Research Briefing Nᴼ 20

Innovative Teaching and Learning: 21st century learning design

This research evaluates key factors which enable or hinder innovative practice in schools around technology.

Key words: technology; innovative practice; 21st century skills

Key findings

The key findings from the UK research team, led by members of the **London Knowledge Lab (LKL),** a unique collaboration between the Institute of Education and Birkbeck, were:

- Genuine innovation in schools depended on resourcing and access combined with sympathetic and supportive leadership and management.

- Where there was a lively culture of continuing professional development (CPD) within a school, the teachers were far more likely to report learner-related benefits in respect of technology in the curriculum. Furthermore, informal networks were as important to teachers as more formal CPD and these frequently involved subject specialists' fields other than pure technology.

- Generally, the performative nature of school culture (e.g. a culture that compares school performance often through testing and exam results) was seen as an inhibitor to innovative teaching and learning, particularly in relation to high-stakes inspection and publication of league tables of exam results.

- Schools in more challenging areas were more likely to report on the benefits of using technology to support innovative teaching and learning.

What we did

Innovative Teaching and Learning (ITL) was a two-year global research and evaluation project, running in 2010-11, funded by Microsoft Partners in Learning whose aim was to identify key factors which enabled or hindered innovative practice in schools around technology in the partner countries.

The research included Finland, Senegal, Russia, Indonesia and Mexico, alongside the UK. The key element of the investigation was identified following a pilot phase in the previous year directed by Microsoft's partner, Stanford Research International (SRI). This was to examine how teaching could support students' development of an identified set of '21st century skills', previously identified as: knowledge construction, collaboration, self-regulation, real-world problem solving and innovation; the use of ICT for learning and teaching; and skilled communication.

Whilst recognising that provision was uneven and sometimes scarce across all partners, the study worked alongside teachers and learners to try to identify the key factors in creating schools with successful innovative ecosystems.

How we did it

Because the research had a remit to investigate a complex set of variables and beliefs around teaching and learning with technology, the UK team used mixed methods, quantitative and qualitative, based on SRI's original approach. The initial survey was sent out to teachers of all subjects at Key Stage 3 in 24 secondary schools in the UK. There were 683 respondents and data were generated for a range of factors, including teacher background, the nature of the school leadership and management and personal developmental training issues. Six schools were then approached for deeper, qualitative data collection, including interviews with teachers and students, focus groups and the non-participant observation of interactions and classroom dynamics.

Impact and public engagement

Various members of the team attended training and dissemination events at conferences and workshops in the UK, Senegal and the US. Follow-up workshops were later held at the IOE with some of the partnership schools. Discussions from these helped to shape the further development of the worldwide Partners in Learning project which is now part of a global CPD offer called: 21st Century Learning Design.

Further information

See the Research page of the London Knowledge Lab: www.lkl.ac.uk
See ITL home page including their latest iteration of 21st Century Learning Design: itlresearch.com/home

Contact

Principal Investigator (Year 2): Dr John Potter, Department of Culture, Communication and Media, Institute of Education, University of London
Email: j.potter@ioe.ac.uk
Phone: +44 (0)207 763 2192
Other team members: Professor Neil Selwyn (Principal Investigator in Year 1, now at Monash University, Melbourne); Professor Carey Jewitt (now director of the MODE Centre and head of the Department for Culture, Communication and Media, Institute of Education); Dr Carlo Perrotta (Now at Anglia Ruskin University)

IOE researchers are based at the London Knowledge Lab (LKL) – a collaboration between the Institute of Education and Birkbeck