

Inside Evidence

Putting research into practice



Inside this issue



Research News
[Edge research conference - details just announced](#)



Innovation
[“More cool demonstrations, please”](#)



About research
[Learners get the research bug](#)

Welcome

Welcome to the Summer 2012 edition of IE and we hope you will find the content both interesting and topical.

In the month that the government announces that pupils in England who fail to achieve at least a C grade at GCSE in English and maths will carry on taking the subjects to the age of 18, on [page 14](#) we investigate what Malcolm Swan's research reveals about how maths is taught in the classroom. And on [pages 6](#) and [12](#) we describe some practitioner research and classroom experiments helping improve teaching of English, maths and ESOL.

In addition to our usual sections, we also include an initial review of the 2012 LSIS research conference and a new section entitled 'Using Research' in which practitioners reflect on the benefits and impacts from undertaking research.

On [page 24-27](#) you can read a summary of the points made by the keynote speakers at the research conference. Professor Sandra Nutley presented her analysis of the factors that underpin successful research use within practice. Professor Lorna Unwin, in her presentation, described research in and about our sector as fragmented; clearly something LSIS should be helping to address if we are to make it easier for practitioners and policy-makers to access and make use of research evidence.

One of the ways that LSIS is helping to consolidate the evidence about improving practice is through its practitioner research programme, which includes the Research Development Fellowships (RDFs). In this edition of IE I'm delighted to be able to announce a fourth year of the LSIS practitioner research programme

during 2012-13. Up to forty places will be available for successful applicants to the RDF programme and up to 20 places will be available on an 'exploratory research' programme for practitioners wishing to begin work on research relating to English, maths and ESOL / functional skills projects. The deadline for applications to both programmes is Monday 10 September, and further details can be found inside on [page 4](#).

Finally, our regular 'Research Networking' section provides an update on regional activity and contacts in your area, plus details of the Learning and Skills Research Network (LSRN) event on 9 November.

IE is produced by an editorial team comprising Andrew Morris, Ian Nash and myself. Additional writing was contributed to this edition by Sue Jones. We hope that you enjoy reading this edition and we would like to thank all of those working in the sector who have submitted material for it.

We are always on the look-out for interesting projects to feature in future editions. If you have articles to send us, or any reflections about your own experiences with research for inclusion in our new section, 'Using Evidence', or any comments on IE, please send them to me at research@lsis.org.uk

Sheila Kearney
Head of Applied Research

Contents

Research News

[LSIS announces new opportunities for practitioner research during 2012 – 2013](#)

[Edge research conference – details just announced](#)

Innovation

[“More cool demonstrations, please”](#)

[Feeding back the collaborative way](#)

[After the CPD is over](#)

[Supported action research in English, maths and ESOL](#)

Research

[GCSE maths, again?](#)

[Personalising common modules across creative and service industries](#)

[Good research at the heart of best advice](#)

[‘The Curious and the Confident’; technology and teaching 2012](#)

Viewpoint

[LSIS Research Conference 2012: Improving vocational learning through research-informed practice](#)

Using Research

[Many and varied ways of using research](#)

[Using action-research evidence to change art studio critiques](#)

[Reminiscence and learning in the fourth age](#)

[Making action research part of college CPD](#)

[Using evidence to develop an eLT strategy](#)

[Inspiring learners about research: a spin-off from scholarly activity](#)

[Policy into practice through action research](#)

[Research networking](#)

About Research

[Learners get the research bug](#)

[Democratising college research](#)

[The evidence-based way: making it work in practice](#)

[Evidence at the hub of learning and education policy](#)

Research News

LSIS announces new opportunities for practitioner research during 2012 – 2013

Including the LSIS Research Development Fellowships (RDFs)

- Do you have a good research idea but need some support and some thinking time?
- Would you like the opportunity to carry out some research to improve your own and colleagues' professional or organisational practice?
- Would you like to receive professional support in order to help you achieve this?

LSIS's commitment to supporting research in, about, and by, our sector is ongoing and we are now announcing the following new opportunities for 2012-13, which will be delivered in partnership with the University of Sunderland Centre for Excellence in Teacher Training (SUNCETT), with the backing of the Institute for Learning (IfL).

In 2011-12, LSIS ran the successful Research Development Fellowships (RDF) programme for the third year, and for the first time also ran an introductory 'exploratory research' support programme specifically for English, maths and ESOL (support for literacy language and numeracy) projects.

We are pleased to announce that in 2012-13 we will again be offering both types of opportunities for practitioners wishing to undertake a supported research project.

These will be:

- a. The fourth year of the now well-established RDF programme, with up to 40 places available.

- b. An introductory 'exploratory research' support programme for up to twenty new practitioner-led projects in English, maths and ESOL / functional skills. These opportunities are intended for practitioners who would like the opportunity to further develop their research idea, perhaps in advance of subsequently taking their project further (which could be by a future application to the RDF programme).

These opportunities are aimed at Skills Funding Agency (SFA) funded practitioners and a bursary for successful applicants allows time off to conduct the research and attend residential events delivered by the University of Sunderland Centre for Excellence in Teacher Training (SUNCETT).

The events will ensure that you get the support you need to complete your research and implement change.

Further information, guidance documents and application forms for both programmes can be found on the news page of the LSIS research site: <http://www.excellencegateway.org.uk/node/628>

Case studies about previous participants and their projects can be found here: <http://www.excellencegateway.org.uk/node/13319>

The deadline by which completed applications for either programme must reach SUNCETT suncett@sunderland.ac.uk is Monday 10 September 2012. The contact for enquiries is: suncett@sunderland.ac.uk

Research News

Edge research conference – details just announced



Edge has just announced the date of its inaugural research conference which will take place on Friday 16 November 2012, at the National Exhibition Centre, Birmingham.

Edge has also just issued its call for papers: the deadline for submissions is 31 July 2012.

Edge is hoping to attract papers from a mixture of established researchers and people who are new to the field.

The conference will be an opportunity to share research into technical, practical and vocational education and training with policy-makers, practitioners and curriculum leaders. The keynote speaker will be Dr Nancy Hoffman, author of 'Schooling in the Workplace' (Harvard Education Press, 2011). Further information and the call for papers is on Edge's research page, www.edge.co.uk/research

The Commission on Adult Vocational Teaching and Learning launches its website and first call for evidence

The Commission on Adult Vocational Teaching and Learning (CAVTL) has just launched its first call for evidence on the characteristics and features of effective adult vocational teaching and learning.

CAVTL is taking a very broad view of what constitutes evidence and an equally broad view of the forms of evidence that it will consider. Further information about CAVTL and also about the call for evidence can be found on its website <http://www.excellencegateway.org.uk/cavtl>

Innovation

“More cool demonstrations, please”

“I almost had a fight as learners clambered over each other to try to be next!” So says Wesley Briscoe referring to an incident in his AS and A2 maths classes after he began using a powerful new IT tool to teach geometry and algebra. It occurred when the display of a graph showed how two learners had gone wrong and others rushed forward to enter their own solution to see if it matched up. The technology encouraged them to create their own conjectures and easily test whether they were true, and if not, decide what refinements to make.

Wesley, a teacher at Farnborough Sixth Form College introduced the free geometry and algebra mathematics application, GeoGebra¹ because it seemed a powerful tool for creating rich, problem-solving activities. In addition to

the usual functions, such as drawing graphs, creating shapes and plotting points, it had the flexibility to create relationships between objects.

Wesley tried different ways of using GeoGebra during lessons: stimulating discussion through demonstration; getting learners to interact with files he had created; or creating their own files to investigate a problem. He also found it good for regular homework tasks such as exploring and solving a problem, or practising a basic skill, such as sketching straight line graphs. More interestingly it enabled them to try modelling, for example, the motion of a basketball, or to investigate a topic and explain the connections they had made in the next lesson.



¹ GeoGebra is available free of charge at www.geogebra.org

Innovation

The impact of the new approach was assessed through learner feedback and observation by Wesley and a colleague. Learners had no real difficulty in using the technology and seemed engaged by the dynamic nature of what they could do, some asking for more “cool demonstrations”. Most of them (56 out of 62) felt that the investigative tasks they did themselves aided their mathematical learning. They seemed willing to take ownership of generating their own examples and benefited from the efficient and visual feedback it offered. It also supported a range of abilities, by providing less confident learners with immediate feedback on whether they were on the right track, and others with a

tool that enabled them to create and test their own conjectures. Wesley concludes that it not only helps learners embed and apply previously-learned knowledge but also allows them to create and explore their own enquiries – that is “to behave as mathematicians”.

You can read the full report at <http://actionresearch.farnborough.ac.uk/Home/Index> or contact Wesley on wbriscoe@farnborough.ac.uk. For further reading see footnote².

²Hohenwarter, M. & Jones, K. (2007) Ways of linking geometry and algebra: The case of GeoGebra. www.bsrlm.org.uk/IPs/ip27-3/BSRLM-IP-27-3-22.pdf

Innovation

Feeding back the collaborative way

“Why am I writing the same standardised comments on so many pieces of work, when they are so often ignored or forgotten by learners?” With these thoughts Rachel Clarke decided to devise a more interactive method of providing written feedback. She read up research which showed that feedback on Assessment for Learning could be a powerful approach, made all the more effective when the feedback was highly specific.

Using Jerome Bruner’s³ model of learners as collaborative thinkers, Rachel’s approach involved a shared dialogue and shared effort between staff and learners. The innovative idea was to ask learners to reflect on their own work and produce their own individual targets to help them to reach their goals. Learners and staff then took joint responsibility for goal-setting.

With her two mixed-ability A2 psychology classes, Rachel discussed what feedback learners would ideally like on their assignments. She found they wanted comments on the positive aspects of their work alongside any areas that could be improved. In response she asked learners to write specific questions about their work at the end of their essays, such as: “Have I given enough examples?”; “Have I elaborated on my examples enough?”; “Do my paragraphs link well?”

Rachel had read that Feedback on Assessment for Learning had an effect size 0.81. This increased further when the feedback was highly specific (to 1.13)⁴.

Effect sizes are explained clearly in the Toolkit of Strategies to Improve Learning by Steve Higgins et al, available online at <http://www.suttontrust.com/research/toolkit-of-strategies-to-improve-learning/>

This toolkit suggest that an effect size of
0.70 to 1.00 is very high
0.45 to 0.69 is high
0.19 to 0.44 is moderate
0.00 to 0.18 is low

It also suggests that one GCSE grade improvement is about an effect size of between 0.5 and 0.7, depending on the subject.

She tried a variety of further approaches. She annotated learner essays using colours to highlight good practice, with each colour representing a specific technique. She provided a list of generally applicable comments, each of which was numbered. Individual essays were annotated with these numbers to demonstrate where each comment applied.

³ Bruner, J (1996) cited in Coffield, F. (2008) Just suppose teaching and learning became the first priority. Learning and Skills Network http://tlp.excellencegateway.org.uk/ecpd/ecpd_modules/downloads/coffield_if_only.pdf

⁴ Marzano (1998) cited in Petty, G. (2006) Evidence Based Teaching, Cheltenham: Nelson Thornes

Innovation

Other variations included questions devised in groups and one-to-one verbal feedback.

