of each of the three year MA General Humanities degrees at Glasgow University. The Department of Philosophy decided to investigate the use of computer mediated teaching to help deal with the resulting large class sizes and to help maintain their 'excellent' TQA rating.

Our Rationale for Developing Web-Based Exercises

As philosophy is a compulsory component of any of the three year MA General Humanities degrees we often have very large pre-honours Level One and Two classes. In fact, at any one point in the academic year we can find ourselves teaching upwards of 800 students across these classes. Dealing with this number would be difficult even with ideal resources. With such a large number of students we can often lecture to 300 or more at a time, and pitching a lecture to a class of this size is difficult because there isn't a pace that suits all 300 students. We also have fortnightly tutorials in Level One. These are complemented in the intervening weeks by fortnightly workshops where students meet without a tutor present, but with a worksheet of issues raised in their course that they discuss as a group. In Level Two we have weekly tutorials with extra logic tutorials held on a fortnightly basis. If students want to consult a member of staff with regard to a particular question they can attend a weekly office hour that the staff member sets aside for this sort of one-to-one consultation.

Unfortunately, students don't always feel confident enough to contribute in tutorials or attend these office hours. Their hesitation may be based on their not knowing if their question is too easy, or if they've just missed the point of what's been said, or if they're simply going to appear stupid to someone they would like to impress.

Having seen the Web used to great advantage for undergraduate teaching in other areas, for example, STELLA (Software for Teaching English and Scottish Language and Literature—http://www.arts.gla.ac.uk/STELLA/), also at the University of Glasgow, we decided that we should try and extend our own student teaching resources in this direction. The benefits of a pedagogical tool of this sort were quickly evident: it could be used anonymously by the students in their own time, at a pace at which they felt comfortable proceeding, and by completing the exercise and submitting it for assessment it was possible for students to gauge for themselves how much of the course they had grasped.

Unfortunately, the disadvantages of such a format were also clear. In philosophy argumentation skills are nurtured, and the sorts of exercise that were possible on the web were not, at first glance, of this nature. Rather they fell into the categories of multiple choice or multiple response type questions which would not seem to stretch

the students' thinking in the way in which we wanted. However, if what we were trying to do was build student confidence about what they felt they'd understood, and if we were trying to make ourselves 'available' at times that suited them rather than at office hours that they mightn't be able to make, then these exercises had a clear rôle to play in our teaching.

The most important thing that we would be doing was providing students with what I'll call 'baseline knowledge'. By this I mean that there are basic terms and theories, even knowledge of the 'Leibniz says this' sort, that students have to be able to use with ease if they are going to progress in philosophy, and if they haven't got this baseline knowledge they cannot move forward. It's a little like becoming a competent language user, you can't use a language properly if all you know are the syntactic rules; you also need to know what the words mean and the proper contexts for their employment. Baseline knowledge in philosophy is just this, the sort of stuff that once you're competent you take for granted. It's not deep and insightful, but it is what you need to master if you're going to be part of the philosophical community.

In the sciences and mathematics an understanding of this sort of knowledge is taken as fundamental, because in the sciences and mathematics there is a large technical base. Philosophy is not usually thought of as having a large technical base, but for many students the fundamentals of the subject are simply bewildering. It is these fundamentals, the 'baseline knowledge', that we wished to address in the self-assessment exercises.

What we did

It was important to us that we would have something that, once set up, would maintain itself in the sense that it didn't require extra tutor time correcting and commenting on the student responses. I discovered that David McNicol had been developing an assessment engine (http://cvu.strath.ac.uk/download/ae/) as part of a project called *Clyde Virtual University* (CVU at http://cvu.strath.ac.uk/), set up by Strathclyde University, Glasgow, and funded by SHEFC (Scottish Higher Education Funding Council). This is a tool which is relatively simple in conception that provides an authoring tool in which to write the exercises and an assessment engine which marks the students' responses, proffering feedback on errors and commentary that indicates how a good answer might be pursued and developed. In the example illustrated in Fig.1 the student has got the question right and has received positive feedback on their answer.

