



Harper Adams
University

Face-to-face interaction: All creatures great and small

Sarah J Parsons

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Evolution of Harper Adams' Mathematics Support 2001-2014

1999/2000 Problems Identified

High failure rates in Engineering Mathematics and other modules with high numeracy content

2001 Mathematics Support initiated

Numeracy Support Tutor employed part-time to provide support, targeted at first year students. Resulting in improved student achievement, especially for Mathematics and Mechanics.

2013-14

Maths Support Tutor 0.3FTE provides support to Years 0,1,2,3,4 and 5 for Mathematics, Mechanics, Statistics, ...

2 Academic Guidance Tutors, Veterinary Nursing Stats Tutor

Forms of Student Support

- One-to-One student face-to-face appointments
- Weekly 'Extra Maths' First Year Engineering Mathematics and Mechanics optional group tutorial
 - Separately for MEng/BEng and BSc/FdSc students
- Second Year Maths Weekly 'Extra Maths'
- Timed Workshops/Drop-In for various Mathematics/Statistics Topics, e.g.
 - Valuation formulae (e.g. Compound Interest)
 - Statistics at various levels for 1st Year and 2nd Year Research Methods
- Dissertation statistics face to face appointments

Student Feedback Examples

BSc Countryside Final Year

- .. was a very big help when doing my dissertation stats

BSc Bioveterinary Science – Year 1

- Very useful for helping with IRM

Engineering Students:

- The extra maths sessions are very helpful
- The maths support... is the only reason I have passed my maths and mech science exams so far
- I went to extra maths and that helped me a lot
- revision sessions excellent
- revision sessions are very helpful and allow for a clearer understanding of the topic.

Advantages and Disadvantages of Face-to-Face Support

Advantages:

Tailor support to the individual student's needs: specific topics, tutorial questions, exam questions, level of difficulty, etc.

Provide reassurance and encouragement, boost confidence

Give feedback during work. Get to know the student.

'Gold standard'

Disadvantages:

Time consuming / costly

Limits availability in numbers, timing, location

Can be limited to the knowledge experience of the support person

Student Emotions / Attitudes / Confidence

Anxiety

- Anxiety about doing mathematics
- Anxiety about passing / failing examinations/ assignments
- Anxiety about student debt magnifying other anxiety
e.g. 'If I don't pass I will have nothing, and I will owe £40,000'

Lack of Confidence

- Some students lack confidence about being able to do the Maths / Statistics

Varying Ability and Past Experience

- Some have always found the subject difficult
- Some students have learned less mathematics in the past

Natural Variation of Students

BSc -> BEng Agricultural Engineering -> Europe

BA Business Marketing and Management

Access Course and Foundation Agriculture

BEng Off Road Vehicle Design (x2)

BSc Veterinary Nursing and Practice Management (x2)

BSc Realm (surveying) (x3) – Taxation

Reassessment Engineering Students

BSc Animal Behaviour and Welfare

MEng Agricultural Engineering -> PhD with Big Data

Student Projects – All creatures great and small



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The Future

- Target more modules containing maths and statistics by new workshop programme in 2014-15
- Expand use of digital resources and technology where possible and appropriate
- More comprehensive reporting of usage and review of activities.
- Disabled Student Allowance cuts and consequences
- New student intake: new and old challenges in 2014-15
- Help more students to succeed in maths and stats! ...

Contact

Dr Sarah Parsons

sjparsons@harper-adams.ac.uk