



Personalisation seminar series

Seminar 2:

Designing learner environments: The virtual and the real - can technology help students shape their learning environment?

Report

by Hannah Green and Astrid Winkler

January 2005

1. Continuity across the seminars

1.1 Working innovatively with existing technologies

The provocation paper for this seminar sought to pin point and highlight some of the fundamental themes that were discussed at the first seminar and develop the arguments and ideas. The first of these themes was that schools should be willing to work with existing technology, exploring how using it creatively can transform students' learning. This was picked up implicitly in the second seminar as the conversations focused on the innovative use of existing technologies by Canons Connect and Spacemakers and developed to consider how this practice could be transferred and scaled (see section 2.2).

1.2 New relationship between students and teachers

The second theme is that schools should be prepared to reconsider the relationship between teachers and learners. Technology in schools represents an opportunity to depart from the traditional model of an all-knowing teacher, and passive learners. In the second seminar this theme broadened out to reconsider the relationship between schools and the wider community (see section 2).

1.3 Entitlement

In the first seminar there was a lack of clarity around whether we are aiming to move towards a new set of mandatory requirements of an education system or whether we are focusing on blue skies ideas. This debate was raised again in the second seminar with the emphasis very much on developing a practical but innovative framework for the education system.

1.4 Control or social justice model

The issues around compulsion and choice were again explored in detail though this time in terms of implications at a whole system rather than school level. Keri interestingly questioned the assumptions behind the role of the education system as opposed to informal learning - suggesting that it was to offer entitlement to access different sorts of things away from what you would naturally find. This is important, as while there should be choice within the system, there should also be entitlement to exposure, for example, how do you know if you're interested in physics if your family culture does not include it.

1.5 Role of an education system

This issue was discussed in detail in the first seminar, but some ideas were reiterated or expanded on: an education system should revolve around dialogue as this is the only way to ensure self-motivation, but there should still be a clearly defined, if broad framework in which this dialogue takes place:

1. Recognising and valuing what people are doing.
2. Providing access to other things that are relevant.
3. Offering tools and support to facilitate informed choices.

We need to think about what structures on a system level would be needed to support this kind of framework

2. Practicalities

2.1 Motivation for student engagement

The real challenge is to engage young people and try to help them to understand how learning

will help them, enabling them to vision the future. Technology plays a key facilitating role in this process especially when you consider that research shows that students are much more willing to engage even with the same subjects, when it's through ICT.

2.2 Scalability and sustainability

i) Case study 1

Canons connect is an example of an innovative project operating within a cluster of six linked middle and first schools in Harrow. Bruce Goddard, the head teacher of Canons Connect conducted a survey at Canon's High School and found that overall only 10% of all pupils did not have access to a computer at home. However 25% of those on free school meals, contributed to this 10% - There is a growing realisation that lack of access disenfranchises pupils in a technological age.

One of the OECD future school scenarios pictures the school as the base for the local community; Canon's High School are using this model and devolving power across community and in consequence finding community cooperation. The cluster of schools is involved in the community schools pilot - New Harrow Project¹. Which focuses on an area-based approach to 'people' services while putting schools at the heart of communities. The ultimate aim is to ensure fair and equal access to services and resources for all students and their families across the cluster.

The aim of the specific project is to provide all pupils on free school meals with a free computer, printer, broadband access, technical support for the computer and provides all families with free training. They have set up family learning courses; IT for Beginners, Literacy Development and have encouraged equipped families to come along. Bruce Goddard, felt that it was important to ensure access to resources, but also to use this project as an opportunity to develop stronger relationships between the school and hard-to-reach families. The project is still in its early stages, though making good progress.

However, the issue of funding was raised more than once during the seminar.

A key element of the scalability argument is one of funding. Canons Connect had to fight for its funding and won it piecemeal from four providers:

- local public service agreement
- Key stage 3 standards fun
- minor parental contribution
- e-learning foundation - £10,000

In order to be sustainable for the school this kind of project needs to be run out of the school budget. However, this assumption was challenged by many of the participants who argued that the program was beneficial in many ways to the entire community, so should be funded from a community pot. In order to be truly sustainable there needs to be a shift in thinking around the service provision. It is unhelpful to consider sustainability within the constraints of the education system, as access to continued funding and support will never be possible. There was a strong sense from participants that we need to be thinking in the wider context of local government as these sorts of projects meet the needs of whole families.

