Working with Diverse Groups of Learners in the Digital Age

Authors:
Julie Hughes[1] and Warren Kidd[2]

Contact details
J.Hughes2@wlv.ac.uk; W.Kidd@uel.ac.uk

Institution name
[1]University of Wolverhampton and [2]University of East London

Introduction

This publication and its wider project draw upon several years of ESCalate activity focussing upon the development of learning and teaching in relation to the use of technology. ESCalate is the UK Higher Education Academy (HEA)'s Subject Centre for Education programmes in Higher Education (HE). Practitioner-focussed workshops, held over the past 3 years, have proved successful in the dissemination of the innovative use of emergent technologies and pedagogies in education subjects. Increasingly the presenters and audiences for these events were drawn from wider subject and curriculum areas. This particular project builds upon several workshops held over a period of two years and seeks to collect and disseminate innovative activity in a wide range of education subject areas. The project was keen to:

- encourage new contributors to ESCalate;
- elicit 'stories' from HE teachers about their use of technology/e-learning to support diverse groups of learners;
- particularly encourage HE teachers who have not engaged with the ESCalate e-learning community previously - particularly HE in Further Education (FE) and Education Studies colleagues;
- collate and disseminate the case studies to workshop and wider audiences via workshop resources/presentations and an electronic publication;
- provide networking opportunities at face-to-face events;
- encourage and inspire other HE teachers to experiment and take risks with e-learning.

The Case Study Stories

As the University of Central London's (UCL) CIBER group's briefing paper 'Google Generation' written as part of a JISC funded project identified, '(e)normous changes are taking place in the information landscape that are transforming teaching and learning, scholarly communication and the role of `traditional' research library services.'(UCL CIBER, 2008, p.8) Given this context and adopting an approach used by the JISC, we invited the ESCalate community to submit case studies of their work. We were particularly keen to elicit 'stories' from practice from HE teachers about their use of technology and e-learning to support their diverse groups of learners and we wanted to particularly encourage HE teachers who had not engaged with the ESCalate e-learning community previously - particularly HE in FE and Education Studies colleagues. In this sense, the practitioners (and their hybrid practices) who responded to the call are as diverse in their digital pedagogies as are their digital learners.

ESCalate Education Subject Centre: Advancing Learning and Teaching in Education

This publication, acknowledging the breadth of the ESCalate community, draws upon examples from all sectors of Initial Teacher Education, Education Studies and Staff Development in both Higher Education Institutions and Further Education Colleges in England and Scotland. There is an honest and reflective range here which offers important lessons from practice. The case studies offer lessons on trial and error and resilience and powerful examples of how teachers and learners were experiencing transformation through risk and experimentation. The individual case studies are available and this project is supported with video materials showcasing an event held at the Cass School of Education and Communities, University of East London (UEL) in February 2011.

The Wider Context: E-learning for the 21st century

The case studies are set in the wider context of teaching and learning in HE and FE in the UK during the first decade on the 21st century. The Learning Literacies for a Digital Age (LLIDA) project's (Beetham *et al.* 2009) recommendations identified that education must shift to support learners to thrive in the 21st century. This project and publication responds to LLIDA's general recommendations (2009, p.71) that teachers should be proactive in supporting learners to develop their use of technologies for learning in a contextual and reflexive manner, that teachers need time and space to reflect upon their own use of technology as current practices, 'do not always foster an open and enquiring approach' (p.71) and that HEA Subject Centres should, 'support subject communities to adapt curriculum frameworks and embed new practices around digital literacy, in light of increasingly multidisciplinary and the changing technological and student landscape (p.74).

However, as Laurillard, in Conole and Oliver, (2007, p.48) identified, "it will take us a while yet to learn how to use technology properly in education...we scarcely have the infrastructure, the training, the habits, or the access to new technology, to be optimising its use yet." Beetham & Sharpe (2007, p.3) simultaneously challenged teachers to acknowledge that pedagogy needs to be 're-done' at the same time that it needs to be 're-thought' in response to "new models of education" (Mayes and de Freitas 2007, p.13) – models and tools demonstrated in the practitioner case studies below. The movement within this period is neatly captured by Gauntlett as the shift from a 'sit back and be told' culture (Gauntlett, 2011 p.8) towards more of a 'making and doing' culture' where 'separate gardens' of activity become 'like a collective allotment' (Gauntlett, 2011, p5). Recent developments in e-learning research and theory have identified that, 'skills such as curiosity, play, inventiveness and imagination appear to be becoming more important than traditional competences such as knowledge recall, organization and domain expertise' (De Freitas & Conole 2010, p.15).

