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School use of learning platforms and associated technologies

# Case Study: Secondary School 6

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Secondary School 6

This case study is part of a suite of 12 case studies which inform the benefits identified in the main report and should therefore not be read as a stand-alone.

1. The school and the school community

The school is a City Academy in the north-east of England and opened in 2007. It is considered to be something of a flagship, particularly with respect to the integration of technology. New students are enrolled using a 'fair banding' system based on a standardised test and proximity to the school. The current roll is approximately 2,200 students and includes a large sixth form (350+). The number of learners eligible for free school meals or having English as a second language is well above average, with around 33 per cent of the total intake coming from minority ethnic backgrounds. The number of learners with additional educational needs is above average.

The school specialises in maths and science. It operates a college system based around six colleges: Arts, Humanities, Technology, Maths, Science and Sports, each housing approximately 370 students. Each college has its own leadership structure. Tutor groups comprise 15–20 students each and cut across all year groups. The school operates a two-week timetable, offers a mix of GCSE, A-Level and vocational qualifications (e.g. BTEC, NVQs) and is open for extended learning opportunities from 0800 to 1800 hours. The Academy is oversubscribed and in a recent Ofsted report (January 2009) was judged to have 'made good progress towards raising standards' with achievement in 2008 being broadly above average, with progress overall considered to be outstanding, building significantly on levels of performance inherited from its predecessor schools.

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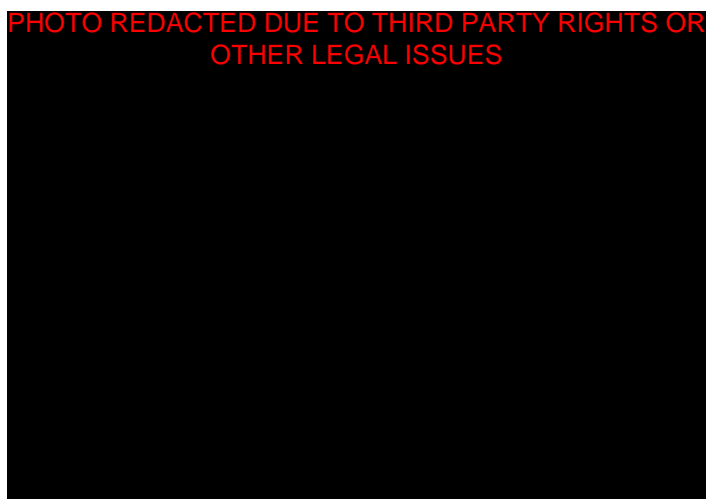
The Central Atrium area

The school buildings are modern, spacious and generously equipped. The integration of new technologies is and was a particular strength of the school from its inception and implementation of the learning platform was always a vision for the Academy. Prior to the Academy opening, introductory training on the use of the learning platform was provided to teachers. Technology provision is state of the art. In addition to general classroom space, the school has two centrally located lecture halls and an open environment multimedia research centre (library), a room with Apple Macs, a gym and a large refectory. There are also open café-style cluster areas in each college area. The positioning of classrooms and cluster areas around a central atrium helps bring the local (colleges) and the global (whole school) together.

The school environment is light, spacious and pleasant to move around and work in. Both staff and learners exhibited a positive attitude to their surroundings and were appreciative of the richly resourced spaces available. Full-length windows on classrooms gave an air of openness and transparency to teaching and learning and this was believed to contribute to improved behaviour (due to increased visibility) of learners.

The school is keen to promote multicultural awareness and signs in multiple languages (including Polish) were noted around the school. In discussion with the IT manager, the desire to provide bilingual resources for parents via the learning platform was also expressed, although this is not yet a reality.

> *"Every student has their primary language recorded on the MIS. We could go to the learning platform and say, 'Okay, their primary language is Urdu, let's put up an Urdu view'. That would take masses of development but it's all possible and then, when mum and dad log in they can see the information being put out there."* (IT Services Manager)

The school encourages learner awareness of the wider community and learners are given the opportunity to participate in the Human Utopia [www.humanutopia.com] programme. In addition, the school fosters local, national and international partnerships with schools, communities and industry partners.

At teaching and learning levels, the focus on partnerships has also led to greater interaction with other schools and colleges and is viewed by school leadership as a valuable tool for extending learners' horizons, locally and globally and for enhancing staff experience and development:

> *"We now share resources with China, with their school and their students. Having a multicultural dimension is always useful, especially with inner-city schools, there can be a particular perception of the outside world and certain*

students don't get the opportunity to go beyond that. We link with one of our partner schools, a private school about twenty miles away. We have opportunities there for staff to share ideas and to share their calendars and look at the collective nature of what the two schools are doing." (Head of Technology College)

The use of the learning platform and related technologies is seen as key to the success of relationship-building with external partners, whether that be other schools, the local community or parents.

2. How the learning platform is used

The school is a purpose-built, technology-rich environment, amply resourced with state-of-the-art technologies. There are over 1,000 computers within the school and all classrooms are equipped with a multimedia-enabled interactive whiteboard. There is a dedicated IT support team of approximately five staff. The school also has a dedicated learning platform Development Manager.

General observations

The ratio of computers to learners is 1:1.7, a level facilitated, according to the learning platform Development Manager, by the decision to make use of thin client technologies and reducing per head costs.

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Thin client technology

The use of thin client technologies generates additional benefits relating to consistency and coherence in accessibility and usage of resources by staff, learners and parents both at home and at school, as well as offering an extra level of control and learner focus. Learners reported that the learning platform was well protected and secure.

> *"They turn it on and it connects directly. They can't do anything else with it apart from browse the internet, which is filtered. Mum and dad can feel safe in the knowledge that if it's up in the bedroom, they're not on Facebook, they're not on MSN, they're not on this, that or the other because it does actually connect to the network here and they'll see all the resources they see in the building but they can use it at home."* (IT Manager)

The school offers a number of initiatives that support 100 per cent home ownership. Learners, provided they have home broadband access, have the opportunity to lease a thin client machine for home use. Payment is by donation and is not compulsory, but where paid amounts to around £2 per week.

