Reports:
Navigation Exercise
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One of the exercises undertaken involved the participants following a series of directions and marking the finish point on to a monochrome map. Everyone involved was asked to note their age group, sex and occupation on their paper.

The results were very interesting, especially when compared with those gathered when the exercise was undertaken by a group of Brookes students back in February.

Design Group Results

Exercise one	Male	Female
Right	44%	25%
Wrong	11%	75%
Incomplete	45%	-----

Exercise two	Male	Female
Right	33%	50%
Wrong	44%	25%
Incomplete	23%	25%

Student Results

Exercise one	Male	Female
Right	68%	57%
Wrong	32%	14%
Incomplete	-----	29%

Exercise two	Male	Female
Right	42%	71%
Wrong	37%	14%
Incomplete	21%	15%

The idea of the exercise is to try and gauge how different people relate verbal instructions to a 2d map and how they physically follow a route. On this occasion, the way participants used the map varied, for example, some people turned the map around so that they were always going up the page, others drew a quick cross to denote a compass at the side of the map and one or two actually traced the route, marking it with a pen and numbering the different sections in relation to the instructions given.

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As with many of the Design Group exercises this will appear again, so as yet there are no conclusions. We hope that after a few more sessions we will be able to prove that female cartographers are a lot better at this than their male counterparts! It will also be beneficial for 'Alan, Which way is North?' to complete the exercise a few more times.

Teaching/Transferring Navigation Skills
A problem has been identified amongst a group of high school students in Detroit. The problem relates the teenagers' ability (or rather inability) to navigate. They have demonstrated deplorable map reading and navigational skills, which they require in order to travel between different addresses in their own cars, after dark.

There is an obvious need to improve the skills of these students to help them travel effectively around the local suburban area. Where we would naturally pick up a map if we became lost, they apparently reach for the mobile phone and request verbal instructions.

There are two main points that need to be considered in relation to this problem. Firstly, every one and their cat has a car. With petrol at about $0.29 per litre, no one walks anywhere. Secondly, any exercise or teaching method employed must be fun and entertaining if the students are to participate.

This problem was put to the Design Group and various interesting ideas were passed around. One main problem in teaching these students to navigate is probably the aforementioned use of cars. If the students could be encouraged to walk, it would make the task of teaching them to relate their physical environment to the 2d map a lot easier, with the employment of a simple map-reading exercise. It was suggested that to encourage this the price of fuel should be dramatically raised. This is a very important issue, although more in relation to the consumption of fossil fuels and extensive use of fume-pumping, gas-guzzling vehicles, than to teaching these students how to work their way around Detroit using a map.

One suggestion was to create a computer game which simulated the environment they would be travelling in and posed a number of questions or tasks that they would have to complete in order to gain points. This could be in the form of a map on screen onto which they had to indicate their route in relation to a series of questions or directions. If they made a wrong turn this would be indicated by a sign or a deduction from their score, etc. The game could also be set against the clock, although points would be deducted if they exceeded the speed limit. It was noted that to produce a digital game of the quality expected by today's teenagers would be highly expensive and therefore a simpler (and cheaper) solution may be required.

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It has been suggested that one way to encourage the students to participate in any exercise would be through a competition. An example of this approach could be transferring the skills required by setting up a treasure hunt, undertaken using a series of clues and questions relating to places on the map. The students would have to navigate to these points and pick up the treasure or answer the questions. Such an exercise could be done in small groups using their own vehicles. It would be important to devise the clues to be independent of each other, so that if a particular group could not locate a point they would not be excluded from the rest of the exercise. If developed carefully this form of exercise would improve their map reading skills and also their awareness of the surrounding environment.

Another idea was to simply get the students to do a sketch map of a route which is familiar to them and then to relate this to the official map being used. This would also help in identifying which areas of navigation the students were deficient in and then these could be focused on during other exercises.

All of the ideas and points discussed were very interesting and have been sent to the person who first posed the problem. I hope we will soon have his opinion on our solutions.