

## Implementing a pilot VLE at Rickmansworth School

### Introduction:

In this assignment I intend to look at the implementation of a virtual learning environment (VLE) at Rickmansworth School. I will discuss the process from the first ideas through the implementation up to today. The VLE is still a work in progress and is potentially a project that could take years to be at a stage where it could be called complete. As I go through the processes I will look at the reactions of students and staff, some difficulties faced and finally what lessons have been learnt for the future. For an ongoing project and a project to which I am possibly too close to give an objective opinion I expect it will be difficult to gauge whether the project has been a success or failure.

Nevertheless I will attempt to look at some criteria to mark success or failure and the reasons behind them.

### Context:

In June 2007 I was interviewed for the post of e-learning coordinator at the school in which I teach. The school originally planned to have one coordinator in charge of either creating or procuring a school website and virtual learning environment (VLE). Before the interview I had thought a lot about ideas I would present. I had a very good idea of how a website could be developed but a VLE was something very new. I had only some idea of how a VLE would be used or implemented or, from a personal point of view, how much time the process would take up and what it would involve. I felt this second point of time and expectations was particularly important as I didn't want to take on a

job which I couldn't complete. During the interview process I presented my vision for a website as primarily a publicity tool for the school and a VLE as an educational tool. I explained that while the time taken to build a website could be predicted a VLE was a something very different and a much bigger project with the potential to change the teaching and learning culture in the school. I didn't present a complete vision for a VLE and explained that it was a project that required a great deal of planning before the school committed to a solution.

I was offered the job but to my surprise it was to be solely in charge of the implementation of a VLE while another colleague was put in charge of the website. I was very pleased that my opinions in the interview had been taken seriously and acted on so quickly and this certainly empowered me with a great deal of responsibility and trust.

Why the school wanted a VLE?

The DFES October White Paper gave two points that were taken as targets in relation to learning platforms. In 2005 the DFES then published a target that "all pupils will be able to access a personalised online workspace capable of supporting an e-portfolio, by 2007-8 (DFES, 2005). Further more ambitious goals were set for later years but most targets lacked detailed explanation. This could be on purpose as VLEs and learning platforms vary enormously (Barajas, 2000). Along with these guidelines there are government agendas both for increasing use of ICT in the curriculum and personalisation of learning (Becta b, 2005). A VLE lends itself very well to both of these agendas. When I was given the task of implementing a VLE I was not given a

remit or timescale I had to stick to. My belief is that like many schools my school's primary objective was to meet the government target. Although this may sound cynical it is exactly what the target is for and the senior management that made the decision to appoint me were not just doing so to tick a box but to empower someone to introduce a new technology to make a positive change to teaching and learning in the school. You don't need to understand exactly how aeroplanes fly to know that they make transportation around the world much faster. Similarly headmasters and other decision makers in education have been told that VLEs are a future technology that has the potential to bring many benefits.

#### The Picture Nationwide

Some schools have been using a virtual learning environment for some time and are on their second or even third incarnation of their VLE (YHGfL, 2007). But most schools are still finding their feet. In particular some Primary schools are struggling as they do not have the desire, staff, technical support or money to get involved. Many local education authorities (LEAs) have chosen or bought in a VLE on behalf of all the schools in their area. Examples of this include Fronter chosen by the London Grid for Learning (LGFL), Moodle chosen by Cumbria and Lancashire (CLEO) and Uniservity in Rochdale. Some LEAs have just done this for Primary and/or special schools while some have done it across the board. Where I am based in Hertfordshire the LEA and local broadband consortia (E2BN) have promoted the services of two or three suppliers but have left it to schools to choose what they want to do.

### The Local and School Environment:

The school is fully networked with 3 computer suites for discrete ICT, 1 for business studies, 1 for music and 1 for cross curricular use. Suites contain between 20 and 30 computers so ideally when students use the room they have a computer to themselves. Additionally many classrooms will have one or two PCs in the room. The school has interactive whiteboards in most departments many of which have been installed in the last 2 years. At the end of 2006 laptops were issued to all teachers and a wireless network installed across the school. The main reason for this initiative was to move the school towards using electronic student registration using the laptops wirelessly. This was phased in from January 2007 and made compulsory from September. The same system has been used by teachers for entering student grades once a year and school reports are done using an in house electronic system. Although infrastructure is important staff motivation is vital (Lennon, 2003). The ICT ability of staff is mixed. There is no structured programme of staff training in ICT. I have run 4 or 5 short sessions of staff training over 2 years and those that have attended tended to be keen to use ICT but very nervous at the same time.