The second issue around money was about suppliers. It was felt that there should be a system of equitable access developed as currently suppliers are letting schools down. This came across extremely clearly in Bruce's outline of the Canon's Connect project, as they had paid out to the suppliers, but had not received the goods.

¹ www3.harrow.gov.uk/harrow_project_directory/home.asp

The current problem is that the frameworks within which suppliers are working are not appropriate. Schools need protection against suppliers as they still do not see it as a serious market. Eileen Devonshire highlighted this as something for Becta to focus on. She also suggested that there needs to be some kind of process in the system to support schools who are taking risks and being ambitious. Industries should be licensed to design processes and equipment specifically for young people, rather than adapting what already exists. This would mean a serious investment in schools, and would probably be worth pursuing with smaller rather than larger companies as they are often blighted by having good ideas but being unable to progress due to lack of resources.

ii) Case study 2

Spacemakers is an education and design project for young people on the Hartcliffe and Withywood estate in south Bristol. The initial aim was to do something that they could not do within their schools or usual activities. Spacemakers recruited 16 young people between the ages of 13 and 15 and embarked on a two-year project, which took them around the country and abroad to visit public spaces. Once they had defined some principles for public spaces the young people worked with a landscape designer, and then took their final piece to tender, presenting their plans to the Bristol City Council, public consultations and competing architects. Moreover during the project they gave public and media presentations, including weekly interviews with BBC Radio Bristol. 150 people attended the opening with all 10 members of the group participating. Of other young people on the estate 2% go to tertiary education, of the 12 Spacemakers 8 went onto sit A-levels and five plan to attend university.

The question is how can we scale such experiences. It is possible to draw out some key principles around:

- incorporating learner voice in the system
- making connections between existing projects so that they can learn from each other such as Spacemakers and Learning through Landscapes.

There was a suggestion that this could be facilitated through an online network that would act as a virtual peripatetic worker. This would be one way to use existing technology effectively.

iii) Case study 3

Notschool is a virtual environment; there is little face-to-face interaction. It is an online learning community that only works with kids who cannot go to traditional schools - those who are sick, disaffected, excluded, travellers' children and young offenders. 85% of the learners are from the lowest two socio-economic groups; 75% do not have computers - as a group they are at the sharp end of the digital divide. Young people excluded from traditional forms of education are more likely to come from the lower socio-economic groups, thus contributing to and continuing the problems of the digital divide and 'hard-to-reach' groups.

Jean Johnson from Notschool provided a tangible example of the drawbacks of the current system. The 17 year-old who designed and runs their website cannot be accredited for his work in any way as he did not complete it as part of a formal programme. This means that he has no recognised currency with which to trade.

2.4 Measuring outcomes

A key question that was raised a number of times was how do you measure outcomes in these kind of projects. Bruce explained that he tracks the students' progress, looking at attendance of students who have computers and at levels of exclusions. The change in one pupil has been particularly marked: "one student was being excluded every week and now has equipment at home; he is now very well-behaved as we said the equipment will only stay at home if the student remains on the role." Access to ICT is clearly quite motivating and staff at schools

have much more of a dialogue with hard-to-reach students and families. Also those students feel much more of an effort is being made to help them, and respond well to this. However this do not really answer the question.

There is no provision to measure the success of these projects within the education system. Mark said that the outcomes were around citizenship, encouragement and belief. "The outcome of our project was this: our estate in South Bristol has 2% of its kids go on to higher education. Five of our 12 kids want to go on to university. The belief that this could happen is something they don't generally get." However, the students had nothing to trade in terms of formal qualifications when they finished the project, but as individuals as a part of their community they had gained and developed enormously.

On this Bristol estate, education and community goals are generally separate. There has been a massive amount of funding ploughed in, but to no real effect. Fore example, £7m was spent training people in construction during construction bust. In order for any sort of sustained success, we need to integrate inputs within the social context.