Although the exercises are conceived of as a test we are using the engine for self-assessment and in essence to sweep up a whole category of common misconceptions that can undermine the progress of any student. In the example shown in Fig.2 we can see a student who gets the answer wrong and who is then directed to specific pages in the set text for the course, in this case *Language, Truth and Logic*, Pelican edition. There is also a quotation to help them identify the relevant section in the text more precisely.

The exercises are not intended as a substitute for tutorials or office hours, but as a supplement to them. They are there for student use and the element of assessment is there so they can gauge their own

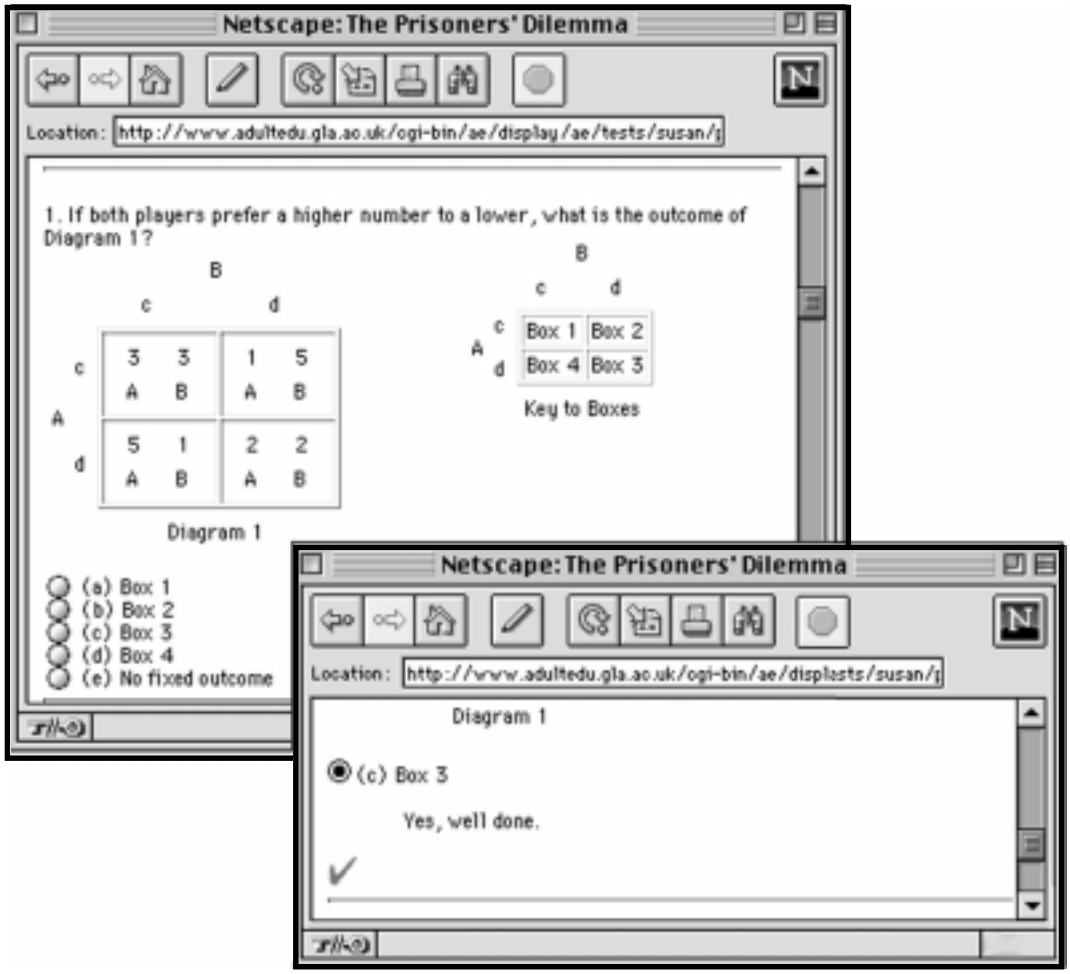

Fig. 1 Screenshot from the Prisoners' Dilemma exercise for the Level 1 Philosophy of Science course.