### Students:

Students of the school tend to have very good ICT access at home. In a recent survey of Keystage 3 pupils 98% had internet access at home, a further 30% had a computer in their room (Barham, 2007). Although the digital divide is smaller than nationwide there are some students who don't have access to ICT at home and others that have to share one computer with many

other family members so have limited access. At school there is mixed computer access. Students have ICT lessons for one hour a week until age 14 but outside of this there is only one cross curricular room for the entire school of 1200 pupils. At lunch, break and after school students normally only have access to 3 to 6 PCs in the library. In recent school surveys access to computers has been rated low by both parents and students (Kirkland, 2007).

Who makes ICT decisions?:

As ICT is used in many different ways in the school there are many different people who have been involved in the evolution of ICT in the school. To put my role in context is important. When it comes to making big decisions about spending or infrastructure there are a number of staff who may have a say in any decision. First there is the Headmaster who has the final say. A deputy headmaster who supervises ICT in the school and line manages the VLE part of my job. The head of ICT makes the final decision about what is taught in ICT lessons. The network manager has to keep all of the software and hardware working and could be potentially burdened with VLE admin. The ICTAC coordinator is in charge of ICT across the curriculum. In addition individual department heads, interested or concerned teachers, the school creativity coordinator, school governors, LEA advisors, bursars, pupils and parents can all have a say in decisions and affect the final outcome. Keeping all of the players happy is something that I continually have in mind. A recent document produced by Lewisham local authority took feedback from VLE users to identify a list of potential user roles. Ten partners were identified

showing that the introduction of a VLE is not a one person job (Deadman, 2007).

Context:

Starting out:

One thing that was made clear to me at the start of the project was that I was not expected to create, maintain and a run a VLE but rather be in charge of the process of getting a VLE working for the school. Deciding on the why when and how of a process can depend very much on the final VLE used (Barajas, 2000) and accordingly in June 2007 I started off with a simple three pronged plan.

1. To research and learn as much as I could about VLEs by reading literature, viewing VLEs and visiting local schools using VLEs.
2. To find out what different commercial systems were available and to evaluate these systems.
3. To experiment with a VLE myself using a previously installed but seldom used version of Moodle.

The first research stage was necessary as my only real experience of using a VLE had been on my distance learning Masters at Leeds University. Though this had given me some models of how a VLE can work it was a long way from a Secondary School environment. I wanted to make an informed decision, read reports on how VLEs had succeeded or failed in schools and I hoped to be enthused, motivated and inspired with new ideas.

At the same time I started looking at what commercial systems were available. From keeping my eyes open in previous years I had some idea of what was available but I was surprised to find how many choices there were. I started off looking at the Becta Learning Platform Services Framework Suppliers (Becta d). Becta is the UK government agency for ICT in education. The framework is a list of suppliers who came through Becta's tendering process. The list allows large purchases of equipment by LEAs without having to go through lengthy EU processes for tendering.

I took a look at all of the providers' websites and looked for unique features and examples of successful use in local schools that I could potentially go and see. I also asked on internet forums if there were schools using a VLE willing for me to visit to see what they did. I found out very little. Most providers had very little information on their websites, no prices and few case studies. Few schools got back to me and none were located conveniently for a short visit. I decided that evaluating the systems comprehensively in a short space of time was unrealistic and unnecessary. I put step two on hold to concentrate on steps one and three. In the next section I will describe how I went about implementing and experimenting with a pilot VLE in school.

Implementation:

Step 1 – Setting up a pilot system.

