

Curriculum redesign - research report

Colin Isham and Paul Crisp

Centre for the Use of Research and Evidence in Education (CUREE)



The curriculum redesign project

Between September 2012 and March 2013 the Learning and Skills Improvement Service (LSIS) supported the 157 Group to lead eight action research projects in the area of curriculum redesign. Specifically the projects looked at curriculum developments with a focus on:

- Digital and creative skills (City of Bristol College)
- Young learners at foundation level and level 1 (Derby College)
- Employer responsiveness (Hull College)
- Staff engagement to create a college wide Teaching and Learning Strategy (Liverpool Community College)
- Enterprise (New College Nottingham)
- Engineering (Sunderland College)
- Rapid responsive to requests for course innovation (Sussex Downs College)
- Professional learning communities (York College)

CUREE was engaged on the project In October 2013 to support the colleges conduct the action research elements of the project, specifically to:

- provide guidance on establishing research aims and developing an approach to data collection and analysis
- signpost existing research in the areas of project foci
- provide ongoing research mentoring support
- provide guidance on reporting the projects to the wider FE audience.

Research support

CUREE's support began with a review of project proposals and telephone interview with project leads in each college. The foci and aims of each project having been established, each college was signposted to existing research with the potential to inform the projects, and provide an evidence base for the approach being taken. Research and guidance documents were identified for the following areas, and hyperlinks sent to partner colleges:

- Creative Digital
- Knowledge transfer / cross-college collaboration
- Employer engagement
- Literacy
- Numeracy
- NEET
- CPD / professional learning
- STEM
- Engineering
- Assessment for Learning
- Student voice

Resources can be found in Appendix A.



College leads were also given guidance on the research process. Much of this guidance focussed on making the distinction between project processes and intended outcomes/outputs. Because the immediate job in hand for participating colleges was to put the structures in place to bring about positive changes in the curriculum (processes), it was important to support college leads to clarify measurable success criteria (outcomes). Table 1 illustrates the distinctions made:

Table1 – curriculum redesign processes and outcomes

Examples of processes	Examples of outcomes/outputs
Developing 'Curriculum Innovators', whose job is to lead on curriculum innovation in their programme area	New/adapted programmes better suited to changing demands (eg from business, specific student groups etc)
Action learning sets Engaging an Entrepreneur in Residence Student voice activities	New/adapted programmes based on the wider evidence base that they were likely to have a positive impact on learning (eg based on assessment for learning research)
Employer engagement activities Creation of key roles to facilitate curriculum redesign, such as Business Development Manager Joint planning meetings	Increased engagement with stakeholders (eg employers, students) to shape programmes Greater collaboration between various colleagues and college departments to make the curriculum more responsive to demands Improved outcomes for learners (although the timescale of the project meant that any findings here could only be tentative)

Project leads were also advised on approaches to data collection where required. In most cases, the projects already had data capture activities and tools in place. These included:

- student and employer surveys
- minutes of meetings
- monitoring student enrolments and completions
- reflective diaries
- interviews with staff
- records of communications, such as e-mails.



In some cases additional support was provided where requested. For example, participants were referred to the Teaching and Learning Research Project¹, for approaches on how to capture student voice data. As the project progressed, participants also identified data capture and analysis tools which had the potential to harvest relevant data. One college, for instance, explored the usefulness of New Philanthropy Capital's Well Being Measure to assess soft outcomes of the redesigned curriculum².

In addition to ongoing individual support and feedback, two formal mechanisms were put in place to help college leads frame their enquiry. The first was the drafting of the outline for the final report. This set out the type of information required for the final report and so prompted college leads to consider the intended outcomes of the project, processes for getting there, and the evidence they would need to assess the extent to which outcomes had been achieved.

The second support mechanism came in the form of a workshop during an interim meeting, in which guidance to curriculum research was provided (Appendix B). This highlighted:

- the relationship between intervention and outcomes
- the golden thread linking questions, methods, data and findings
- data collection issues and approaches to resolve them.

Towards the end of the project participants attended a writing workshop. This was an opportunity to share experiences and findings, and also consider the features of report writing which would make the research accessible to a wider FE audience. Participants engaged with examples of similar practitioner research outputs³ to familiarise themselves with common pitfalls and the editing process. Before submitting their final reports, participants shared them with colleagues for peer comment, and received feedback from CUREE.

