How do 'WP' students differ from others in their engagement with eLearning activities?

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Courses are increasingly making use of a complex mix of e-Learning components so it remains important to investigate and understand how much students use these, how they engage with them and if particular groups (such as Widening Participation (WP) students or young students) use or experience them differently.

M150 (Data, Computing and Information) is one course using a rich mix of online components. However, initial evidence appears to indicate that student use of technology falls as the course progresses despite the End of Course survey indicating no major issues - indeed students apparently like much of it - and the survey also suggests that students do not feel overloaded. Why then do students stop using web based features of the course?

If there is a decline in the use of web based components this has clear implications for the pedagogical effectiveness of latter stages of M150 and for course design across the university. Our work includes a student survey (n=120) and analysis of VLE weblogs. We have two research questions and in this paper we report a small portion of our findings on the first of these:

1. Does the experience of WP students differ from other students? Are there other factors more significant (e.g. Jones & Cross, 2009)?

2. Are trends in relation to student educational qualifications and completion and pass rates, also evidenced in relation to engagement with online course resources?

At the Open University we are open to those with few or no previous qualifications as well as those, such as the low socio-economic grouping, who fall into the government definition of WP. Our use of 'WP' in this poster follows this definition. Young students (under 25) are also of interest as they become a larger proportion of the OU's student cohort. Together these students represent a group that can be considered to have overcome the initial barrier of gaining access to and who are now experiencing e-Learning.
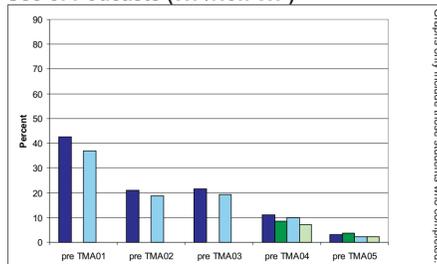
Weblogs

We have used detailed datalogs of student use of the VLE to reconstruct patterns of use for the 2009B presentation and second half of the 2008J presentation (data only available from early 2009). Over 650,000 individual logs have been processed to explore student online activity.

Use of Online Quizzes (WP/Non-WP)
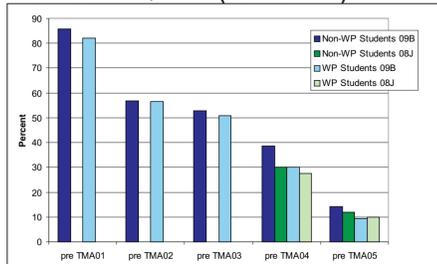
Use of Podcasts (WP/Non-WP)

The two graphs above show how student use of two newer learning technologies - formative quizzes and optional podcasts - decreases as the course progresses. Each bar shows the percentage of the student cohort who used the technology in the period between the period between two TMAs (pre TMA02 equates to the period between TMA01 and TMA02).

For the most part it appears that the WP group follows the same pattern of usage as the rest of the cohort. This is not, however, the case for the young student group. Young students seem to use some online components less than the rest of the cohort (see graphs below). This is surprising given the popular 'netgen' discourse would suggest younger students are *more* likely to make use of such technologies.

Use of Online Quizzes (under/over 25)
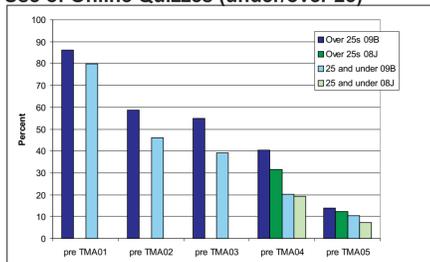
Use of Podcasts (under/over 25)
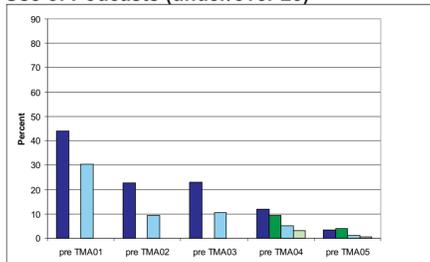
Questionnaire

Our survey of students (n=120) included a range of questions asking about initial use and reaction to online components such as the course website, study calendar/planner, forums, podcasts, videos, quizzes, etc. and how use of each changed over the course. It also asked about reasons for skipping (not using) components, use of computers and study preferences and practices. For the purposes of this poster we looked at a sub-set of our data - WP students. Only 16 of the 120 responses were WP students (13%) which is a little lower than that for the course (around 20%).

69.6% of all the respondents (n=120) said they 'tended to focus more on activities that were compulsory and less on those that were optional' (agreed or agreed strongly). This may explain the findings (left) that show lower use of the 'non-compusary' podcasts. This observation is supported by responses to two further questions: 57.1% of students said they 'tended to focus more on parts of the course that related to the TMA question and less on those that did not' and 49.6% that their choice of which activities to do was based more on whether questions were marked as compulsory or optional and less on whether they looked interesting or useful. Of course, this leaves a large minority of between a third and a half for who non-compulsory, non-TMA focussed resources *are* of interest.

Clearly the low number of WP responses makes drawing conclusions about this group difficult. However, the data hints at trends that could be confirmed in further research. Across many of our measures there appears little evidence of significant differences between WP and non-WP student use and experience.

That said, two differences we did notice were that a greater proportion of WP students believed that removing certain components of the course would not effect their learning experience, and that fewer WP students use computers at work (46.7% use one every few days or more frequently compared to 72.5% of non-WP students).

Differences are more marked between age groups. This mirrors our findings from the weblogs. Responses to the survey showed that 26-35 year olds used computers the most for *leisure* and 36-45 year olds for *study* (see right) and that the under 25 'Netgen' age group (n=17) most closely resembles the 46-55 year old group.

Use of computers for study (by age group)
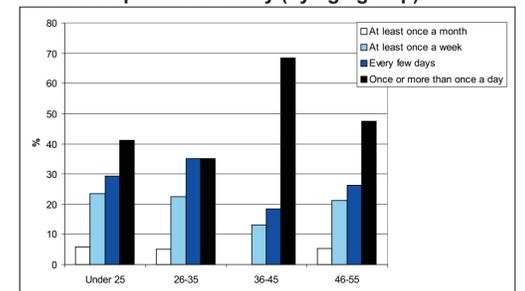
Use of computers for leisure (by age group)

Conclusions and Further Directions
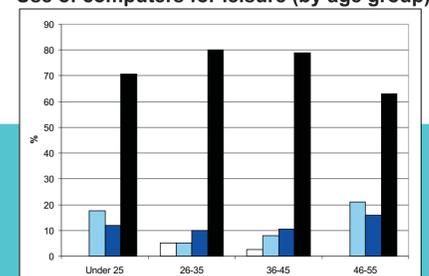
The data from the web logs is very detailed and gives new possibilities for some quantitative analysis of patterns of access for all students and to compare these patterns with those for the groups of particular interest to see if there are marked differences and, if so, feed this back to the faculty teams to prompt further changes in the design of courses. Considering the indications from this early work has already prompted the M150 team to consider minor alterations to the course that might encourage increased participation among those students who traditionally have a weaker performance. We plan to examine the data for later presentations to see if there is any measurable difference in the usage of online components.