

For Managers: Mature students

Further introduction

In the UK, “Mature students are defined as any student aged 21 or over at the start of their studies. Just over a half are aged between 21 and 24, 38 per cent between 25 and 39, and 10 per cent are over 40 when they commence their courses” (Universities and Colleges Admissions Service 2018). Outside of the UK this definition may vary, for instance, in Ireland a mature student is defined to be aged 23 or over at the start of their studies.

Though mature students typically begin their undergraduate studies with a lower level of mathematical ability than traditional students and a low level of mathematical self-concept, research shows that they can perform better than traditional students in university mathematics examinations (Faulkner, Fitzmaurice and Hannigan, 2016).

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Recommended provision

Equipment and software

- Textbooks (also school level textbooks for work on basics)
- Calculators
- Mathematical and statistical tables
- Paper
- Graph paper

There are a range of softwares available free of charge such as GeoGebra (www.geogebra.org) and online resources such as Wolfram Alpha (www.wolframalpha.com) which can be used with students. Also, make students aware of valuable resources available on Khan Academy, YouTube and other sites.

Physical learning environment

A calm, collaborative, and relaxed environment works well. Remember that these are students that in many cases can be anxious about mathematics. Try to create a relaxed atmosphere.

Online learning environment

Try to have as many resource types as possible (e.g., text, video, applets) to explain the same concept.

Additional/alternative provision

A mature student only session in a drop-in centre/other service can prove beneficial as mature learners can often feel anxious or embarrassed about attending learning support in the presence of traditional students who they often feel are well ahead of them in their studies. Also be aware of other supports available in the university (e.g., counselling) as mature students have many other commitments in their lives and may need extra support elsewhere. Though rare, it is not unheard of for mature students to come to the Maths Support manager with a problem that is not mathematics related.

Tutor training

Make tutors fully aware of the levels of anxiety that mature students may have about mathematics. A more sensitive approach to working with these students may be necessary. Tutors should be advised to start with a student by identifying their current ability and tailoring their instruction from that point. Throughout instruction, a tutor should not use mathematical terminology that a student may not know and/or may not need to know at that point in their studies. At the end of the session a learning plan could be established with problems for the students to try before returning to the support centre. It should be noted to the student that if they do not try the problems at home that they should still feel free to return and work on them in the centre. Mature students could have had negative experiences of mathematics, specifically with mathematics teachers, in the past and may be worried that the tutor may not be pleased that they have not attempted the problems at home before returning to the service. It should also be taught to tutors that they may need to make the student feel better about making mistakes in their work. Many mature students think "I will never get this" as soon as they make any mistake. Mistakes should be used as a learning opportunity and tutors should avoid continuing with the example for the student if they have made one. They should consider explaining a similar issue from where the student went wrong and then ask the student to try their own problem again.

Working with other university services

Maths Support managers should be familiar with all other support services in the university as well as the mature student office should their assistance or consultation be required.

Recommend reading

Faulkner, F., Fitzmaurice, O. and Hannigan, A. (2016) 'A Comparison of the Mathematical Performance of Mature Students and Traditional Students Over a 10-Year Period', Irish Educational Studies, <http://dx.doi.org/10.1080/03323315.2016.1229208>

Fitzmaurice, O., Mac an Bhaird, C., Ní Fhloinn, E. and O'Sullivan C. (2015) 'Adult Learners and Mathematics Learning Support', Adults Learning Mathematics: An International Journal, 10(1), 68-83.

Adults Learning Mathematics website <http://www.alm-online.net/>