This more detailed approach to feedback had positive impacts on learners. They became much more engaged with the advice given and showed a clear understanding of what was expected of them. The general class feedback sheets were welcomed as they allowed learners to see common strengths and weaknesses within the class. The learners themselves were overwhelmingly positive about the methods, especially the use of different colours for highlighting good practice. They took a much more proactive approach to goal-setting, relying substantially less on the teacher for guidance.

The more interactive methods have also made the process more enjoyable for the teacher. As Rachel puts it, “**You have to think a lot harder about the feedback you give; and the questions learners ask are not necessarily what you had considered. The quality of feedback is much higher - the general feedback sheets are more detailed than anything I would write on individual essays.**”

You can read Rachel’s full report at <http://actionresearch.farnborough.ac.uk/Home/Index> or contact her at rclarke@farnborough.ac.uk

After the CPD is over



CPD interventions should be based, wherever possible, on sound research evidence – hardly a controversial statement for readers of Inside Evidence. Much trickier, however, is how to make changes stick after the CPD action is over. This was the challenge faced by Gillian Forrester, a head of teaching and learning development, when she introduced the Teacher Effectiveness Enhancement Programme (TEEP) at Gateshead College.

The TEEP framework⁵ draws on research into effective teaching and learning, including: assessment for learning; thinking for learning; collaborative learning; accelerated learning; and the effective use of ICT. Gillian wanted to encourage staff to make use of the learner-centred teaching and learning strategies to which they were introduced in the programme. After a three-day training programme for sixteen staff, run by a TEEP-trained colleague, Gillian organised the teachers into pairs to provide one another with support in embedding the new approach in their professional practice. They were encouraged to use video to enable them to evaluate the new interventions and some pairs team-taught. A support group was set up by the TEEP trainer with a forum for discussing problems and sharing success.

Gillian studied the impact of the post-TEEP support using a ten-strong focus group and personal statements written by participants.

The support was generally considered to be very beneficial: “I couldn’t have done it on my own,” as one teacher put it. The change to a more learner-centred approach was welcomed. One teacher felt concerned that, “If I wasn’t actually spoon-feeding theory to learners they would not be able to understand it.” Another said prior to involvement in the programme she was, “Always chasing learners to do their own work and not to simply change my words around,” because they over-used her handouts. “There were issues with my old methods,” she frankly admitted.

The data also suggested a number of benefits for learners of teachers who used the learner-centred TEEP, approach. For example:

- learners were more engaged, actively involved and enjoyed the lessons;
- their understanding and attainment were enhanced, particularly in theory lessons; and
- teachers focused on how learners learn best and felt re-energised in their teaching.

Resistance came from some heads of department in the early stages of the project but positive feedback made them much more willing to release staff to attend the training. Where there was no leadership support it proved impossible to engage staff in the project.

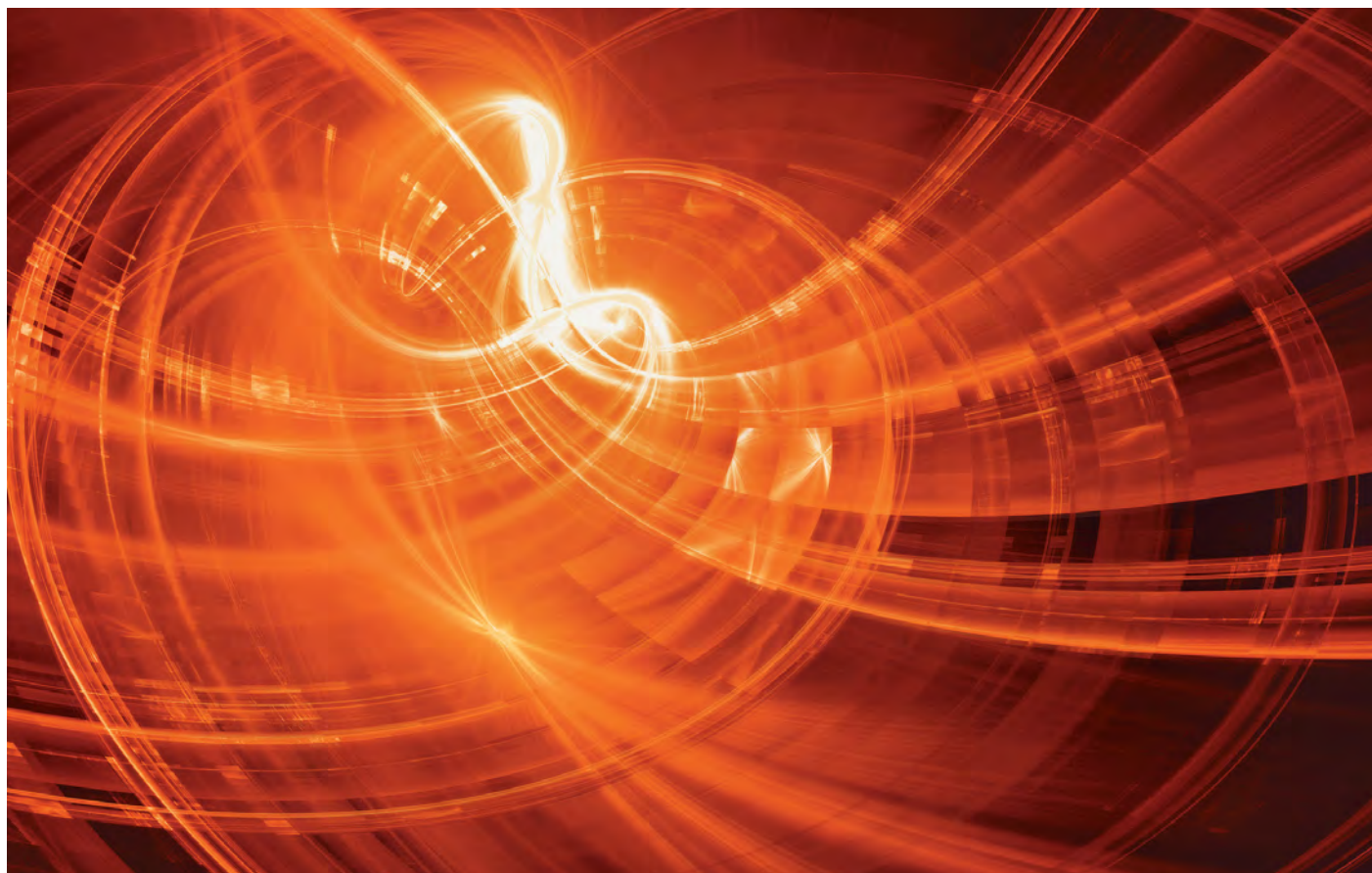
⁵ More information about TEEP can be found here: <http://www.teep.org.uk/>

Innovation

This initial evidence indicates to Gillian that rolling the programme out across the college would help sustain its position as an outstanding college with outstanding teaching and learning. However, TEEP training programmes are not cheap, involving costs and staff release for the initial training as well as embedding in practice. Support mechanisms (preferably a coaching model) need to be in

place to ensure effective transfer of knowledge and skills but in Gillian’s words, “**I feel my study shows that the benefits to both staff and learners outweigh the costs.**”

You can contact Gillian Forrester at Gateshead College [**gillian.forrester@gateshead.ac.uk**](mailto:gillian.forrester@gateshead.ac.uk)



Supported action research in English, maths and ESOL

New approaches to language learning such as ‘hot penning’ – where learners have the opportunity to put their thoughts straight onto paper – are proving a real success with English, maths and ESOL learners who otherwise struggle with the written language.

Evidence of the benefits is emerging from LSIS’s practitioner research programme. Building on its successful Research Development Fellowships (RDFs), LSIS has recently supported 30 additional action research projects for teachers of English, maths and ESOL trying out new ways of improving their practice. What is more it will be recruiting further English, maths and ESOL action research projects to start in October 2012 (see [page 4](#) for further information).

The projects were supported by the University of Sunderland Centre for Excellence in Teacher Training (SUNCETT) and took place in a wide range of settings including specialist colleges; work-based learning and adult and community learning organisations; offender learning institutions; and further education colleges.

In one project, at Barking and Dagenham College, teachers researched ways of engaging vocational learners of English and maths through embedded learning. Functional skills had been taught discretely from the vocational subjects, resulting in learners “lacking motivation to attend English and maths classes which they saw as irrelevant to their vocational learning and to their lives,” according to project leader, Tinyan Akin-Omoyajowo. The project has enabled vocational teams and functional skills teachers to come together to identify where English and

maths naturally fit into the vocational areas. This new collaboration has led to new ways of embedding English and maths through team teaching. As one of them put it, “Teachers need time to talk together, to look at the specifications to find the best way to engage the learners. The project has enabled them to work as a team.”

The overall aim of the LSIS programme is to develop innovative approaches to increase learner motivation. It focuses on key questions arising from recent reviews, such as:

1. What constitutes effective blended learning in developing English, maths and ESOL skills?
2. How can organisations develop effective and efficient programmes that maximise the use of resources?
3. How can maths practitioners develop and implement learner-centred approaches?
4. How can the skills of staff in work-based learning and private training programmes and voluntary and community sector organisations be developed to meet the needs of their clients?
5. What are the most effective approaches to meet the needs of NEETs (those not in education, employment or training), offenders, older people and other groups?

Innovation

The support programme included bursaries that released practitioners to reflect on current practice and try out new strategies and attend residential events that have enabled them to share their experience with others. As one of the teachers put it:

“I have had the opportunity to test a hunch in a structured way. LSIS backing has given credence to the project so colleagues were happier to take part. The collaboration with colleagues has been a wonderful experience and seeing a plan begin to take shape has been very satisfying.”

Mary Browne the leader of another project, at City and Islington College, is looking at ways to help basic skills learners improve their writing and to be more adventurous with their use of language. As she says:

“Many learners with English as a second language struggle with writing and find progression difficult. Through this project, we are trying to find out how we can best support these learners and can already see

more creative writing arising out of discussing aspects of writing such as story-telling.”

Amongst a number of strategies that are being tested out is ‘hot penning’⁶ – a short burst of writing that gives learners the opportunity to put their thoughts straight onto paper. Learners are really enjoying this approach: “I find it relaxing – like a massage on my mind!” said one.

To share the benefits of the scheme more widely a video resource of some of the 2011-12 projects has been developed by LSIS, illustrating key principles that inform effective practice in English, maths and ESOL, and offering real-life exemplars of teachers and learners working together to try out different teaching techniques and strategies. The video, plus project summaries and posters will be available on the Excellence Gateway in July here <http://www.excellencegateway.org.uk/node/18272>.

If you are interested in applying for the next round of projects, starting in October 2012, please see [page 4](#) for further details.



Tinyan presents her research poster at the LSIS 2012 research conference

⁶For example: http://www.annburnett.co.uk/hot_penning.html

Research

GCSE maths, again?