Attwell and Hughes (2010, p.65) suggest that the desired "diversity will emerge only if educators, researchers and communities are empowered to develop localised or novel responses to socio-technical change – including developing new approaches to curriculum, to assessment, to the workforce and governance, as well as to pedagogy." Conole & Alevizou (2010, p.21) further report that currently "only a minority of enthusiastic teachers and those with a research interest in the learning sciences, educational technology or new media, have undertaken experimentation with new innovations in pedagogy and exploration of the use of new technologies".

Tool use
The case studies which make up this cross education sector project utilize a wide variety of e-tools as a means to support learning and learner guidance. These include:
1.   Virtual Learning Environments (VLEs), also sometimes referred to as Managed Learning Environments (MLEs) (Case studies 6, 7, 10, 11, 12, 14, 16, 17)
2.   Podcasts (Case study 8)

3.   E-portfolios (Case studies 1, 13, 14, 16, 17)
4.   Blogs (Case studies 8, 10, 15)
5.   Wikis (Case studies 3, 4, 6, 10)
6.   Online simulations (Case studies 2, 3, 4)
7.   Other social media (Case study 8)
8.   Web conferencing (Case study 9)
9.   e-voting (Case study 5)

For further elaboration and definition of these tools and their educational uses see the definitions provided by the Joint Information Systems Committee (JISC) here: http://www.jiscdigitalmedia.ac.uk/crossmedia/advice/introduction-to-elearning The 'tangible benefits' of these tools and of an e-learning approach in general, are also explored by JISC at: http://www.jiscinfonet.ac.uk/case-studies/tangible. The benefits of these approaches are explored further in the case studies which make up this review.

These tools are deployed – as any learning and teaching resource would be – to develop students' skills, encourage collaborative and cooperative learning, supporting student transition, to track portfolio building and evidence generation, to develop professional learning opportunities and to support scenario-based learning. They also provide both substantive programme content and 'additional' learning opportunities. In some cases e-tools are used as the means of assessment rather than knowledge generation or delivery (see case studies 15 and 16). In this way, such e-tools are but one choice amongst many in the repertoire of the 21st century educator; one pedagogic practice from a wide range of choices. However, choosing to experiment and explore with e-tools is also seen by many of the authors of these case studies as a practice-defining moment. It is an act of being as much as of practice and doing. Many of the authors here define aspects of their professional self and pedagogic selves through these choices to use e-tools, despite many challenges and barriers. These case studies – while capturing e-learning practices for this project – are examples of *blended learning* using in the main Web2.0 tools alongside other more tradition HE pedagogic models.

Emergent Themes and Issues: Staff development, student development, re-thinking and re-doing
Many of the case studies address the issues identified in the wider literature regarding the need for initial and ongoing teacher education and staff development. The desire to exploit the 'in practice' and 'learning-in-the-field' of students is a strong theme across the case studies. Chrissi Nerantzi at the University of Salford (case study 17) identifies that working with HE teachers *as learners* new to technology requires not only risk-taking with technology and technological practices but also risk-taking with pedagogy, ideas, attitudes and identities as, "giving academics the opportunity to experience first-hand technology-enhanced approaches as students, helps them understand better the benefits and challenges." Warren Kidd (8 and video case study 3) from the University of East London extends this impulse to a "'figuring-out' of my own pedagogy as a (new) teacher educator" engaged in '21st century teaching'. Geoff Rebbeck (16 and video case study 4) of Thanet College also illustrates how engagement with new technologies and practices for CPD purposes in a Further Education context can, "re-sharpen the intellectual edges of teachers who have not been so mercilessly pressed to justify or validate their thinking since their initial training." (See also video case study 4 for a further discussion of this work).