As noted earlier I already had a version of Moodle installed from earlier in the year. I decided this would be a good starting point for my pilot VLE because it was a cheap and fully featured VLE that I could experiment with without taking

too many risks. Over my school summer holiday I spent time using, learning and tweaking the VLE. This included upgrading to a later version, adding and customising the user interface, creating graphics and testing and installing extra modules especially some for administration. Much of this was technical behind the scenes work rather than preparing educational materials. Many say this isn't a job a teacher should be spending their time on as it's not a job that demands educational expertise (Deadman, 2007). I felt it was particularly useful and time well spent. It gave me a detailed understanding of the administration of the system. It made me think about how a VLE could be customised for different solutions or environments. Finally it gave me a great deal of pride, ownership and enthusiasm over the project.

Two features that I put emphasis on were making the VLE appealing and child friendly and trying to replicate some social networking features so popular with children out of school. To make the website appealing I made sure the graphics and template used were professional and clear. Many VLEs I had seen were grey and blocky which I found very unattractive and I didn't feel would appeal to kids. I chose a catchy name for the VLE to make it easy to remember, [www.rickypedia.org](http://www.rickypedia.org), a name devised by some students which I thought was brilliant. I also added in a bright analogue clock with the title "Ricky Ticky Clock". A play on the school and website name that has raised many smiles from both staff and students. Finally on the front page I added RSS news feeds to CBBC Newsround (a news service aimed at children), and to a quote of the day, mimicking the quote of the week that students see in their personal school planners.

To encourage a social dimension to the VLE I added areas in the user profiles where users could add their favourite books, films, hobbies and TV shows. I also added general discussion rooms named “Student Room” and “6<sup>th</sup> form area” for students to send public asynchronous messages to each other.

Step 2 – Trying the system out with real students.

Step two was aimed at me learning to use the features of the system, getting an idea of how the system could change learning and teaching and seeing the response of the students. I chose two classes to experiment with; one year 13 A-level Computing Class (age 17 and 18) and one year 10 GCSE ICT class (age 14 and 15). Both classes had access to computers in all lessons and being ICT based courses both had students with some kind of prior interest in ICT. I set up an online course for each class and also populated the VLE with two ready made courses for the subjects that were freely available on the internet. Both ready made courses were just collections of rather bland notes and I had no expectations of making great use of either course but I put them up in case some students found them useful.

To introduce the system to students in lessons I started by showing students how to log on, getting them to change their password and showing them how to change the information on their profile. The next task done either in class or set for homework was for students to create an avatar for their profile (a picture or character to represent them). I told students they were not allowed to use a picture of themselves, this was purely for security reasons. I hoped this first use of the VLE would be a fun and interesting experience for

students. About 25% of students had technical problems uploading their avatars at home and required further guidance to get them to work.

I started straight away setting online homework for students using the different features of the VLE. Some homework made use of the “set assignment” feature in Moodle allowing me to set homework online, for students to submit it online and for me to mark it. Where I did this I made the decision not to force students to submit homework online but to give them the option of working online or on paper. I did this partly as I didn’t want to force the system onto students but for them to choose to use it. I was also interested to see which students chose to do homework online. Initially I set easy and interesting homework hoping that students would have a positive experience of using the VLE. Providing motivating activity can make a big difference in students’ enthusiasm (Lennon, 2005) so alongside this I also tried to experiment with as many features of the VLE as possible. This was for three additional reasons, to allow me to experiment with the different features, to see students’ reactions to different features and to build up a collection of good practice to eventually use as exemplars for other staff. So this wasn’t done gratuitously I had to think up creative methods of using these features. Some features were easy to use while some required more thought. Creating a collaborative glossary for keyword definitions and a wiki for creating student made revision notes seemed obvious steps. A database for coursework ideas and parents evening times, a forum for students to discuss ICT stories in the news and a quiz for students to create their own questions to test each other required considerably more thought to implement.

I got into a routine with both classes as to how resources were added to the courses. For my year 13 class, before each lesson, I would add a brief outline of the lesson and the homework. The brief outline would sometimes just be two or three lines listing the chapter of the textbook we would be using or links to websites we would be using. For my year 10 class I would put up homeworks every lesson and resources to help students with project work as and when needed. The resources would normally be digital copies of paper handouts we had given students as well as a few links to helpful websites.

Step 3 – Explaining my plan and the issues to stakeholders.