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The Computers@Home Project

Learners are aware of this opportunity and think it is a good thing:

> *"And the school have set up a thing as well that if you don't have access to a computer at home, you can get one. You can get like, a laptop... or is it a desktop? It's one of them computers, I think it's about, they said it's the price of what a Sunday cuppa or something – you pay a certain amount a week or something. So you can use it at home."* (Year 10 learner)

There is also a multimedia resource centre (the school library) and a technology resource centre called 'The Pod' which has a suite of Apple Macs for more creative tasks. Learners are appreciative of technology provision and see themselves as well resourced:

> *"And with there being so many computers, even when you've finished school, there's always somewhere you can go and get on one, you'll never struggle."* (Year 10 learner)

"We have a room called the Pod which rather than having Windows, they have Macs in and that's especially good for designing, so there's loads of programs on there so you can create music, create movies." (Year 10 Learner)

Management and administration

Discussion with key staff responsible for implementing the learning platform (IT services, learning platform development, teaching and learning, staff leadership) pointed to three stages in the change management process: (1) adoption model, (2) implementation model, and (3) development model. The first focused on types of technology, integration and interoperability issues. The second focused on all systems integration (administration, data management, teaching and learning, internal and external audiences and stakeholders). The third focused on effective engagement of stakeholders (staff, learners, parents) framed by relevance and purpose. The current focus of implementation is on tools to enable assessment for learning (surveys, for example) and independent learning tools (such as e-lessons through remote access).

A preliminary trial was conducted using an Open Source solution but it did not integrate well with other systems, such as the school's MIS. The current learning platform solution was based on a previous model evaluated in Birmingham schools and a commercially available product, but this was rejected in favour of a resource solution in which the school could have more direct say in how resources were developed and used. The school therefore decided to develop its own version of the commercial product, building on a recent version of that product. Key factors for this focus were that the learning platform be reliable and flexible and that it easily integrated with existing systems and that management needs be low. According to the learning platform Development Manager, this allowed a DIY approach which, whilst having the robustness of the commercial solution at the centre, allowed additional technologies to be added in where needed. Areas on the learning platform are customisable and staff reported tailoring such areas to their needs. The key factor in selection was 'fitness for purpose'.

The issue of flexibility and reliability was also cited by the Head of Technology as a key condition for success in embedding the learning platform.

According to the Head of the Technology College, the learning platform was always at the centre of the vision for the new school and this, he felt, was a crucial factor in its success. Things that helped especially were the idea that the new school was, as it were, almost a 'blank canvas' and that there was a foregrounding of the idea of change, innovation, of doing things differently.

"Everybody had their own vision, prior to the Academy opening, there were plenty of training sessions that occurred but ... the VLE was always a vision, in terms of us wanting to have a learning platform that would be accessible from

home so the learners would be able to work remotely and engage in independent learning." (Head of Technology College)

Despite this, he acknowledged that people are 'fearful of change' and that you have to meet people's needs so that a balance needs to be found between vision/planning and listening/reacting.

"Listening to staff voice is important. Trying to make impact is always a big issue. We had resistance before, so you have to find the 'golden carrot' – provide staff with an incentive for engaging with it. Unless you have relevance, it's not going to move forward. It has to have relevance and purpose or else it's redundant." (Head of Technology College)

An effective solution to the 'golden carrot' issue was identified in linking external requirements – the Every Child Matters agenda, Ofsted SEF requirements and the need for every school to have a learning platform in place by 2010 and to instigate real-time reporting to parents. Taken together, these suggested that a 'route in' to staff buy-in was data management – in particular, monitoring and assessing learner progress. This was also identified in a recent (2009) Ofsted visit to the school.

"If you look at the observation process and we're at the moment observed under Ofsted criteria – there are certain key elements in that and the Every Child Matters agenda which require you to outline how effective you are as a teacher. So – assessment, assessment for learning, being aware of your students, of your students' data, needs, etc. This is all now available at the touch of a button. We've always had that data available but it was in about nine different places which became time consuming, laborious and tedious, and also frustrating. What we've done now is to collectively marry all that data together, pulling it in from the relevant sites and places and we have got people talking, we gave them the opportunity to plug in and they did." (Head of College)

By focusing on data management, the school was able to get staff on board and, through that 'route in' to then extend use of the learning platform to other areas such as teaching and learning, staff development, parental involvement, etc. The school generated a phased and targeted development of stakeholder interaction with the learning platform.

A core focus on assessment for learning, supported by staff and learner input in the form of surveys, was used to provide a coherent framework for development of the learning platform – moving gradually from the use of surveys to facilitate teacher–learner and learner–learner assessment to integration of dynamic gradebooks, direct links between the learning platform and existing data management systems (such as MIS), to increased use of the learning platform as a dialogue space between learners and teachers, for lessons, homework, pastoral and pedagogic discussion/exchange.
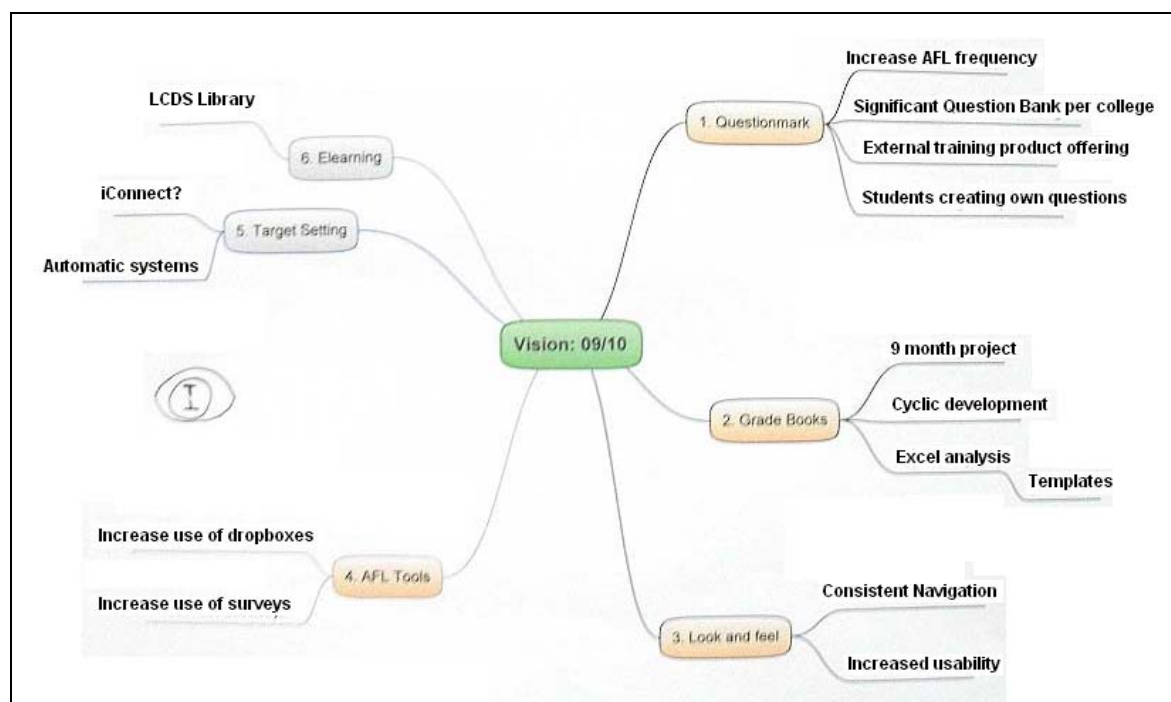
The emergent vision for VLE development

