

# New research shows freshers struggle to remember basic A-level concepts

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University freshers struggle to remember basic concepts from their A-level studies according to new research from the University of East Anglia.

A new report published today shows that even grade-A [students](#) could only remember 40 per cent of their A-Level syllabus by the first week of term at university.

Researchers tested nearly 600 students in their first week of term at five universities – three of which were in the prestigious Russell Group.

It is hoped that the findings will assist the re-design of A-Levels to make them more relevant to higher education. The results could also prove useful for designing undergraduate courses which are more student-focused.

Lead researcher Dr Harriet Jones, from UEA's School of Biological Sciences, said: "This is the first research carried out in collaboration with an exam board to investigate how much information is lost between students sitting their A-Levels and arriving at university three months later. We found that students had forgotten around 60 per cent of everything they learned for their A-Levels.

"Universities expect their students to arrive with a high level of knowledge. What our research shows is that students are arriving at university with fantastic A-Level grades, but having forgotten much of

what they actually learned for their exams.

"This is undoubtedly a problem caused by secondary schools gearing all of their teaching towards students doing well in exams, in order to achieve league-table success. But cramming facts for an exam doesn't give students a lasting knowledge of their subject."

Researchers tested 594 first year bioscience students in their first week of term at five universities – the University of Birmingham, the University of Bristol, Cardiff University, the University of Leicester and UEA. Almost all of the students had achieved a grade A at A-Level.

They were given 50 minutes to answer 38 multiple choice questions on cells, genetics, biochemistry and physiology – all of which had been part of their A-Level core syllabus.

The students managed to answer an average of 40 per cent of questions correctly. The longer the amount of time between sitting A-Levels and starting university also correlated with poorer results. Students who scored lower than an A grade at A-Level retained the least knowledge.

"School and university have very different demands. In [higher education](#), students cannot rely solely on memorising information so it is important that students can adapt to a more in-depth approach to learning."

'Indications of knowledge retention in the transition to Higher Education' is published in the journal *Journal of Biological Education* on June 25.

Provided by University of East Anglia

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