

Primary Focus: Personalised Learning Summer 2007



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Editorial

The cover pictures are of my daughter. One was taken on her first birthday. I think it shows personalised learning; she had made her own choice of what she learned, when she learned and where she learned; she had access to one-to-one support if and when required; the task gave her instant reward and instant feedback; she had open access to someone who had knowledge of her learning needs; her learning platform was the floor.

The other was taken recently. She is now 20 years old, at Leeds University studying philosophy and psychology. She makes her own choice of what she learns, when she learns and where she learns (within fairly broad limits); she has access to one-to-one tutorial support by email if and when required (her dad's a psychologist); the tasks are rewarding (because she is interested in them) and although feedback is not instant she is now old enough for deferred gratification to be an effective reward; she has access to a tutor who has knowledge of her learning needs; her learning platform is her computer/the university/the world. But how much personalised learning has gone on in between? Not a great deal I suspect.

All the articles in this term's edition of the Naace Primary Focus explore ways in which personalised learning can become a reality during the years of compulsory schooling. I have enjoyed reading them. I hope you do too.

Heather Govier (editor) h.govier@btopenworld.com

Bringing personalised learning online: the present and the future

Andy Brookes



Virtual classrooms are computer applications that attempt to replicate as closely as possible the experience of learning in an actual classroom, but use the Internet as the vehicle for delivery.

What is personalised learning?

'Personalised learning' has become, like 'blended learning' and 'e-learning' before it, a phrase that is defined in many different ways, depending on who you ask. Whilst we are not too concerned with how we define personalised learning here, I find myself writing this after waking up to radio, television and newspaper coverage of Christine Gilbert's vision for the future of schooling, with its headlines of personalised education for all children. I shall therefore use a few of the 'news-bites' from today's media to flesh out what personalised learning might mean to us as educators (as well as looking at the messages the general public are receiving about it).

'pupils have more say over what they learn, when they learn and where they learn'

'one to one support for all pupils, which could be out of school time or in the child's home'

'addressing gaps in achievement between different groups of children because of, for instance, age, sex, location or culture'

'pupils have access to someone with knowledge of their particular learning needs'

'more use of feedback, targets and guidance; rather than grading and testing'

'catch up classes and extra tuition'

'children working not solely in same-age groups but also in same-needs groups'

I shall be referring to these 'news-bites' during the course of this article, but it is already clear that if they demonstrate anything it is that no-one has a definitive definition of personalised learning. Over the next few months we as educators are likely to have to come to our own interpretation of what personalised learning means, and how we might implement the spirit of it in the classroom. In the meantime what I hope to show in this article is how we can begin to make use of ICT to help deliver learning that could be considered personalised. In particular, I shall be looking at online learning technologies, including virtual classrooms, virtual learning environments, forums, wikis and instant messaging.

What are online learning technologies?

I am currently working alongside a small group of fellow teachers to teach primary children throughout a local authority a range of short courses designed to support specific needs within the classroom; for instance gifted and talented pupils, booster groups or specific curriculum areas such as Internet awareness. The key difference is that the lessons are delivered and supported using a number of online learning technologies rather than face-to-face. These technologies include virtual learning environments and virtual classrooms. Virtual classrooms are computer applications that attempt to replicate as closely as possible the experience of learning in an actual classroom, but use the

Internet as the vehicle for delivery. Participants use a headset and microphone, webcams and text chat to communicate with each other, and content is delivered using whiteboards, presentations and sharing of applications. The participants could be located anywhere as long as Internet access is available.

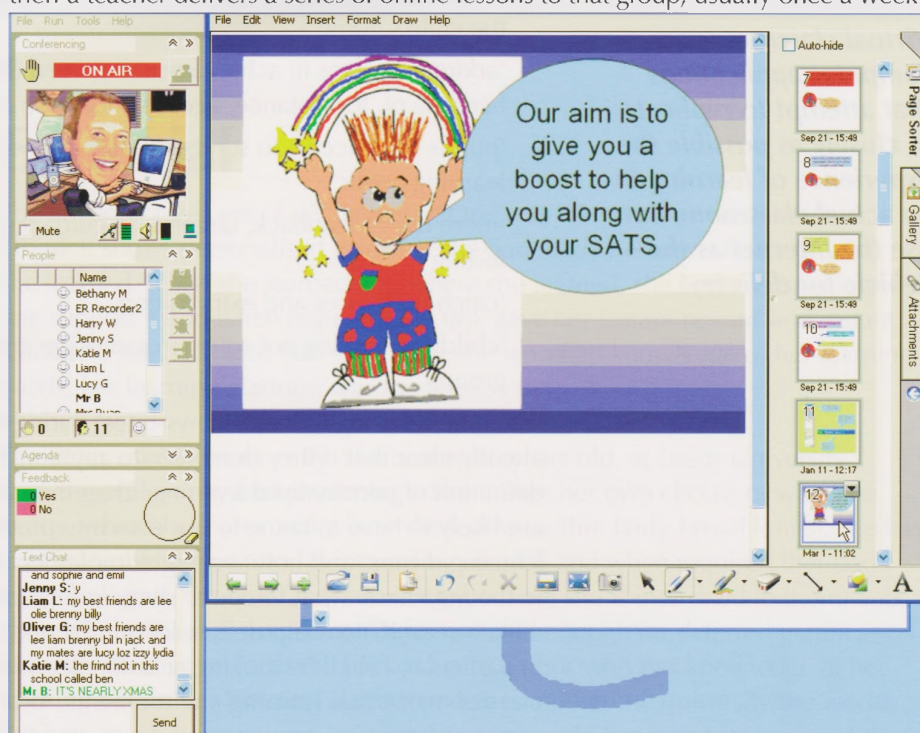
We work in partnership with small primary schools to provide support for groups of children, targeting specific learning needs. We bring learners and teachers together in a range of groupings (individual, small group, mixed schools, mixed ages, whole classes) that exploit the technologies to provide a personalised learning experience for those learners.

Schools have responded well to the central support we provide for them, and I'd like to outline some practical examples of how these online technologies are being used in the local authority in an early attempt at addressing the personalised learning agenda.

Using a virtual classroom to deliver small group support

We use a virtual classroom product called iLinc LearnLinc to deliver personalised learning to small groups of children, often from a mixture of different schools at the same time. These are targeted at specific needs, such as enrichment courses for gifted and talented children or SATs booster courses. The schools select pupils who would benefit from the range we have on offer, and then a teacher delivers a series of online lessons to that group, usually once a week.

Fig 1 shows an online lesson in progress. The children have been chosen by their school to receive extra support in numeracy in preparation for SATs in Y6.



The children can receive targeted support in a small group scenario without the need for staff in school to be available.

The children log into the virtual classroom once a week, each wearing a headset and microphone. Using the same, I can talk to the children, and they can talk back to me. I use prepared resources, including websites and SMART Notebooks which are presented on screen just as they would be on an interactive whiteboard at the front of the classroom. There is also a text chat facility where children can send messages to me using the keyboard. This adds extra interactivity into the virtual classroom as every child can send an answer to every question, allowing me to gauge their understanding clearly. It also allows children to send private messages to me, providing a secure way of asking for help without the rest of the group knowing.

The children can thus receive targeted support in a small group scenario without the need for staff in school to be available. This is particularly useful for the many small rural schools we deliver to, where additional staff to provide small group support is at a premium. It is also a formula that works well for after-school and before-school sessions, and because the children can participate in lessons from any location, it is also possible to deliver into children's homes.

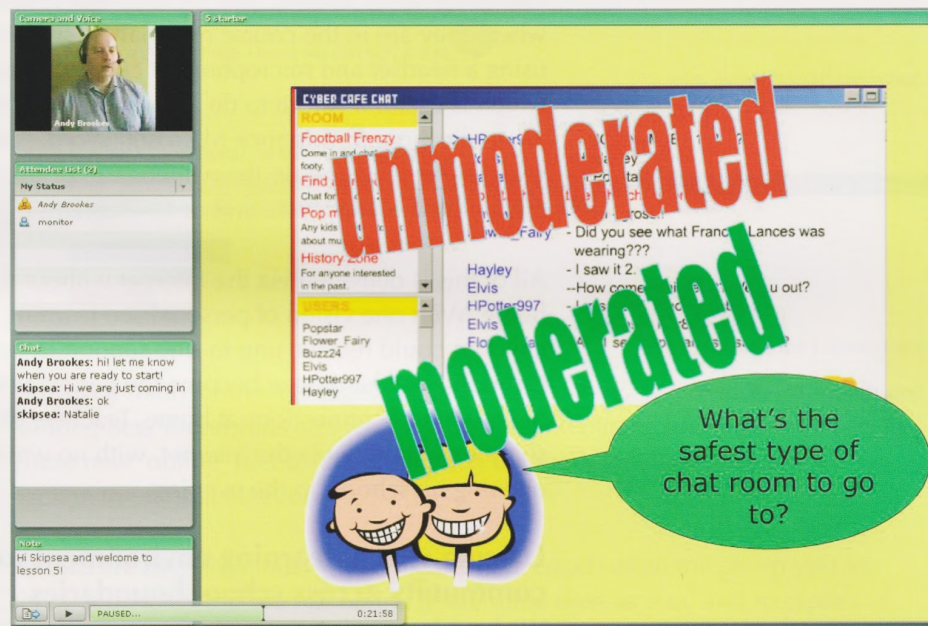
Feedback is collected through self-assessment and teacher-assessment, and is sent back to the schools so they know how the children have progressed in the online lessons, and what problems have been encountered. This allows schools to further support those children and set appropriate targets for them.

I'd encourage you at this stage to refer back to the 'news-bites' I compiled at the beginning of the article, and see if the use of virtual classrooms to provide small-group support fits in with the views on personalised learning.

Using a virtual classroom to deliver whole class support

We also use a virtual meeting product called Macromedia Breeze (now rebranded as Adobe Connect). This is a very flexible online meeting room that allows me to control exactly what appears on the screen at what time. The room consists of a number of 'pods' each of which has a different function. For instance, I can bring up a voice and camera pod so that we can talk to each other and view each other via a webcam. I can bring up pods that allow text chat, notes to be made, votes to be taken, web pages to be visited, files to be downloaded, or whiteboards to be used for instruction. All of these pods can be resized, moved or hidden.