The learning platform is viewed more as a portal or gateway that 'brings everything together' and add-ons (whether relating to data management, teaching and learning or links with the wider community) are embedded as and when needed in response to user needs and requests.

Curriculum and teaching

Use of the learning platform to support teaching and learning is an 'in progress' activity with some departments and staff members having greater involvement than others. Where there is evidence of good practice, this is recognised by all stakeholders, and school leaders, teachers, learners and parents all commented on this.

> *"In science, they're looking at creating an online lesson plan which is based on good pedagogic principles, by a good teacher and they'll just pull any teaching resource, from anywhere, that matches that learning objective, store it in one e-lesson, publish it to their colleagues and then a colleague can take that and put it on their class site."* (Learning platform Development Manager)

Where the learning platform is used extensively, learners are highly appreciative of its benefits. The greatest area of impact at present is in the area of assessment for learning and this was largely driven by a whole-school initiative. The emphasis here is on enhanced dialogue and immediacy of feedback between staff and learners to

improve lessons and support students' learning. The development and use of Class Sites and the availability of MyClasses to staff and learners is seen as highly beneficial in terms of 'bringing everything together in one place'.

> *"One thing I really like which I found especially nice, they've changed it [the learning platform] a little bit – on it you can access all your different lessons but they've come up with a new bit called MyClasses now, so you can literally click on each individual bit and you can go on classes from this year and classes from last year, so you can look at stuff you've done over time... it makes everything so much more simple."* (Year 10 learner)

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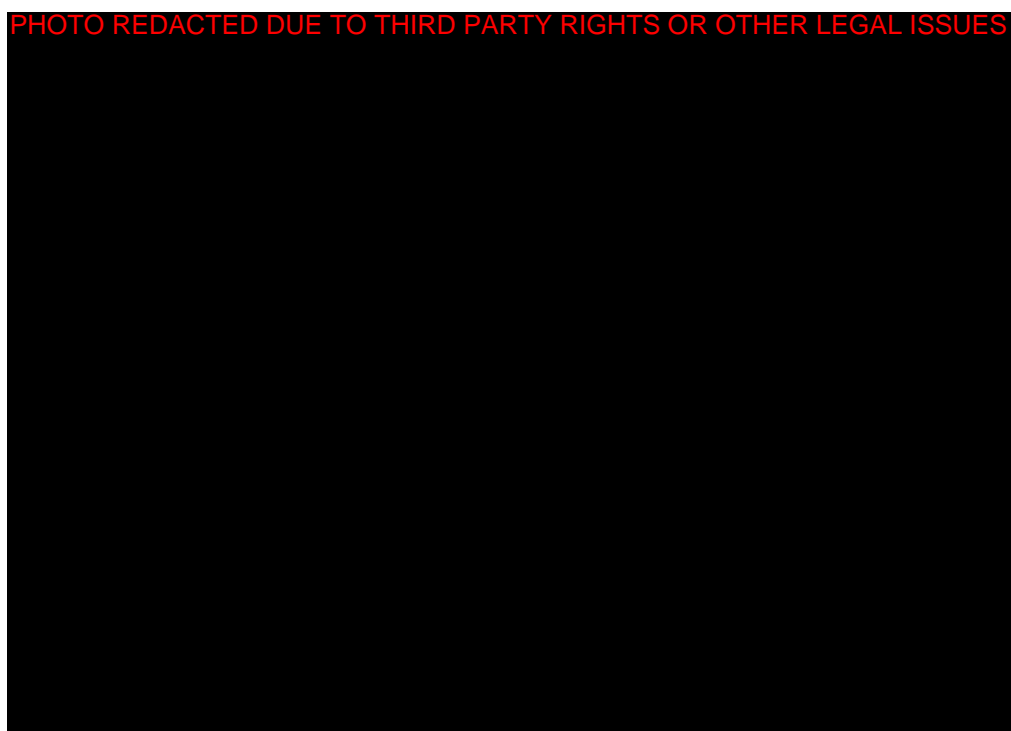
Departmental use of the learning platform for science

The science department has been held up as an example of excellent practice in use of the learning platform by many people, including learners and parents. One of the science teachers interviewed indicated that the department decided from the start to focus on the development of an online curriculum and saw the online environment as a repository for resources. One of the science teachers, a technology enthusiast, set up an initial template and discussed this with others in the department. Then, as the departmental site evolved, he developed a basic help system to support colleagues' questions – comprising both Word documents and video tutorials.

> *"I set it up like this to start with and I said, "Guys, are we happy with this and we all went – yeah." Essentially, we knew we wanted it together. We wanted a page and our vision was that everything was accessible from it, everything we needed.*

And interestingly, it evolved... and when people came and said 'I can't answer a question' – as soon as that began to happen regularly, I thought, well, let's get some help sheets going. If I'm asked a question, I'll put an answer on." (Science Teacher)

Learning and students

Learners were very enthusiastic about their interactions with the learning platform and with technologies generally. They were well informed about available resources and activities. They mainly used the platform for:

- e-lessons (access to resources and lesson content managed by teachers)
- homework (mainly finding information on homework and submission on the VLE)
- self- and peer-assessment (through the use of surveys and open questions)
- discussion and dialogue with teachers and peers
- revision and reflection on the learning content and self-testing.