2.6 System thinking

We need to think at multiple scales with interventions at different points: individual, local, regional, national. The picture should be of a concentric model with learner at the centre, but this will only works if everything nests inside each other and works in harmony.

2.6.1 Ecological system

An ecosystem is a self-contained community in its complete environment. In an ecological view of learning, any part of the environment, human or physical, may be regarded as a resource. Emphasis is placed on tools for mediating between people and resources. Tools may be conceptualised broadly. Intellectual and creative niches are generated and maintained through the connections that people make with each other and the ways in which they utilise resources, tools, and information. For environments to accommodate the fluidity of collaborative, integrated work, where ideas are analysed, synthesised and applied, they have to be adaptive.

2.6.2 Baking a cake

Another interesting and useful metaphor was used during the seminar around half-baked ideas. Every community is given a partly made a cake, but it is left up to them to bake it as they like. This gives everyone the opportunity to introduce some ideas and work within the local context, on the understanding that no two cakes will be the same. Within this the tension lies in the question, Can't you show me one you baked earlier? This expresses the idea that while schools and local authorities want and need a level of autonomy, they also require a high level of support and an understanding of the potential outcomes of their actions.

2.7 Accountability

The system accountable to the learner, in reality this means that the government should be accountable for supporting the right system. This raises all sorts of questions around what sort of accountability and how to measure success.

Currently the notion of accountability always works retrospectively; to be really useful it needs to look forward as well; for example, this is how we want it to work in x years time and that's why we're trying it.

Students on should be brought on board in school decisions in a meaningful way to develop a strong sense of ownership and responsibility. There should also be broader diversity in school governors - we need to open walls up metaphorically, physically and practically so that more people feel the responsibility. Ultimately there needs to be a wider debate on education in the

country as there is scope to get many more people involved in a meaningful way.

3. Cultural shift

3.1 Connecting systems

Connections need to be made between schools and wider communities, education and social care provision. Currently there is a lack of dialogue that is preventing them from seeing lateral connections and understanding better how to make investment work. Evaluation should be shifted to focus on the level of connectivity between systems rather than outcomes. This requires a step change in thinking about evaluation and funding.

This kind of shift in culture would impact on individual schools, relationships between schools and community engagement. To be meaningful it would require dialogue between local politicians and councillors, and young people not just as school users, but also as members of the community. This sort of relationship could be facilitated by an interactive community website which could be accessed by all people of whatever age, whether at school or not, to engage and discuss.

3.2 Communities of interest

It is essential to view educational initiatives and social initiatives as overlapping and integrated. Rather than simply focusing on geographical communities, we need to think in terms of communities of interest. Community websites could be used to map skills and interests and then form partnerships based around relevance of people's needs and interests, as they do in America. The education system needs to start operating much as a business would - engineering of customer needs and working with freedom and flexibility.

3.3 Within school shift

3.3.1 Structural management

There needs to be a set of principles and an implementation plan that works with the management structures that already exist. Trying to reconcile that tension is very difficult but necessary, as the details of what implementation might look like in reality need to be addressed. For example, would head teachers still be leaders, or will new relationships have to be forged between headteachers and community representatives.

This shift is crucial at a training level. Currently there are two main problems; firstly that teachers are not given proper training to use new ICT equipment. The result is that it is either ignored or never used to its full potential. While this is a training issue, part of the responsibility must lie with the suppliers, as they do not currently give good advice. Secondly, if we are calling for a culture change in teaching and learning methods then there is a very clear message that teachers need to be trained to carry it out.

3.3.2 Roles and relationships

It was felt that one of the major challenges is that both the current systems and mindsets of people have to be shifted as within the traditional structure and culture of schools there is a question around to what extent it is possible to reconcile traditional teacher led experience with personalised support.

There needs to be a cultural shift where teachers are more willing to share, both with colleagues and students as without a sharing of knowledge there will never be any progression. In terms of sharing with students learners could be given the space to take new and existing technologies and develop ways to change them. Often children know what is possible and teachers often do not understand or are not willing to take risks.