“Mathematics is a subject where it seems possible to spend many years practising skills and notations without having any substantial understanding of the underlying concepts.” So says Malcolm Swan in the introduction to his meticulous study of repeat GCSE maths in FE colleges⁷. His work shows how research-based design of teaching situations can help to improve the teaching and learning even for poorly motivated learners with a history of failure and teachers who feel under pressure to deliver results.

The Government’s response⁸ to the Wolf Report⁹ on vocational education, with its promise to “ensure that all young people study and achieve in English and mathematics, ideally to GCSE A*-C, by the age of 19...” lends even greater urgency to how this is going to be achieved. Swan found that, “Learners enter FE with profound gaps in their understanding of basic mathematical concepts. Teachers’ normal approaches ... have little impact on this.” Disrupted courses, poor motivation and passive learner attitudes are seen as explanatory factors, coupled with transmission techniques aimed at rapid syllabus coverage – fluency rather than meaning. His overall conclusion is that to avoid the demoralising effects on learners (and teachers) of repeating courses at breakneck speed, “Learning must become a collaborative endeavour where learners and teachers work together and discuss significant conceptual obstacles.”

The evidence behind these claims comes from a project lasting several years which used

a ‘design research’¹⁰ approach, combining theoretical and empirical analysis with the production of tools designed for practical improvement. Based on a pragmatic synthesis of learning theories and empirical research, Swan arrived at a set of principles and set himself the challenge of implementing them in practical situations.

To develop appropriate tools, an initial study was undertaken with a small sample of GCSE maths teachers in FE colleges. Eight teachers were observed and were classified as having either a ‘transmission’, ‘discovery’ or ‘connectionist’ orientation¹¹:

- ‘Transmission’ teachers see learning as an individual activity involving listening and imitating, and teaching as involving verbal explanation, practice questions and correction of misunderstandings. Failure is attributed to learners’ lack of ability to grasp what is taught.
- ‘Discovery’ teachers emphasise individual learning through exploration and reflection, with the teacher taking a ‘facilitating’ role, only intervening when learners ask for help, avoiding misunderstandings by careful sequencing and assessing when a learner is ready to move on. This approach is seen when learners are asked to work individually through worksheets. Failure is attributed to learners not being ready.

⁷ Swan, M. (2006) Collaborative Learning in Mathematics NIACE and NRDC

⁸ Wolf Review of Vocational Education- – Government Response. DfE May 2011. Available online at

<http://www.education.gov.uk/16to19/qualificationsandlearning/a0074953/review-of-vocational-education-the-wolf-report>

⁹ Review of Vocational Education- the Wolf report. DfE March 2011. Available online at <https://www.education.gov.uk/publications/standard/publicationDetail/Page1/DFE-00031-2011>

¹⁰ For example http://mkoehler.educ.msu.edu/OtherPages/Resources/Comps/dbr_2003.pdf

¹¹ Based on Askew, M., Brown, M., Rhodes, V., Johnson D., and Wiliam D. (1997). Effective teachers of numeracy, final report. London: Kings College

Research



- ‘Connectionist’ teachers see learning as a collaborative activity in which the teacher’s role is proactive, challenging learners to discuss and arrive at understanding through their own articulation. Teaching involves non-linear dialogues (following the lines of learner reasoning). Misunderstandings are deliberately exposed and explored.

Four of the teachers agreed to be observed teaching agreed topics in their usual way and to keep a diary of approaches used and difficulties encountered. Performance data were gathered from learners using standard tests. At the same time a set of learning activities was devised and piloted. The following year the same teachers were asked to incorporate the new learning activities into their teaching and to continue with diaries and lessons observation as before.

When each teacher used their usual method, there was no distinction between the transmission and connectionist orientations and learners typically gained less than 10 percentage points between pre- and post-tests. However in the second year, using the experimental collaborative activities and materials, learners of the connectionist teachers typically gained more than 10 percentage points. The conclusion was that the teaching activities did have some effect where the teachers already had a connectionist predisposition, but not for the others. “A sobering view of how difficult it is to achieve substantial learning gains in the college environment,” in the view of the author.

The resources and professional development programme developed in this initial work were then put to use by a larger sample of 34 teachers who attended the workshops and used the resources to varying degrees. About half held transmission beliefs, and quarter

Research

each held connectionist and discovery beliefs. 834 learners were involved, mostly aged 16-19 with GCSE at grade D or E. Analyses were made of:

- changes in the teachers' beliefs about mathematics, teaching and learning;
- priorities and practices;
- learners' perceptions of teaching practices;
- learner performance; and
- changes in learners' levels of self-efficacy, confidence, motivation and anxiety.

At the outset, most teachers reported that they ensured the syllabus was covered, taught the class as whole and expected learners to work on their own on graded exercises. Many were uneasy about the narrowness of their methods and attributed it to the need to cover the syllabus and pressure to get results. Learner perceptions accorded with this, most reporting passive roles: listening, copying and following steps.

After the programme, the number of teachers professing connectionist views rose from about a quarter to roughly one half. Most reported a shift from emphasising fluency to the development of conceptual understanding and strategies for problem-solving, with an increase in collaborative discussion. Outcomes for learners were greater where lessons involved more learner-centred learning. An algebra test

revealed just how learning stagnates when no discussion activities are used: 50 % of learners improved but 45 % regressed. However, the learner-centred approach led to marked improvement (72 % improved, 20 % regressed) and the addition of discussion activities even more so (83 % improved, 18 % regressed). In other words, where teachers adopted learner-centred and discussion approaches, four-fifths of the learners gained and one fifth fell back; where teachers used neither of these approaches, half the learners gained and half fell back.

So, in the light of such evidence, how prepared are teachers to change their approach? Swan's study revealed a marked change from a majority classed as 'transmissionist' to a majority classed as 'connectionist' as a result of the intervention. Of those who switched, some were surprised and delighted by the change in attitude and engagement of their learners. Significantly, it was their practices that changed first and their beliefs followed. But many did not change their beliefs or practices. As the author puts it, "It seems unlikely that transmission beliefs will change unless such teachers experience clearly discrepant events in their classrooms that cause them to stop and reflect."

It seems that for Wolf's ambition to be realised for all to achieve GCSE A*-C by age 19, profound changes will be needed in the way maths is taught. This study offers clear pointers as to how to go about this.

Research

Personalising common modules across creative and service industries

Learners on Business, Hospitality, Tourism or Creative Industries courses, may each need access to a common unit on Event Management, yet each will need this to be set in their own industry context. Technology is proving a powerful tool in helping overcome problems teachers face in this situation when teaching learners from wide-ranging backgrounds, prior knowledge and experiences.

Many HE programmes contain optional modules that may be taken by learners following different programmes and it is well known how this can lead to problems for both teachers and learners when learners come to the module with very different prior knowledge and experience – a situation sometimes referred to as ‘diverse worlds in the same classroom’.

Now, researchers at Queensland University of Technology (QUT), Brisbane, Australia are showing new ways in which ICT can help learners to access a common task by providing them with materials and assignments they can use in ways that meet their individual needs.

The unit on Event Management at QUT is relatively new but is increasingly in demand as the entertainment industry develops. Event managers use around 20 skill-sets, including business planning, budgeting, project management, resource management, logistics,

marketing, sponsorship and risk management. The unit can be chosen by learners following Business, Hospitality, Tourism or Creative Industries courses, so some will be very familiar with a few of the skills (e.g. budgeting), while others come to them with no, or very different, previous experience.

The teaching, learning and assessment activities were redeveloped to incorporate the ICT-based tools available on the Blackboard course-management system, such as content creation and delivery, learning and collaboration tools. Over the course of a semester, learners carried out an event management simulation using the materials provided, including online content, a glossary, group fileshare sites, templates in MS Excel© and MS Word©, which would be used in the industry and other supporting worksheets and assessment materials.

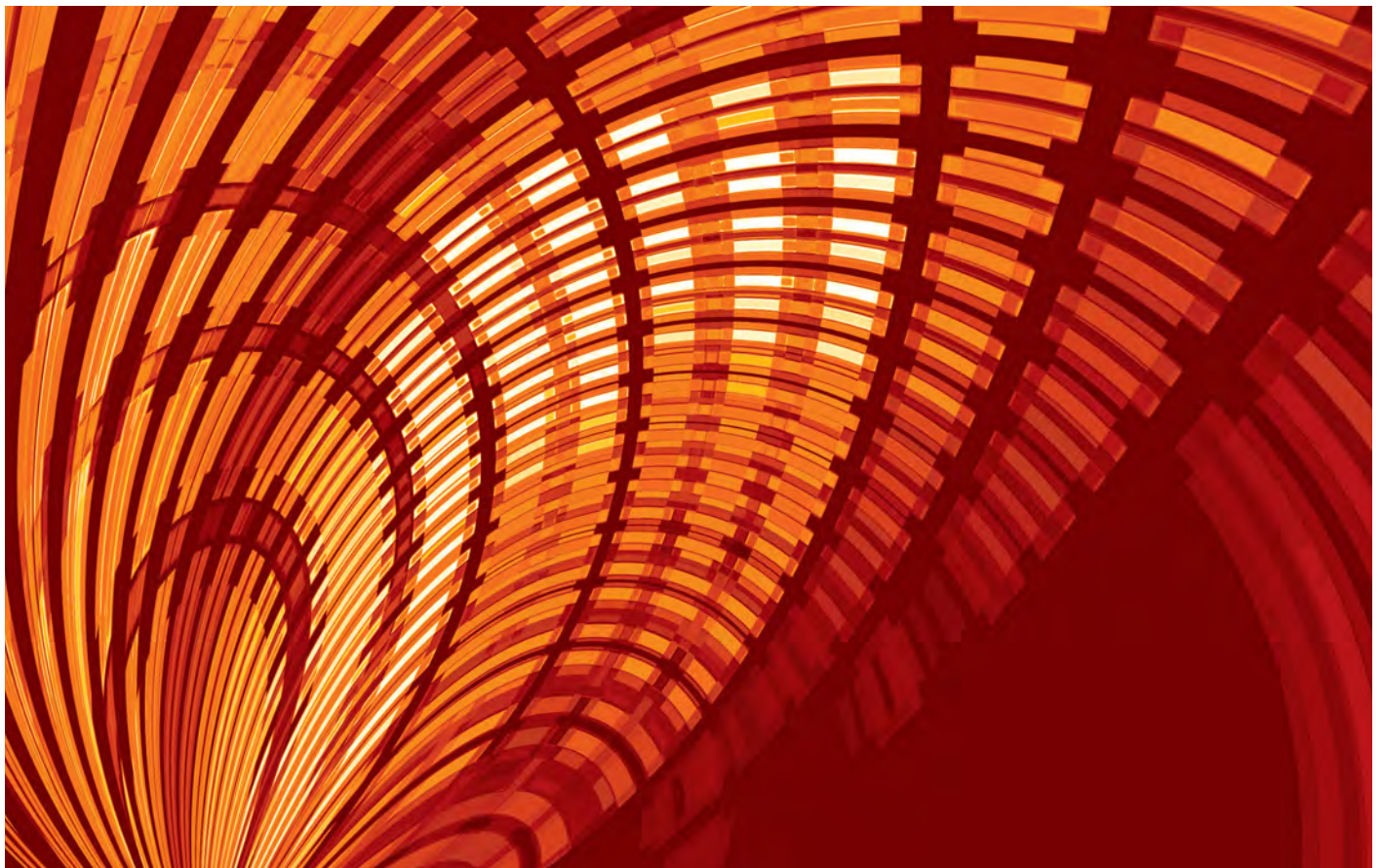
The materials were structured into four phases: activation of prior experience, demonstration of skills, application of skills, and integration of skills into real-world activities. The learners could use these as they chose, spending as much time as they needed.

