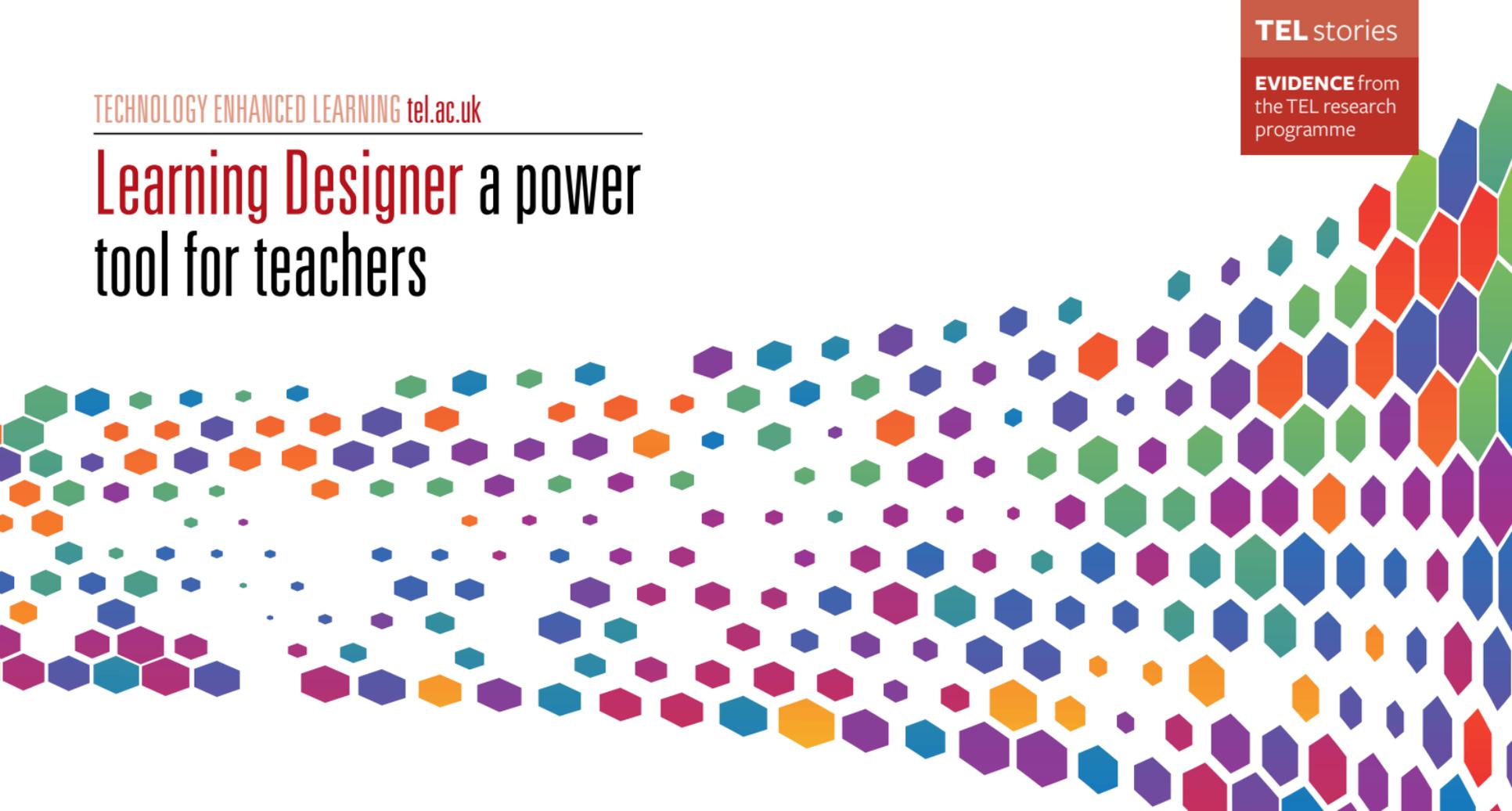


TECHNOLOGY ENHANCED LEARNING tel.ac.uk

Learning Designer a power tool for teachers

TEL stories

EVIDENCE from
the TEL research
programme





Learning Designer puts teachers in the driving seat. It's a power tool for them just like computer-aided design is for architects. We want teachers to be able to play with lesson planning, to be creative. And we want to capture their pedagogy, to give them the chance to share their good ideas.

Professor Diana Laurillard, principal investigator, Learning Designer project.



Learning Designer... the challenge

Teachers are under constant pressure to 'modernise' their teaching by using technology. To this end, universities and schools are filled with all manner of digital equipment. But something is missing. Where is the technology that makes a difference to pedagogy, to the 21st-century teaching skills that are at the heart of education? Where is the technology targeted at helping teachers, not just students, excel at what they do?