Having stakeholders especially senior leadership onboard is critical to the success of any teaching and learning project (PWC, 2004). Partly to do this and partly to educate and inform on the different issues regarding the implementation of a VLE I created and distributed a guidance document. This document covered issues that I thought were important to understand including technical issues, features of a VLE, potential problems with implementation, training issues, e-safety, updating school policies, integration with current systems and a basic action plan. Although there are lists of important institutional requirements for a VLE (Ingraham, 2002) I concentrated on what I thought were the most relevant issues. I distributed this document to six members of staff, the head-teacher, a deputy head-teacher, the network manager, the head of curriculum ICT and the school librarian.

In addition to this I tried to drip feed useful reports, articles and videos on VLEs to these same people to try and show them different possibilities and

uses of VLEs. This was done either as I came across information or as I found time to share it.

Step 4 – Opening the VLE to interested teachers.

So far I had not added any teachers or subjects to the system apart from myself. I decided I was ready to open the project to other interested teachers. I offered the opportunity by putting a message on the electronic message-board on the staff registration system and by making a short announcement in a morning staff meeting. I made a decision not to heavily advertise or push the meeting to staff. My message invited anyone who was interested in trying out some e-learning using a virtual learning environment to come along to a meeting. I hoped this way to get an enthusiastic group of lead teachers to eventually act as a stepping stone for getting the rest of the staff on board. Winning over this group can make a large difference in staff enthusiasm (Lennon, 2003). The meeting, at lunch in school, was small but well attended with representatives from English, French, Science, Maths and Art. During the meeting I gave a short rundown and tutorial of features of the VLE showing what my classes had achieved so far. I asked teachers to pass me lists of the students or classes they wanted to add so I could create them rooms to use for their course. I also created a sandbox staff area for staff to experiment with the system without having to worry about causing any damage.

As a result of the meeting two teachers gave me lists of students the same week to add to the VLE. There was an initial delay getting them started as I had to pass the students' names to the network manager to get the students' usernames. For the next class added I bypassed this step by asking teachers

to collect students' usernames from the students themselves though this did create a little more work for the teacher. One English teacher immediately started using the VLE; the other interested teacher took a month before she got started. The English teacher immediately made use of chat rooms, forums and the glossary to help with students' creative writing. She described herself in her own words as 'useless with computers' and I was surprised and impressed with the way she had used the VLE. It was very different from what I had expected. I was also slightly jealous that the year 12 English students had so quickly embraced peer reviewing each others work while my year 13 students only really used the system for handing in homework. Nevertheless I was inspired by this quick success. The other teacher, a Chemistry teacher, moved along with her class much more slowly in fits and starts. Only in the last month has she really started using the VLE regularly which coincided with an external inspection of the Science department. I found out later that she had put using the VLE into her department development plan. This didn't make her a more or less enthusiastic user but it did mean that she made a particular effort before the inspection to start integrating the VLE into her teaching. The other teachers that came to the meeting have still not started using the VLE with their classes. They have told me they are still keen to get started but just haven't found the time.

#### Step 5 – explaining the VLE at a staff meeting

Although this wasn't something I had initially planned it certainly warrants mentioning. The head-teacher asked me if I would do a presentation at a staff meeting on the VLE. My short presentation explained government plans for

VLEs in schools. I then explained what VLEs have to offer both students and teachers. Finally I gave some examples of how teachers and students had been using the system in school so far, both in English and ICT. The reaction from staff was very positive and I offered any interested staff an opportunity to start using the system with individual classes as and when they wanted. Over the next week six teachers came to ask me more about the system. I created them all usernames to allow them to access the system, view existing courses and play around in the staff sandbox. Most of these teachers only logged in once or twice and then seemed to forget about the system. Some would occasionally come up to me and apologise about not having time to experiment or having forgotten to pass on lists of students but further progress was limited.

Step 6 – getting more teachers interested and consolidating existing users.

On an informal basis I made some time to help teachers using the system by giving them bits of one on one help. I regularly reminded teachers who had expressed an interest in using the VLE, but hadn't yet, that I was happy to help them out as soon as they were ready. I also added some more teachers to the system so they could look around and experiment. After doing this two more Science teachers added classes and gradually started adding resources and using their online spaces with students. My experience confirmed that teachers are happy to use technology as long as they have help and support (Padmore, 2006).

