

# PASS in Computer Science

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## 1 Introduction

PASS (Peer Assisted Study Sessions) is a scheme in which second or third year students facilitate a self-help study session for a small group of first year students. PASS schemes have been running in this University for around 5 years.

The aims of the scheme are

- To enhance the quality, quantity and diversity of Student Learning within a Department.
- To provide students with a supportive environment to work through issues relating to their academic course.
- To involve students as partners in their learning experience .

Some of the benefits to Student Mentors:

- Training in facilitation and a certificate from the University
- Improved Communication skills.
- Organisation and Time Management Skills.
- Greater understanding of subject and improved exam performance .
- Improved CV.

There are currently Peer Assisted Study Sessions in the following Departments :

Philosophy, Textiles, Middle Eastern Studies, Chemistry (Manchester and UMIST), Corrosion and Protection Science (UMIST), Biomolecular Science (UMIST), Maths (Manchester), Dentistry, Mechanical Engineering (UMIST)

The schemes across the University vary but most involve the student mentors receiving a full day's training at the start of the academic year provided centrally within the University, together with a half day's training provided by the department. Some departments (eg Chemistry) set specific exercises for these sessions and others (eg Maths) use them as general problem-solving sessions for course material already set. Some departments allocate students to mentors and others let them sort it out for themselves.

I believe that the benefits that our students, both first and second year could gain from such a scheme would far outweigh the costs of setting it up.

## 2 PASS in CS

We did try a mentoring scheme a few years ago but it soon collapsed. I believe that a PASS scheme has more chance of success, as we can call upon the central support and training provided by Student Enterprise and the experience of other departments.

I propose that we introduce such a scheme in CS in the next academic year, 2001/2. At the moment I am inclined towards the loosely structured problems class model, but would like to hear others' views on the subject.

I see (at least) 3 major obstacles to this introduction, namely:-

- Finding a slot in which to run it.

The only slot that PJJ and I have been able to identify is 1-2 on Wednesday. This is far from ideal but appears to be the only option, apart from 4-5 on Friday.

- Finding a place in which to run it.

We need a room/rooms in which it is easy for students to meet in groups of up to a dozen, which will accommodate a good proportion of the first year. The only rooms I can think of are IT407 and the carpeted area around the resource centre. Any other suggestions welcome.

- The introduction of Java means that the first years will be studying material which the second year mentors will not have seen.

I don't believe that this is an insuperable problem, as not all problems will be Java related, and the second years should be sufficiently confident in their own programming ability to at least suggest ways of tackling the problem. They are not supposed to solve the problems for the first years.

If we are going to proceed with this we need to recruit mentors soon after Easter, so early comments would be appreciated. The sort of questions I would like answers to are

- Is this an idea that would work in CS?
- Should we allocate specific exercises for these sessions, or leave them as general problem solving opportunities?
- Should we allocate students to mentors, or let them sort themselves out?
- Who is going to help me run this? I think it could do with a couple of people being involved, although I don't the burden would be great.
- Can we find a better solution to the timetable and accommodation problems?
- Can we really introduce this in the context of the move to Java?
- Are there any other problems that I haven't thought of?

### **3 PASS in CS: Some further thoughts**

After talking to Neil McKeown, who runs PASS in Chemistry, it is clear that I am not the person to be running PASS in CS. He was strongly of the opinion that the PASS coordinator should be 'young, keen and not an authority figure, such as year tutor'. This rules me out on at least two counts. It is also clear that, while the job of PASS coordinator is not an onerous one, it is concentrated in the period around introductory week, which again rules me out.

#### **3.1 Models for PASS**

Maths and Chemistry have very different models for PASS. Maths is basically a clinic model, with no specific work set, but an opportunity for students to discuss problems with work across the board. Chemistry use the PASS sessions as a preparation for tutorials; for each tutorial session there is a tutorial sheet and a PASS sheet, covering the same subject area, but with different questions. After the PASS session students complete their tutorial questions, which are then handed in to their tutor before the tutorial.

At the moment I am favouring a modified version of the Chemistry model (which is the scheme which Chemistry started with), namely to have a single exercise sheet for PASS and tutorials, and use the PASS session as a preparation. I don't believe it is realistic to expect two exercise sheets for each tutorial in the first year of our new courses.

I also believe that adopting the Maths model would cause us problems in two areas. First, it would be very difficult to prepare the mentors when they could be asked questions across the curriculum. Secondly, without specific questions, the natural topic of conversation would be the lab exercises, which could lead to problems of over-cooperation.

#### **3.2 Choice of Mentors**

Here again there is a difference between Maths and Chemistry; Maths use only second years and Chemistry use only third and fourth. Our second years are probably more heavily loaded than third years, but the slot we have provisionally chosen for running it (1-2 Wed) is difficult for third years. What do people think?