Emma Salter's (case study 15) from the University of Huddersfield proposes that an immersive and evaluative approach to support staff confidence and proficiency is key to successful longer-term implementation and experimentation. The case study also emphases the need for colleagues to feel ownership for, "in delivering the module and supporting students through the

assessment, it was very important that the main focus remained on subject content and associated academic skills in a multi-media context and not on technological wizardry." This required and *desired* culture shift, in teachers and learners, is echoed as a situated pedagogic practice in great depth by Moira Savage (video case study 1) from the University of Worcester who identifies that "many would argue that the goal of professional training is not to produce 'technological whizz kids' but teachers who are confident in using everyday technology in powerful ways in the classroom; for example, empowering a dyslexic child in a science lesson to record their findings with a digital voice recorder rather than to transcribe." Savage continues that this transformation requires teachers to challenge their students to "go beyond the 'what' and 'how' of technology implementation to consider the 'why' i.e. how the selected technologies can enhance learning and teaching; often leading to a transformation of pedagogical understanding."

Graham Lowe's (case study 2) from Birmingham City University offers an important example of how technology can support simulation of the 'what/how/why' if it is not naturally occurring in a programme. BCU's use of simulated "deliberately unstructured, non linear scenarios that aim to facilitate the safe development of a range of cognitive skills" in interagency settings (Health and Education) allowed classroom conversation around the Every Child Matters (ECM) agenda to move beyond the descriptive. The intervention also supported staff to explore "the importance of trying to elicit an emotional response" to move students beyond their earlier focus upon describing the classroom contexts rather than exploring and critiquing the inter-agency working.

Sarah Cornelius and Carole Gordon at the University of Aberdeen (case study 9) working with Scottish in-service FE teachers across a distributed network concur that the 'what/how/why' questions are vital and that, "team development has been particularly valuable for tutors" and that "the repurposing of the course content for web conferencing workshops has provided for creative endeavours, team teaching, and discussion and reflection on practice." Cathy Clarkson (case study 10) of Kirklees College offers an important cautionary example of the need for reflexivity in her discussion on how to manage an unexpected blog post as a teacher new to these ways of learning:

> "Be prepared to be surprised. The biggest surprise for me (so far) was when coming up to half way through the course one trainee added a post about how she was struggling with the course, and as a trainer I wasn't too sure about how to deal with this. She had chosen to put this into the public arena and so I felt my reply should go into the same space, but I did spend a lot of time thinking about this. By giving this time, it meant other trainees were given to opportunity to respond to her and all the comments were positive and reassuring, so that as the trainer I was able to say that I agreed with everyone's comments and stated that myself and the other tutor were always available if she wanted to talk privately about anything." (Clarkson, 2011 – case study 10)

The need to 're-think/re-do' (Beetham & Sharpe 2007, p.3) and repurpose for purpose is a dominant driver in the cases studies. Warren Kidd (case study 8 and video case study 4) from the University of East London argues for the "importance of such modelling within a teacher education pedagogy" and a "reconceptualisation of 'contact time' and 'teaching time'". Warren's use of Twitter to extend reading to include web-based multi-media resources" has had a massive impact upon the quality of classroom discussion (aided by increased further reading) and also many recent assignments." Beverley Lawe (case study 5) from Nottingham Trent University is also currently exploring how classroom engagement with pre-session readings might be supported through the use of voting systems.

Annabel Dawson and Josephine Parker (case study 13) of New College Durham also explore the need to 're-think and re-do' to support Foundation Degree learners. Annabel, Josephine and the team introduced a block transition week from FE to HE as a re-introduction to learning underpinned by "24 hour, universal access to tutorial support and formative feedback". This extension of the physical classroom and induction into HE learning, in the words of one of the students was "an encouraging atmosphere to start to produce work.". Rob Kearsley Bullen (case study 3) from Nottingham Trent University also notes the value of the 24/7 extension of the physical environment to support file sharing and collaboration. This theme is further explored in case study 14 from Henriette Harnisch and Lou Taylor-Murison at the University of Wolverhampton. Henriette and Lou worked with a group of 6th form students preparing for their transition into HE, the intervention" whilst debunking conventions of dusty lecture theatres, delivered a learning experience which was familiar and intuitive. It enabled learning to be undertaken at a time and location convenient for the student "which facilitated "a better understanding of the expectations of University study".