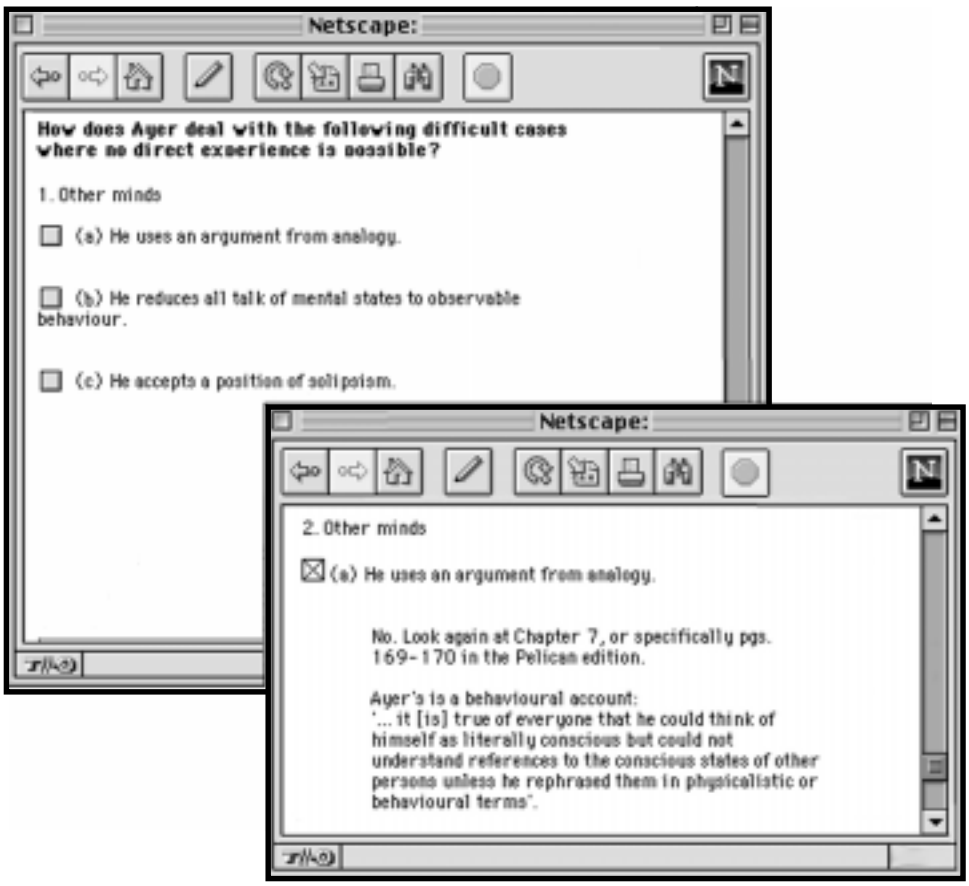

Fig. 2 Screenshot from the Ayer exercise for the Level 2 Knowledge, Meaning and Inference course.

development and improvement; indeed, if they want to they can happily resubmit their answers until they get them all right. Students are informed of this in a document that tells them about the exercises, the rôle of the exercise in the Department's teaching strategy, and how they can get access to the exercises even if they have little or no web experience to date. An extract is shown in Fig.3

Departmental Gains

There are many departmental gains. First, there is no doubt that the exercises have freed up some staff time. Certainly, this will not be the case for all members of staff because they may not have been people that students tended to seek out anyway. Secondly, the exercise format, multiple choice and multiple response, may at first seem restrictive, but it does force us, when writing the exercises, to be more imaginative and ask questions that will lead students through their course pack reading or any set course texts. Thirdly, those members of staff who have written exercises have had to think carefully about what students at this level find difficult and what questions they might ask. The resistance that some members of staff feel towards the exercises may in part be the result of not appreciating the sorts of questions students actually ask at this level. It is hard to imagine oneself at the start again, and this means that many of the questions level one and two students see as basic we have ceased to even recognise as arising. Finally, it has increased the range of our teaching methodologies, not just chalk and talk and the usual run of visual aids. Philosophy is once again becoming interactive. It may not be the kind of interaction that is required, even expected in small groups at Honours level, but it is interactive.

