Abstract

Wider access students i.e. those people who have narrowly missed the entrance requirements, are given a chance to "top-up" their mathematical knowledge before entering Napier University. They can study at their own pace over the summer vacation. There is regular communication with a university tutor and extra study sessions are held during August at the University.

The Execution

The "Top-Up" programme began as a joint funded project between the Scottish Higher Education Funding Council and Department of Employment (1993-1994). It offered distance learning for the unemployed. Materials were produced in partnership with Glasgow Caledonian University and Robert Gordon University. Once the funding period had finished, it was decided that future applicants to Napier University would have the opportunity to use these resources.

During 1995 the programme was made available to the wider access students, i.e. those people who had narrowly missed the entrance requirements. Today it consists of three Top-Up Courses, in Maths (basic and advanced), Chemistry and Skills in Writing and Presenting. They are offered to all applicants, yet for many attending is a condition of entry to Napier University. The faculty will pay the course fee on this basis.

Participants in the maths course include students from the Business School, mature students doing the MBA, entrants into Sports and Exercise Science, and those enrolled for Social Sciences and Engineering. Once the applicant has registered, the course material is posted and a tutor is allocated. Last year twenty-nine students took part in the Maths Top-Up Course.

The courses run on a distance-learning basis. Two packs are available for the Maths Course in which there are worked examples, self-assessments and end of unit assessments. The first pack consists of a booklet, “Revise Your Maths” which introduces very basic arithmetic, gradually working the students towards a standard grade level. Every applicant is advised to complete this pack first. Students who are going into Engineering or Science will invariably progress to the second and more difficult pack.

Throughout the summer months the students are encouraged to work through the assignments and to mail the work to their tutor. This is marked and returned with feedback. The learning is basically flexible; however if the student is studying a course as a condition of entry then they are required to submit the end of unit assessments to the tutor for marking. This information is forwarded to the student's Admissions Tutor to provide an overview of progress. Overall students are encouraged to communicate frequently with their tutors.

Drop-In Sessions are provided in August over a two week period for approximately two hours per day. Last year the sessions were run two hours at mid-day and again two hours in the evening. The evening sessions proved most successful as they accommodated those students who were working or who had families. The sessions are not compulsory but students are strongly recommended to take advantage of the opportunity to work through sample papers or to tackle problem material with other students and their tutor. There is a final assessment at the end of the drop-in sessions. Overall the work is not marked on a pass/fail basis. The Admissions Tutor is informed as to how well the person has coped with the course, worked through the material and their attendance. Based on all this information the tutor will make the decision as to whether they will accept the student into the University or not.

What Support Was Needed?

- The programme is co-ordinated from the Wider Access Unit and the Life Long Learning Service Department.
- The tutors are paid from February to the end of September. They get £30 per month plus £1 per student head over 5, with the maximum of £20 per tutor. For the drop-in sessions they get £22.50 per hour.
- The students were given experience of MathCAD and Derive. Two factors have contributed to that no longer being available:
  a) Getting access to computer laboratories became impossible during the summer.
  b) The students were not advanced enough in their basic mathematical skills to consider further challenges; their main criterion was to study within the existing course structure.
The Barriers
The main difficulty is convincing the students that the course will assist them with their future studies. Once on the course they begin to appreciate the difficulties and what sort of level the course demands. These students by and large have not succeeded in the school system; many lack the motivation to do the assessments and the ability to work by themselves.

The Enablers
Admission staff send out leaflets to the applicants who fit the entrance criteria. Information is also included in the prospectus. As yet there is nothing up on the website. Leaflets are being taken to FE open events because of the large number of FE students who take the courses. They are also circulated at particular career adviser conferences.

Evidence of Success
During the two-week Drop-In Session the tutors get to know the small group of students very well. Their on-going attendance during this time indicates that they do find it a useful service.

How Can Other Academics Reproduce This?
- Appointing an administrator to run the courses is essential. This centralised role provides on-going support, answers to student queries and provides an essential liaison service between the tutors and the students.
- It is about listening to students and what they need.
- The material needs to be carefully chosen. In many cases universities try and reinvent the wheel by writing their own material. Maths does not change at this level. Up-to-date materials, e.g. “Top-Up Your Maths”, can be inspected on application to the Wider Access Team Administrator, email: na.smith@napier.ac.uk
- Getting the right people to teach is critical.
- The material provided should not be based on the school level.

Quality Assurance
There is no formal quality assurance. The course administrator reports on a monthly basis to the Wider Access Unit and works closely with the Head of the Wider Access on course developments. It is also raised in the Wider Access Development Group meetings which are attended by university wide representatives. They are largely programme leaders/ faculty reps and various central services (as appropriate). Anything that is happening in the course is raised and mentioned there.