The case studies do suggest that interventions which engage whole cohorts and/or whole teams and wider stakeholders offer valuable examples of the potential for collaborative peer and problem-based learning. Lucy Golden, Glynis Gibbs, and Helen Booth (case study 7) from the University of Dundee offer a detailed case study on the lessons learnt in the shift to supporting learners in the digital domain. Liz Bennett, Jane Wormald and Ian Findlay (case study 12) from the University of Huddersfield urge us to consider "when redesigning programmes for online or blended learning, attention needs to be paid to supporting informal and social aspects of learning". Kathy Wright (case study 4 and video case study 2) from the University of East London offers a powerful narrative of the cumulative benefits of a thoughtful and developmental approach to the transition into post-graduate study. The use of a wiki as a pre and on-course workspace was utilised to, "facilitate collaboration between UEL central services, secondary Initial Teacher Training (ITT) administrators, tutors and our future trainees.". Kathy reports a reduction in the administrative workload over the four years of the intervention, increased student satisfaction and confidence including impact upon recruitment and more evidence of these ways of working in the student teachers' own classrooms and professional settings as, "one whole school and another school department have set up micro blogging areas for staff communication having seen our trainees benefitting from this technology." In a similar context Sarah Davies and Alison Hardy (case study 6) from Nottingham Trent University also report success with pre-course wikis as "students have since gone on to set up their own wiki", further evidencing impact.

Iain Barr (case study 11) at the University of York details the development of 'learning for pleasure' Open Access Online Creative Writing Workshops in a VLE:

> "Pedagogically, the asynchronous learning environment has also led to more constructive feedback, with students having an opportunity to reflect on their peers' work. In the classroom environment, workshops can lead to kneejerk comments which are of little use to the writer, but through the use of blogs, students were able to step back from a newly presented piece of writing and offer more considered feedback to one another." (Barr, 2011 – case study 11)

This successful development has led to 'the creation of a 60-credit HE Stage One certificate award in creative writing via distance learning, with many of the students who began the project with us requesting further provision which would validate their studies.' For a further exploration of the themes from these case studies see the mapping exercise at the end of this report.

Resilience, and adaptability; being and doing; risk and experimentation; horizon gazing
Readers wishing to explore the individual case studies collated for this project in more depth might be interested in exploring the following emerging themes across the various sectors and e-practices identified in this work. Collectively these practitioner case studies offer salient lessons in current cultures and contexts and in doing so map a shift to digital/blended/distance as a form of pedagogic efficiency. The case studies identify the need for (initial and ongoing) teacher education/staff development in this area. Case studies demonstrate a range of activities and a wealth of experience.

Emergent themes are mapped to the relevant case studies as shown below.
- Many case studies explore the author's own 'situatedness' and becoming (8, 9, 10, 12, 14, 17)
- Some case studies seek to explore how e-practices position academic staff as digital learners too (16, 17).
- Some case studies highlight that one consequence of the shift to digital working raises and places pressure upon high expectations over communication – 24/7 'U-communication' which is ubiquitous – 'anytime, anyplace, anywhere' (4, 8,10, 11, 12, 13)
- Some case studies more than others significantly raise the issue that e-learning and blended models are essential 'new' models of learning and teaching which are emerging from practice (8, 9, 15)
- A highly significant theme is that of the possibilities for collaboration and networking that e-practices bring (1, 4, 5, 7,8, 9, 10, 11,12, 13, 17)
- Some authors raise the need for warm up/rehearsal and training which is ongoing given the pedagogic shift which blended methods seem to suggest (1, 4, 6, 7, 8, 9. 10, 11, 12, 13, 14, 15, 16 17). For many of the Initial Teacher Education (ITE) case studies this pedagogic shift is alongside teacher education pedagogies which seek to 'model' new ways forward to the trainee teachers.
- For the majority of these case studies, pedagogic intervention with technology is a potential site of or source for transformation of practice (1, 2, 3, 4, 8, 9, 10, 12, 13, 15, 16, 17)
- Finally, some authors raise profound questions around the need to accommodate the non-textual/multimodal/multimedia (1, 15) within their practice which can only be achieved through the use of blended practices alongside more traditional and formal methods.

