

# Investigating the use of Virtual Learning Environments by teachers in schools and colleges

David Read\*, Simon J. Coles, Jeremy G. Frey and Ben Littlefield

Faculty of Natural and Environmental Sciences (Chemistry), University of Southampton

#### Outline

Anecdotal evidence suggests that current applications of Virtual Learning Environments (VLE) in schools and colleges are not fulfilling the huge potential of the internet in supporting the learning of students across all age ranges. Although there are pockets of excellent practice, with interactive multimedia resources being deployed and collaborative learning opportunities being fostered, these appear to be the exception rather than the rule. Rapid advances in social networking and cloud computing, as well as the inexorable growth in ownership of mobile devices means there are huge educational opportunities for teachers and students alike. However, ineffective and inappropriate digital infrastructure for engaging in innovative teaching/learning approaches utilising the internet and the 'cloud' presents significant barrier to busy teachers, preventing them from taking advantage, and therefore harming student learning.

A short survey was created and distributed to contact teachers in local schools. The aim was to gather a significant number of responses rapidly in order give to provide a snapshot of VLE use in local schools and colleges. The survey was created using the University of Southampton's iSurvey tool,<sup>1</sup> and the URL for the survey was sent to 43 contacts, with a request to pass the link on to other colleagues. The survey went live on 23<sup>rd</sup> May 2012, and the data summarised herein was downloaded on 1<sup>st</sup> June 2012 and was gathered from 86 respondents.

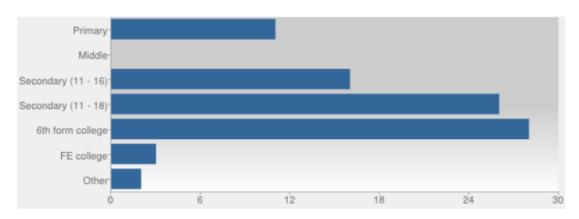
It is acknowledged that this survey is of relatively limited scope, although there have been a surprisingly high number of respondents which does lend credibility to the conclusions. It is our intention to use the findings from this survey to inform the design and implementation of a much bigger, nationwide survey to be completed in early 2013.

<sup>&</sup>lt;sup>1</sup> This is based on our regular discussions with teachers in schools and colleges across the South East.

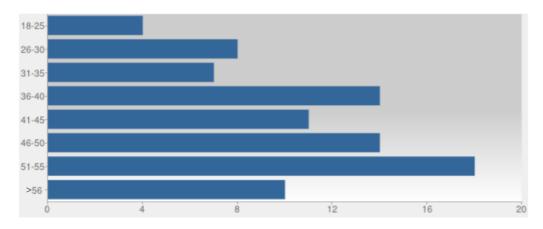


## **Demographics**

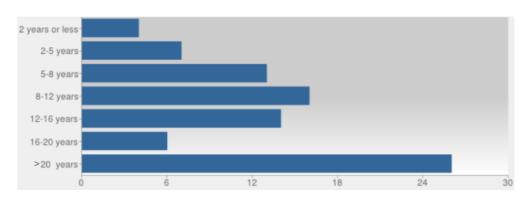
# Q1) In which type of school/college do you teach?



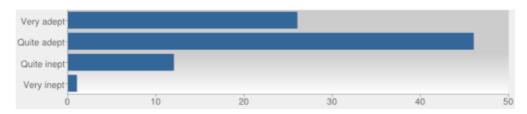
## Q2) Selection your age range.



## Q3) How long have you been teaching?



## Q4) How adept/inept do you consider yourself in your use of online technology?





The demographic data shows that the respondents came from a range of different types of school and college. The respondents are slightly skewed towards the higher end of the age range, with approximately 50% being aged 46 or older. There is good variety in terms of the amount of teaching experience, although at the top end almost a third of respondents have been teaching for more than 20 years. Interestingly, the vast majority of respondents consider themselves adept in using online technology, which is perhaps unsurprising in view of the fact that this was an online survey.

#### Data regarding use of VLEs

Q1) Which VLE does your school/college use?

Moodle: 44

Its Learning: 10

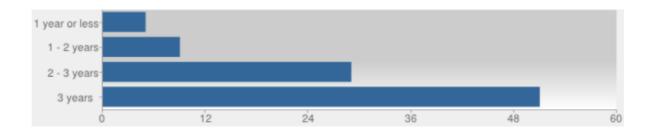
Studywiz: 9

Frog: 5

Other: 18

The data reflects the popularity of Moodle in 6<sup>th</sup> form colleges in the region, although further analysis shows that 17 of the 44 Moodle users were based in secondary schools. Bearing in mind the limited geographical reach of the survey, it would be unwise to draw conclusions from this data regarding the distribution of different VLEs nationwide.