In Fig 2 you can see me delivering an introduction to Internet safety (in this case, using chat-rooms) into a mixed Y5/Y6 classroom. The broadcast is projected onto an Interactive whiteboard in the classroom so the whole class can see.



One of the uses we are making of Macromedia Breeze is to deliver broadcast lessons into schools. This allows experts in particular subjects to deliver 'lesson starters' to stimulate further work going on in the classroom (see Fig 2).

In this example, I provide the first 15 minutes of the class lesson, delivered via the Internet, and set work for the class to then complete via our virtual learning environment, which the children can work on independently. The class teacher is able to tailor which activities we provide are suitable for which children. Broadcasts are useful in this way as areas of the curriculum which schools do

Broadcasts could be used to enrich the curriculum by bringing in experts in different subjects.

not have the expertise or confidence to deliver can be 'team-taught' with us via the Internet, with specialist teachers providing the initial input and class teachers supervising the children on follow-up activities.

In addition, broadcasts could be used to enrich the curriculum by bringing in experts in different subjects, maybe delivered from universities, work places, libraries or museums. They could be delivered into many schools simultaneously, or pre-recorded and offered to pupils as a bank of resources that they can pick and choose from, to fit in with their interests or research.

Once again, I'd invite you to refer back to the 'news-bites' at the beginning of the article, and consider how this different use of virtual classrooms could address quite different aspects of personalised learning from the previous section.

Using a virtual classroom to deliver individual tuition

We also use Breeze to deliver one-to-one tuition for students. One project I am involved in provides tuition to a group of KS4 children who are home tutored by the authority on medical grounds. I provide ICT work on our virtual learning environment, which enables them to work at a time and pace to suit them, whether that is weekends, evenings or during the day. Modules are arranged so that the students can pick and choose which areas they feel they need to study. They can vary their workload to suit their situation, studying more some weeks and less in others.

Children could receive one-to-one support in their homes.

Whilst manuals, forums and email allow some degree of support for the students, I make use of the virtual classroom to provide a weekly personal tutorial for each student. This allows them to receive support directly related to where they are in the course materials. Using Breeze, I can talk to individuals using a headset and microphone. I can show students my computer desktop which is useful if I want to do a demonstration of how to do something in an application, for instance Microsoft Word. Alternatively, I can bring up a relevant presentation on the whiteboard, or use the whiteboard like I would in a classroom to make notes and draw diagrams.

All of this is delivered via the Internet without the need for students to leave home. With one vision of personalised learning from our 'news-bites' being that children could receive one-to-one support in their homes, virtual classroom technologies like Breeze become the perfect vehicle, especially with the growth of broadband connections at home. Teachers or other staff could deliver short, sharp extra tuition via the Internet, with no wasted time involved in travelling or opening up schools in the evening.

Using a virtual learning environment to create an online community across school boundaries

We have been using a virtual learning environment to provide resources and activities to support the courses that we deliver. This allows, for instance, small groups of children who are receiving booster lessons with us to access useful websites and attempt revision quizzes. The advantages of a virtual learning environment are well documented, for instance the children can access the activities from any computer connected to the Internet at any time to suit the child, whether that be from home, from school, from a library or from a friend or relative's home.

However, we have been exploiting our virtual learning environment as a way of bringing together groups of children with similar learning needs across schools.

In delivering a personalised learning course for gifted and talented children in mathematics, we often bring together a group of children from several different rural schools.

For instance, in delivering a personalised learning course for gifted and talented children in mathematics, we often bring together a group of children from several different rural schools. These children can work together in a virtual classroom, talking to each other and the teacher or even seeing each other via a webcam. They will take part in activities where children can collaborate with each other via text chat, or by taking turns speaking to the rest of the group, even sharing their computer desktop so that they can show what they have been doing. All this happens online, without the children meeting in real life. However, what happens once the lesson is finished?

With social collaborative tools like forums, wikis and chat rooms, we can turn the virtual learning environment into an online community allowing these children to ask for support at any time, help each other and work together all in mixed-age, similar needs groups across schools (or even regions or countries).

For example, all our groups have access to forums, which are the online equivalent of a message board. They can log onto their course from home, post a message onto the forum and read what messages other participants have left. They can then reply to each other's messages (see Fig 3).

hi mr b
by Holly - Friday, 17 March 2006, 02:25 PM
hi mr b you now my tiger every time i give it and the next time i come on the computer it is not me so what should i do mr b
[Delete](#) | [Reply](#)

Re: hi mr b
by Mr B - Friday, 17 March 2006, 06:33 PM
hmmmm, i will investigate this as soon as i can holly, and when i've found out what's wrong i'll post you a message here i hope we can sort it out!
[Show parent](#) | [Split](#) | [Delete](#) | [Reply](#)

Re: hi mr b
by Katie - Sunday, 19 March 2006, 02:59 PM
hi mr b i have made an animation about my flanimal the puffmoooooh but when i try 2 send it 2 a friend it gets mixed in with charlottes animation that she sent 2 me
what should i do
by katie
[Show parent](#) | [Split](#) | [Delete](#) | [Reply](#)

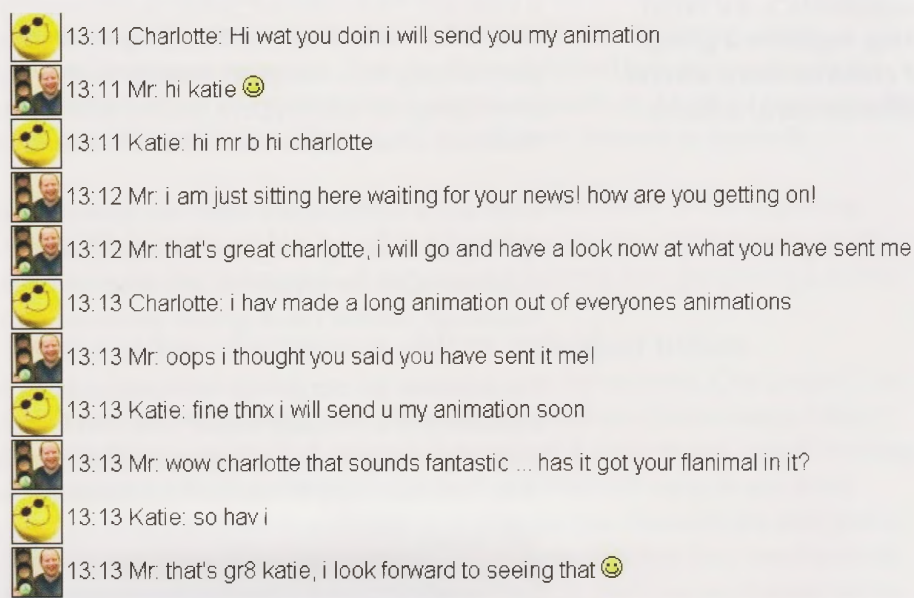
Messages can be about their work, for instance Figure 3 shows children requesting my help when they get stuck. Notice how Holly is logging in during her afternoon break at school, and Katie is logging in from home on a Sunday afternoon.

However, many of the messages are of a social nature, where these children are forming new friendships and learning about each others' hobbies and interests. These new 'online' friendships strengthen the work that the children then do back in the virtual classroom.

Forums are asynchronous, which means (like email) often the group you are sending messages to are not online at the same time as you, and so replies come some hours (or days) later. However, we can also set up a chat room so that children can communicate in real-time. Chat rooms are secure, and can only be accessed by the other children in the group, and at times when a teacher is available to moderate the discussion. Chat room discussions can also be saved for future reference. It gives children another online tool in which to communicate with children with similar learning needs to themselves, even in very small schools where a child may be the only one with a particular need or talent.

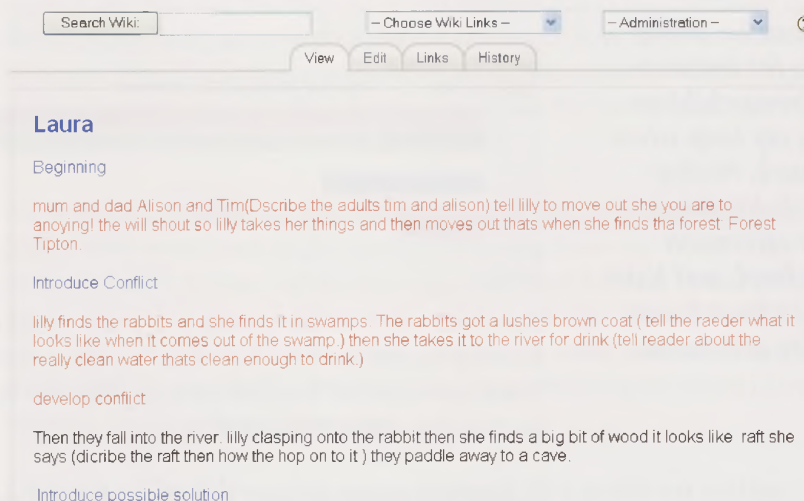
For example, I teach an online animation course for gifted and talented KS2 artists. After several live lessons in an online classroom learning the skills and

techniques needed to make animations, the children spend a week during which they work independently in their own classrooms making their animation. We timetable a time whereby they all come online and enter a chat-room on our virtual learning environment.



An example of this discussion is in Fig 4. Here they can interact with me, telling me what they have been doing and where they are up to, and also share their progress with the other children in the group.

We also make use of wikis to allow children to work on projects and tasks outside of the timetabled lesson. Put simply, a wiki is a webpage that children can edit themselves, adding to, changing and deleting content. We find wikis are fantastic at allowing children to continue to work on things at home. For instance, in lessons with gifted and talented literacy children, we use wikis to enable them to plan a story online.



In Fig 5 Laura is using a wiki on our virtual learning environment to plan her story using the headings set up by the teacher.

Notice the tabs along the top of the wiki, allowing Laura to view the work she has done so far, edit her work, create more pages and link these to the pages she has already done, and also to view the history of the wiki. This becomes a very powerful tool for children to take control of their own learning. By looking at the history of the wiki, Laura would see a copy of how her work looked after each visit to the website. She could review how her story plan had changed over time, and go back and revisit earlier versions if she so wished. If she decided she wanted to return her work to how it was previously, her wiki will allow her to do that. In addition, the teacher can add comments into her work, and other children in the group can view each other's wikis, adding comments of their own if they wish.

Suddenly we are seeing a very powerful form of personalised learning, whereby children in different locations are brought together to support and work together.