Year 10 learners were more familiar and enthusiastic about the use of the learning platform across different contexts (at home and school) than were Year 7, who tended mostly to use it at school. However, this is not surprising as Year 7 learners are currently only in their first term at the school. Year 7s pointed to typical activities as e-lessons in class time, surveys, (extended learning) homework and sharing resources. Interviewed Year 7 learners consider secondary school better in terms of the tools provided, suggesting it is easier for them to find and upload documents on the learning platform, and being able to email teachers to ask questions.

Year 10 learners were much more informed and identified a wide range of uses in and out of school.

"In Media and English, we'll go down to a computer room and we can start our essay with the teacher helping, and then we can go on at home and start like, typing more up." (Year 10 learner)

"Class discussion is really good because they have a bit where you can go on and talk to like people who are in one of your particular lessons ... you can go onto the class site and everyone from your class can just go on there and talk about things, like what you've learned in the lesson, which is really helpful because if you talk to people who're not in your lesson, they might not understand." (Year 10 learner)

Learners were also appreciative of opportunities to discuss and contribute to the wider life of the school, via two discussion portals – The Meeting Place and Student Gripes. They commented that this made teachers more approachable and made them feel like they had a say in what goes on in the school. In addition, communication through the learning platform and email enables learners to be aware of things happening in the school, which they would not know about otherwise, because of the scale of the school.

Parents and families

A factor mentioned by all stakeholders (school leaders, teachers, support staff, learners and parents) was the "events" system which monitors positive/negative behaviours in learner data sets and which is made available to parents vie the Parent Portal. Learners interviewed said that knowing that their parents could access their data at any time did impact on their behaviour. Those with positive events said they liked that their parents knew they were doing well.

> *"It also shows if you've got positive events, if you've done something good, it'll come up, like saying good points and bad points, like things you've done – so your parents can see what's been good and if you've done something bad – they're like – 'Why have you done it?'."* (Year 10 learner)

Those with negative events said that it made them change their behaviour so that they didn't get into trouble.

> *"I don't like the positive and negative things, though. Because you get... parents can see if you've done stuff wrong. I've shown them once and they weren't too happy about the negatives. They asked me, so I showed them. So, you've got to behave or else your parents will find out."* (Year 7 learner)

There was a need, however, to take these events beyond a 'listing' category and to link positive/negative events to visibility of related learning tasks where relevant.

> *"The set-up is getting more and more informative about what's going on generally in the school and it is now more easily accessible. It's nice to know that they get positive events and negative events but I'd also like to see how they are getting on… a bit more of the educational side... that we can't get to directly as yet."* (Parent)

The point was made that there is access to the learning side of learner activity (such as test results) but at present that is not made directly visible to parents, as they need to access this via their child's log-in details and need to ask their child.

> *"I'm looking at ways of moving away from this particular view for parents [Parent Portal focused on student data] to an alternative view based on the*

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learning platform because the parents will then see their data easily and the links will be there as well. Because they're on the learning platform, they'll be able to see the work their kids are doing as well, to have it all in one place... So if their child has a positive remark about good work in science, they can go to the child's class site and see the good work done in science and, if they want to contribute to homework, then they're actually in the right place. That's a frequent request and ... they can't do that from here. ... So that's a little flag for me, so I'm going to work towards getting to an easier solution for them." (IT Manager)

Parents felt that the learning platform offered opportunities for enhanced communication and sharing of information between home and school, although email was still the preferred mode of communication. Some parents expressed a sense of frustration at a general lack of participation of the wider parent population and hoped that something could be done to improve this.

Parents also felt the learning platform provided opportunities for extended learning in the home, particularly focused and relevant learning which built on their child's relationship with their own particular learning community (teachers and peers). One parent had a child who suffered from ME and indicated that the learning platform was essential to her ongoing participation in the school community and allowing her to get feedback from staff in a more conversational way, commenting that it had 'almost become her distance learning platform'. Another parent commented that the availability of the thin client technology supplied by the school was helpful as it helped learners to focus on learning and not to become distracted by the wider internet and gaming and in particular, the distraction of social networks. He also commented that it supported accessibility in the sense that his child could now access everything in one place without software compatibility issues, and also enabled preparation of coursework and allowed for immediacy in the submission of work and more flexibility for teachers on marking.

3. Benefits of the learning platform

Findings from the case study are described below.

Data management

Prior to implementation of the learning platform, data was held in different areas and access was laborious, time-consuming and frustrating. Now the learning platform serves as one space for access to all the information and data, which enables staff to develop discussions around data since 'everyone is now at the same page'.

A recent development in the school provides one-click access to data for teachers – linking the school MIS directly to the VLE. This is viewed as a high value, positive response to user needs. Use of the learning platform for resource booking and tutorial slots for the multimedia research centre is viewed by staff as highly successful and time-saving. Being able to give feedback to learners electronically facilitates version tracking and reduces paper and printing loads. In addition, using tools to provide feedback electronically (including oral comments) improves the presentation of the feedback, and thus learners can benefit more from it. Parents also commented on the benefits of electronic communication over 'schoolbag post' and view cost and time saving favourably in this respect. All stakeholders view the ability to share, organise and manage resources electronically as beneficial. In particular, the use of real-time data activities (discussion, surveys, tests, assessment, and shared access to grading and progress tracking) is valued by all stakeholders, and teachers and learners in particular.

Surveys are currently being trialled as tools for collecting further data and views from learners, and the plan is that individuals learners' data from surveys will be tracked throughout from Year 7 to GCSE level and thus provide a rich source of data that can be revisited and can lead to planning interventions as well as being used live in the classroom for adjustment of the lessons. There are already such examples of surveys in place, and staff members are enthusiastic about these, describing them as democratic, allowing every learner to provide consistent and anonymous answers. Data management includes providing a framework for discussions, and a tool for reflection of the life of the school community, integrating data on work, comments, feedback, grades, tests, revision, etc. It is also intentionally creating a research community with reflective practitioners and learners with the learning platform enabling this process, and allowing for ownership of the research for the school. It was accepted that the gradual development of the learning platform as a one-stop shop and the shift towards a paperless community was a work in progress but such developments as there had been were viewed positively by most.