Step 7 – trying the system with other age groups

So far most students added had been 6<sup>th</sup> form students (aged 16-18). I think this was partly down to them being older and more responsible but also because teachers have more time with a smaller group of older students compared to other age groups. This means they can experiment more and sometimes are looking for more diversity in their lessons. The reaction from older students had been positive but they had tended to use the VLE in a formal way by only using parts relevant to their lessons such as handing in homework or completing tasks. I wanted to add some younger students to see their response to the system. I went and added 60 year nine students to whom I taught ICT. The students were taught in groups of 20 in their normal lessons and I uploaded students in those groups of twenty, the first two groups at once and the third after a month. I followed the same steps when introducing the system that I did with the older students and I was impressed at the way students took to the system. They were very eager to write about themselves in their profile and many took a great deal of care in customising an avatar. Some students went a step further and edited their profile as they would their Myspace page by adding animations and colourful writing. The younger students were also avid users of the messaging system to message their friends and classmates. Without prompting they also posted messages on the social board that I had set up. Many posted messages in their own time at home such as asking if anyone wanted to chat or what people were doing at the weekend. In the classroom space students' activities were similar to the older students but using slightly more informal language in their answers. The younger users certainly seemed more eager to use the social features of the VLE. There are three possible reasons I have thought of for this. It could be

because they have grown up and are more familiar with online tools and environments. It may be because they are less self conscious than their older peers when writing public messages. It could also be that they had a larger social group online so were more eager to communicate with peers. From the nature of the messages such as “anyone want to chat” and “what r u doing this weekend” I think the last factor plays the largest part but all three factors play some part.

#### Step 8 – adding extra-curricular clubs

Step eight is that final step that I have got to so far. It wasn't something I had originally thought of but when I started running two lunchtime clubs it seemed an obvious next stage to allow the club members to build a community and carry on their clubs outside of school. It also gave me a chance to try the VLE with a small group of the youngest pupils in the school who were enthusiastic enough in ICT to attend an ICT club. So far I have added a computer clubs for girls group to the VLE. We spent a club session learning to navigate the VLE, change passwords, customise profiles and add an avatar. I tried to make the room appealing to students by adding plenty of colourful pictures and splitting it up into four clear sections. Chat, Share Your work, Wiki and Help. The girls didn't notice the different sections until I pointed them out the next lesson but immediately worked out how to send instant messages to each other and had great fun doing so. I plan to encourage club members to start sharing and commenting on each others work and having some asynchronous discussions on the work they are doing. When a VLE is used in activities outside of formal learning it can help cement the VLE in the holistic life and culture of a school

(Barajas, 2000). The students I have experimented with certainly don't relate the VLE to classes but to learning with a group of friends.

Two Further steps to be done or in progress:

Step 9 – getting a department involved

The next step I plan to do is getting a whole school department to start using the VLE. I can then work with all teachers in the department on planning activities and resources and train them to use the VLE. I hope this way that the department can create shared resources and inspire each other to use the VLE in different ways.

Step 10 – evaluating systems and choosing a final system

I started this step at the start of the project when I started looking at different VLEs available. I have already had a look at and had demonstrations of some of the leading VLEs available. I plan to invite two or three providers to do presentations to the school over the next few months. I also plan on finding a consultant or company to present how they could help develop our existing pilot system to make it stable enough to roll out to the whole school. Along with the senior leadership team at the school I hope that we will be able to make a choice as to the best solution for the school. I hope that we can have a final system in place for the summer term so that we have at least a month for staff training and resource development before the summer holiday begins and the new term starts.

Evaluation:

In the previous discussion of the 10 steps in implementation I have already mentioned the results so far of each step. Setting success criteria for evaluation is very difficult. At the start of my project no specific success criteria were placed upon me by the school. I could measure success on the number of pupils (201) or teachers (22) registered to the system, the number of courses (28), the number of learning objects (293) or the amount of activity (an average of 22 logons a week over 6 months). I feel these statistics do not prove anything as what I am trying to do is not to get big numbers but to gradually change the culture of learning in the school. A better yardstick of success keeping this in mind could be

1. Student attitude and use of VLE
2. Staff attitude and use of VLE:
3. Senior management attitude and use of VLE:
4. Personal experience gained:

To rate these summatively would require surveys or focus groups which may well happen in the future but I can give a fair analysis from the experiences mentioned above.