Cautionary tales and by way of conclusion
However, as the wider literature suggests we still have work to do to "foster an open and enquiring approach" (Beetham *et al.* 2009 p.71) where teachers "are empowered to develop localised or novel responses" (Atwell and Hughes 2010, p.65). The case studies offer salient lessons in working with learners in changing cultures and contexts; contexts which are likely to become more challenging over time. What emerges from the case studies is a sense of resilience and adaptability, the pursuit of new ways of being and doing, of risk and experimentation but also honest evaluation and horizon gazing. It is hoped that the case studies will be a useful starting point for colleagues eager to begin or extend the use of technology in their teaching. The range of tools, approaches and settings offer transferable examples and common themes such as overcoming apprehension and resistance, supporting transitions, pedagogic assumption shift and cross-fertilisation.

The case studies do however offer a more cautionary tale – that despite the considerable pedagogic benefits of e-learning identified, the benefits for learning and learner guidance and support come with costly time implications. These costs are various - the effort of set-up, the need to convince colleagues, learners and institutions of the merit of e-strategies and e-solutions and the use of on-task time for e-moderation. Yet what unites the case studies is a spirit of investigation and experimentation – a willingness to try new approaches in the face of such

considerable barriers. The case studies themselves – and the work of the practitioners who have offered them to this project – are examples of how e-practices and digital learning need to place "pedagogy before technology" (Beetham, and Sharpe 2007) and of the need to foster tools and learning opportunities which are fit for purpose. This is the hallmark of any successful learning and teaching, blended or otherwise.

Working with diverse groups of learners in the digital age: Case Studies
This project has generated 17 individual case studies with 25 contributory authors drawn from a variety of Education subjects, contexts and settings - Initial Teacher Education (ITE) (all phases - Primary, Secondary and Post-compulsory), Education Studies and Staff Development settings. Case studies are drawn from 10 HEIs and from 3 FECs and showcase a wide variety of practices.

Primary ITE			
1	Moira Savage, University of Worcester	Digital portraits of primary trainees' pedagogical decisions re ICT (plus video - case 1)	http://escalate.ac.uk/8540
2	Graham Lowe, Birmingham City University	Simple simulations of professional experiences – the Virtual Case Creator	http://escalate.ac.uk/8550

Secondary ITE			
3	Rob Kearsley Bullen, Nottingham Trent University	Nottingham Trent University Virtual Schools	http://escalate.ac.uk/8552
4	Kathy Wright, University of East London	Pre-Course workspace for entrants to Initial Teacher Training course (extended case study) (plus video – case 2)	http://escalate.ac.uk/8554
5	Beverley Lawe, Nottingham Trent University	Using Electronic Voting Systems (EVS) to encourage reading around the topic	http://escalate.ac.uk/8496
6	Sarah Davies and Alison Hardy, Nottingham Trent University	Using blended learning to support the transition of undergraduates in HE learning	http://escalate.ac.uk/8556

Post-Compulsory ITE			
7	Lucy Golden, Glynis Gibbs and Helen Booth, University of Dundee	Click here: navigating the teaching qualification in Further Education - online distance learners around their VLE	http://escalate.ac.uk/8558
8	Warren Kidd, UEL	Utilizing a variety of Web 2.0 tools to support the professional learning of trainee teachers in PCET (extended case study) (plus video – case 3)	http://escalate.ac.uk/8560
9	Sarah Cornelius and Carole Gordon, University of Aberdeen	Using web conferencing with distributed work-based learners	http://escalate.ac.uk/8564
10	Cathy Clarkson, Kirklees College	An English for Speakers of Other Languages (ESOL) teacher education blog	http://escalate.ac.uk/8566

	Education Studies		
11	Iain Barr, University of York	Open access online creative writing workshops	http://escalate.ac.uk/8568
12	Liz Bennett, Ian Findlay and Jane Wormald, University of Huddersfield	Building social spaces in a blended course – the value of critical friendship groups.	http://escalate.ac.uk/8570
13	Annabel Dawson and Josephine Parker, New College Durham	Using an ICT portfolio to support adult learners making a transition from FE to HE Foundation Degree in supporting learning in education	http://escalate.ac.uk/8572
14	Henriette Harnisch and Lou Taylor-Murison, University of Wolverhampton	Getting the blend right – preparing for transition to HE at 6th form through blended learning pedagogies	http://escalate.ac.uk/8574
15	Emma Salter, University of Huddersfield	Blogging for assessment in HE	http://escalate.ac.uk/8576