Q2) How long has your school/college been using its current VLE?

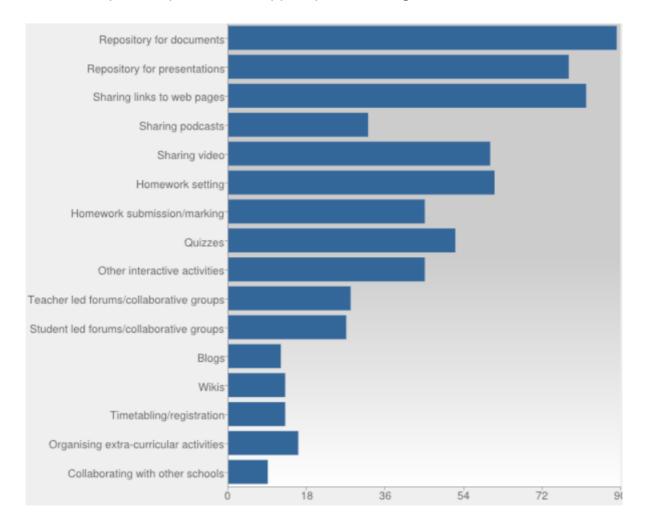


The intention of this question was to find out if schools and colleges had recently changed their VLEs. Although the majority of respondents reported that they had been using their VLE for more than 3 years, a significant number have experienced



a change of platform in the last 3 years. This may warrant further investigation in future, as it would be useful to find out more about the reasons for switching, and also what impact a change of platform has on usage by teachers and pupils alike.





All respondents reported using their VLE as a repository for passive resources, and the sharing of links to websites and videos also feature heavily. Quizzes and other interactive resources are used by approximately half of the respondents, with most of the other activities being used by a minority. Very few respondents reported using their VLE to promote collaborative learning (e.g. forums, wikis), with only 9 indicating that they have engaged in collaboration with other schools.

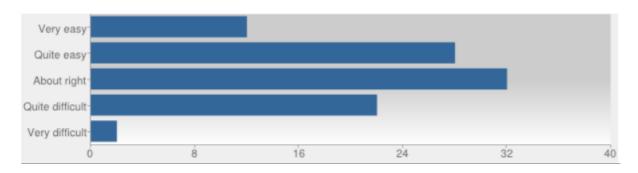
Q3) Tell us about any other ways you use your VLE which aren't listed in the previous question.

There were 20 responses here, with most suggestions being variants of activities listed as optional responses to the previous question. Some interesting additional



activities included collaborative marking/peer assessment, Lightbox galleries, delivery of an entire ICT course and the creation of students' own web space.



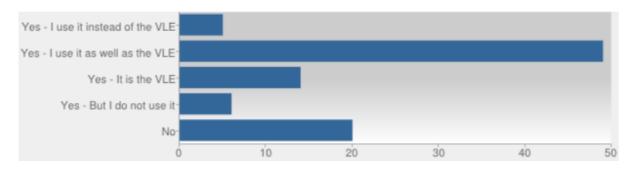


Slightly over 25% of respondents reported that their VLE was difficult to use, with the remainder it was about right/easy. There was no particular correlation between ease of use and VLE type. Interestingly, all but 3 of the respondents who reported that their VLE was difficult to use had indicated that they were adept in the use of technology. Respondents were also asked to elaborate on what made their VLE easy (13 responses) or difficult (11 responses) to use. The feature which was most commonly cited as making VLEs easy to use was simple organisation/ navigation, while a number of respondents suggested that poor organisation and a cumbersome/unintuitive interface was the source of difficulty. Insufficient training was another issue mentioned by some.

#### Q5) What would you like your VLE to do that it cannot currently do?

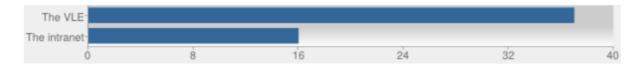
38 respondents gave suggestions here, 28 of which related to the interface of the VLE (e.g. drag and drop functionality, in situ editing of files). Of the other suggestions, options for online assessment were mentioned (self–, peer–, and teacher assessment). Collaborative learning was mentioned by 3 respondents, with one mentioning that collaboration with other schools would be a desirable feature.