Research outcomes from the curriculum redesign projects

At the time of writing many of the projects are still underway, and data collection activity has been planned for the coming months to assess the full impact of the projects. The largest change emerging from across the projects has been in culture and the way people work with each other to design curricula. This has included:

- practitioner and student contributions to curriculum design
- inter-departmental collaboration
- greater engagement with external organisations to design curricula for particular client groups
- a revived interest in pedagogy among teaching staff
- increased flexibility among managers towards curriculum innovation

-

¹ http://www.tlrp.org/proj/phase1/phase1dsept.html

² http://www.well-beingmeasure.com/

³ Examples provided were LSIS research laboratory reports: http://www.excellencegateway.org.uk/node/636; and National Teacher Research Panel outputs: http://www.ntrp.org.uk/node/636; and



greater sensitivity among teaching staff and managers to the needs of particular client groups⁴.

Changes in working practices and culture have led in turn to a broader curriculum offer and one that is more responsive to student and employer demands. The curriculum innovation resulting from the project covers a range of provision, including:

- extending challenge in level 2 ICT provision to include more technical/programming units
- developing project based learning to match the behavioural, academic and social needs of foundation and level 1 learners
- office skills programme for job seekers
- extension of successful in-college ESOL programmes to new client groups.

⁴ These and other findings are described in detail in the individual research reports



Appendix A - Resources linked to projects

Below is a list of resources related to the foci of the topics using the keywords. Most resources are free to access, some need to be purchased. The resources do not come with a recommendation to access, but the list will raise your awareness of what is available. The resources may not match your context entirely, but may still contain ideas relevant to your project, or to stimulate discussion. If a summary is of interest, it will often have a link to the full report and so more detailed information.

Keyword	Resource	Project
Creative Digital	Sandra Haukka, Gregory Hearn, Justin Brow, & Stuart Cunningham (2010). From education to work in Australia's creative digital industries: comparing the opinions and practices of employers and aspiring creatives. <i>QUT</i> . Available at: http://eprints.qut.edu.au/29796/	Bristol
Knowledge transfer and cross college collaboration	Philippa Cordingley & Miranda Bell (2007). Transferring learning and taking innovation to scale. <i>CUREE</i> . Available at: http://www.innovationunit.org/resources/transferring-learning-and-taking-innovation-scale	Bristol



Keyword	Resource	Project
Employer engagement	Chris Cooper, Iain Mackinnon, & Dr Peter Garside (2008). Employer Engagement. <i>The Mackinnon Partnership</i> . Available at: www.ukces.org.uk/assets/ukces/docs/publications/ssda-	Bristol, Hull, Sunderland
	archive/research-report-29-employer-engagement.pdf Martin Hannaford (2012). Partnerships and Employer Engagement Association of Colleges. Available at: www.aoc.co.uk/en/research/aoc-surveys-and-research/partnerships-and-employer-engagement.cfm M Hughes & B Smeaton (2007). Exploring employers' perceptions of employer engagement Learning & Skills	
	Development Agency. Available at: www.excellencegateway.org.uk/node/13338	
Literacy	Claire Jones (2013). <i>Improving motivation and self-confidence in post-16 Foundation Learning students</i> LSIS Research. Available at: www.excellencegateway.org.uk/node/24876	Derby
	Karen Lancaster & Torben Smith (2013). <i>Improving students' essay-writing skills and longer response answers through online peer marking</i> LSIS Research. Available at: www.excellencegateway.org.uk/node/13329	



Keyword	Resource	Project
Numeracy	J Swain & M Swan (2009). Building evidence into practice: teaching adult numeracy. <i>Research in Post-Compulsory Education, 14,</i> 75-92.	Derby
	Available at: http://www.excellencegateway.org.uk/node/13359	
	Helen Casey, Olga Cara, Jan Eldred, Sue Grief, Rachel Hodge, Roz Ivanic et al. (2006). 'You wouldn't expect a maths teacher to teach plastering' Embedding literacy, language and numeracy in post-16 vocational programmes- the impact on learning and achievement.; London: National Research & Development Centre for Adult Literacy and Numeracy.	
	Available at: http://www.nrdc.org.uk/uploads/documents/doc_3188.pd f	
	M Swan (2006). Learning GCSE Mathematics through discussion: what are the effects on students? <i>Journal of Further and Higher Education, 30,</i> 22-241.	
	Available at: http://archive.excellencegateway.org.uk/pdf/Group%20discussion%20-more%20than%20just%20sociable%20chatter.pdf	
	J Williams (2008). Count me in! Making mathematics more inclusive. <i>Inside Evidence</i> .	
	Available at: http://www.excellencegateway.org.uk/node/13370	
Cross-college collaboration	Transferring learning and taking innovation to scale – report and case studies (pdfs)	Derby, Hull, Sussex Downs