> *"It keeps everything in one place and I won't be able to lose the VLE 'cos it's kind of there."* (Year 10 learner)

"There is general staff information and schemes of work and target setting and assessment – we accentuated that, so what you basically have is a spreadsheet of marks from different year groups and then, going back over the years, there's last year's results, the year before and so on. So all of that data is there ready to use." (Science teacher)

"Learners can log on anywhere – they can immediately see the grades they've got at the moment by clicking on the gradebook... all their data is to hand here... They see the gradebook (adapted) I've given them which is basically raw marks." (Science teacher)

Student behaviour and motivation

Availability of data for parents and tutors and other staff (positive and negative events) is having a positive impact on learners' behaviour and they adapt, knowing that there is access to real-time data on their activities. Teachers reported that the recorded events can be used as evidence in meetings with parents and to enable a more democratic reward system. Widespread availability of reliable technologies is deemed to be motivational by learners.

"It's [the technology] extremely exciting. It's one of the absolutely fantastic things that in this school we can do. We've got all the facilities, like cameras and things." (Year 10 learner)

"With there being so many computers, even when you've finished school, there's always somewhere you can go and get on one, you'll never struggle." (Year 10 learner)

"We have a room called the Pod where they have Macs and that especially is good for designing... we actually use them as part of 'The Word' [the daily audiovisual news programme] to create our episodes." (Year 10 learner)

"All the technicians can ... help you find whatever you want and if you like have problems ... and it's really quick too." (Year 10 learner)

The use of the learning platform in class also helps teachers with class management, in that learners are focused on their work and can work at their own pace, and the teacher is able to adjust her/his teaching during the process, based on learners' immediate feedback. The use of new and different tools also helps to maintain learners' interest and motivation.

Enhanced communication

Communication has been enhanced through the learning platform and related technologies – through use of email, the website, class sites, and personal and social spaces such as MyClasses, surveys and discussion forums, although the

latter were more likely to be used by learners than by staff or parents. 'Learning conversations' based on surveys, discussion forums and focus groups with learners, and recorded on the learning platform, aim to promote communication between staff and learners in order to improve practice. Learners identified electronic communication as having an impact on relations with staff at the school – increasing their confidence and sense of participation in the school as a community. Overall, the availability and immediacy of help and support was rated highly by leadership, teachers and learners, although parents felt more could be done to make the teaching and learning side of the learning platform visible to parents. The school also provides a regularly updated newsletter via the website which is appreciated by parents.

> *"We've got a meeting place [online discussion forum] so we can speak to other learners."* (Year 10 learner)

> *"You can speak to college leaders or your tutor – interactively or in person."* (Year 10 learner)

> *"With some teachers you can get quite nervous, with people who are busy or wouldn't have time and you can just pop on when you're home and say, like, 'Do we have any homework?' or 'What am I supposed to be doing?'."* (Year 10 learner)

> *"Each time I set an announcement here [on the class site] learners will get an email from me but they can also view it on site, so any problems with homework... I can send them a message and a link to support that. Before, I used to say to them 'Send homework to me by email' but then your email box gets full up ... it clogs up your files, so what they do now is, when they've completed it, we've got the dropbox."* (Science teacher)

Assessment

A whole-school focus on assessment opportunities facilitated by the learning platform has led to increased use of survey tools and dropbox facilities to generate feedback from teachers to learners, learners to learners, learners to teachers and learners and teachers to leadership. This led to new ways of thinking about the potential of the learning platform to support assessment for learning and increased dialogue (student voice and learning conversations). A particular aspect of the use of assessment for learning tools is the provision of thinking time to learners, promoting reflection on learning, and identification of achievements or things that need to be revisited. Using learning platform tools to do the marking, upload marked work and feedback speeds up the process for learners getting their work back, as they don't have to wait until the next lesson as they used to before. Some teachers reported using alerts and emails to send reminders to learners about deadlines for submitting work.

"With an e-lesson starter ... I can give them a quick quiz and so I can feed back on those answers straight away and make sure they understand. I can go round and spend time with students. You have more pupil time... and I've got immediate feedback on their understanding of stuff [points to test on screen] – I can see she's dropped one question, she's dropped two, he hasn't submitted yet..." (Science teacher)

"The dropbox is a way of gathering evidence and also of reviewing students' work." (Science teacher)

Resources

The fact that the school was richly resourced in technology and technology support is perceived as a key factor in supporting engagement of staff, learners and parents. The decision of the learning platform development team to focus on a flexible, inter-operational system was beneficial in terms of enabling staff to continue using software they were already using (Word, PowerPoint and Hot Potatoes, for example) whilst reflection on successful implementation and gaps arising from lack of success were used to improve software selection (such as the extension of free SCORM tools for surveys, to use of Q for objective testing and the ability of staff to import revision tools they had used previously). Staff and learners were encouraged to develop their own materials and strategies to support this such as converting 'known' entities into web pages and enabling links to be made between existing resources (worksheets, presentations) whilst leaving the way open for the addition of newer media (images, video, audio, Flash) has facilitated teacher and learner engagement in teaching and learning. This area is, however, a relatively slow starter with some departments and teachers and has to date mainly been developed by technology enthusiasts; it has been targeted as an area for future development. Teachers reported looking at others' resources when they are 'stuck' for ideas.

"We're looking at managing pace and we're looking at making it easier to find resources for a lesson. ...The main benefit is focusing the students in one workspace at one point in time – they will only see what they're meant to see for that lesson and it's very flexible. I use Flash, [teacher x] uses e-lessons, [teacher z] uses Notebooks with the interactive whiteboard, other people use presentation software and still others use word-processed documents. What we're doing is adding value to what we've already got." (Learning platform Development Manager)

"Say you've done something like a slideshow, you might want to see it, yeah – so you can put it on the learning platform and other people can just look at it." (Year 7 learner)

Learners' wellbeing

Learners suggested that use of the learning platform as a discussion tool led to increased confidence and enhanced relations with teachers. Further, they appreciated not having to carry heavy books, and not having to remember everything. Class teachers and parents reported a similar reduction in stress through enhanced organisation and management of learners' work and the ability to upload and share resources, track activity and feedback electronically at 'the push of a button'. Also, learners feel they use their time more effectively, as teachers guide them towards the learning goals, through the resources (that can have a sequential character) on the learning platform and also as a result of learners being able to contact others who know about the subject/content.