In an evaluation survey the learners responded very positively to this use of ICT, saying they had found it useful, all found that their skills improved and there was a high rate of learner

Research

satisfaction. But the survey also showed that they had been using the tools in different ways, according to their prior experience. Those who had previous knowledge were more analytical and reflective about the tasks¹² while those with little prior knowledge had concentrated on gaining new knowledge and skills. Unlike the previous curriculum, this gave the first group the chance to build immediately on what they already knew while the second group had time to come to terms with the practical skills before having to tackle the conceptual analysis of their significance.

¹²Hadley, B. J. (2012) Using information communication technologies to develop dynamic curriculum frameworks for diverse cohorts: a case study from event management. Creative Industries Faculty, Queensland University of Technology, Brisbane, Australia, appears in the Journal of Further and Higher Education, Volume 36, Number 2 May 2012. eracy, final report. London: Kings College



Research

Good research at the heart of best advice

Learners and pupils who grasp the essentials of good research are far more successful when it comes to getting the best apprenticeships and are more likely than the rest to make good progress in the workplace, a good practice report from Ofsted reveals.

The inspection evidence published in *Apprenticeships for young people – a good practice report* also shows that employers increasingly put more emphasis on personal and practical skills such as time-keeping, self-motivation and the discipline to carry out basic research than on the level of qualifications young people have achieved by age 16.

Such skills range from basic web research when learners seek apprenticeships, to the ability to research and compile evidence on the best way to carry out workplace tasks once in post. For example, McDonald's education team introduced apprenticeship diaries which include set research questions to take trainees through each stage of the apprenticeship programme.

Ofsted noted that the best employers were pro-active, recruiting the best pupils from Year 10 onwards, giving Saturday and holiday work for tasters of the industry and following through with summer school sessions. Top hairdressing salons, they said, were increasingly exploring new training methods involving apprentices in research. Hairdressing employers were keen on the idea of research as part of the learning because they saw it as enhancing and encouraging



Research

a process of 'discovery' by the apprentice, even where what is discovered may not be intrinsically new:

“Learning aids had been developed for practical tasks (such as cutting and styling) that apprentices could use in sessions and take home. A workbook developed for cutting motivated apprentices to attend in order to complete different cuts. This included research projects. The summer schools were also used as open days for employers to see the training of their apprentices at first hand and to discuss progress.”

The Ofsted report shows the extent to which teachers in schools, colleges and training groups must ensure that their learners are equipped with the basic research skills employers are seeking. However, it also reveals an alarming lack of good careers advice at the very point where young people needed it most.

Many of the young people interviewed in the survey, particularly those who had little idea of what they wanted to do after Year 11, said the advice and guidance they had received from their schools were unsatisfactory. “Although they wanted to leave school and gain employment, few felt that they had been given

information about what was available – other than staying at school or going to a college. Most of these young people conducted their own research online or were helped by their parents or guardians,” said the inspectors.

Whereas, where colleges understood the basic research needs, good progress was made:

“Almost every young person interviewed during the survey said that the internet was their first step in finding information and researching potential employers and apprenticeships. The majority of the providers surveyed had dedicated web pages illustrating what they offered, including up-to-date case studies of successful apprentices and links to external sites such as the National Apprenticeship Service. One college had uploaded a video entitled ‘The Apprenticeship – A-Team’ to YouTube and had had several thousand hits.”

For copies of the report go to: <http://www.ofsted.gov.uk/resources/apprenticeships-for-young-people>

Research

'The Curious and the Confident'; technology and teaching 2012

11 years after e-learning became part of the language of FE teachers, how have attitudes and approaches changed to its use and application in teaching?

Geoff Rebbeck and Fred Garnett investigated on behalf of LSIS.

Geoff and Fred's new research gives us an update on findings previously published by Becta and identifies teachers' 'e-confidence' as the critical element now in the effective use of technology in the further education and skills sector. Here they describe the research and their findings in more detail:

We recently surveyed FE teachers about their technology use. The study was funded by LSIS and involved 993 teachers responding to 17 descriptions of technology in action. Instead of asking about the technology itself we wanted to know how teachers felt about its use in teaching. In effect we were asking them about their confidence levels, and the results are illuminating. Fortunately for the survey, respondents felt a deep need to justify, explain, defend or champion their choices providing us with a rich qualitative feedback. This paper summarises the main points of their stories and what the implications might be for those who train teachers, and support and manage their continued professional development.

The survey went through three cycles during 2011/12. A first survey, with just five colleges but with over 200 respondents, allowed us to see the value of the 'technology in action'

approach and provide the very surprising initial outcomes that both the deeper second phase, with around 600 respondents, and the broader third phase, with almost 200 respondents, confirmed. As our approach was more qualitative than the Becta surveys of technology use in FE¹³ we also decided to change how we interpreted teachers' abilities, both in terms of their critical thinking and the mix of independence and support they sought as practitioners.

What emerged as the critical element in the effective use of technology is confidence. Interestingly teachers who are confident about using technology in their private lives are curious about how they can use that in teaching practice. For many the problem is not with the technology itself but more in the pedagogy of its use. Consequently we now think that the e-confidence of the individual teacher and the e-maturity of the institution are closely related.

We used surveymonkey to gather answers to our 17 questions, which asked about how specific technologies were used, and also for reflections on that use. Surprisingly, but usefully, we obtained fuller answers to the free-text questions, which we then put through a speed reader to identify the patterns of response. This indicated that teachers' priorities were, in order of importance, learners, Moodle, resources, college and learning. The tagging that we used also allowed us to slice the data by groups, departments, colleges, subjects, and also to provide individual

¹³ Between 2000 and 2010 Becta undertook the most detailed surveys at the time of institutional and practitioner use of technology in the further education and skills sector. The results were published annually and were compared with results from schools in the annual review known until 2007 as the 'Becta Review' and thereafter as the 'Harnessing Technology Review'. More information can be accessed here <http://tinyurl.com/BECTAsurveys>

Research

narratives of practitioner practice. There is no one best way to use technology in education. Technology use in learning is fragmenting, allowing highly individualised patterns of use and, increasingly, incorporating learners' use of their own technology. The uniform and regular use of large, centralised technology hosted by the college is one option, but web tools, social media, open education resources and now apps on mobiles and tablets have opened up the range of possible technology use. Teachers have always been good at taking the essence of a great idea and adapting it to their own circumstances. The application of the constant values of good teaching and learning remains the key to designing effective technology use. It is evident throughout the narratives produced by the survey how consistently teachers attempt to describe the use of technology in terms of its capability to serve effective teaching and learning.

If we want to help teachers to develop in this new landscape then there should be a common set of characteristics for development and we offer a set, a list of nine higher-level thinking skills, related to confident practice. Any common framework that wants to encompass all that is done by CPD and training must be set at an overarching level and involve thinking skills rather than processes. If such a list were adopted then any training or CPD activity of any kind can be recorded then attributed as an example of one or more of the nine characteristics that we have shown as higher level thinking skills or meta-skills. For example using tagging in REfLECT¹⁴ can easily marshal evidence when required. These meta-skills can be broadened to describe other wider characteristics. We suspect the document Brilliant teaching and training in the FE and Skills Sector¹⁵ published by LSIS and the IfL might be a good place to start.

¹⁴ REfLECT is the Institute for Learning's (IfL) online personal learning space for members. It enables members to plan, record and assess the impact of CPD on their practice <http://www.ifl.ac.uk/cpd/reflect>

¹⁵ Available here: <http://www.ifl.ac.uk/cpd/about-cpd/guidance-and-resources-from-ifl/ifl-and-lsis-publish-guide-to-effective-cpd>

The practice of teachers sharing these stories, particularly by subject specialism across colleges, is now easily accommodated and there is ample literature of the value of this as a force for effective change generally. Many would say (including Geoff Petty) that this is the most important method, yet it is not happening effectively. Very little reference in the narratives is made to talking and sharing with subject teachers across different colleges. The ideas teachers talk about in the narratives are rich and effective but invariably couched in terms of the particular provider's space and culture. Whether this lack of conversation occurs due to the natural or contrived forms of competition between colleges is uncertain but enhanced and supported conversations between practitioners provides the quickest way to spread ideas and enthusiasm for development about applying technology. We think that focus now needs to be on how to develop "artfully-constructed learner-centred learning experiences".

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The Authors are both LSIS associates and further information is available from them at:

Geoff Rebbeck FiFL FRSA QTLS at grebbeck@me.com

Fred Garnett fred.garnett@gmail.com

Research

The Digital Practitioner - Table of Metaskills

Higher level thinking	Description
1. Drive to think & work flexible	The ability to use technology in different ways than originally covered in training or the Manual. Making technology bring learning to life. Personalising learning through the use of technology
2. Ability to adapt technology to purposeful pedagogy	The ability to make technology genuinely contribute to learning for learners rather than seeing technology as an end in itself. This includes widening participation, increasing retention, particularly amongst hard-to-reach learners
3. Vision to create imaginative blended learning design	Learning and demonstrating the skill of redesigning teaching and learning by blending in technology to other forms and methods of teaching and learning. This refers to skills developed through practice and engagement with peers and learners rather than in formal sessions or using formal learning resources
4. Curiosity to involve learners in curriculum delivery and design	The Learner Voice. Involving learners in the design and personalising of learning. Student e-learning monitors in classes. Involving learners in the experience of learning in the widest sense.
5. Imagination to develop future learning plans	Using technology in helping learners to develop management of their own journey, to account for their learning and plan future learning. Improving the tutorial process, making learning more relevant to the needs of each individual learner
6. Desire to account for personal and purposeful effectiveness	Using technology to develop the skills of reflective thinking. Capturing ideas and themes to inform teacher learning journeys through personal learning space. Developing professional accountability
7. Capacity to develop collaborative and cooperative working	To look across and out of the organisation to work with and for others. An open mindedness. Working adaptively to accommodate the ideas of others. Assimilation of the best ideas.

Viewpoint

LSIS Research Conference 2012: Improving vocational learning through research-informed practice

The third LSIS Research Conference explored a wider range than ever of successful practical research in colleges and among independent training providers, covering everything from exploratory work around English, maths and ESOL/functional skills, to breaking down gender barriers to recruitment in physics.

Rob Wye, LSIS Chief executive said, “The LSIS research programme and this conference in particular help us explore ideas and validate what we do. This enables us to bring about necessary changes to policy and practice based on sound evidence.” LSIS Research Development Fellowships, now in their fourth year, were proving a real success in offering a fresh eye to best practice and pedagogy, with practitioners firmly in control.