So now we have a much more powerful process, where children can work on their story at any time and from any location, asking for help from the teacher through the forums. They can interact with other like-ability children from other schools using the virtual classroom and online chat-room. Each child can use the wiki to track how their story plan and story has developed over time, and experiment with their work as much as they want, safe in the knowledge that they can revert to a previous version of their work at any time. The teacher can use the wiki's history to see what stages each child has gone through to reach their final version, and each child can view and comment on the rest of the group's work.

Suddenly we are seeing a very powerful form of personalised learning, whereby children in different locations are brought together to support and work together. Once again, I'd refer you back to the 'news-bites' on personalised learning at the beginning of this article.

Where next for personalised learning and ICT?

It's interesting that 'personalised learning' should become the next buzz-phrase in education after 'blended learning' and 'e-learning' as I believe ICT has the potential to significantly address the personalised learning agenda.

Current online tools that children are increasingly making use of in their leisure time, such as forums, wikis, chat rooms, website-creation tools, blogs and instant messaging, could all be made use of in the challenge of making learning as personal as possible to children.

The examples that I have given here are still very much about educationalists creating the content and the opportunities for children to access learning. Without doubt, the online technologies I have highlighted here are helping to target learning to those pupils who require it, and deliver this in an anytime, any location format. However, whilst the use of virtual classrooms is currently in its infancy in primary education, perhaps we should already be looking past this to how online learning technologies could be used to place children firmly in charge of the learning process.

There was one 'news-bite' that I didn't list at the beginning of this article. That was the concept of children being the ones that support and teach each other to learn whatever they want. Is this possible? Is this personalised learning? Is this nonsense?

The 'Web 2.0' concept of people creating their own content on the world wide web, in collaboration with each other, is already a reality, and is leading to a many-fold increase in the content that is available on the Internet (just compare the breadth of articles on Wikipedia, an encyclopaedia that is created by anyone and everyone, with the number of articles in Encyclopaedia Britannica if you don't believe this to be so!)

Is it really such an impossibility that the children of the future will be expecting to create their own learning in response to their own circumstances? Ian Jukes and Ted McCain, when predicting the direction education will take in the near future in their book 'Windows on the Future', came up with the following list:

- Education will not be confined to a single place
- Education will not be confined to a specific time
- Education will not be confined to a single person

Is it really such an impossibility that the children of the future will be expecting to create their own learning in response to their own circumstances?

Education will not be confined to human teachers
 Education will not be confined to paper-based information
 Education will not be confined to memorisation
 Education will not be confined to linear learning
 Education will not be confined to the intellectual elite
 Education will not be confined to childhood
 Education will not be confined to controlling learners

Author Notes

Andrew Brookes is an ICT teacher working for the East Riding of Yorkshire. He has taught in a number of authorities around the country, including coordinating and teaching ICT for a cluster of small primary schools in Derbyshire. He has lectured in Primary ICT at Edge Hill University and has had articles published in The Times Education Supplement, Mathematics Teaching and Language & Learning. Andrew welcomes any comments and can be contacted at andy.brookes@eastriding.gov.uk

He is writing here in a personal capacity.

You might like to compare this list with the 'news-bites' earlier and you may see some similarities between this vision of the future and the current personalised learning agenda.

With the range of online tools available today, such a vision could become reality. Blogs are becoming ever popular, and now many virtual learning environments (including Moodle) incorporate them. Blogs are essentially online diaries where people can record their thoughts on any subject, and invite others to read and comment on their thoughts. They could use them (or simple website creation tools such as the popular MySpace or Piczo) to document their learning in any subject, allowing children to become online experts in a particular area, and allowing other children to learn from them. Social networking websites (for instance Bebo) could allow children to connect with other children who share similar interests, or who wish to learn similar topics. They could then use instant messaging technologies to discuss such learning with each other. Or they could use virtual classrooms to form their own classes, where children act as teachers to other students.

The point is that the vast range of online tools available today could create a revolution in personalised learning for the children of today. Whether this will happen, whether it is desirable and what role we would play in such a change is open to debate. History suggests that schools and classrooms will change very slowly over time. However, there is no slowness in the way that today's children are making use of Internet technologies in their own leisure time.

So the question for us all to consider is, what does personalised learning really mean for schools, teachers and learners; and how can online learning technology be used to make this a reality?

Footnote

For a more detailed discussion on blogs, wikis and other 'Web 2.0' tools, you might like to refer to Gareth Honeyford's article in Naace Primary Focus on Interactive Teaching Technologies.

For a more detailed discussion of how a virtual classroom works, you might like to refer to my article in the Naace Primary Focus on Interactive Teaching Technologies.

Both can be found amongst the publications on the Naace website: www.naace.org

Offering learners a voice

Margaret Allen



“We must not write off some children as unfit for the world of education. It is our responsibility to make the education system fit the needs of all children... We need to unlock everyone’s diverse capabilities. This doesn’t mean one to one tuition, it does mean responding to the individual needs of children who are stuck, bored or de-motivated and re-engaging them with the education system.”

Alan Johnson, Secretary of State for Education and Skills, May 2006

How can a teacher engage this child?

This child’s future is being personalised by today’s experiences. Each child is an individual and, of course, every child does matter, but how can a teacher work with every single child individually while continuing to meet the day to day learning objectives for the class as a whole?

Learner response systems provide a mechanism for every child to be individually involved in class discussion – a way of personalising learning as a part of whole class teaching. When interactive whiteboards are used with response devices they can generate opportunities to give immediate feedback, to foster self review, to gather opinions and to establish children’s understanding of right and wrong. All of this is prerequisite to their developing into responsible citizens of the future.

Effective questioning is the key to establishing understanding and therefore offering an opportunity for all children to respond and be included in any discussion is vital. When a class of children is asked a question, there will always be those who know the answer and put up their hands, there will also be those who don’t know the answer yet still put up their hands and then there will be those who passively observe or opt out. Why ask one child when you can have the whole class responding and offering opinions?

Nobody likes getting the answer wrong, but it is often necessary to learn through mistakes when visiting a concept for the first time or learning a new method of doing something. Children may hesitate to ask for further explanation if they feel they are the only one who does not understand. Using a learner response system to ask anonymously is an ideal way of raising self esteem for those less confident pupils who would struggle to ask.

“The question facing us today is simple: What do we need to do to make personalised learning the defining feature of our education system? ...

Giving every single child the chance to be the best they can be, whatever their talent or background, is not the betrayal of excellence. It is the fulfilment of it.”

David Miliband MP,
formerly Minister of State for
School Standards, North of
England speech

Author Notes

Margaret is an experienced Primary school teacher who has written for several educational magazines on the benefits of Interactive Whiteboard Technology in Primary schools. She has explored ways of engaging children using the IWB as a learning hub for teaching and learning firmly believing that the IWB is a powerful tool in a classroom. She would love to hear from teachers using this technology and can be contacted at margaret.allen@prometheanworld.com

Inviting children to appreciate the feelings of others in situations where they will have had first hand experience, is one of the first steps to developing empathy and helping children to talk about their own feelings and emotions. It is possible to create a variety of different scenarios on the whiteboard and then ask children to describe how they would feel if they were to ‘become’ one of the characters portrayed.



If personalised learning is about offering learners a voice to communicate their feelings about a particular topic then we need to ensure that they feel comfortable doing so. Using scenarios which allow children to identify with a character is a safe way of inviting opinion and encouraging discussion.

The Primary National Strategy for social and emotional aspects of learning (SEAL) has developed a whole range of resources for developing social, emotional and behavioural skills, with built-in progression for each year group within a school. Amongst these are some wonderful photographs to stimulate debate within the five strands which underpin the whole programme. These are: self awareness, managing feelings, empathy, motivation and social skills.

The resources are available from www.bandapilot.org.uk

The Gilbert Report states that personalised learning is primarily about every learner having a voice and communicating. Using modern technology we can ensure that giving every learner a voice does not mean sacrificing the rigour and pace of teaching or watering down the curriculum.

Editor's Note

For more about the use of learner response systems in the classroom see the article ‘Voting with their fingers’ by Graham Dean in Sharing Success Issue 3 (February 7th 2007) or ‘Kangaroo court’ by Steve Bunce in Naace Primary Focus on Interactive Teaching Technologies (Summer 2006) for which Steve won the Chris Robson Memorial Prize for 2006. Both can be found amongst the publications on the Naace website www.naace.org.

A day in the life of Sam Smart

Sunday, November 18th 2010



Time 11.30am

Late night at the Gaming Zone last night. Got chatting to Sancho who was offering advice as to how to encrypt the entry code to Tombs of the Forgotten Mecarpo Warriors – I'm always amazed by people who reply to a message sent out on the Zybot user club! Sancho's based in Brazil...think he lives in a pretty deprived area but they have Learning Zones that they can visit in order to use technologies that they would never get access to at school.

Time 1.40pm

Pretty active morning! Went for a run with Betty (Tibetan Terrier) to wake myself up a bit (and to please mom who is trying to keep obesity at bay (mine, not hers!). Actually, I think she is obsessed – I'm thin enough to escape through the bars of any prison!! 5.1 miles in 40 minutes and 27 seconds (I had a transponder on my laces; hence the accuracy). Not really Olympic times but at least I can now log on and add it to my personal performance portfolio. I need to log on anyway to sort out my timetable for this week.

Time 4.30pm

Mom took me to visit Nan this afternoon (don't mind as she makes great king sized scones with loads of jam – mom always frowns disapprovingly; Nan tells her off!). No problem about planning my working week as have just logged on from my PDA and multi-tasked btw overs (watched England take another pasting at the hands of the Aussies). Might sound sad using a PDA whilst watching cricket – but the alternative is that dad would be describing to me (yet again) the intricacies of reverse swing.

Anyway . . . have chosen to work at home on Monday, learning to solve linear simultaneous equations (sounds cool to me)! I quite like logging on to the school network to select maths modules. The teachers have created learning objects (really pre-recorded lessons) and the resources are on the school web site. One of my mates is a maths genius; he logs on, watches the 'lesson', reads the material, uses his Playstation for half an hour, comes back and does the assessment (which annoyingly he always passes) and the system logs him as being at school all this time.