#### Q6) Does your school have an intranet? (see Q7)





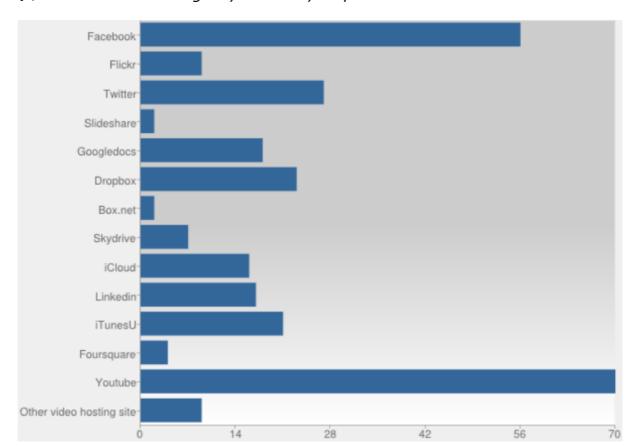
### Q7) Which do you prefer? (see Q6)



The intention of Qs 6 & 7 was to find out how widespread standalone intranet systems are, and whether or not they are used. The data obtained shows that further investigation is warranted, although it is clear that intranet systems are commonplace and generally are being used by teachers.

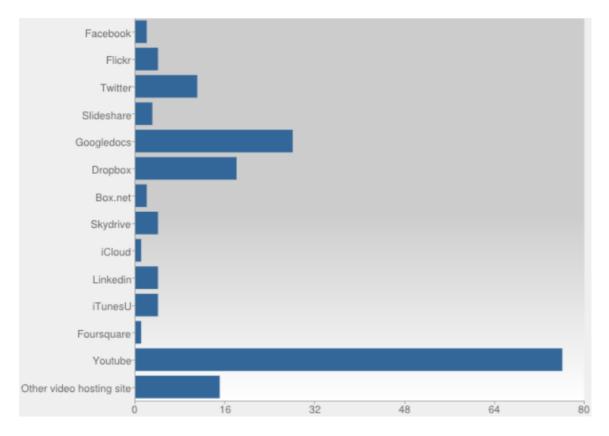
## Data regarding use of 'the Cloud'/social networking tools.

### Q1) Which of the following do you use in your personal life?





## Q2) Which of the following do you use to support your teaching?



Two further questions were asked:

Q3) Is there any other cloud based software that you use? If so please elaborate.

Q4) What are the barriers which prevent you from making greater use of such cloud based resources and/or social networks in your teaching? What would encourage you to use them more?

A majority of teachers use social networking tools in their personal life, but these are used much less in teaching. This is perhaps unsurprising in view of the negative connotations associated with such teacher-pupil interactions.<sup>2</sup> A total of 25 respondents indicated that school/college policy prohibited the use of social networking tools with students or that some sites were blocked by their institution or the local authority.

YouTube is clearly extremely popular, both at home and in school, although some respondents also reported that YouTube is blocked by their school/college. Interestingly, 26 respondents reported using Googledocs to support their teaching, with 16 indicating that they use this resource outside of teaching. This warrants further investigation to identify exactly how Googledocs can be used to enhance



teaching and to promote sharing of good practice. It should be noted that 4 respondents specifically commented on the limitations of Googledocs (lack of customisability in terms of looks, sometimes difficult navigation, slow to use with a whole class). A number of respondents (22) indicated that they had used Dropbox and other similar file hosting services, but one respondent indicated that their college's managed desktop prevented them from downloading files from Dropbox.

A total of 29 respondents indicated that they either lacked the time, the knowledge or the understanding to explore the benefits of these technologies in teaching, with several mentioning that they would welcome specific resources to support them in this area. Only 3 respondents suggested that they had no interest in these approaches at all.

#### **Conclusions**

The data indicates that most teachers use their VLE as a repository for files, with many of them also their VLE it to set/collect homework, share links to sites/videos and to set quizzes. However, only a small minority are using their VLE to support collaborative learning between pupils, and collaboration between different schools mediated by the VLE is extremely uncommon. A number of respondents reported that a cumbersome interface and a lack of available time prevented them from using their VLE in more creative ways, with several indicating that further training was required.

Social networking and cloud-based tools have so far found very limited use in teaching among our respondents, but there is evidence that there is an appetite for resources and support/training to help them to make more effective use of online technologies. Filtering of certain websites by schools and colleges (and/or local authorities) presents a significant barrier in many cases, indicating that senior managers and those in charge of networks also need to be convinced of the value of such approaches in order to ensure widespread access for teachers and students alike.

<sup>&</sup>lt;sup>1</sup> For more information, see: <u>www.isurvey.soton.ac.uk/</u> (Accessed 4<sup>th</sup> June 2012).

<sup>&</sup>lt;sup>2</sup> For an example, see: <a href="http://www.guardian.co.uk/education/2012/jan/23/teacher-misconduct-cases-facebook">http://www.guardian.co.uk/education/2012/jan/23/teacher-misconduct-cases-facebook</a> (Accessed 4th June 2012).