In addition to 12 detailed practical workshops, exploring and testing the effectiveness of the research evidence, two keynote speakers – Professor Lorna Unwin, from the Institute of Education, and Professor Sandra Nutley of the University of St Andrews – gave advice on the influence research can have on policy reform and how to get the very best out of research programmes to improve practice.

Reports on discussions around the case studies presented at the conference, *Improving vocational learning through research-informed practice*, will appear in the autumn edition of *Inside Evidence*. Below are brief summaries of the talks by Professors Unwin and Nutley

Research by practicing teachers provides key to policy reform

- How is vocational expertise developed?
- Do we have pedagogies to match developments in the workplace and technology?
- Is the apprenticeship still a relevant model of learning for all sectors?
- What are the implications of gender segregation in vocational education?
- What do we mean by ‘competence’?

These five “big enduring questions” underpin practical research into vocational learning, says Lorna Unwin, Professor of Vocational Education at the University of London Institute of Education. They are key questions teacher-researchers in colleges and work-based learning organisations should bear in mind when building the evidence base to enhance practice and theory.

Evidence-based policy, based on sound practical research, will help challenge commonly held assumptions, Professor Unwin told the delegates.

Viewpoint



Professor Lorna Unwin

“The government wants the sector to own what it does but what the government has to be prepared for is that research may raise difficult questions for the government as well as for the sector.”

People on the front line in FE were increasingly doing the research that raises the difficult questions that should provide the means for “myth-busting and telling truth to power”, she said. The questions that need addressing are basic:

- Job quality - do your work placements provide conducive learning environments?
- Will a mandatory time length for apprenticeship improve quality?
- Are written exams better than portfolios for assessing knowledge?
- Are functional skills actually functional?
- Is your workplace ready for research?

When the researcher is looking for best practice, the difficulty is recognising when learning is happening, said Professor Unwin. “Good learning is often invisible; it’s often hard to see it. It is particularly hard to see learning in the workplace and often hard to see it in the vocational classrooms, workshops, kitchens or hairdressing salons. We have to get people to tell us about their experience of learning. We are engaged in a process of ‘meaning making’ – coming to a sense of what learning means. This will be hard for policy makers to grasp,” she added. “One of the tricky concepts we have really to shake out is the concept of good practice. What works one day with one group doesn’t work the next day with another group.” There are many pedagogical strategies that will support learning effectively – no single “best way” of doing something.

Professor Unwin urged researchers in FE to be inclusive in their work, to involve education support workers, managers, assessors and, most of all, the learners – particularly young people who are most involved in and often best understand technological change and its influence on learning. There was also a need to recognise that the vocational landscape was complex, with learning happening in so many different settings (classrooms, workshops, virtual environments, workplaces) and different social, economic, political, contexts, and with the current moves to an unregulated labour market, ‘employer-led’ approach, marketisation, ‘choice’, etc.

Professor Unwin spoke of a “rich, multi-layered canvas” in FE, far more complex than teachers in schools and most HE experience.

Viewpoint

Studies reveal key strategies to help teachers do effective research

Teachers who embark on research need to set out clear strategies to make the task manageable, Professor Sandra Nutley, Director of the Research Unit for Research Utilisation (RURU), University of St Andrews, told the conference.



Professor Sandra Nutley

Common reasons why people did not do research were lack of time and money, the cultural differences between the academic and practice communities and the use of impenetrable language. Some felt the need to build 'shared spaces' was unworkable; others wondered whether evidence would have any impact. Are we making a difference?

Careful analysis by RURU of successful research use, Professor Nutley said, suggested seven lessons to help ensure success:

1. Set realistic ambitions and expectations about research use. Evidence is rarely definitive, you need evidence plus other sources of knowledge.
2. Improve the supply of evidence but don't stop there. **"We need to develop better research and development strategies to improve our methodological competences, to revisit past research and to synthesise existing studies."**

3. Shape as well as respond to the demand for evidence in policy and practice setting. Think of your own questions, do not just respond to the demands of others.
4. Employ multifaceted strategies – encourage dialogue among a range of players and processes, contexts and interactions with other types of knowledge.
5. Explore the role of dedicated knowledge brokers / networks, for example LSIS, for knowledge management, linking people and capacity building.
6. Target a wide range of voices to increase opportunities for evidence to become part of the policy discourse, feeding into the wider debate.
7. Get better at writing up, communicating and evaluating research "so we get a better idea of its impact".

Professor Nutley outlined "three generations of knowledge to action" – doing research to make something happen. Work from the 1960s to 1990s was around 'knowledge transfer' – envisaging the need to get better at 'packaging' knowledge and reducing everything to bite-size packages. The mid-90s onwards was about knowledge exchange – knowledge as a function of relationships between people. Most recently work has been around 'knowledge integration' and the need to think about cultures, organisations and systems.

Viewpoint

In a study RURI conducted for the Social Care Institute of Excellence, three models of research have emerged, she said:

- Research-based practitioners – this makes research the responsibility of individuals and presumes an element of professional autonomy. “This tends to be the default model. The problem is the assumption of professional autonomy.”
- The embedded research model – the responsibility is with service delivery managers and policy makers, which tends to lead to performance checklists and regulatory regimes, as was seen in the redesign of the UK probation system.
- Organisational excellence model – where responsibility rests, for example, with whole senior management teams. This is about setting up systems and cultures, partnerships with local HEIs and collaborative inquiry such as the one-time UK school-based research consortia.

“There is no single best model,” said Professor Nutley. “You need all three of them and you have to match the model to the circumstances. Our research also suggests eight generic features of effective practice to increase research use.”

These are:

1. Research must be related to context.
2. Ownership is better than coercion.
3. Need for enthusiasts and champions.
4. Contextual analysis – results won’t always translate to other circumstances.
5. Credibility of source as well as method.
6. Leadership – the research has to be valued by people in senior roles.
7. Support – financial, time, technical, emotional.
8. Integration of new and existing practices.

Using Research

Many and varied ways of using research

Andrew Morris writes

Have you ever tried using research evidence to change the way you teach? I tried, some years ago when I was thinking about saving time on marking homework. It wasn't so easy! How do you ever find anything relevant, how do you make sense of it and then, the killer, how do you actually apply it? Or should you develop your own evidence through action research?

Fortunately there are now many aids to help with evidence-based approaches. Systematic reviews pull together lots of smaller studies and save you time¹⁶, see for example the article by Higgins in the previous issue of **IE Spring 2012**. Briefing papers summarise key points and bring out fundamental principles **IE Winter 2011**. Then there are portals to help you find research publications¹⁷. So, getting hold of evidence may not be quite so difficult today as it once was, but what about actually using it to change our practices? Not quite so easy!

The problem is that just knowing something doesn't mean we always act on it. This is obviously true in areas such as healthy eating or smoking cessation, but studies in education as well as public health show just how difficult it is to change. So how do we alter the way we do things when faced with compelling evidence?

In practice, many factors are at work simultaneously in the fast moving, improvisatory environment of the classroom: preparation time, exam pressures, hallowed traditions. Not many of us are going to sit down for half an hour in the staff room to read a 5-year longitudinal study, then miraculously transform the way we teach. It's a lot subtler than that.

To begin with there are so many kinds of evidence to consider: large-scale studies offering reliable findings, but often not tuned to the specific situation we face; small-scale experiments perhaps more relevant, but maybe less rigorously tested; reviews which provide a short cut but sometimes yield rather bland conclusions. We need to be as open as possible to all of these and to blend what we read about with what we know from experience. Finally we act – we try out some change we have devised and test whether or not it is beneficial.

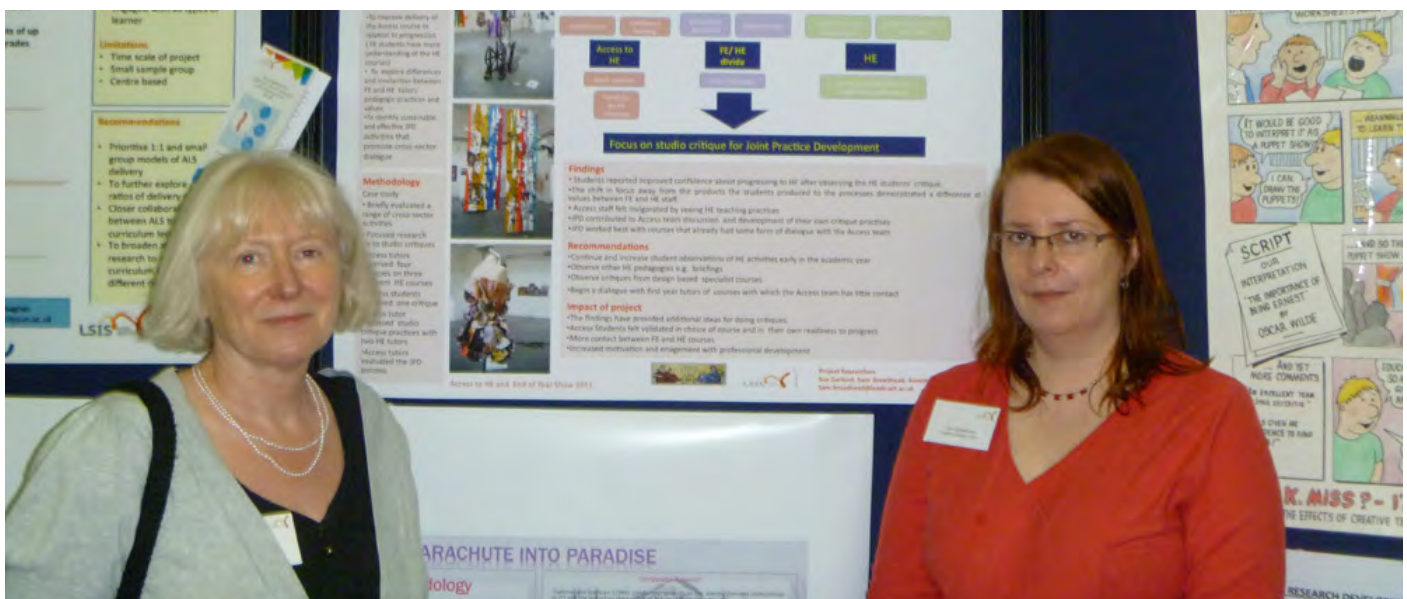
So how do we face up to this professional challenge? There is no pattern book; different teachers tackle it in different ways and the example of others can inspire us. In the following pages a range of practitioners reflect on how they have made use of research to develop their own practice or that of the organisation in which they work. Let us know about your experiences for future issues of **IE** – you never know, it may help others in a similar position.

¹⁶ See for example the EPPI Centre at <http://eppi.ioe.ac.uk/cms/>

¹⁷ See for example the educational evidence portal (eep) at www.eep.ac.uk or the Digital Educational Research Archive (DERA) at <http://dera.ioe.ac.uk/>

Using Research

Using action-research evidence to change art studio critiques



Sam Broadhead and her colleague Sue Garland display their research poster at the 2012 LSIS research conference

Sam Broadhead, a course leader at Leeds College of Art, was one of the Fellows in the 2010 LSIS Research Development Fellowship (RDF) programme. She reflects here on how she brought about changes in one aspect of the team's practices in the light of the research she had undertaken.