Keyword	Resource	Project
NEET	Sue Maguire & Becci Newton (2011). Activity Agreement Pilots- trialling different approaches to re-engaging young people not in education, employment or training (NEET): Evaluation of the 2009-10 extension. Brighton: Institute for Employment Studies.	Derby
	Available at: https://www.education.gov.uk/publications/eOrderingDownload/DFE-RR086.pdf	
	Thomas Spielhofer, Gaby White, Lisa O'Donnell, & David Sims (2006). Determined to succeed and young people at risk of becoming NEET (not in education, employment or training) Edinburgh: Scottish Executive Social Research.	
	Available at: www.scotland.gov.uk/Resource/Doc/127242/0030498.pdf	
	Thomas Spielhofer, Helen Marson-Smith, & Kelly Evans (2009). Non-formal learning: good practice in re-engaging young people who are NEET. Slough: NFER.	
	Available at: http://www.nfer.ac.uk/nfer/publications/LIN01/LIN01.pdf	
	Richard Riddell (2008). Aspiration, identity and self belief in 'disengaged' students. In <i>British Educational Research Association Annual Conference</i> .	
	Available at: www.leeds.ac.uk/educol/documents/175302.doc	
	Thomas Spielhofer, Tom Benton, Kelly Evans, Gill Featherstone, Sarah Golden, Julie Nelson et al. (2009). Increasing participation- understanding young people who do not participate in education or training at 16 or 17. National Foundation for Educational Research.	
	Available at: https://www.education.gov.uk/publications/eOrderingDownload/DCSF-RR072.pdf	
	9	



Resource	Project
EPPI Centre (2009). Continuing Professional Development systematic reviews. Available at: http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=274#ccpd	Liverpool, York, Sussex Downs
Helen Timperley (2008). <i>Teacher professional learning and development</i> Paris: International Academy of Education & International Bureau of Education.	
Available at: http://www.ibe.unesco.org/fileadmin/user_upload/Publications/Educational_Practices/EdPractices_18.pdf	
STEMNET (2013). STEMNET Downloads. Available at: http://www.stemnet.org.uk/resources/other	Nottingham, Sunderland
National STEM Centre (2013). Available at: www.nationalstemcentre.org.uk/	
Journal of STEM Education. (2013). Journal of STEM Education . Available at: http://ojs.jstem.org/index.php?journal=JSTEM	
Research in Engineering Education Network (2013). Available at: http://grou.ps/reen	Sunderland, Nottingham
John Heywood (2005). Engineering Education: Research and Development in Curriculum and Instruction. Wiley. Available at: http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0471741116.html	
	EPPI Centre (2009). Continuing Professional Development systematic reviews. Available at: http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=274#ccpd Helen Timperley (2008). Teacher professional learning and development Paris: International Academy of Education & International Bureau of Education. Available at: http://www.ibe.unesco.org/fileadmin/user_upload/Publications/Educational Practices/EdPractices 18.pdf STEMNET (2013). STEMNET Downloads. Available at: http://www.stemnet.org.uk/resources/other National STEM Centre (2013). Available at: www.nationalstemcentre.org.uk/ Journal of STEM Education. (2013). Journal of STEM Education . Available at: http://ojs.jstem.org/index.php?journal=JSTEM Research in Engineering Education Network (2013). Available at: http://grou.ps/reen John Heywood (2005). Engineering Education: Research and Development in Curriculum and Instruction. Wiley. Available at: http://eu.wiley.com/WileyCDA/WileyTitle/productCd-

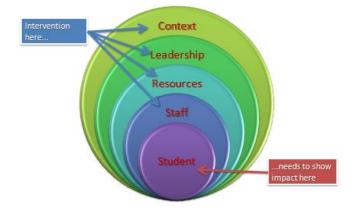


Keyword	Resource	Project
AfL	Sam Alvarez (2013). LSIS practitioner enquiry: Using assessment for learning to improve business students' analytical skills LSIS Research. Available at: http://www.excellencegateway.org.uk/node/13226 ; Teaching & Learning Academy (2011). Research for Teachers. Available at: http://www.tla.ac.uk/site/Pages/RfT.aspx Research for Teachers (2004). Assessment for Learning. Available at: http://www.tla.ac.uk/site/SiteAssets/RfT2/06RE018%20As	York
Student voice	sessment%20for%20learning%20- %20Putting%20it%20into%20practice.pdf Becky Barnes (2012). Can we use student observation to provide meaningful information for quality improvement. LSIS Research	Derby
	Available at: http://repository.excellencegateway.org.uk/fedora/objects/eg:4999/datastreams/DOC/content	