There is also resistance from some staff because of a genuine worry about student access to machines on which to carry out the exercises. While I have sympathy with this view I can't help feeling that sort of problem is not a new one. There have always been problems with access to University resources, and in particular with Library resources, and what is true about access to machines has always been true about course books. When there are more students on a course than copies of an important text, they can't all have access at once, and the book has to be put on Short Loan where they need to book to spend time with the text. The same is true of access to machines. Time has to be booked and they aren't always going to be available when you want them. One way to overcome this problem is to get students to organise their time so that they can have access outside the normal nine to five hours, and just as they would book a text for overnight loan, they book a machine for time to work on it in the evening.

Student Gains

There are a number of clear advantages for students. First, they discover that there is baseline knowledge that they need to understand if they're going to take the subject further, and as a result of this their confidence as learners has developed. Secondly, they can work at the

Self-assessment exercises are just another way of approaching the course materials. They allow you to test how much you know about part of the course, in your own time and at your own speed. They are assessed, but by an assessment engine that has been set up specifically with your course in mind, and not by a tutor. The questions have a rather limited format of multiple choice and multiple response, but we hope that you will not resort to guessing - that way you will learn nothing.

You work through an exercise and submit it for marking. It is marked automatically, and you get a response and a mark within 5 minutes. The mark is no part of continuous assessment, the exercise is just another learning resource.

Exercises like this are not available for every component of every course, but over the next couple of years we aim to make exercises for all Level 1 and Level 2 courses available in this format.

Health Warning: These exercises are no substitute for reading the texts and attending lectures, tutorials and workshops.

Fig. 3 Section from 'Introduction to Student Self-Assessment Exercises'.

exercises outside the usual teaching hours, and go as slowly or as quickly as they want. Thirdly, they don't have to feel anxious about possibly 'wasting someone's time' with questions they fear might be trivial. Finally, tutorial time is freed up to examine questions in a more discursive manner thus helping to develop students' dialectical skills. This is a benefit for students and tutors alike.

There is another set of advantages which go beyond the philosophical ones already mentioned. These include the students learning to use a new resource which they can then put to use in other areas of their study, fashionably known as transferable skills. But more importantly, these advantages include the student having to learn to organise their time and take control of their learning. Their rôle in their learning process is an active one rather than remaining the passive recipient of course materials and the spoken word in lectures.

Overall evaluation

The evaluation of these exercises has been through anonymous questionnaires that students were asked to fill in at the completion of each of the modules. In general the responses have been very positive, though it is true to say that only about one third of the class filled in this section of the questionnaire. A sample of student responses is included in Fig. 4.

- *Excellent!*
- *Found it useful in that it let you see what you needed to know. It was really useful!*
- *The Ayer exercise was good but a little too easy.*
- *Very good idea.*
- *Hobbes lecture notes were useful but only having local access is inconvenient as it is difficult to get a computer in the library. These notes for every section would be useful.*
- *Even though I didn't use them, it's still a good idea.*

Fig. 4 Student Questionnaire Responses.

Even though only a third of the class responded on the questionnaires more than four hundred students have accessed the exercises. I think it is safe to conclude that the exercises have had a good uptake and that students have found them extremely useful. We can also conclude that they have a clear rôle to play in our future teaching at this pre-honours level.

Where do we go from here?

Our overall aim, over a period of three years, is to produce at least one exercise for each component of every level one and two course. This would amount to between thirty and forty exercises. At present we have a dozen exercises that are currently available to students. So in the next eighteen months we intend to keep on writing new exercises and developing the exercises we already have up and running in response to course changes and student requirements.

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