> *"Before, we used to just get random letters and papers and books – everything that you'd either leave at home or you'd lose or damage or something, but now that you get the VLE you can't do any of that, it's kind of there for you."* (Year 10 learner)

> *"I like the way that communication is a lot easier, like – it's quite a big school, so if something happens on the other side of the school, you can find out straight away ... it makes you feel a bit more, like, confidence, like you know what's going on."* (Year 10 learner)

> *"The submission of homework electronically, my daughter does that quite a lot and it's a lot easier. ... English, geography, history, not sure about Spanish... and that's a good way of doing it because then it comes back and you can put track changes on and put your comments in without actually altering the work. ... It's quite useful. My daughter enjoys that because when she's done it ... she pushes a button and it's in and sent and that gives them a sense of fulfilment."* (Parent)

> *"In terms of versioning documents, if students have written work to do, we don't print anything until it's ready to be printed as a final document. ... So they're not working with hundreds of different versions – it's the same document."* (ICT teacher)

Critical thinking

The whole-school focus on assessment for learning and the use of surveys to facilitate student voice, and the drawing together of resources (data, teaching and learning resources, pastoral materials and external community information) has the potential to contribute to greater self- awareness and awareness of others. Increased dialogue and communication across all levels of the community has the benefit of generating greater transparency across the community as a whole. Elements such

as online peer and self-assessment, relationship building, connecting subject areas and the use of dedicated areas such as MyClasses, ClassSite and SiteActions contribute to increased visibility of relations within the school system and support learners' reflection on their experiences.

> *"When you talk with friends you get more ideas, because like you share ideas and get it better."* (Year 7 learner)

> *"In dance we use them [cameras] so we can record what we've just done. Then Miss will put them on the VLE so we can watch back what we've done and improve it."* (Year 10 learner)

Lifelong learning and empowering students and staff

A key benefit of the learning platform is its ability to provide a holistic view of teaching, learning and community: tracking progress, archiving resources and data, skills for life, real-world experiences and partnerships beyond school and inter- and intra-community dialogue. Learners and staff are fully engaged in this process, taking ownership of aspects of the learning platform.

> *"I think it's good for them to learn how to use the learning platform because as they go through life, most things are set up on that basis and it's a good skill to know."* (Parent)

> *"You can access all your different lessons ... you can go on classes from this year and classes from last year, so you can look at stuff you've done over time... it makes everything so much more simple."* (Year 10 learner)

> *"Before they would have had to write everything down in their planners but now they can just put 'Extended Learning – see Class Site' and it's all on there."* (Science teacher)

Access

Remote and 'anytime' access was viewed positively by learners, teachers, parents and school leaders. Both teachers and learners saw the benefit of continuity of learning in cases of illness or missed lessons. Wide availability of resources and compatibility provided by thin client technology was viewed as supporting learners' ability to learn, review and revise whilst simultaneously benefiting from immediacy of communication with teachers and peers.

> *"It's easier than just having to wait till like Monday and going into the teacher's class and asking her what to do because they like, put on a PowerPoint or something on the VLE so you can know what to do."* (Year 7 learner)

"The main benefit is an online community to extend the classroom, obviously to the home as well." (Learning platform Development Manager)

"Or maybe if there's a lesson I missed out, I can use the VLE. Teacher might say, 'You missed out a lesson, so I put it on the VLE for you'." (Year 7 learner)

"One of the great things about the VLE is that you can access it along with a lot of things, like your emails from home. And you can get your school account from home which is extremely useful." (Year 10 learner)

"If you're ill or something at home then you can email your teacher to say what are we doing and they'll say 'You've got an e-lesson', so we can go on the class site and you've got a whole lesson, so you won't miss anything." (Year 10 learner)

Varied learning opportunities

The learning platform supports a wide range and variety of interactions between teachers and learners, including learning that is individual, paired, group, whole class, on and offline, local and at a distance. Both teachers and learners cited increased visibility of learning through sharing of resources, archiving of materials, and opportunities for discussion, feedback and support.

"With these classes, it really is extended learning – they're going away and learning a bit extra about the topic that we're doing. ... I've tended to set research questions because the topic we're doing has a lot of research in." (Science teacher)

"Recently, I had a science exam ... on the VLE there's a place where you can go and you'll have lots of different tasks set and you can go online and you can do it and it'll mark it for you and it gives you a mark straight away. ... That helped me a lot because then I could see which bits I didn't understand and I could go straight to him [the teacher] from that." (Year 10 learner)