Appendix B - Guidance for conducting curriculum research

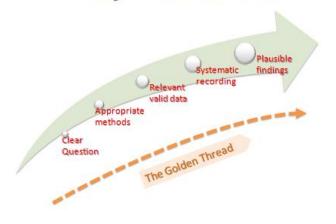
Intervention and outcome



Researching the curriculum

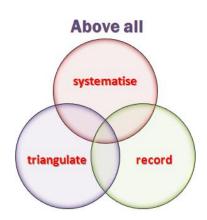


The keys to robust work



Example Evidence issues







Reference List

Becky Barnes (2012). Can we use student observation to provide meaningful information for quality improvement LSIS Research.

Chris Cooper, Iain Mackinnon, & Dr Peter Garside (2008). Employer Engagement. *The Mackinnon Partnership*.

Claire Jones (2013). *Improving motivation and self-confidence in post-16 Foundation Learning students* LSIS Research.

EPPI Centre (2009). Continuing Professional Development systematic reviews. http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=274#ccpd

Helen Casey, Olga Cara, Jan Eldred, Sue Grief, Rachel Hodge, Roz Ivanic et al. (2006). 'You wouldn't expect a maths teacher to teach plastering...' Embedding literacy, language and numeracy in post-16 vocational programmes- the impact on learning and achievement.; London: National Research & Development Centre for Adult Literacy and Numeracy.

Helen Timperley (2008). *Teacher professional learning and development* Paris: International Academy of Education & International Bureau of Education.

J Swain & M Swan (2009). Building evidence into practice: teaching adult numeracy. *Research in Post-Compulsory Education*, 14, 75-92.

J Williams (2008). Count me in! Making mathematics more inclusive. *Inside Evidence*. John Heywood (2005). *Engineering Education: Research and Development in Curriculum and Instruction*. Wiley.

Journal of STEM Education. (2013). Journal of STEM Education . Ref Type: Journal (Full)

Karen Lancaster & Torben Smith (2013). *Improving students' essay-writing skills and longer response answers through online peer marking* LSIS Research.

M Hughes & B Smeaton (2007). *Exploring employers' perceptions of employer engagement* Learning & Skills Development Agency.

M Swan (2006). Learning GCSE Mathematics through discussion: what are the effects on students? *Journal of Further and Higher Education, 30,* 22-241.

Martin Hannaford (2012). *Partnerships and Employer Engagement* Association of Colleges. National STEM Centre (2013). http://www.nationalstemcentre.org.uk/



Philippa Cordingley & Miranda Bell (2007). Transferring learning and taking innovation to scale. *CUREE*. Research for Teachers (2004). Assessment for Learning.

http://www.tla.ac.uk/site/SiteAssets/RfT2/06RE018%20Assessment%20for%20learning%20-%20Putting%20it%20into%20practice.pdf

Research in Engineering Education Network (2013). http://grou.ps/reen
Richard Riddell (2008). Aspiration, identity and self belief in 'disengaged' students. In *British Educational Research Association Annual Conference*.

Sam Alvarez (2013). LSIS practitioner enquiry: Using assessment for learning to improve business students' analytical skills LSIS Research.

Sandra Haukka, Gregory Hearn, Justin Brow, & Stuart Cunningham (2010). From education to work in Australia's creative digital industries: comparing the opinions and practices of employers and aspiring creatives. *QUT*.

STEMNET (2013). STEMNET Downloads. http://www.stemnet.org.uk/resources/other
Sue Maguire & Becci Newton (2011). Activity Agreement Pilots- trialling different approaches to reengaging young people not in education, employment or training (NEET): Evaluation of the 2009-10 extension. Brighton: Institute for Employment Studies.

Teaching & Learning Academy (2011). Research for Teachers. http://www.tla.ac.uk/site/Pages/RfT.aspx
Thomas Spielhofer, Gaby White, Lisa O'Donnell, & David Sims (2006). Determined to succeed and young people at risk of becoming NEET (not in education, employment or training) Edinburgh: Scottish Executive Social Research.

Thomas Spielhofer, Helen Marson-Smith, & Kelly Evans (2009). *Non-formal learning: good practice in reengaging young people who are NEET.* Slough: NFER.

Thomas Spielhofer, Tom Benton, Kelly Evans, Gill Featherstone, Sarah Golden, Julie Nelson et al. (2009). *Increasing participation- understanding young people who do not participate in education or training at 16 or 17.* National Foundation for Educational Research.