Teachers are design experts, constantly working out how to help students achieve their aims, continually revising their methods on the basis of what happens in practice.

Like all professionals, they can use technology to make this process more productive. A computer-based design tool – the Learning Designer – could help them express their ideas. It could enable them to analyse, adapt and refine their learning plans as well as suggesting the likely impact on students.

If such a Learning Designer were also used as a national educational filing cabinet, think what a rich repository of innovative teaching ideas could be created. All teachers could search its archives for examples of what works in class or online. They could pick just the right mix of learning activities for a particular set of students – and along the way be nudged towards good practice and encouraged to reflect on their teaching methods.

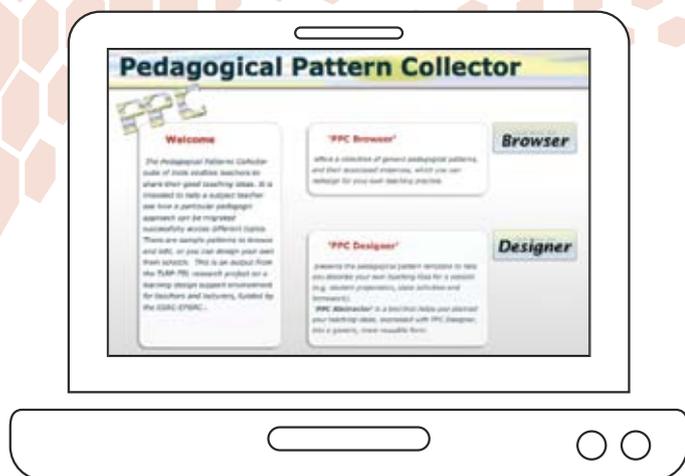
In 2008, researchers from six English universities and colleges set out to create just such a Learning Designer, supported by a £1.2m grant from the ESRC and the EPSRC.

Learning Designer... a set of **intelligent** software tools developed with the **help of teachers**.

Learning Designer... the technology

Learning Designer is a set of intelligent software tools developed with the help of teachers. By using the latest 'semantic' technologies and 'knowledge engineering,' it bridges the gap between technology and education. For the first time, teachers have a computer interface that allows them to express and build on their knowledge of learning and teaching.

The software can interpret and analyse teachers' learning 'designs,' and provide feedback on their implications for students. By collecting learning designs, it enables teachers to share and compare ideas.



To accelerate this collection of learning designs – as well as testing how best to represent them – the research team developed a web-based tool. The Pedagogical Patterns Collector allows users to browse, adopt, adapt and generalise their learning designs. They can then email their finished design to the research team or upload it to the shared repository.

Learning Designer shows that the technologies that are changing the nature of **education for students** can also transform teachers' practice. Its graphical analysis of **learning experience** opens a new window on pedagogy.

...the technology

Learning Designer... from basic lesson plans to the crafting of sophisticated modules.

Learning Designer... in action



Learning Designer can help with anything from a basic lesson plan to the crafting of sophisticated modules where students are encouraged to use technology creatively, both on their own and in groups.

The Designer's interface has three sections. One allows teachers to plan and organise the learning context. The second is the design area into which they can place a sequence of categorised teaching-learning activities and their details. The third analyses the learning experience, helping teachers create a balance of beneficial learning activities while bearing in mind their workload.

'It's like a starter kit,' says Professor Diana Laurillard, the project's director. 'You don't have to put everything in from scratch, you can use what's there. You can use it wholesale or you can mess about with it.'

Learning Designer encourages teachers to express their thinking through formal categories such as:

- learning outcome
- teaching-learning activity
- learning experience
- duration
- group size

Learning Designer offers ideas and advice, including relevant pedagogical concepts and analyses of the different types of learning a design will demand of students. It also helps teachers become more productive through the use of technology-enhanced learning (TEL). It does this by:

- working out how to introduce technology within difficult resource constraints;
- exploiting existing materials and online resources;
- optimising TEL for the benefit of learners;
- changing the balance of how teachers and learners spend their time;
- finding out what works;
- adapting good ideas from elsewhere;
- modelling the effect of TEL on teacher workload.

Learning Designer... find out more

More information about Learning Designer, including its final report, is available at www.tel.ac.uk. The project is part of the Technology Enhanced Learning (TEL) Research programme. This is ...

- a £12m programme funded by the UK ESRC and EPSRC from 2007-2012;
- designing and evaluating systems to advance our understanding of learning and teaching in a technological context;
- supporting eight large interdisciplinary projects;
- working to achieve impact for emerging research results;
- mapping progress on key themes.



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