I see that Miss Jones (now she is cool) is taking a unit on Macbeth on Tuesday morning. I've booked myself a place on that session. I like going into school to study English – doesn't seem the sort of subject that's much fun to study on your own (can't beat a good discussion with everyone defending their views). Miss Jones gets very passionate about Shakespeare and, in full flow, is a sight to behold. Have also managed to book a place on a music day on Wed. The teacher has a set of Djembe drums and we will be using a PC to help us compose and record our own numbers which we will then copy to CD or DVD. Probably put 'em on the web too – maybe get Sancho to do something similar



and we can exchange compositions. If ours is any good, I might find an on-line international music festival to enter it into.

Will prob join an on-line discussion on Thurs with Prof. Harry Pointer from the University of Illinois. He's an expert on geology and will be trying to explain to pupils around the world how the Tsunami occurred and why the consequences were so severe. Normally these talks use great models and graphics to illustrate the talk – much better than anything we could get at school.

Time 7.00 pm

Just resubmitted my assignment electronically – on the effects of global warming on the UK. On my first attempt the teacher said I hadn't considered the effect of the melting ice cap redirecting the gulf stream. Loads of info on that on the web. Got some expert views, read the Wikipedia take on it, consulted the Geographical Association and then just had to synthesise all this info to produce a concise answer.

On Thurs afternoon I always go to the Old People's Home (part of my community module). I teach a group of 4 elderly ladies about e-mailing. They are a right laugh...so funny!! They think I am a genius and I don't want to disillusion them! Three of them have relatives abroad who they want to communicate with; the fourth writes to herself so that when she next logs on tomorrow there will be an e-mail reminding her what she did today. Weird or what?! They also complete a feedback form which gets sent to my school where it resides in my community service section of my e-portfolio.

Don't appear to be doing much for history this week. I have a project about Victorian architecture to do and need to wander around Birmingham to take some pics (I could use Google images, but I fancy going into Brum cos I need a new pair of trainers). Then have to write about the characteristics that enable me to deduce that the buildings are Victorian – hopefully most of them will have a date plaque on them!! Or I could download a map of Birmingham in 1881, compare with today's map and look at the differences. Cunning or what?

Time 9.30 pm

Planned my week – looks pretty good. A bit of on-line chat with Pierre should enable me to improve my French, & if I can squeeze in watching a couple of French films then my listening skills should improve. A couple of weeks ago was quite good; we made a short video about Birmingham's canals (more than Venice) and then had to put a French commentary over the top of it. French spoken with a Brummie accent is v funny! It completely lacks the seductive twang of the French themselves!! We sent it via a podcast to several French schools who expressed an interest. One wrote back to ask what language was the commentary in! Is there no end to French wit!?

Anyway, submitted weekly plan and should get an e-mail response within 5 minutes that assesses whether or not I am doing enough work this week. Being able to plan our own week is awesome. Sometimes I am in the school lecture hall with 150 other students, sometimes working on my own. How did mom and dad ever cope with attending for 5 full days, with the same 30 kids all the time, all of the same age and with everyone changing lessons every 45 minutes?



Experimenting with online learning

Philip Griffin



... with few schools experienced in the use of learning platforms it is difficult to know what they might be used for or how they might be used to enhance learning and consequently difficult to know by what criteria a learning platform might be judged.

Trialling Think.com

A great deal of time and effort has been put into the development of learning platforms over the last few months. With the awarding of the Becta standard for Learning Platform just before Christmas, many schools and local authorities are now in the process of making a decision as to which of the 10 or so offerings to purchase. This process in itself creates a dilemma; with few schools experienced in the use of learning platforms it is difficult to know what they might be used for or how they might be used to enhance learning and consequently difficult to know by what criteria a learning platform might be judged.

What is a learning platform for?

The Becta standard required that any learning platform should integrate with the School Information Management system as well as allow the learner to create and share information. Integration with such systems as SIMS would mean that parents would be able to log on to the system and extract such data as their child's latest assessment scores, attendance rate and such like. This might be very useful for secondary schools, where much of this information is quickly generated using electronic attendance registers and assessments are formalised in each subject. However, for primary schools these matters are much less important - attendance may be updated once a week using OMR registers and assessments may only take place termly or twice a year. The sheer amount of data is very different between the two sectors.

Perhaps more obviously, the title 'learning platform' conjures up a much more education based idea. That is, it is to do with learning, not with teaching, and it is a platform, a place where content can be created and shared. If a learning platform under this interpretation is to be effective, then it has to enable children to undertake meaningful learning activities using the system.

How a learning platform in this sense works thus becomes a matter of pedagogy. Some learning platforms are all about teachers setting assignments and the children responding. An assignment may require a response, either text based or multimedia based, or may be a set of multiple choice questions. The results thus produced may be automatically transferred to an assessment system, grading the learner. Other learning platforms may allow children to create content of their own, in response to a teacher initiative or because they enjoy creating content. Content may be created either individually or collaboratively on the learning platform, with joint areas allowing children to work together on a project.

Access and configuration issues

For the last year our school has been using Think.com as a learning platform. Think.com is not on the Becta list of approved platforms, and due to its international nature, never will be. It does, however, fulfil the characteristics of a learning platform in that it allows learners to create content, either individually or collaboratively towards a particular goal. It is also easy to use.

... our recent ICT survey showed that many families have multiple computers with broadband connection. The assumption must be, and asking the children confirms this, that many of our Y6 children have internet linked computers in their bedrooms.

At present we have some 120 children on Think.com - that is most of our Year 6 and Year 4 children. All of these children have their own individual pages, plus some collaborative projects which they can share with other learners. Usage varies, depending on several factors, such as the time of year and whether there is a project to be completed. Naturally usage is highest when children are first introduced to Think.com, and then tails off. We have had 20 children online at the same time - incidentally we have also had children online as late as 10.30 on a weekday evening. As well as being able to access Think.com from home, the children can of course access it from school, using their own individual login and password. Our ICT Technician runs a Think.com club one lunchtime a week aimed in particular at those children who do not have an internet connection at home. With our particular catchment, these children are in a very small minority - our recent ICT survey showed that many families have multiple computers with broadband connection. The assumption must be, and asking the children confirms this, that many of our Y6 children have internet linked computers in their bedrooms.

Before any child can use Think.com parental permission must be obtained - the responsible adult must accept Think.com's terms of use and privacy policy. These are circulated to families before they start using Think.com in Year 3 and are also available for parents to download on our parental Google Group. Since the terms of use and privacy policy are produced by Think.com's sponsor, Oracle, they cannot be varied, and there have been one or two parents who have not agreed. However, most are quite happy. We also send home Internet Safety guidelines with the Think.com permission form and when the children are introduced to Think.com we make sure that we have covered the points included in the guidelines. We have already built Internet safety into our PSHE scheme of work.

Although Think.com is an international learning platform, it is configurable to a limited extent. As a school, it is possible to decide whether to allow email within the system and whether to allow contact between our children and children from schools across the world. We have decided at present not to allow either of these facilities. As there is no way of checking the content of emails sent, we decided that the use of email might allow some children to bully others through email and this could be undetectable and unprovable. Oracle has stated to us that we cannot access children's email accounts to check on content as this breaches the Freedom of Information Act. Also for safety reasons we have only allowed contact with children from our own school as Think.com has much older children using it, whereas ours are in the younger age range. We believed this would reduce the possibility of unfortunate contact.

Think.com also has inbuilt features which help teachers monitor or control the content. Each image, once uploaded, has to be approved by a teacher. Thus we draw the line at pictures of Bart's butt. There is also a bad language filter, which stops the children typing in inappropriate words. This has only been called into play once, when a child typed in a text type message "Can you cum round tonight" which fell foul of the filter. Transgressions are flagged up to the administrator of the site, who can, if necessary, take action against the child involved, for instance disallowing access to Think.com for a period.

Any teacher can flag up inappropriate content on any page and instantly make sure that it cannot be viewed. Each day our ICT Technician checks a number of pages at random - and our children and their parents know that this is happening.

Using Think.com

Use of Think.com starts at the end of Year 3, where it is part of the unit that at one stage concentrated on email contact alone and now additionally shows the children how to use Think.com. At first we only cover some very simple techniques, but the children quickly learn for themselves how to add more content. One of our teachers was very surprised to find that children in her class were using features which she thought would be beyond them, proving yet again that children are unafraid to experiment with ICT. In Year 4 the children are introduced to working collaboratively on projects, while Y6 use the site in conjunction with some of our other online resources, such as M-Explore, to add images to their pages. They are also using it to upload work at home and continue it at school.

Examples of how our children are using Think.com on their own initiative are:

- Sending each other stickies to arrange meetings or just to talk to each other. (A sticky is a post it note which can be attached to any page and, since we have cut out emails, is the only way that children can easily contact each other).
- Adding pictures of their pets and friends (although we do not allow captions which name the people in a picture).
- Writing poems or other short pieces of text.
- Creating votes on topics such as (inevitably) favourite football teams.
- Creating lists of their favourite things- teams animals etc.

All this activity is fairly low level, but the children are using the facilities of Think.com to create content of their own choosing. They are learning to use the system, and upload information in various forms. However, some children move further.

Some children have asked to start collaborative projects with other children. They have created pages of information about a topic of their choice, after receiving the agreement of their teacher.

Some children have asked to start collaborative projects with other children. They have created pages of information about a topic of their choice, after receiving the agreement of their teacher.

Picture: | 13/12/2006
RATS!!
 Hannah T

Two Rats + A fancy rat + You will know what I mean when i said FANCY rat if you read this.

Public Content [Move] [Delete] [Edit]

Report | 13/12/2006
RATS!!Good or bad?
 Hannah T

Some people think rats are horrible creatures. Well, this is what would happen if there were no rats.

Some projects are instigated by teachers for a class or Year group. These projects are generally linked with work that children are undertaking in class. Some of these activities are homework based, and some include opportunities for teacher or peer feedback.

Some curriculum activities are based upon Think.com. For instance, both Y4 and Y6 are involved in research topics over the next few weeks and will be able

to share ideas and collaborate over their work, drafting and redrafting the ideas of others in their group.

Some teachers put weekly plans for their class on the site so that children know what is happening in the next week. Homework lists are added to the site for some year groups, in addition to them appearing for parents on our Google Group.

As the site administrator, I have an 'ask me' on my page which allows children to ask questions about homework or about how to do particular actions on Think.com

Three areas which we are seeking to develop are:

- The school council's page on Think.com where there will be opportunities for children to feed back to the council or to raise new ideas.
- A news page for any child to add information about events at school.
- An ICT portfolio page, where the Learning Objectives, Context and Success Criteria for different ICT tasks are listed. Children upload their completed ICT tasks on to their own page, and then write about how they have completed their work to reach the Success Criteria.