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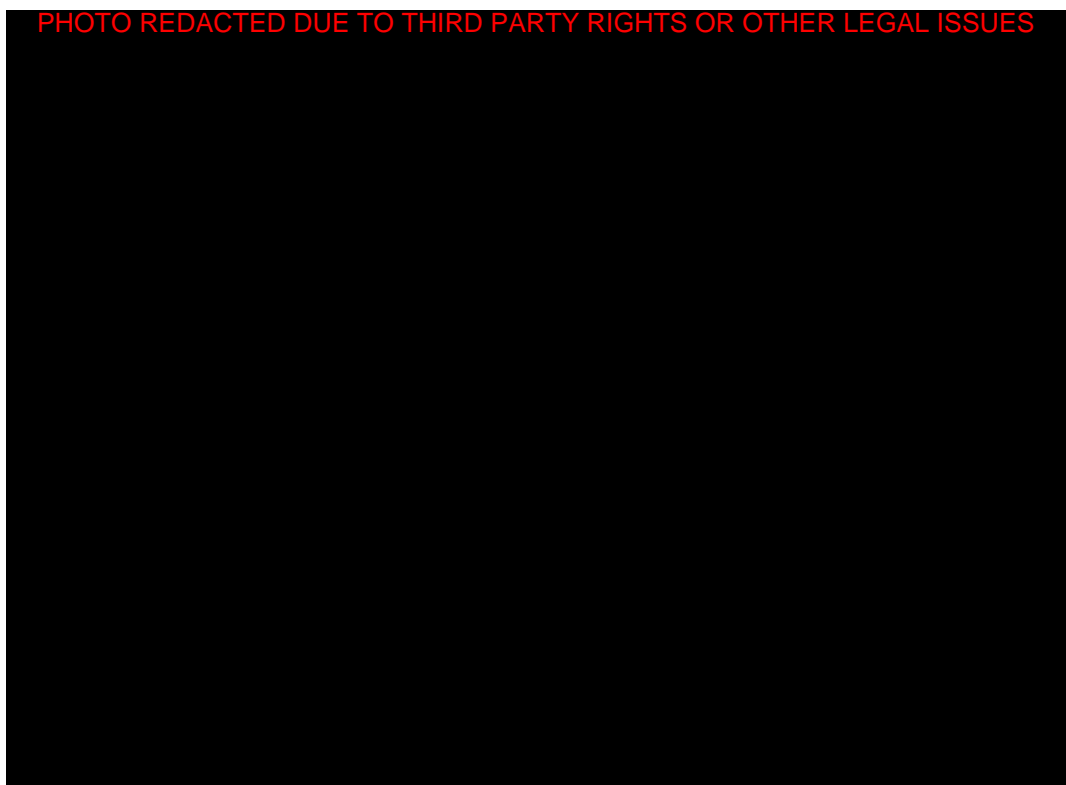
An e-lesson in science for Year 10

In science e-lessons, for example, the familiarity and consistency of a department-wide template system facilitates understanding and accessibility. The range and variety of materials enable learners to work through the lesson at their own pace and in their own time. The basic class site front page contains a menu of shared resources (surveys, documents, links, discussions), an image sets the scene for the lesson, and the right-hand side of the screen contains links to related e-lessons and any announcements relevant to the learning activity. Tasks are differentiated by activity and learning objectives are clearly set out.

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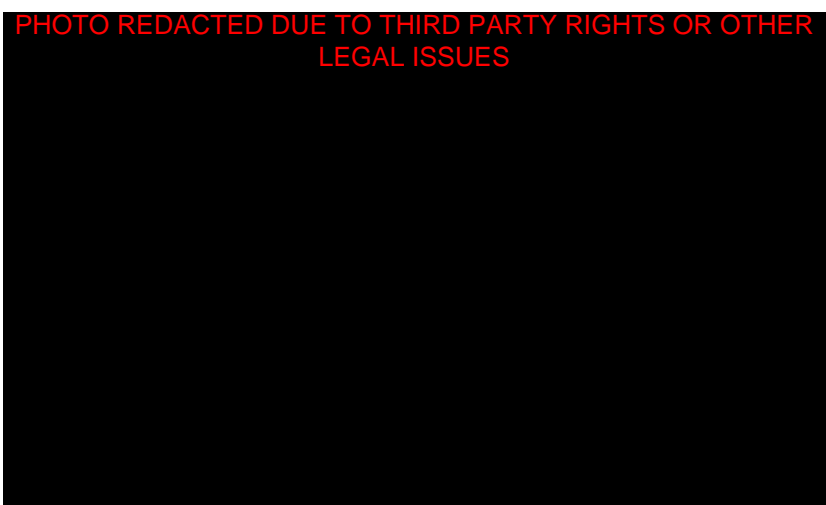
A science e-lesson in Year 10, which supports self-paced learning

Supported tutoring

Tutors have access to the behaviour events (positive/negative) recorded on the e-portal for each learner and, according to learners, this improves the help they get from them: "Tutors can see that, good/bad points you've done, if you need help tutors see that" (Year 10 learner). Another tool that is being developed in the school which is used during tutoring time is I-Connect which although external to the VLE, provides guidance for tutors and learners in the development of various areas and enables them in setting targets (academic, general, personal etc.) The I-Connect site gives learners the opportunity to record and reflect on things they have been doing at school. Behaviour events are tied to I-Connect and all comments from different staff come together so that learners can see them in relation to their targets.

Opportunities for independent and personalised learning

Both in the classroom and at home, learners can access a range of resources from which they can choose those that are best suited for them, and it was observed in a science lesson that teachers prepare activities/tasks on the learning platform that address both slower and faster working learners. Personalisation of learning is also supported by having everything in one space, along with personal development data, such as behaviour events, targets and timetables. Tools that enable communication also promote personalisation, as learners can get the information they need, and can ask questions concerning their work rather than having to interpret instructions addressed to everyone. Having tasks and learning goals on the learning platform also enables learners to share tasks accurately with other learners.

Independent learning is achieved through the provision of remote access to resources and materials. Having their work on the learning platform provides learners with greater continuity as they can re-edit and revisit it, any time and beyond the classroom and the school.

Enhancing digital literacies

The use of the learning platform by the library manager to create tutorials for staff and learners, addresses learners' digital skills in searching for relevant books/documents using the school online library system (Oliver). The I-Connect and associated tools enable learners to record things they have done through making movies, music or posters which also enables them to gain other digital skills.

4. Challenges and solutions

Key challenges for the school have centred mainly on participation and engaging stakeholders in 'buying in' to the learning platform concept. Other issues relate to management of public and private data, dealing with fears and/or resistance to the change management process, sustainability of development processes, scaling of the development process, and control and time management issues. Fitness for purpose, relevance, the challenge of knowing when to exchange 'old' for 'new' resources (such as textbooks for e-learning) and monitoring learner forums were also identified as key challenges.

Staff 'buy-in' was sought through enhanced data management opportunities and phased interactions via whole-school initiatives around assessment for learning, and the use of survey tools and dropboxes to support teaching and learning, while for learners starting with tools that are fun and engaging (a Meeting Place for learners, monitored by learners) was the first step towards introducing other tools for learning. It was hoped that increased use by staff in this way would trigger increased use and familiarity amongst learners and from learners to parents. In reverse mode, it was hoped that increased participation of parents, via the e-portal and access to student data, would lead to greater parental interest in the pedagogic side of learners' activity on the learning platform and that such interest would, in turn, lead to increased accountability and participation on the parts of teachers and departments who would not want to be seen to be 'further behind' than others.