The aim of undertaking research was to improve the critical skills and independent learning of Access learners so they succeeded when they progressed onto an HE course in Art and Design. From previous research projects, it was seen that working with HE teachers in the Joint Practice Development of studio critiques could be a way of reinvigorating the critiquing practice on the Access courses. Reading around the areas of formative assessment and collaborative working also gave the Access

teachers the impetus and confidence to try some of the ideas out in the FE art and design studio.

The ideas that came out of this research were to introduce cross-year studio critiques comprising of small groups of four or five first and second year learners who would manage the process rather than the teachers. Everyone would present one piece of art, craft or design work to be discussed. One group member would be responsible for asking questions, another would make notes about the conversations that took place. In their groups they would critique each other's work using modified Socratic questions as a prompt. After the process the two year groups met up again to feed back to the teachers.

Using Research

Socratic questioning for the studio critique

Seek clarification

Can you explain why you have made this work?

Probe reasons

Why do you think it works?

How can it be improved?

Explore alternative views

Is there another way you could have responded to the brief?

Test implications and consequences

Do you agree with what people have said about your work?

There were psychological barriers about risk-taking to overcome. The two Access teachers were able to put the research into practice within the studio, however they did feel a sense of jeopardy. Would first and second years work well together; would dominant personalities take over the group? Would people stay on task? Would learners actually be put off studio critiques if this turned out to be a bad experience? One teacher had to convince her colleague that

taking a session out of the timetable to try a new thing out was a worthwhile thing to do. What motivated the teachers was the research, which had strongly suggested that learners would gain from trying out this studio experiment.

Learners also reported feeling afraid at first in feedback sessions. One learner, an older man called John, who had previously been a lorry driver, fed back to whole group, **“I haven’t spoken as much in my life since coming on this course!”**

The benefits of doing this experiment were that it actually took less time than a conventional year group critique led by a member of staff. The first and second year learners could exchange ideas and gain experience in managing a small critique. The work produced by the learners was exposed to a new audience which could generate new ideas for development of each other’s creative practice.

Samantha Broadhead can be contacted at [**sam.broadhead@leeds-art.ac.uk**](mailto:sam.broadhead@leeds-art.ac.uk)

Using Research

Reminiscence and learning in the fourth age

*Sarah Housden, a member of the Learning in Later Life team at Norfolk Adult Education Service, became aware many years ago of the potential of reminiscence as a vehicle for learning. She decided to explore a range of evidence of this process and was awarded an LSIS Research Development Fellowship (RDF) to do so (see her report *Reminiscence and Lifelong Learning*¹⁸).*

In her work Sarah uses reminiscence as a vehicle for cross-generational learning. It encourages the development of skills for enhanced communication with people of all ages and abilities (including people with learning disabilities and / or dementia) and between people of different social and cultural backgrounds. Now Sarah has taken her work a step further through a part-time, self-funded Doctorate in Education. She is carrying out research into the type of learning that takes place in a reminiscence group for frail older people and is currently analysing the wealth of data accumulated through her recordings and field notes. Sarah reports that:

Initial findings suggest that learning took place for all participants, but in different ways for each person. The specific ways in which people learnt included the sharing of knowledge about local, national and social history; the recognition of the value of individual contributions by members of the group; and the development of relationships and focused communication skills. New ways of sharing the self, through mime and drawing, were experimented with. Discussion was stimulated around personal items of memorabilia and photos; skills such as active listening and asking questions were developed for

functioning effectively in a group. Individuals learned that their lives and experiences are of value, regardless of the degree of disability and functional impairment experienced in the present. Autonomy grew subsequently and there were examples of group members being inspired by each other to make the most of the realities of their limitations.

The evidence for all this comes from recordings of interactions between the participants, from individual interviews following group work and from focus groups held after the group work and six months later. The latter enabled participants to express how much they felt they had gained through taking part in the reminiscence course.

Sarah is keen to begin to establish a body of empirical evidence which points towards the value of the sharing of memories by older people and would like to hear from others who have used reminiscence as a vehicle for learning, or who have found alternative effective ways of working with learners in the Fourth Age.

“With an ageing population and our increasing knowledge of the benefits of learning across the lifespan,” Sarah concludes “this research could potentially make a significant contribution to our understanding of effective ways of drawing upon and adding to the skills and knowledge of frail older people, enabling them to live life to the full, to the very end of life.”

To contact Sarah email: sarah.housden@homecall.co.uk

¹⁸ Housden, S. (2007) *Reminiscence and Lifelong Learning*, Leicester, NIACE (available via NIACE publications: www.niace.org.uk/publications)

Using Research

Making action research part of college CPD

At Colchester Institute, staff are now encouraged to use action research as part of their CPD and a college fund is available to support this. This is one outcome of a Joint Practice Development project undertaken by Carol Finch and Anne Taylor as part of the LSIS Research Development Fellowship (RDF) programme in 2010/11.

Anne had undertaken action research on assessment as an RDF the previous year and was keen to promote small action research projects as an alternative to the traditional methods of CPD in the college. Volunteers from different vocational areas across the college all undertook some action research

within their classes, generally trialling a new method of assessment. Carol and Anne supported them and met up with them to feed back on progress. As a result, communities of practice began to build and staff began using more creative teaching strategies identified by research which have since been shared within centres and in workshops. Confidence about action research and the associated skills has grown amongst teachers and those supporting them.

Anne and Carol can be contacted at:

anne.taylor@colchester.ac.uk

carol.finch@colchester.ac.uk

Using evidence to develop an eLT strategy

For Nadim Bhaksov, an LSIS Research Development Fellow (RDF) in 2011-12, the experience of research has influenced the development of a college strategy. By researching pedagogical theory, drawing particularly on philosophy, he formed a model of a 'social practice' concept to develop a vocational framework for pedagogy. This informed his rationale to increase and change the use of eLT (e-learning and teaching) across the whole College and helped provide a clear strategy for linking pedagogy and eLT. The opportunity of the LSIS RDF programme

helped him formulate a method and strategy for improving teaching and learning which drew on Plato's notion of learning as a type of recollection – an 'eliciting' and 'drawing out' process. He has developed an eJournal based on this approach: don't tell but elicit what is 'already going on'. The approach places the concept of research at the heart of the renewal of teaching and learning at the college.

You can find out more from the eJournal by contacting Nadim at Nadim.Bakhshov@highbury.ac.uk

Using Research

Inspiring learners about research: a spin-off from scholarly activity

Andy Smith, a course leader in engineering and computing has noted an important spin-off recently from the long tradition of practitioner research at Blackpool and The Fylde College. He sees the visible signs of scholarship begin to rub off on learners on HE courses.

“It often begins in studies where learners are participants in their teachers’ research. Debriefing sessions reveal the nature of the teachers’ studies and give the learners insight into research methods and methodology. Later on, when staff share their experiences of presenting at conferences they can relate them to learners’ presentation skills, giving learners greater belief in what they are being asked to do. They now trust their supervisors who have shown themselves to be scholars.”

“It may be about lifting the veil of mystery surrounding scholarship, so learners see for themselves the processes involved in research and dissemination of findings. Perhaps the additional ‘magic’ ingredient is the

enthusiasm for scholarship demonstrated by the staff. It draws in and motivates learners who then aspire to make their dissertations pieces of authentic research which could be disseminated to a wider academic audience”. This was certainly the case with many of the learners on the BSc (Hons) Project Management, two of whom, Joanna and Shanaz, feature in an accompanying article in the IE section “About research”, on [page 41](#).”

If you are hoping to stimulate learner research in your college, Andy’s advice is, “make your own research activities visible to learners, be enthusiastic about the nature of research and strongly support learners’ academic practice on the basis of your own experience.”

Using Research

Policy into practice through action research

Birmingham Metropolitan College is rapidly emerging as a leading institution when it comes to radical thinking and reform. It recently hit the headlines with plans to become the first modern-day mutual or 'co-op college' and share its rewards with staff.

New-style management with a professionalised board of governors would replace current administrative structures if the college goes ahead with its already reasonably well-developed plans. Christine Braddock, the principal, is in talks with other mutual organisations such as the John Lewis department store and the Co-operative movement.

Dr Braddock argues that staff at all levels would feel much more engaged and motivated, a point that helped convince the Skills Funding Agency to award the college a grant for further exploratory work.

However, this is not her first venture into the devolving of power to staff and stakeholders. Last September, Dr Braddock introduced sweeping changes to the whole programme of continuing professional development for all 1,500 teaching and support staff. Every Wednesday, they turn their attention to professional development programmes that they themselves research and design or select.

Dr Braddock shares the concerns highlighted in the recent annual CPD survey report by the Institute for Learning. The report, analysed in the spring publication (Edition 12) of *Inside Evidence*, showed there was too much central control, top-down management in FE colleges

and skills training providers generally. "The fact is that for a decade and more nationally our learning culture was built around an obsession with accountability through detailed checks and tick-boxes," she says. "This created centralising tendencies and the belief that ticking boxes alone could lead to outstanding teaching and learning."

Basic research into best practice, which could and should be carried out by teachers in the classroom and workshop, was too often neglected. But Birmingham has been building on such activities and had a strong influence on the key recommendations in the IfL report, which see action research as central.

Given the Coalition Government's pledge of greater freedom over spending and less red tape, Dr Braddock saw an opportunity to free senior staff from accountability exercises that, everyone agreed, were little more than bean counting and of questionable merit in terms of improved teaching performance and learner achievement.

Teachers generally saw the need for new approaches to teaching and updating their skills, which called for different thinking and development programmes. The proof of the value is already showing in the amount of time they are willing to commit – up to six hours a week compared with the current mandatory 30 hours minimum CPD per year.

Using Research

Chris Davies, Director of teaching and learning, said the college was supporting staff through a wide range of professional development, underpinned by small scale action research to help teachers identify and overcome problems and develop their skills and knowledge to improve teaching and learning.

Outlining the underlying philosophy, he said, “The college sees professional development sessions as an opportunity for all staff to be involved in personal development and continuous well-researched improvement. It allows all staff to be actively involved in reflecting on their teaching and work practices, with a view to improving and enhancing performance through new, innovative and creative ways of working.”

At the heart of this initiative is the key role of ‘teacher as researcher’, he says. “It also provides an opportunity to more fully utilise the capabilities of staff by encouraging them to explore new ways of developing themselves and their practice in a symbiotic fashion that benefits both the individual and the organisation.” Most of all, he says, the new approach “encourages staff to exercise their professional judgement in identifying opportunities for development and new ways of working.”

For example, the college is liaising closely with the IfL in hosting CPD events such as ‘Developing a new professionalism’, which explores new ways of working – whether it is staff to staff, staff to learners or learners to staff – to improve communication and general efficiency and effectiveness.

Birmingham Metropolitan is able to exploit state-of-the-art developments through links with top companies to develop new working relationships and opportunities through sharing good practice; again, building on sound research to create evidence-based policies that can be shared more widely.