One year on

After a year the children are enjoying using Think.com and even the youngest children who have access have learnt to use many of its facilities. Some of the collaborative projects have been very successful, as has the facility for the children to upload and download work to move it from home to school. The children have had few problems using the system. For the teachers, however, Think.com is far more of a problem.

Whereas nearly all of our children have the internet at home, the same cannot be said for all of our teachers. Time is even more of an issue. Our staff spend many hours at home planning lessons and assessing work, they do not need an additional burden to be added to their already heavy workload. Time at school is precious with teachers arriving early in the morning and not leaving until the caretaker closes the school in the evening. Finding time to learn about and then create additional resources on a learning platform is not as high a priority as creating interesting and meaningful lessons.

Learning Platforms - issues for consideration

At the end of our year's trial we feel that we have learnt a great deal about learning platforms and some of the features that will make them a success in our setting. We also know about some of the barriers that will stop them fulfilling their potential.

Accessibility

Any learning platform must be readily accessible. This is a matter for the school in terms of its network organisation and for individual families in terms of whether they can afford or desire to have an internet connection.

Our staff spend many hours at home planning lessons and assessing work, they do not need an additional burden to be added to their already heavy workload.

Ease of Use

It is essential that any learning platform should be sufficiently easy to use so that the youngest learners can begin to make use of some of its features.

Security

Internet security is only as good as the users' logon and password. Adult and child passwords need to be kept separate, but, even so, it is impossible to ensure that an adult is not logging on with a child's password. The possible ramifications of this are very serious.

Time

Teachers are already pressurised as far as time is concerned. As with any new initiative, introducing Learning Platforms for learning, as opposed to for administration, must fall within the remit of the educational professionals, and teachers already have enormous pressure on their time.

Purpose

For primary schools the main purpose of learning platforms should be education, not administration. They must be fit for purpose in that they provide good educational opportunities.

Futureproof

The growth of web technologies may well be moving to using online word processors and digital storage. Any learning platform must have the basic ability to use such technology and any future technologies, for instance using PDA's and mobile phones, even if some development still needs to take place. Learning Platforms are a great opportunity to provide personalised learning opportunities both in and out of school. But providing the platform and even content on the platform is not enough by itself. For learning to take place there needs to be input by teachers; without this the initiative will not be successful.

Author Notes

Philip Griffin is a classroom teacher at Radstock Primary School and a leading teacher for Primary ICT for Wokingham Local Authority.

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RM maths

Colin Hill



The RM Maths Learning System enables teachers to personalise the learning of each child in the class, using a comprehensive series of tasks within a learning program.

Keeping track

In the primary school classroom, keeping track of up to thirty pupils is a challenge to any teacher using any method – but it would be near impossible to monitor the detailed progression of every child in a subject as complex and diverse as numeracy. Yes, it is possible to make an assessment at the conclusion of each numeracy session, but this is likely to be both subjective and imprecise.

Technology can help. The RM Maths Learning System enables teachers to personalise the learning of each child in the class, using a comprehensive series of tasks within a learning program. The system also monitors the progress of each child, providing a detailed record, which together with the professional expertise of the teacher can show strengths and weaknesses and highlight areas where additional support is required.

RM Maths has been used within my own setting for at least five years now, primarily in the Year 1 class. Recently this was further extended to all Key Stage 1 classes to support the numeracy teaching.

The software helps track each individual child's progress with children being able to learn at their own pace. The tracking information provided is only available to the teacher. The system is very easy to use with the only onerous (but inevitable) initial task being to set up each child's profile within the system by entering name, sex and date of birth. The software recognises each child's precise age and therefore sets the tasks at an appropriate level to foster and extend understanding. The program also allows the teacher to specify the length of time allocated to each child for each daily session. This can be set so as to give maximum access for as many children as possible. Within my own classroom this has been set for 15 minutes per day. Obviously this does not allow every child in the class to have a turn every day, but the intention is that each child should receive at least one session per week (with lower ability children having more than one session). Poor reading ability is no barrier to use of, or success with, the program as there is full audio support.

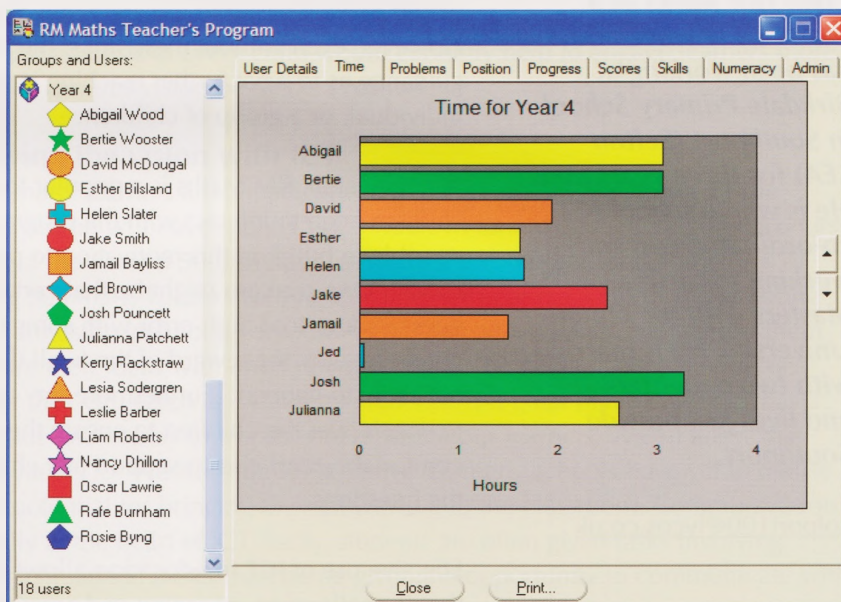
The tasks within the program are wide ranging, checking ability across the broad spectrum of mathematical skills. The reassuring female voice presents each question in a child-friendly manner and children can work at their own pace clicking on the blue button when they think they have completed the question.

All this cumulates to a powerful tool for the teacher, providing detailed information which, when analysed, can assist in personalising learning by mapping progress and pointing out where further teaching is required to support individuals with problems.

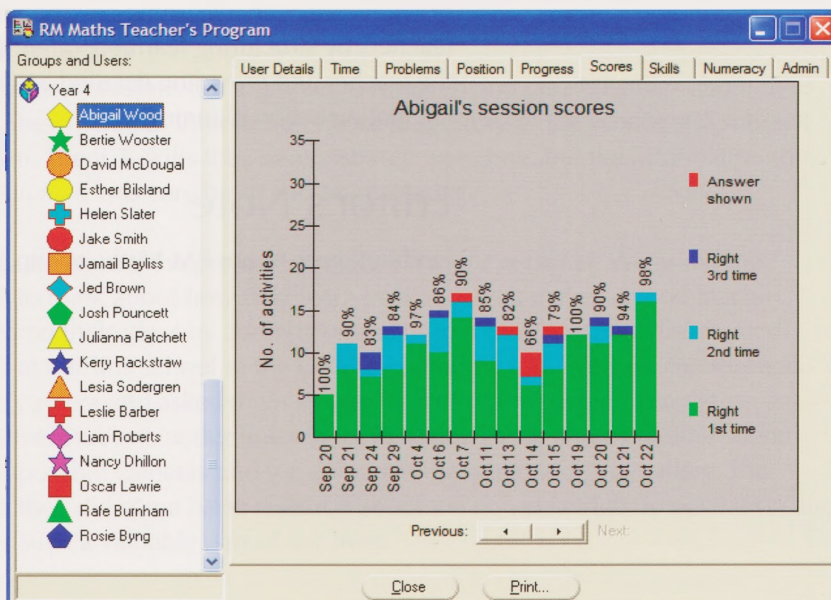
The program allows the children to 'try again' if they get the question wrong, finally moving the child on by giving the correct answer if the error is repeated on more than two occasions.



The teacher is able to view every individual's progress, or the progress of a group of children, using the teacher's program within the software. The teacher is also able to monitor how much time the children have spent on task thus ensuring that there is a continuous interactivity with the program, and that no child is squandering the access opportunity.



RM Maths also has the facility to show how many activities the children have completed and how many questions they got correct first time, second time or third time, or if the answer had to be given to the child, thus highlighting problems and misunderstandings. The teacher has access to a (printable) report which summarises any consistent trouble.



This table, taken from the program, describes the problems encountered by one particular group of children (individual reports are also available).

RM Maths Learning System
Group Problem Skills
Current Problems:
Number Abstraction F 1 - Recalling 1 or 2 objects with action as a clue, and mentally adding these to an unseen group of 5 similar objects, and selecting the new total.
Number Abstraction F 4 - Mentally subtracting one from a reference group of 6, 7, 8, 9 or 10 objects, with only an audio description of the reference group.
Partitioning I 2 - Using partitioning skills (21-29) to play a game.
2D Shapes H 2 - Identifying hexagons and pentagons by name without a prior example.
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Author Notes

Colin Hill works as a Year 1&2 teacher, and has been working at Birkdale Primary School in Southport (Sefton LEA) for three years now. He is whole school ICT co-ordinator, currently working towards a Masters with the Open University. He is married with two daughters and lives just outside Southport.

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Although the program provides valuable data about what children may be struggling with, it would be better if it linked directly with the Numeracy Primary Framework, or even the older Numeracy Strategy objectives. This would make it easier to integrate into planning and lesson preparation. However, even without these links, the program is very useful in providing guidance as to what further teaching is required to meet the needs of an individual, or a group of children.

In conclusion, RM Maths is a popular tool within my classroom, with all children keen to interact with the program. They enjoy using ICT and it is possible to build on this motivation to personalise learning even within a large cohort. One concern might be that certain lower ability children would just use guesswork or trial-and-error with some of the questions, but it is clear that the children enjoy the reward of the 'well done' from the program and this does not seem to happen. Furthermore, my teaching assistant is regularly assigned to watch over the children to ensure they are interacting with the program comfortably, and also to support any children who may struggle to understand the questions.

Effective use of ICT in education allows children to develop skills in a context that is challenging, engaging and enjoyable. RM Maths is a tool that not only provides just such a learning environment for the child, but also supports teachers by structuring learning, offering challenges which may even be new to the teacher and providing detailed analysis of the progress of every child, thus facilitating action planning.