1. Students: Students have been enthusiastic to try and use the virtual learning environment but enthusiasm seems to wane quite quickly. I feel that students are ready to embrace the VLE for handing in work, out of school learning and revision and as a social space. What are holding them back are the lack of opportunities in school and the lack of activities available. I hope that with a summer of preparation staff will be able to start the next academic year with a wide range of courses

and materials that I hope will keep students using the VLE for a range of regular activities.

2. Staff: Staff in general have been very receptive of the idea and features it has to offer. This echoes national experiences (Becta c). Many want to use technology in classes and want to make lesson resources available at home but have been held back by not having time to experiment. I feel teachers are more positive as the system has not been forced upon them thought that could just be because I have not had any negative comments. I do feel there is still a long way to go in raising awareness of the opportunities that VLEs have to offer students. There is a lack of awareness as to how VLEs could help teachers share ideas and resources and innovate in the classroom and there is certainly more staff training needed. Branding phrases about like a change of pedagogy could be unsettling for staff but a change in the way teachers teach will eventually be necessary for real change to happen (Lennon, 2003).
3. Senior management: Senior management in the school have been supportive but I'm still not sure all of the key players have a vision for how a VLE can change a school and how much effort is needed to get it there. My plans for getting demonstrations of various systems may increase this awareness as could more examples of good practice. There is also a lack of awareness as to how VLEs could be used for some administration matters like copying and distributing school policies and minutes for meetings. This is because my focus has been on using the VLE for teaching but changing some administration

processes to focus them around the VLE could get more staff onboard (YHGfL, 2007).

4. Personal Experience Gained: The whole process has been enormously educational for me both in terms of knowledge and experience. I started as a beginner and I would now consider myself knowledgeable on the topic of VLEs in schools. I started with vague ideas of what the job would entail or how to move forward. I now know that the project is both long term and complicated but I have an idea of how to move on in the future.

#### Conclusions and Looking Forward:

Conclusions looking at the progress of implementation of VLEs tend to be inconclusive (Boyle, 2005 and YHGfL, 2007). Technologies have a habit of changing and when you combine that with the long term process of changing the way teachers teach and learners learn you have a change without a definite end. My initiative is very much at the beginning and my report on it has only mentioned a few key issues. If I was to start the process again there are only minor things I would change as the process has largely been about learning and experimentation. Maybe my expectations were unrealistically low but I view all of the steps taken after step four to be successes that have exceeded my initial expectations and plans. Not every step has gone smoothly but something has been learnt from each one. The implementation process I have described has really only given a taster of the major parts of the implementation.

To conclude I have listed a range of ideas that I am planning or hope to try through the next 10 or so steps of the implementation. They are not in any idea of importance or timescale but then I don't yet know which will be the drop in the ocean and which the tidal wave.

Trying the VLE with younger students: The new year 7 students in the school come in with far fewer preconceptions and a far greater enthusiasm for learning than older hardened students. I am interested to see how they take to a VLE and how responsibly they use it.

Training students: Students need training to use a new system just like staff (Becta c). VLE lessons may need to be built into the school curriculum.

Rollout across the school: Adding every student and teacher in the school is the next big step and will be where the successes or failures of earlier work will start to show.

Multimedia station: Teachers need to provide new and interesting activities to engage both themselves and students (Lennon, 2003). A workstation for creating multimedia could help teachers create exciting content for a VLE.

Computers for students: Giving students laptops or providing more computers could transform the way ICT and a VLE are used by pupils in lessons and at home.

Parents: Parent access to VLE could help them share in their child's learning at home.

Designing for accessibility: The school VLE should be accessible to as wide a range of students as possible.

School development plan: Making a VLE part of a school development plan guarantees that it will not be ignored by key staff during the year.

Development time for staff: Lack of time is top of a list of reasons staff do not use VLEs (Becta c). Giving staff time to develop skills, resources and new pedagogies helps to get rid of this barrier.

Buying in content: Commercial content is gradually becoming more readily available for VLEs.

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