Working with IBM, “We are looking at the development of ‘virtual bridges’ which give staff access to their desktop wherever they are located. This is providing the opportunity for the college to explore ways in which staff can work from home.” The system ‘Lotus Live’ gives learners the opportunity to engage in ‘location-independent learning’, he reports.

This is a crucial aspect of our work, says Paul Bamforth, course co-ordinator for the Foundation Degree in counselling studies. “You can’t expect all learners to turn up at lessons and access education in the way they used to. Indeed, some may not be able to turn up at all – for very good reasons such as family and job commitments. If they can’t get there physically, how do you reach them?”

The whole process is creating new avenues for professional development by encouraging staff to engage in action research projects which help inform their thinking and focus on improving individual skills and knowledge, says Chris Davies. “The college runs regular scholarly activity events and has recently launched sessions on supported experiments which allow staff to focus on developing a specific aspect of their practice.”

Whether this will all lead to the raising of achievements outlined by Geoff Petty, training guru and author of numerous works on evidence-based teaching, in his work for IfL, time will tell. But Dr Braddock is very confident. “Though it is too soon to quantify them, there are already clear signs of gains being made in our college.”

Using Research

Based on focus groups and a survey involving 50,000 teachers, the 2010-11 IfL review, *CPD for the future: the networked professional*, included the following key recommendations:

1. Sharing the outcomes of CPD is excellent CPD in itself, so create more opportunities for this. Collaborative learning and collective and critical reflective practice on what works and the impact on learners are key to improving teaching and learning. Organisations can create communities of CPD practice to model focus groups and outcomes.
2. More planning time and more time for effective personalised and collaborative CPD are essential. Directed, mandatory CPD is not necessarily effective, and yet employers seem to invest mostly in this; it is essential for motivated teachers to have more space for the ad hoc, or planning and undertaking self-directed development opportunities.
3. CPD is vital to career development and readiness for new teaching and learning opportunities. Teachers and trainers need opportunities to undertake CPD targeted at keeping up to date or increasing the breadth of their experience in subject specialisms and related fields. Work-shadowing and subject specialist communities of practice are increasingly important.

4. The impact of CPD is insufficiently theorised or prioritised as 'deep learning' that affects a wide range of colleagues and learners. Action research and involving learners in development activities and supported experiments deepen the relationship between teacher and learner, changing the balance of 'power' and getting beyond surface evaluations to deep learning about teaching and learning strategies that work. This is powerful CPD in its own right and is effective in identifying CPD that actually improves teaching and learning and most benefits learners.

For further information on the work of Birmingham Metropolitan College, contact Chris Davies: chris.davies@bmetc.ac.uk

For annual IfL CPD surveys, go to: <http://www.ifl.ac.uk/cpd/cpd-review-excellence-in-professional-development>

Research networking

The Learning and Skills Research Network

The Learning and Skills Research Network (LSRN) is a loosely-structured network, open to all, that enables people to present or discuss their experiences, whether about research findings or using evidence in practice. Plans for the next annual research event are now afoot. Based on the successful model used in November 2011, it will provide a place for evidence-users and researchers to exchange knowledge, experience and insight as well as hear key inputs on current research.

LSRN 12th annual research event

Doing research and using evidence are complementary aspects of the forthcoming research event of the Learning and Skills Research Network (LSRN). You are invited to put forward a brief presentation of your reflections as a practitioner about your findings as a researcher, for discussion at the round table session at the event. You are equally welcome to join the discussion to listen and comment.

As in 2011, the venue is the prestigious top floor suite of the Shell Building at 80 Strand. LSRN is again indebted to Edexcel / Pearson for the gift of this venue with its excellent

conference facilities and views over the Thames. The date is **Friday, 9 November 2012**. Places are limited so early booking is advised.

LSRN is also indebted to the sponsors who are each supporting a theme: NIACE, LSIS and the City & Guilds Centre for Skills Development.

Speakers will introduce each round-table session by addressing a practical question. The discussion will enable exchange of experiences and insights and will be informed by research findings from practitioners and full-time researchers. For details of how to register for the event and to propose a brief input to the discussion, see the NIACE website <http://www.niace.org.uk/campaigns-events/events/conferences-seminars-training-courses>.

Regional updates

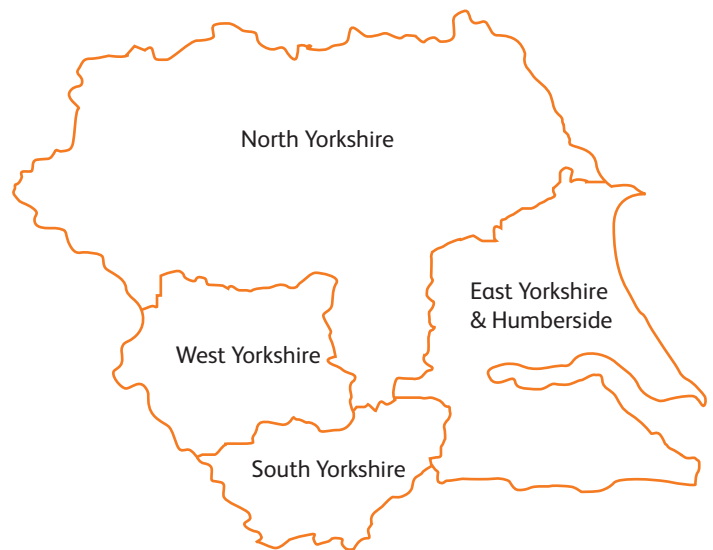
The regional groups of the Learning and Skills Research Network provide a place for new and experienced researchers from colleges, adult and work-based learning centres to meet with university colleagues at workshops, conferences and meetings. You can get in touch with your regional convenor using the list of contacts on [page 40](#).

Using Research

Yorkshire and Humberside

Kevin Orr writes:

After a hiatus of several years, the Yorkshire and Humberside region of the Learning and Skills Research Network held a conference on 3 May 2012 at the University of Huddersfield, funded by the Consortium for Post-compulsory Education and Training. Thirty people attended from colleges, universities and work-based learning providers from throughout the region and beyond to engage in sessions on subjects ranging from the ethical dilemmas of researching in further education (FE) colleges to the use of video in teaching; and from research on the support of vulnerable learners to approaches to higher education in a FE setting. The great majority of these sessions were run by colleagues from FE colleges, many of whom were presenting for the first time.



< At the other more experienced end of the scale, Professor James Avis finished the day off with a fascinating lecture entitled, Workplace learning, vocational pedagogy and the transformation of practice. Avis critiqued many of the current accounts of work-based learning, and especially their appeal to social justice.

The event was a great success, especially in mixing experienced and new researchers and in providing a space for research to be discussed. Another such event is planned for the autumn.

Contact: Kevin Orr, LSRN Yorkshire and Humberside convenor at k.orr@hud.ac.uk.

Using Research



North East

Maggie Gregson writes:

Activity in the North East region is coordinated by Maggie Gregson and Lawrence Nixon at SUNCETT at Sunderland University. A successful event was held in March on Sharing Good Practice in Formative Assessment and another, held in conjunction with the Institute for Learning, focused on Managing Challenging Behaviour. Both events attracted considerable numbers and included practitioners from across the North East. Colleagues from SUNCETT have worked on resources to help teacher educators and learner teachers open up discourses about the purpose(s) of education, presenting a paper on this at the 2012 American Education Research Association in Vancouver in April.

Contact: Maggie Gregson, LSRN North East convenor at maggie.gregson@sunderland.ac.uk

Eastern region

Efforts are currently being made to reactivate what was once a lively region of the Learning and Skills Research Network in the East. Members from Norwich, West Anglia, Suffolk, Colchester, Cambridge and Hertfordshire met termly to exchange research experiences and outcomes.

People are now sought to help with this, to convene meetings and facilitate exchanges. It may be that a number of smaller groups might emerge based on counties or towns, or perhaps on a particular theme, like the older learner, or apprenticeship or performing arts. If you would be willing to help, contact Andrew Morris on ajmorris@blueyonder.co.uk.



Using Research

If you would like to know more about a group in your region contact the convenor:

North East	Maggie Gregson	<u>maggie.gregson@sunderland.ac.uk</u>
North West	Tony Fort	<u>T.Fort@blackburn.ac.uk</u>
Yorkshire & Humberside	Kevin Orr	<u>K.Orr@hud.ac.uk</u>
East Midlands	Peter Tunncliffe	<u>P.Tunncliffe@derby.ac.uk</u>
West Midlands	Rob Smith	<u>rob.smith@wlv.ac.uk</u>
East	Will Thomas	<u>w.thomas@UCS.AC.UK</u>
London & the South East	Sai Loo	<u>S.Loo@ioe.ac.uk</u>
South West	Claire Gray	<u>claire.gray@plymouth.ac.uk</u>
Northern Ireland	Shelly Tracey	<u>s.tracey@gub.ac.uk</u>

Plus LSRN's link with the FE Regional Research Network north of the border

Scotland	Anne Gillen	<u>AnneGillen@adamsmith.ac.uk</u>
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About Research

Learners get the research bug

Research capacity at Blackpool and The Fylde College is developing to the point where learners are getting in on the act. Stimulated initially by funding from the HEA's Teaching Quality Enhancement Fund, staff from across the college are able to put forward proposals for college support to enable them to carry out research and participate in conferences. Currently some five projects are underway.

In an interesting recent development, lecturers, enthused by their own research, find themselves spreading the word to their learners. Joanna Cinis and Shanaz Dawood (pictured), from the BSc (Hons) Project Management course, recently presented their research in project management to leading academics and university learners at the prestigious British Conference for Undergraduate Research at Warwick University, "The first time work by learners from any Further Education college has been accepted," according to their lecturer, Andy Smith.



Joanna Cinis and Shanaz Dawood present their research at the British Conference for Undergraduate Research at Warwick University

Andy, who himself benefited from an LSIS Research Development Fellowship, believes that staff gain confidence and skills by participating in research themselves (see Andy's comments in the Using Research section of this issue). This then spills over into learner research in particular specialist areas – in Shanaz's case, new theories of leadership in project management and in Joanna's, the role of project management in developing large businesses into global organisations. Both are part-time learners working in a collaborative scheme with BAE Systems.

Although Joanna found the conference presentation daunting with "learners from places such as Oxford", the feedback they got was that "our work was as good if not better than theirs." Shanaz realised from talking to other learners, "how good the teaching at the college has been compared to some universities."

Rising confidence amongst the staff about writing and disseminating their research has also infected the two learners who hope to publish journal articles and return to the conference next year at Plymouth University. Their enthusiasm for research is even beginning to infect the learners in the year below – a veritable contagion!

About Research

Democratising college research

“Often the main insight reached by practitioner researchers is that they are not going to be able to answer the big questions they set out to address. Instead, their learning is in the process of research, developing new ways of looking at their practice and quantifying effectiveness.” This is the conclusion reached by Matt Davis who used to run the Research Bursary programme at City of Bristol College.