Editor's Note

Find out more about RM Maths at <http://www.rm.com/Primary/>

A right to a real education

Alex Savage



By the age of 21 the average person will have spent 15,000 hours in formal education, 20,000 hours in front of the TV and 50,000 hours in front of a computer screen.

Am I bovverd?!

Have you ever stopped to think why students lack the motivation to learn? According to research produced by EPPI Centre 'pupils are more likely to be engaged with the curriculum they are offered if they believe it is relevant and if they are given opportunities to take ownership of their learning.' This requires a shift in focus from concentrating on what we teach, to learning more about who we teach it to.

The 2020 Vision Gilbert Review identifies the vital role of personalised learning to 'transform education'. This vision of tailoring the curriculum to the unique needs and interests of every child would certainly help to engage learners more. However, can this vision be made a reality?

Achieving the vision with ICT

In fact, many learners are already ahead of the game. 'By the age of 21 the average person will have spent 15,000 hours in formal education, 20,000 hours in front of the TV and 50,000 hours in front of a computer screen' (Futures of learning Seminars, Future Learning Practice; seminar report June 2005). Young people are using technology informally to learn about issues that interest them and share their ideas with online communities. The challenge for schools is whether they can catch up with their students! It is clear that technology has a significant role to play to inspire and motivate our learners. We all know that WWW stands for World Wide Web. However, many schools have yet to realise its true potential for bringing the real world into the classroom. Communication is literally at the heart of ICT. Sadly, students are often given tasks involving made up situations rather than being given the opportunity to communicate with a real audience for a real purpose.

A right to learn

In the past our students did a project to research and create leaflets about their school. They included information about the history of the school and subjects they learn. The ICT skills they demonstrated were fine, but the information they communicated was very basic and uninteresting.

This year we started the project by making it more personal. We asked the students to think about how they learn best and what makes a good teacher. They shared their ideas by adding comments to a blog post. We also invited students at our link school in the USA to contribute too. We gave the students a digital camera and asked them to take images of the school from their perspective. Students at our link school in Malawi took photos of their school using disposable cameras and we uploaded them into a digital gallery. The students then did some basic research about the universal right to education and why it is such a valuable part of our lives.

Author Notes

Alex Savage is an AST and SSAT Lead Practitioner in ICT. The main focus of his outreach work is on effective uses of ICT to bring the real world into the classroom. For more information, visit www.communicity.org

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With all of the ideas and information they had gathered themselves, the students are currently creating leaflets on the right to education and learning to learn. The best examples will be sent to our link schools. It will be the students that make the selection, not the teachers. This will provide a real reason for peer assessment and consolidate what they have learnt to produce a well designed leaflet with a clear sense of audience and purpose. Some of their leaflets and the lesson plans can be seen at <http://www.ndhs-sites.org.uk/ICT/7.3/index.htm>

Keep IT real!

Enabling students to research real issues, create real resources and communicate with a real audience gives their work a real purpose. The improved quality of our students' work proves that this motivates the students to produce their best. So, if you want to inspire your learners, remember to keep IT real!

Links

Alex Savage's Blog <http://www.communicity.org>

A Right To Learn lesson plans <http://www.ndhs-sites.org.uk/ICT/7.3/index.htm>

Futures of Learning Seminars 2005 Report

http://www.futurelab.org.uk/research/personalisation/report_01.htm

2020 Vision, Gilbert Review

<http://www.teachernet.gov.uk/docbank/index.cfm?id=10783>

Eppi-Centre Review on Motivation and Assessment

<http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=304>



We asked the students to think about how they learn best and what makes a good teacher.

Personal and social learning online

Robert Hart



We don't naturally learn in subjects or follow timetables, we follow our own interests and needs – and learn when and where and how we want.

But now we have computers and the Internet and it's much easier to give children real choice over what, when, where and how they learn.

What it is and how it works

If we are going to help develop Personalized Learning for children we need to establish what it is and how it works.

First I have to say personalised learning is a misleading and distracting term. I prefer personal learning. That's how you and I and all of our children naturally learn. There is, of course no such thing as learning that isn't personal – but there is teaching or content that isn't personalised.

You and I learn informally by being in life, talking with people, trying out new ideas. I learn formally only when I really need to – like when I try to follow the IKEA flat-pack instructions.

We don't naturally learn in subjects or follow timetables, we follow our own interests and needs – and learn when and where and how we want. I want to know what that thin leggy white bird is and what it's fishing for in the river shallows. Now, what subject is that – science, biology, zoology, nature study, ecology or environmental studies? When are we doing zoology? Wednesday afternoon?

Nor do we only learn on our own. We learn socially - if we want to know something we'll ask a friend and if he doesn't know, he'll often recommend we talk to someone else. If I can't fix the IKEA shelves together, I'll ask my wife to help and we'll have a go at it together.

In the early 1980s it was my privilege to open a brand new primary school in Hertfordshire. I had free reign to run the school of my dreams - and I did. One of our aims was that every child would have her own curriculum, following her own interests, meeting her needs, assessed to her own standards. Each teacher met with each child, and usually her parents every half term, and negotiated the focus of the child's learning for the next six weeks and then reviewed and refined her programme daily. For example, we knew all the children needed to learn to read but with our help, they could do it by reading whatever motivated them - West Ham football programmes, Bunty Annual, model aeroplane construction instructions etc. That's how we worked - criss-crossing nimbly above the hidden structure of the formal curriculum.

It was a challenge but we achieved it. Teachers had to manage 30 individual courses of study, giving each child the appropriate stimulus and support and recording how she was doing – a tough plate-spinning assignment. It required remarkably energetic and talented teachers with unusual mental agility, an ability to live with uncertainty and an unwavering trust in the children. But now we have computers and the Internet and it's much easier to give children real choice over what, when, where and how they learn.

In the Protected Online Learning communities, SuperClubsPLUS (primary) and GoldStarCafe (secondary), children can choose, under the guidance of their teachers, to take part in a huge range of learning activities.

Let's look at an online learning environment where personal and social learning is hard-wired into its design, fabric and function.

Learning what I want

In the Protected Online Learning communities, SuperClubsPLUS (primary) and GoldStarCafe (secondary), children can choose, under the guidance of their teachers, to take part in a huge range of learning activities.

They can build and publish their own community websites, email their community friends, take part in forums on almost everything under the sun, join hotseats to talk to their favourite authors or people from other countries. They can contribute to online magazines about sport, the media, the planet, or global issues. They even can set up Web Rings - their own communities of children who share their interests.

Children have free choice of what content (in words, pictures, sounds, animations, instant polls, quizzes etc.) they publish. You'll find reviews of their favourite books and TV shows, films and music, celebrations of their football teams, pages dedicated to star signs, racing cars, horses, puppies, how to speak Spanish, chocolate, Jacqueline Wilson, netball, Daleks and Pokemon. You'll find children's project pages about the Victorians, Charles Dickens, Rainforests, John F Kennedy, Robert Burns, the Solar System, Healthy Eating, Pandas, Birds of Prey, Bullying and the Lost City of Atlantis.

So long as it's decent and legal, they can write what they want and the natural assessment of the value of their work is expressed in the reaction of the 100,000 other community members. Children can see how many members visit their sites, how many take part in the polls they publish. Other children can sign their Visitor's Books and email them with comments and suggestions about their sites and perhaps even vote them Site of the Week.

Viral learning

Children visit other kids' sites and see features they'd like on their own pages. Perhaps Sarah finds a site by Alice that greets the visitor by her own name: 'Hi Sarah, thanks for coming by!' Sarah will email Alice and ask, 'How did you know it was me visiting?' Alice will email back: 'It's easy, put this on your site - Hi [user], thanks for coming by! - and it will say the visitor's name.' So Sarah learns what she wants when she wants it and from another child. With 100,000 other kids out there, there's lots to learn from each other and in our experience kids are very willing and proud to share their competences with others.

This kind of social learning spreads through the communities like wildfire. For example, when we gave children a new home page code [status], which told visitors to their pages if the author was online or offline, with no instruction from us on how it worked, within 24 hours over 750 children had used it successfully on their sites. Within a month over 5,000 children had used it. We didn't have to teach a thing - this was social learning working at viral speed.

Learning when and where I want

The communities are open from breakfast to bedtime and available from school and home, so children can get on anytime during their waking hours - including at weekends, and during vacations. They can (and often do) access their community friends from the Internet cafes when on holidays in Torbay or Torremolinos. And if they have a Nintendo DS, a Sony PSP or a web-enabled

Within a month over 5,000 children had used it. We didn't have to teach a thing - this was social learning working at viral speed.

The current members of SuperClubsPLUS have voluntarily taken these challenges and earned 158,935 Stars!

Teachers have earned 4,924 Stars, trying hard to keep up with the children!

Author Notes

Robert is an educator, dedicated to promoting a personal and social approach to education that's centred on the child.

He's passionate about Intuitive Media (IM) and his fantastic team of dedicated people who work with him and co-founder Carole Fletcher, to build IM's Protected Learning Communities.

Outside of work, Robert's a very proud dad and granddad. He loves to be beside the sea, or floating on top of it! Oh, and he's working on his first novel. Er . . . isn't everyone!

Links

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www.goldstarcafe.net

PDA, they can (and they often do) get into SuperClubsPLUS or GoldStarCafe, email their friends and post to the forums from wherever there is wireless access.

Learning how I want

The children can learn what, when and how they want, but that doesn't mean their learning is intangible or untrackable.

Children can take part in informal "courses" in the guise of Star Awards. These are sets of challenges on Web Safety, Communications, Multimedia, Use of Coding etc., which children can choose to follow at their own pace, in their own order - whenever and however they wish. The system logs their online activity and records, for example, the first time they make an attachment to an email, or add a friend to their email address book or make a contribution to a forum, and it credits that competency to the child. As these competencies accumulate, children can earn their highly prized Star Awards, which appear on top of their home pages.

The current members of SuperClubsPLUS have voluntarily taken these challenges and earned 158,935 Stars!

Teachers have earned 4924 Stars, trying hard to keep up with the children!

The teacher's role

So where is Teacher in all this personal and social activity?

Well first, the 12,000 teachers in the communities are busy people and we find they are happy for their children to explore SuperClubsPLUS or GoldStarCafe on their own - knowing that they are protected from harm. Members join through school and teachers and children are rigorously validated before they can take part, so teachers can be confident their pupils will only meet real children online. Every word of every communication is filtered to remove inappropriate (eg obscene, racist) language and to flag up to IM's mediators (all professional educators, carefully selected and highly trained) any language that might indicate potential bullying or abuse of any kind that might require their attention.