In terms of learning environments teachers need to view themselves as designers as well as users, so that they can encourage flexibility and responsiveness. There needs to be a dynamic culture shift that involves everyone in the system.

3.4 Built environment

Some of the participants felt that there was a possibility that the built environments of schools could act as a barrier as they are sometime seen to constrain teaching and learning styles by encouraging users to work within the existing curriculum. Moreover current school buildings can limit socialisation to age rather than stage.

Learning environments need to be able to reflect cross-curricular, multi-age learning, both to encourage and facilitate a shift in teaching and learning styles. Technology can play a key role in this as it forces users to rethink where they are learning, which is often not in school but in a virtual environment.

When thinking about school buildings, conversations need to start with learning, and then progress to consider the element that would have to be present to deliver that kind of learning. On a more practical level there should be a customer needs analysis before any money is spent, with a clear idea of needs in terms of height, disability and different learning regions which would allow more workable and flexible solutions.

Finally, the community should be involved in the discussions that precede a new school build or major refurbishment. Time needs to be invested in thinking about the principles of consultation and understanding how the personalisation debate fits in with new schools.

3.5 Leadership - creating space

Within an individual school or a network of schools there needs to be an innovative Head, who is prepared to take risks and will support teachers in innovative practice and taking risks. At a local level there is an important question around who would take the lead if schools and communities worked more closely. It is not only about whether head teachers would be appropriate, but also whether they would want to. If the emphasis is shifting to be more 'community in' rather than 'school out' then new forms of leadership need to be considered.

4. Assessment

The biggest barrier to change at any level is assessment, specifically questions around what we value as evidence of learning and what are and more importantly, what we should be assessing.

4.1 Currency problem

It was felt that formal written exams are the only accepted currency at the moment and this is the biggest barrier to any real personalised system. Traditional assessment has to change, as the current system not only constrains students, it also constrains teachers. There should be a range of mediums through which you can be assessed which would help to bridge the gap between formal assessment and informal experiences. Possible options raised included oral and spoken methods, and on-line multi media portfolios.

4.2 Barriers to change

Industries might buy into the outcomes of a different assessment criteria, but universities are less flexible - the Ivy League Universities demonstrate that this does not have to be the case as a number of places are set aside each year which are based on individual's portfolios rather than exam scores.

In order to be successful these portfolios would need support from many different sectors. There would need to be support to develop these portfolios in different places, for example, community support for those who do not want to follow a formal path.

Moreover there would also have to be parental support for a different system, which would probably be based on the understanding that their child would be able to secure a good job with a different assessment outcome. Parents would not want their children to be used as guinea pigs, there would need to be full buy in and formal recognition.

4.3 Moving forward

The big challenge is to find ways of establishing learning outcomes that complement the conventional ones like Key Stage performance. The examples discussed during the seminar were about very complex learning situations, but with personalised learning we need to be able to communicate what the added value is over and above the conventional measures.

One set of suggestions was around measuring whether the student was a good learner, rather than what they had actually learned. This would require a system that could measure the following things:

1. Can the student focus on their learning.
2. Talk about their learning.
3. Reflect on their learning.
4. Ultimately learn to learn.

How can we use digital tech to capture the progress of children in these areas?

Thinking about learning in this way raises a possible problem with projects like Spacemakers as it often seems that young people are not encouraged to reflect on their learning, or even think about the skills that they are developing. That shift from the unconscious to the conscious is key as only then could they become ambassadors for learning, and offer a real answer to the issue of scalability.

There was a strong message that learning commitments rather than outcomes should be emphasised. Students should be asked to commit to a process and end goal, and then be expected to deliver on it. Thus there would be no prescriptive outcome; rather it would be born out of dialogue.

To implement this kind of change would require political will and understanding. This could be supported by a shift at other levels, for example BETT's IT awards should include an award for the best assessment product as this would encourage models of innovation. Public awards are a tried and tested way to change hearts and minds and would motivate people to think about new ways of working and incentive individuals to think of a new process.

The issues that were raised around assessment will be looked at in more detail in the provocation paper for the final seminar.