In the early stages of developing the parental portal, it was realised that certain reporting techniques (such as reports on learner behaviour) had to be adapted to ensure that only children relevant to particular parents could be viewed, and a new policy was introduced to ensure that behaviour management reports did not cite multiple children by name. Further, staff personal data was kept to a minimum in the MIS and a separate HR package was developed to protect staff personal data.

Learners value highly opportunities to participate in dialogue and discussions about events and developments in school that affect them, such as changes to school lunch breaks, and spaces such as The Meeting Place and Student Gripes were provided for this. The challenge here has been to manage and monitor learner contributions. At first this was managed by learner monitors but this did not always prove successful, and recently the sites had to be temporarily shut down owing to inappropriate content. However, the value of the dialogue space is such that steps are being taken to find other ways of monitoring so that the site can be retained.

Another challenge was resistance to change by staff who were not inherently interested in technologies or felt they were less of a priority than other activities. New CPD schemes were introduced to deal with this and initiatives were framed to meet the pressing needs of staff more directly – the phased development of the learning platform and openness to adapt and embed existing technologies and providing a

robust and easy-to-use IT support service, for example – with a 48-hour maximum turnaround. While training for staff was initially considered key for roll-out, owing to the scale of the school and the split timetable of staff, new forms of in-house training were developed, for example by the Personal Development Manager (HR) who provided lessons during the day, as well as online tutorials. Also, making the use of tools easy for staff with no technical skills was purposeful, including provision of templates for lesson plans and word-based authoring of lesson planning.

NOT PROTECTIVELY MARKED

5. Drivers

Key drivers at the school are the embedded nature of technology within the school environment where it is seen as part and parcel of the everyday life of the school. A relevant, evolving and responsive vision on the part of the management team and a perspective that sees development as a stepped, phased process is promoted in the school. There is a strong relationship between key drivers in the form of IT services, the Learning platform Development Manager, and the Senior Leader responsible for learning platform development, who share a vision and a direction for the learning platform in the school, and are enthusiastic and 'passionate about getting the job done'. This provides both technical vision and a practitioner/pedagogic perspective. Keeping the same delivery team, in terms of e-learning support all the way through from conception to implementation, is considered to be an advantage, as a former senior manager of the school noted. Each key driver has a defined role focusing on some aspects of the development of learning platform or support. For example, the Development Manager deals with developing and coordinating the strategy for implementation, and does not provide support unless the impact of the activity/project falls within the focus of implementation (for example, e-assessment), while the helpdesk is responsible for providing support for general issues.

Alongside these, a 'dream team' of one key enthusiast from each of the six colleges form a basic group for initial explorations and experimentation and also bring back feedback to the development team. Further, there is a strong 'practitioner researcher' base which supports experimental work which contributes to ongoing development. This latter group features members of teaching staff, school leadership and service staff. Service staff in particular (the school librarian and achievement support services, for example) have a large reach, as their activities have an impact on whole-school activities and a wide range of stakeholders.

Key drivers for the process of change and development around the learning platform and related technologies are tied into user needs and external requirements – Ofsted, Every Child Matters, the school ethos, student voice, parental voice, community needs – and, in this particular school, the need to generate a cohesive community in a large-scale environment.

6. Conditions for success

A collective vision, with dialogue between stakeholders and opportunities to make needs heard, is deemed to be crucial for successful development of the learning platform as a community environment. The key advocates in the management of change are aware that change takes time and admit they are only now beginning to reap the benefits of the first two years of trial and error, and one of the conditions for success is being comfortable with the idea that change takes time and that finding the right solution is an emergent process. Flexibility is key and stakeholders need to be comfortable with 'stepping' the build. Staff need to be consulted but may not know what they want. Change is helped by focusing on one thing at a time rather than multiple initiatives.

Taking advantage of the new space, designing from scratch, and working with capable industry partners who did not aim to just sell a solution but also helped the school design a bespoke learning platform, was key according to a Senior Management Team member. Maintaining the level of communication between staff during this process proved to be important for implementation. A key consideration mentioned by school leaders, staff and parents was establishing the 'added value' of the learning platform. Technology needs to be flexible, reliable and fit for purpose. This requires good IT support, and good developmental support that focuses on both technical and pedagogic aspects, and it is supported by ease of access to and availability of resources and equipment throughout the school. Success criteria include teachers feeling that they've improved their practice, learners feeling able to contribute, and parents feeling a sense of involvement in the school as a community and in their children's learning.

Those involved in the development of the learning platform indicate how important it is in keeping a very big community together both physically and virtually. The uniformity of the platform, as a Senior Management Team member observes, allows everyone to be 'on the same page' and allows discussions to develop, since staff and learners all have the same view of things, so the learning platform serves as a 'window of collective vision'.

7. Lessons learnt and future plans

The implementation of technology solutions benefits from a sense of focus. A lot of time was lost in the initial stages by focusing too much on tools, integration and technicalities. There was some initial staff resistance to the learning platform, as it appeared to be less of a priority than other commitments, such as the need to monitor and assess student progress. From this, the core team realised that development needs to take into account contextual factors: technical, pedagogic, pastoral and administrative. There was also a realisation that the social as well as the technical needed to be foregrounded and that internal and external factors needed to be married together. Future developments centre on the generation of a repository of good practice in the use of e-lessons and the successful dissemination of good practice.

After the early focus on technology enthusiasts is to focus, now, on social connectors – stakeholders (staff, parents, etc.) who may be less supportive of technologies but who have much to offer in shaping the use of those technologies by transferring examples of good pedagogic practice. Another early issue was lack of compulsory CPD and training, such that some members of staff were unlikely to attend training events around use and embedding of the learning platform. This was remedied by generating whole-school initiatives around the use of the learning platform, such as an Assessment for Learning project and the use of surveys and dropboxes as a support for teaching and learning, led and supported by 'digital champions'.

Other early issues related to the separation of information, such as staff data not being easily accessible via class sites. A weblink was added to bridge this gap. Similarly, there are some areas lacking in terms of parental accessibility and coherence in terms of switching between student data and student learning, and this is a gap to be addressed in future developments. Overall, a key aim is to bring everything together in a 'one-stop shop' in the learning platform, at least at a surface level.