But teachers can (and usually do) get involved. They can build their own School Pages (to which they and their pupils can contribute articles) and their personal Teacher Pages where they can set stimulating activities and challenges their own classes. They can even set homework on the school pages, for children to respond on their Project Pages. They can run dedicated School Forums on any subject, exclusive to their own pupils and LinkUp forums to which they can invite other schools from around the corner or the other side of the world.

They have Teacher tools to observe their pupils' activity, record and assess it and there is a huge Staff Room site for teachers with lots of guidance including an online training programme.

So now we can offer every child Personal and Social Learning. Every child can follow her curiosity and interests, learn what she wants, when and where she wants and how she wants - from other children and her teachers, in a protected online environment that takes care of the children and allows teachers to guide and observe their children's progress.

Exploring aspects of 3-D shape and space with gifted mathematicians

Rhona Dick



This is a report of the many small steps these boys took over the course of a week in developing their understanding of 3-D shape and their use of spreadsheets to support this.

My Year 6 class of very mixed ability had been covering a unit on 3-D shape and space. Ivan and Sanjay were two very talented mathematicians who relished a challenge, responding particularly well to any investigative or problem solving situation; in this case they would use a spreadsheet to investigate the volumes of cylinders. This is a report of the many small steps these boys took over the course of a week in developing their understanding of 3-D shape and their use of spreadsheets to support this.

Previous experience

The boys were familiar with the term pi from work at home, and had previously explored the relationship in class in a practical way by measuring the circumference of a tin and finding the radius by drawing round it, cutting out the circle and folding this in half then half again. Furthermore they had learnt at home how to calculate circumferences and areas of circles and used this knowledge to test the reliability of counting squares, agreeing that there was no contest! They were also confident in their understanding of square roots, inverse operations and could generalise a statement expressing it in words and symbols. Both had worked on spreadsheets before, and quickly grasped the basic skills they would need to undertake this challenge.

Step 1 – the practical task

I gave Ivan and Sanjay a sheet of paper each which had been trimmed down from A4 so that it was exactly 20cm x 28cm. I asked one boy to make a cylinder in landscape format, and the other in portrait format and then asked if they thought that the volume of each was the same. Unhesitatingly they agreed that it must be because the sheets of paper were identical. I asked how we could check. The usual methods of water and sand were obviously not suitable, and so the boys agreed to resort to calculation. Asked how to find the volume of a cube or a cuboid they told me to multiply the three dimensions together. With prompting they refined their thinking to see these dimensions as the area of the base multiplied by the height. Transferring this thinking to the cylinder was a simple matter.

Step 2 – the first problem

Explaining how to find the volume of a cylinder as area of base multiplied by the height was straightforward, but the boys didn't know the area as they were at pains to point out, and with something as flimsy as a piece of paper drawing around it was not going to be an option.

The first stage in problem solving is to think about what we want to find out and what we already know, or can derive.

What we want to find out?	The area of the base of the cylinder (πr^2)
What do we need to know?	The radius
What do we know already?	The circumference 20cm (or 28cm) equals $2\pi r$

Quite quickly Ivan spotted that he could find the radius from this information, and did so using jottings and a calculator. The steps he took were these:

$$20\text{cm} = 2\pi r$$

$$10\text{cm} = \pi r$$

$$10/\pi = r$$

3.18 = r (rounding to two decimal places which the boys agreed at this point would be reasonable).

A2	= height				
	A	B	C	D	E
2	height	pi	circumference	radius	volume
3	20	3.141592654	28	4.456	1247.775
4	28		20	3.183	891.268

They were astonished to discover that the volumes of the cylinders were not the same as this section of a spreadsheet shows.

Sanjay then found the radius of his cylinder and both boys calculated the respective volumes, again using pencil and paper jottings and calculators. They were astonished to discover that the volumes of the cylinders were not the same as this section of a spreadsheet shows!

Step 3 – what if . . . ?

Intrigued they took it upon themselves to try some further investigations, at first somewhat haphazardly they chose random circumferences and heights. After some discussion with me they decided that they would try to find the maximum volume using a constant total of 48 i.e. the sum of the length and width of their original sheet.

Step 4 – using a spreadsheet

Clearly this would be a lengthy task if it were completed without the help of a spreadsheet.

	A	B	C	D	E
1	height	pi	circumference	radius	volume
2			48-A3	C3/(2*\$B\$3)	\$B\$3*D3^2*A3
3	20	3.141592654	28	4.456	1247.775
4	19		29	4.615	1271.568
5	18		30	4.775	1289.155
6	17		31	4.934	1300.057
7	16		32	5.093	1303.797
8	15		33	5.252	1299.898
9	14		34	5.411	1287.882
10	13		35	5.570	1267.271

Ivan, in particular, was a confident user of ICT and the two boys collaborated well in establishing what information they would need in their spreadsheet and what mathematics they needed to generate it.

They already knew many of the features of a spreadsheet including entering formulae and how to auto fill. I only had to show them how to enter the value of π and how to lock the reference to a single cell using the F4 function key. They began their investigation with a height of 23cm but soon identified the fact that although the volume increased in the first few instances it wasn't long before it began to decrease again. This set them to wonder whether they had been right to decrease from a height of 23cm and they checked by adjusting the entries. This showed that their first assumption had in fact been correct.

Ivan then told me what the maximum volume shown on the spreadsheet was, but how could he actually be sure this was the maximum volume? This spreadsheet used integer values only for height and circumference.

The boys thought that the maximum volume must fall between circumference values of 31cm and 33cm and they decided on increments of 1mm, refining the section of their spreadsheet between these values. This confirmed that the maximum volume was obtained when the circumference of the cylinder was 32cm.

	height	pi	circumference	radius	volume
14					
15			48-A16	$C16/(2*B\$16)$	$\$B\$16*D16^2*A16$
16	16.2	3.141592654	31.8	5.061	1303.645
17	16.1		31.9	5.077	1303.759
18	16		32	5.093	1303.797
19	15.9		32.1	5.109	1303.759
20	15.8		32.2	5.125	1303.644

I had spent quite a lot of time with Ivan and Sanjay during the two days they were doing this, especially initially and I now needed to devote uninterrupted time to working with other groups of children.

Sanjay noted that the height was exactly half of the circumference and wondered if this were coincidence or if the same would be true of other sizes of cylinder. They used the spreadsheet to test this hypothesis.

The boys had the chance to reflect upon their use of ICT before reporting on their work to the rest of the class and the end of each lesson.

Where did we go from there?

I had spent quite a lot of time with Ivan and Sanjay during the two days they were doing this, especially initially and I now needed to devote uninterrupted time to working with other groups of children. Therefore the next task for these boys came in the form of a request from a spurious manufacturer of canned food who wanted to know what size of cans would be most acceptable to shops and shoppers. My class were used to being set work in a real life context so Ivan and Sanjay were quite unfazed when the 'letter' arrived. In essence they had to investigate the different dimensions of tins that would hold 500ml. I had also prepared a writing frame with questions to help their planning, and guidance for using a spreadsheet was available by the computer.

The boys completed this writing frame before going to the computer. It encouraged them to formulate a logical plan and to break the problem down into smaller steps. For example the Volume is given by $V = \pi r^2 h$ and $V = 500$ then the first step might be $500/\pi = r^2 h$. They could then write each step on paper and have a written prompt to take with them to the computer. I checked this before they began work at the computer.

What do you know?	
What do you need to find out?	
What column headings will you use in your spreadsheet?	
What formulae will you use in your spreadsheet?	
What will be the smallest height you will use?	
What will be the greatest height you will use?	
What increments will you use?	
How will you use the results?	
How will you report your recommendations?	

As there was no right or wrong answer to this investigation Ivan and Sanjay had to complete their work by writing a report to the canned food manufacturer in which they gave reasons why they recommended various sizes of tins and why others would be quite unsuitable.

24	volume	pi	height	r^2	radius	circumference
25				$\frac{A}{h}$	$\sqrt{\frac{A}{h}}$	$2\pi r$
26	500	3.141592654	1	159.155	12.616	79.267
27			2	79.577	8.921	56.050
28			3	53.052	7.284	45.765
29			4	39.789	6.308	39.633
30			5	31.831	5.642	35.449
31			6	26.526	5.150	32.360
32			7	22.736	4.768	29.960

The resulting spreadsheet ranged from a cylinder with a height of 1cm to a cylinder with a height of 30cm. Ivan and Sanjay used rulers to help them assess which were reasonable sizes and which were unwieldy. Without instigation from me they decided to use sheets of paper to make some of the cylinders better to judge their suitability.

Their report in the end was a pleasing mix of mathematics and pure common sense. How do you get the last baked bean or morsel of dog food out of a tin 30cm tall for instance? And only the BFG would be able to comfortably hold a can more than about 10cm in diameter!

Of course the can manufacturer was delighted with the boys' achievements, however he did ask them to find out which of the recommended sizes of tin would be cheapest for him to make - but that's another story!

Author Notes

Rhona Dick now works independently, but has experience of teaching across all primary age groups, specialising in Mathematics and History using ICT.

For eight years she coordinated MAPE publications and is now publications coordinator of the Naace Primary Working Group.

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What learning took place?

Ivan and Sanjay

- Extended their understanding of 3-D shape to include calculating the volume of cylinders
- Learnt how to break a problem down into small manageable steps
- Identified other questions to ask and answer with the help of a spreadsheet
- Applied their maths and ICT skills to solve problems set in a 'real life' context

Supporting personalised learning – a primary perspective

Rachel Lawrence



One of the goals of ICT use has often been to help teachers save time but in reality this has often been derailed by overly complex software that isn't always geared to the needs of primary schools.



The DfES states that there are five elements to personalising learning:

- Assessment for learning
- Effective teaching and learning strategies
- Curriculum entitlement and choice
- School organisation
- Strong partnership beyond the school

The first three are classroom based and the last two are about wider school organisation and communication.

Whilst we all wait with anticipation for the report into the DfES research into personalised learning that ended last October, there remain the age old school dilemmas of how to do more with less, i.e. if we had more time and money, then we could really personalise learning!

Designed for primary schools?