	Staff development		
16	Geoff Rebbeck, Thanet College	Personal Learning Spaces: horses for FE courses (plus video – case 4)	http://escalate.ac.uk/8578
17	Chrissi Nerantzi, University of Salford	'I didn't know this was possible' reflections on a variety of Web2.0, classroom-based and online technologies	http://escalate.ac.uk/8538

Working with diverse groups of learners in the digital age: Video case study materials and additional speakers

On Monday 28th February 2011 teacher educators from the Cass School of Education and Communities, University of East London (UEL), joined by colleagues from Hull, Wolverhampton, Canterbury, Middlesex and Anglia Ruskin took part in an ESCalate teacher education event, the first in a series of national events organised as a response to the call for case studies from this project. The workshop brought together teacher educators from primary, secondary and post-compulsory training phases to explore the implications and benefits of social media, Web2.0 tools and e-portfolios in shaping the future of teacher learning and training. The day was opened by Ann Slater and Professor Jean Murray, both UEL, and explored the nature of change in teacher education in the light of learner diversity and the growth of new social media tools for pedagogy. We have filmed this event as a video case study which sits alongside the written case studies presented above. It includes an extra presentation from Tim Tarrant and Claire Moore of the TDA on successes in working with diverse groups of learners in the digital age in teacher training and can be viewed at <http://escalate.ac.uk/digitalageworkshop>. Where presenters provided their slides, they can be viewed at <http://escalate.ac.uk/8201>.

References
Attwell, G. and Hughes, J. (2010) *Pedagogic Approaches to Using Technology for Learning.* Online: http://webarchive.nationalarchives.gov.uk/20110414152025/http://www.lluk.org/wp-content/uploads/2011/01/Pedagogical-appraches-for-using-technology-literature-review-january-11-FINAL.pdf [accessed September 2010].

Beetham, H., McGill, L. and Littlejohn, A. (2009) *Thriving in the 21ˢᵗ Century: Learning Literacies for the Digital Age (LLiDA project).* Online: http://www.academy.gcal.ac.uk/llida/ LLiDAReportJune2009.pdf [accessed July 2009]

Beetham, H. and Sharpe, R. (2007) (eds.) *Rethinking Pedagogy for a Digital Age. Designing and delivering e-learning*. London: Routledge.

Conole, G. and Alevizou, P. (2010) *A literature review of the use of Web 2.0 tools in Higher Education.* HEA Academy, York, UK. Online: http://www.heacademy.ac.uk/assets/EvidenceNet/ Conole_Alevizou_2010.pdf [accessed May 2011]

De Freitas, S. and Conole, G. (2010) The Influence of Pervasive and Integrative Tools in Learners' Experiences and Expectations of Study in Sharpe, R., Beetham, H. and De Freitas, S (2010) (eds.). *Rethinking Learning for a Digital Age. How Learners are Shaping Their Own Experiences.* Oxon: Routledge.

Gauntlett, D. (2011) *Making is Connecting. The social meaning of creativity, from DIY and knitting to YouTube and Web 2.0.* Cambridge: Polity

Laurillard, D. (2007) Marginalia 48. in Conole, G. & Oliver, M. (2007) (eds.) *Contemporary Perspectives in E-Learning Research. Themes, methods and impact on practice.* Oxon: Routledge.

Mayes, T, and de Freitas, S. (2007) Learning and e-learning. The role of theory. in Beetham, H. and Sharpe, R. (2007) (eds.), *Rethinking Pedagogy for a Digital Age. Designing and delivering e-learning.* (13-25). London: Routledge.

UCL CIBER (2008) *Briefing Paper on information behaviour of the researcher of the future* Online: http://www.jisc.ac.uk/media/documents/programmes/reppres/ gg_final_keynote_11012008.pdf. [accessed December 2009]