Increasingly, the college sees research as a developmental activity rather than as a vehicle for developing empirical understanding. Initially, the programme was similar to institutional programmes in Higher Education. Staff were asked to apply for a bursary by putting together a research proposal which was reviewed by a research steering group. The four most valuable or interesting applications received substantial individual support from a colleague with experience of research. The output, taking several months, was a report which would have been acceptable in any Master’s programme with substantial sections on the conceptual framework, methodology, results and analysis.

Changes made to democratise the process mean a broad theme is now identified through the research steering group, often in consultation with senior managers, focussing on an issue relevant to the college as a whole (for example, formative assessment practices). Applicants are accepted on the basis of their willingness to commit to the programme, which is advertised to all staff. Now, all of the participants – as many as fifteen a year – take part in a four-session, twilight CPD programme on the basics of practitioner research and are assigned a mentor to provide critical feedback on a small-scale action research project in their own classroom.

Participants discuss their findings at an evening event and the more confident give a poster presentation at the annual college research conference.

About Research

The evidence-based way: making it work in practice

Highlights of a national conference held in March 2012

Talk of evidence-based policy has become something of a fashion. Once an abstract matter of fascination for researchers and a fringe of political activists, the issue has come to the fore in recent years, thanks to renewed interest by a few political leaders, Ian Duncan Smith (Secretary of State for Work and Pensions) and Stephen Twigg (shadow Secretary of State for Education), for example.

But what of practice? How are evidence-based approaches being implemented at classroom level? What are the benefits and what are the costs? These issues were at the heart of a conference organised last March, as part of the Coalition for Evidence-Based Education series of events.

What emerged was something of value not just for makers of big policy decisions but also to the everyday classroom and workshop teacher. Based on the experience of participants working across education and the social services, a discussion list emerged about what may or may not be working, a sort of guide to effective implementation.

The Social Research Unit (SRU) and the Institute for Effective Education (IEE) are both leaders in the delivery of evidence-based programmes and in analysing their effectiveness; their experiences informed discussion amongst the 80-strong assembly of practitioners, leaders and intermediaries at the City Hall venue in London. Inputs from Chris Robinson of the London Mayor's Fund and Lee Elliot Major from the Sutton Trust outlined

the way in which major funders are now looking carefully at the quality of evidence in deciding which interventions to support. Bette Chambers (Institute for Effective Education) and Paul Prest ('Success for All') used the example of one particular school-focused programme to highlight the difficulties and opportunities of the evidence-based way. Michael Little from SRU gave a comprehensive overview of the dilemmas and success factors facing programme implementers across children's services.

Of course few would advocate actually ignoring good evidence in any situation. But in the delivery of public services, in real time, with real budgets and staffing constraints, evidence-based approaches are simply not possible or even appropriate on all occasions. In education, some desirable social and personal outcomes are not captured in research evidence; and even in the best 'proven' programmes, not all needs are met. Michael Little suggested that in a good case perhaps only 50 per cent will gain from a beneficial intervention, 30 per cent will be unaffected and 20 per cent may be worse off. As he put it, "Human judgement is the key; the role of science is to inform it."

Structured programmes are an important element in improvement action, and the FE and skills sector, with its history of support for raising quality, effective leadership, learning technologies and subject learning coaches, for example, is no stranger to these. Equally important, however are evidence-based practices and processes. However an intervention is structured – whether as a national programme, a college-wide policy

About Research

or an individual classroom practice – the evidence behind it needs to include insights from practice-based qualitative studies as well as more objective quantitative studies. As the conference acknowledged, we need to know ‘why things work’ as much as ‘whether they work’.

A major obstacle in implementing new evidence-based approaches at the frontline is the overwhelming pressure of external initiatives; as one speaker put it, “One more, whether evidence-based or not, may be just too much!”. The key to resolving this, called for by many practice leaders at the conference, was for top-down and bottom-up approaches to be better integrated – a need strongly reflected in the FE and skills sector where vital innovation at provider level has to dovetail with top-down constraints imposed by government, inspectorate, funders and regulators.

A pragmatic way forward, proposed by some evidence experts, is to use evidence initially for disinvestment decisions – to decide to stop funding practices and programmes that the evidence does not support. Some interventions supposedly based on neuroscience, for instance, are taken up even though the evidence shows them to be ineffective.

Another important way forward, reinforced by studies in many sectors, is to upgrade professional development and INSET activity through greater use of research evidence. Experience suggests that simply attending an external course or reading about research often has limited impact on changing practice and improving learners’ learning. More effective are strategies that engage

participants first in understanding their own practices, then in collaborating with others to see how external evidence could shape the changes they wish to introduce.

A dilemma arises with evidence-based approaches in ensuring that guidance is followed faithfully, but that creativity and autonomy are not compromised. Examples were given of ‘manualised’ processes that released, rather than inhibited, creativity in practitioners. The devil of course is in the detail: over-prescription may blight a manual, but drifting too far from the evidence may compromise an intervention. A key success factor, signed up to by contributors from many sectors, was the importance of monitoring the impact in real time, not waiting for some distant evaluation. Keeping track of how a planned change is going down in practice can help build confidence amongst the participants as it proceeds or may suggest valuable changes to be made during the course of the programme – beneficial either way.

The conference drew on real experience plus research evidence to highlight the dilemmas and obstacles in implementing evidence-based approaches; it also demonstrated practical ways forward. As a final word of encouragement to all who exhaust themselves each day at the frontline, whilst still looking out for ways of doing better, one speaker pointed out that throughout history, a great many of the best innovators have in fact been practitioners, not scientists. There’s a message for us all!

About Research

Evidence at the hub of learning and education policy

Politicians in all parties have long argued that robust evidence-based policy is beyond the reach of education; that compared with disciplines such as medicine and policing, the variables and uncertainties are just too complex and that ‘democracy’ simply doesn’t work that way.

But recent developments around arenas such as the Centre for Evidence-Based Education (CEBE) have challenged this; so much so that few in a ministerial or shadow position seriously hold this view. Moreover, while policies devoid of significant supportive evidence may still reach the statute books, they are more strongly contested than ever.

The latest challenge to the old orthodoxy comes in the form of a report and checklist of 20 recommendations, Evidence-based policy development in Learning Technology, which is the result of a summit conference earlier this year convened by the Association for Learning Technology.



Rather than merely asserting the superiority of one bank of evidence over another, the group, including Intellect – the UK trade association of technology companies at the cutting edge of the ICT manufacturing and

learning technology developments – addressed additional deeper questions. What impact does initial teacher education and subsequent CPD have on the process? Why is evidence neglected or ignored? Are there new and more reliable measures through the application of ICT?

The resulting checklist ([see page 47](#)) summarises points the group suggests that learning technology researchers should bear in mind when designing and conducting their research, if their work is to have more chance of influencing policy and having greater uptake and impact. Such researchers would not be an ‘elite’ within academe but would encompass day-to-day practising teachers involved in action research, LSIS-funded programmes, etc. Indeed, the hope is to encourage more practising teachers as researchers.

The idea is to create a hub around which academic and teacher researchers work to develop and maintain a bank of trusted results for practitioners to use as they think fit. The hub would be run by an independent body, systematically collecting and evaluating practice-led evidence from teachers, learners, parents and family, industry, government and others. There are parallels here in the Education Media Centre which is being created through CEBE to promote more rational evidence-based debate in the press and media.

The report insists that, “**Compared to medicine and policing, it is perhaps more challenging to produce definitive evidence on technology’s**

About Research

specific role in supporting education and training. However, despite the inherent challenges, there are principles and practices that education researchers can follow to ensure that their work has an impact on policy and practice.”

However, the authors say, an accumulation of evidence of direct benefit to teaching and learning has for too long been neglected or side-lined because of an inherent but ill-founded negative sense that research is not relevant to the day-to-day practice of teachers and those who train them. Richard Hadfield, Chair of Intellect’s Education Group, says, “The power of a respected sector-based hub is in organising the evidence-based information around the needs of those in our schools, colleges and universities. We are keen that these institutions have access to information that can quickly make a specific difference to learning and teaching practice by year group or subject matter and that can be shared across people-networks that already exist.”

Contributors to the meeting in London and subsequent report showed how scientific research was widely applied across the spectrum of public services ranging from medicine, and agriculture to offender rehabilitation, policing, victim services, welfare reform and crime analysis. They stressed that it was time for education to catch up. The checklist of 20 recommendations range from measures to speed up discovery, innovation, dissemination and adoption of good practice and to involve learners more centrally in the research, to using more practitioner-researchers from within the teaching force and more clearly thinking through applications to the real world.

The meeting involved the Association for Learning Technology (ALT), LSIS, the ESRC/ EPSRC-funded Technology Enhanced Learning programme (TEL) and Intellect.

The organisations involved say the report is timely and chimes with a growing awareness among politicians and policy makers that long-term evidence-based development has to replace disruptive and counterproductive ‘stop-start’ policies.

Richard Noss, Director, Technology Enhanced Learning Research Programme, said, “Anyone with an ambition to enhance learning with technology must welcome this timely and informed contribution, not only about what the evidence says, but about what counts as evidence.”

For copies of the report, go to: http://repository.alt.ac.uk/2213/1/Evidence-basepolicyinLT_Final_AD_26032012.pdf

Checklist for research influence and impact

Research methodology

1. Consider mechanisms for speeding up discovery, innovation, dissemination and adoption.
2. Combine aspects of qualitative (e.g. action research) and quantitative research (e.g. randomised trials) rather than using just one methodology. Action research outcomes (and case studies in particular) can be persuasive to policy makers if insufficient for others.
3. Consider interdisciplinary aspects.
4. Consider properly prepared, conducted and analysed longitudinal studies.
5. Build on informal learning in your strategy for getting learner involvement.
6. Have as disinterested an evaluation strategy as possible involving learners, supporters and teachers.
7. Acquire and capture a detailed understanding of how the outcomes were arrived at.
8. Be systematic in presenting evidence and remember that your final audience is the public.
9. Support effective implementation in the field by staying close to practice in your work – your project does not end when you publish the paper.

Real-world applicability

10. Fully consider interoperability challenges.
11. Think through and articulate the cost benefit model of anything that you propose for adoption.
12. Be specific about the technology needs and consider how these will change with time (future proofing).

13. Be specific about the precise nature of the intervention that you are proposing as a part of adoption and specify limitations of applicability of your work carefully.
14. Be prepared to re-analyse and re-work as a result of further evidence and be prepared to be responsible for your research if it fails to be replicated or receives poor feedback.

People

15. Involve supporters (learners, parents, family, etc) in shaping your work including, but not restricted to, in evaluation.
16. Involve teachers more – the use of practitioner researchers can be the best way of collecting evidence. The role of the academic is then that of project management and involves collecting, collating and analysing results. Teachers also need to be involved in feedback and evaluation.
17. Work with learners closely, being aware of their characteristics.

You

18. Be prepared to work with others in an 'ego-less' fashion.
19. Be a practitioner and keep your practice up to date
20. Keep up to date with the research of others.

Registered Office:
Friars House, Manor House Drive
Coventry CV1 2TE
t 024 7662 7900
[e enquiries@lsis.org.uk](mailto:enquiries@lsis.org.uk)
www.lsis.org.uk

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