Back in the real world head teachers and their staff continue to deliver personalised learning as best they can with 20 plus children and one teacher. One of the goals of ICT use has often been to help teachers save time but in reality this has often been derailed by overly complex software that isn't always geared to the needs of primary schools – the recent debates on learning platforms are a case in point here.

What is needed are tools that are simple to use, accessible anywhere and anytime and that put children at the heart of the learning process. This last point is critical in that if the children are able and enthused enough to drive their own learning, then the challenge of personalising learning is shared between teacher, pupil and parents, rather than just being the teacher's responsibility. It is this that can make a real difference.

We decided to make this our goal; to provide primary schools with a purpose built, easy to use, creative learning environment, which puts pupils firmly at the centre of their personal creative stage. The result is edujam.

What is edujam?

Imagine a fun, stimulating design, with simple interfaces for both pupils and teachers: built using the latest web technologies so that it can be used securely, anywhere, without the need for installing software locally; providing a range of art forms for children to use and a space online that they can populate with their own creativity and watch what happens!



Edujam provides schools with a unique catalyst for:

- Creativity in the curriculum
- Enjoyment and achievement through learning
- Parental involvement
- Appreciation of teachers

Let us look back at those DfES criteria for personalised learning.

Assessment for learning

Ease of use As part of the design of edujam, teachers and pupils are able to discuss, provide feedback and mark work in or out of school, without the need for carrying a great stack of books around!

Record of achievement Once a pupil has created a piece of work, which could be creative writing, a song or drawing, etc. then it is sent to the pupil's creative friend (often their teacher). The teacher can then either approve the work or send it back to the pupil with some suggestions. When a pupil's work is approved by their creative friend, they can choose a time for it to be launched onto the school stage and an automatic email goes to mum and dad to say when their child's work will be appearing. Children can then sit down out of school and show their parents what they have achieved.

Longer term, edujam provides a great record for formative assessment.

Effective teaching and learning strategies

Children at the centre By putting children at the centre, edujam develops powerful ownership and motivation in children for driving their own learning. Children can personalise their online Jam Studio with nicknames, photos and information about themselves and then start to put their creative work there to share with the school and the wider community if the school so desires.

Motivating and engaging pupils We all know that children learn best when they are actively engaged in the learning process, using all their senses and inputting into the process as they go.

Because of its unique design, edujam is instantly engaging for pupils. In addition to its simple interface, the range of media kits that are available are incredibly motivating for pupils.

Deepening pupils understanding of their learning With portable recording devices and robust professional quality microphones, children can easily record themselves reading their poem out loud, interviewing a friend about their inspiration for a piece of work, or talking about what inspired their piece of creativity.

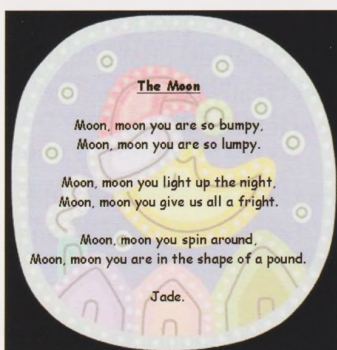
It is then simply a case of plugging the recorder into a USB port and uploading it to their jam studio.

Responsible online citizenship The peer review facility provides teachers with opportunities to cover important citizenship issues. Children love communicating online, especially to an audience, it is a powerful motivator for them but they are often left without guidance as to how to do this responsibly. Here teachers can steer this communication and emphasise an understanding of the impact that each pupil will have on their peers.

The kids love putting jams on and reading the reviews.

Leanne Fecenec, Teacher,
Straits Primary School





Author Notes

Rachel Lawrence is company director of Edujam cic. and Clearveve Ltd. Before that she took three years out to develop two barn conversions and prior to that worked for RM plc for over five years as Senior Marketing Exec for their learning software.

Curriculum entitlement and choice

Supporting different learning styles Each child will have particular preferences in their learning styles and methods of communication. By using a range of artforms, edujam allows pupils to select the method that best suits them. It also encourages them to consider other artforms and think about which will best suit their project. It also provides a personal, private space for pupils to exhibit their work; a lot less intimidating than standing at the front of the class!

School organisation

There are so many strings to the organisational bow that it cannot be covered here. Suffice it to say that because edujam is an online environment, there is no local installation of software required to run it and therefore no extra maintenance. Access is seamless, from year group to year group, in or out of school. From a teachers perspective there is a flexibility in marking childrens work and the curriculum tagging facility allows quick and easy referencing.

Strong partnership beyond the school

Understanding every pupil When children move between schools, or even just between year groups, their new teacher obviously wants to know as much about them as possible. By looking at the pupils' jam studios, a new teacher can clearly see elements of each child's personality as well as their portfolio of work. This will come through in the audio and video work a pupil has done. This is invaluable in building a relationship with each pupil and understanding their learning styles, capability and achievements to date.

Parental involvement is key in each child's development and with the ability to share work with parents in and out of school, edujam offers children a way to get their parents involved in their day to day school work.

Pyramid projects and exchange programmes By using internet technologies children can collaborate with other pupils inside school, in a group of schools, or even in another country. This can be particularly useful for primary pupils in year 7 who can team up with a mentor in the secondary school they will go to and work on a project together.

More?

If you would like to find out more about how edujam is helping teachers provide a more personalised approach to their pupils learning, then call us or go online to arrange a tour of the Straits Primary School Stage. Straits School started using edujam with their year 5 in December last year and are now rolling it out to the whole school, to give all pupils their personal Jam Studio. You can read part one of their case study on the web site and part two will be posted this March.

Credits

Pebbles drawn by Hannah Preston
Moon Poem by Jade, Straits Primary School, Dudley

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Sharing Success

Are you getting yours?

Sharing Success is the Naace e-magazine for the primary community

It has been e-mailed, fortnightly, to all members of the Naace Primary and Advisory Communities since the beginning of the spring term 2007. Each edition of the magazine has 6 pages and comprises case-study articles, top tips for using ICT effectively in primary education, website recommendations and a variety of teaching plans and other resources. It is available on-line but also in a printable format that could be displayed on a staff notice board or coffee table, slotted into individual staff pigeonholes and stored in a ring binder for future reference. While there is a coherent theme for each edition, the overall focus is to be on disseminating good practice by sharing success.

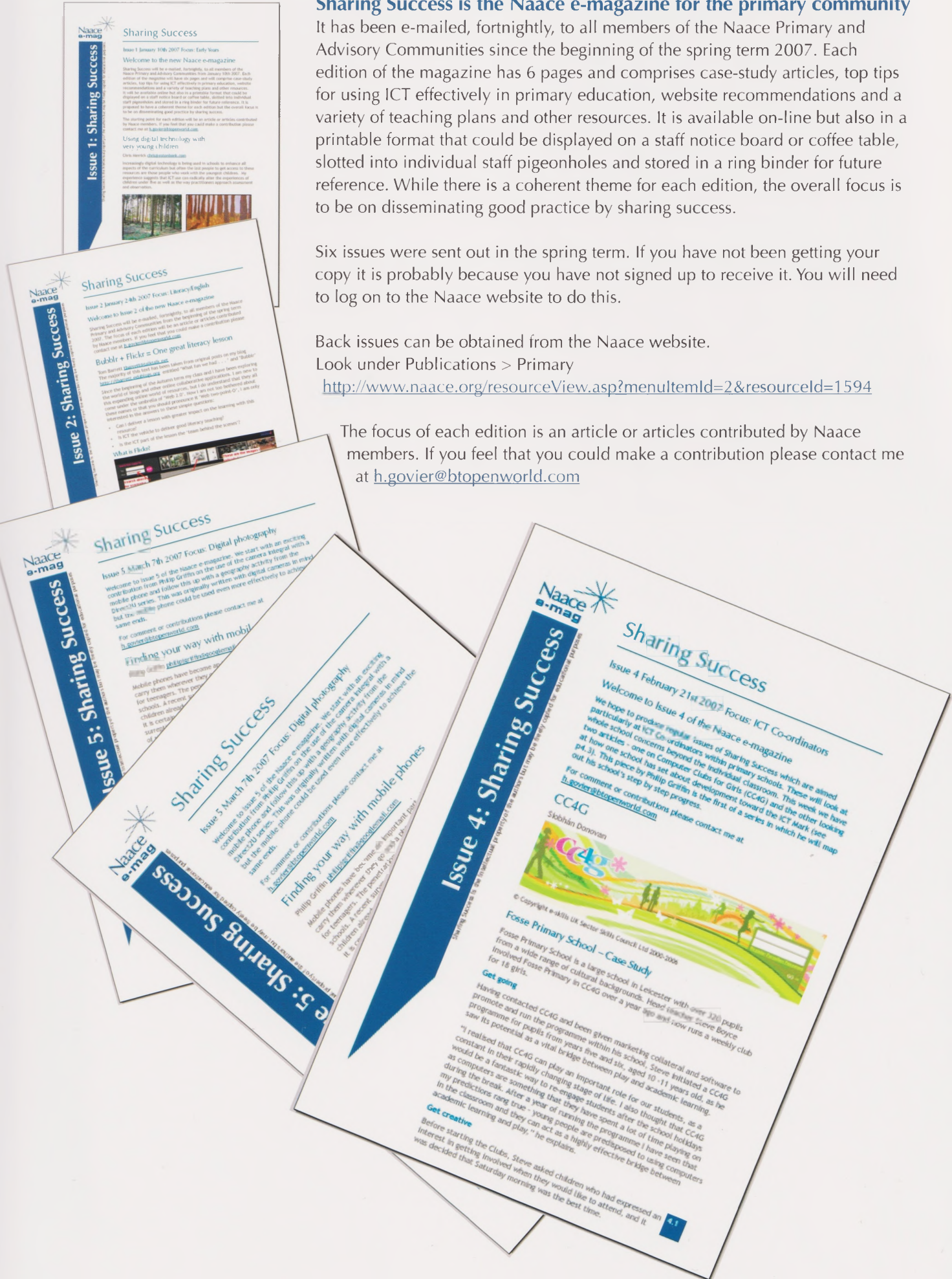
Six issues were sent out in the spring term. If you have not been getting your copy it is probably because you have not signed up to receive it. You will need to log on to the Naace website to do this.

Back issues can be obtained from the Naace website.

Look under Publications > Primary

<http://www.naace.org/resourceView.asp?menuItem=2&resourceId=1594>

The focus of each edition is an article or articles contributed by Naace members. If you feel that you could make a contribution please contact me at h.govier@btopenworld.com



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