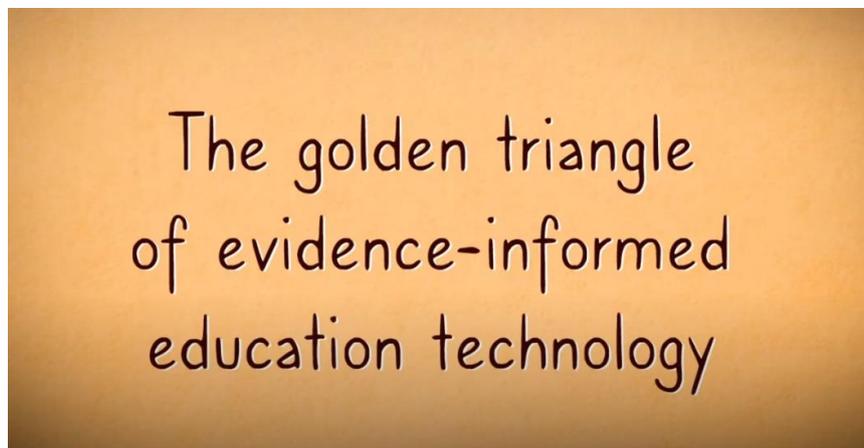


# Supporting impactful EdTech SMEs within higher education institutes – the EDUCATE approach

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Forging links between the EdTech industry and Higher Education Institutions can take many forms. This case study highlights the need for such collaborations to go beyond product and business incubation/acceleration and bring in the expertise of learning scientists to help ensure the educational validity of EdTech for all of its stakeholders.

A lot is written about the need for educational technology to deliver on its promise and bring about much-needed transformation to all aspects of human learning. However, as any educational technology entrepreneur knows, gaining access to the experts from the learning sciences – and their knowledge base – is easier said than done. Consequently, much EdTech is designed with little foundation in the learning sciences and, when it comes to evaluating its impact on learning outcomes, things often begin to unravel. For example, a learner's single response to a multiple-choice question on a topic is not a proxy to demonstrate their understanding of that topic – a teacher would design an assessment that approached the topic from many different perspectives and would use a range of assessment methods! Whilst more established EdTech companies have sufficient resources to employ learning scientists within their research teams, smaller enterprises are excluded from this expertise at a time when they need it most.



[CONVERSATION WITH DR ALISON CLARK-WILSON](#)

## DESIGNING A RESEARCH TRAINING PROGRAMME FOR SMES

Professor Rose Luckin devised and directed the EDUCATE programme to bridge the gap between academia and smaller EdTech enterprises by offering a 6-month accelerator programme designed to enable the enterprises to achieve research mastery. This research mastery was twofold: it included an understanding of how to find, read and apply existing research findings that had relevance to the product or service in question; alongside learning about the basic tools of educational technology researchers such that a related small-scale research study could be designed and enacted inside the company. This approach differs greatly to other HEI-industry collaborations in EdTech where it is the educational researchers who design and implement the research study on behalf of the enterprise, which is both costly and hard to scale. The EDUCATE programme was part funded by the European Regional Development Fund and University College London as a collaboration between the University and two ecosystem partners, Nesta and F6s. Between 2017 and 2019 the team of nearly 30 staff were able to support 252 enterprises through its programme.



### [EETN INSIGHTS WITH PROFESSOR ROSE LUCKIN](#)

## HOW DID THE PROGRAMME BRIDGE THE ACADEMIA-INDUSTRY GAP?

The EDUCATE programme is underpinned by the Golden Triangle of Evidence-Informed EdTech, which was first put forward by Rose Luckin to bridge the academia-industry gap ([Luckin, 2016](#)).

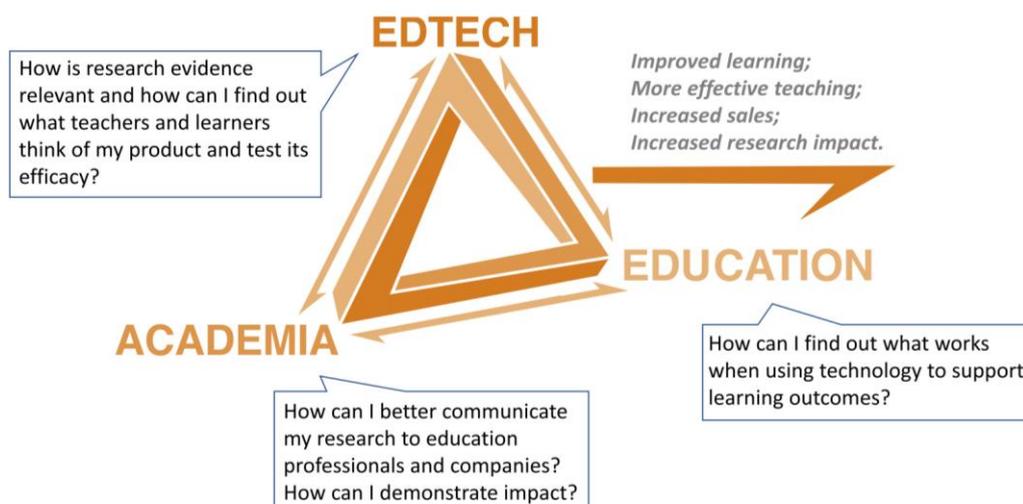


Figure 1 The Golden Triangle of Evidence-informed Edtech as seen in [Cukurova, Luckin and Clark-Wilson 2019](#)

This required academic researchers and industry participants to work together in mutually beneficial activities that were initiated by a research training and mentoring programme. This is detailed in [Cukurova, Luckin and Clark-Wilson \(2019\)](#) but to summarise, the objectives of the programme were to support its participants to:

- understand the nature of evidence for educational technology: what it is; how to locate and interpret it; and why it is important.
- learn how theories of change are useful within the design and development of educational technology and how to operationalise these using a logic model approach.
- devise and critique research questions as appropriate to their particular technology.
- develop a research proposal based on the revised research question(s).
- gain a broad understand of experimental and exploratory research methods and a more in-depth understanding of the methods appropriate to their proposed research.

In the spirit of design-based research, the research training and mentorship programme was iterated three times over the period July 2017 to November 2019. The research training content was initially adapted from course content of a Master's degree programme in Education and Technology, complemented by research mentoring support that supported a process of needs analysis and expert research mentor matching. However, in response to the programmes scale and feedback from participants, the programme evolved to focus on the following 'boundary objects' (Star & Griesemer, 1989), which served to ground the participants' activities in ways that better aligned with their company's product and business goals.

The EDUCATE main boundary objects were:

1. the ontology - the language of the programme
2. the UCL Lean platform – an online tool for research development and business planning
3. the logic model – the theory of change devised by each company for their edtech product or service
4. a research proposal - the ultimate goal of programme completion and the boundary object that earns participants an ‘Evidence-aware Edward’ - the programme’s mark of research mindedness. (A second ‘Evidence-applied Edward’ is earned once participants have conducted and reported their proposed research)

The EDUCATE research team has used the design-based research methodology to evaluate the impacts of the programme on its participants. The research design is detailed in (Clark-Wilson et al., Accepted) and a number of research articles are forthcoming. Alongside this, the artefacts produced by the project (and its participants) form part of the growing knowledge base that serve to inform the wider community, which includes the third vertex of the EDUCATE golden triangle. The EdTech Bytes series, which feature on the eetn website form just one example.

Most importantly, EDUCATE began as an academia-industry project that had not been done before. Consequently, there was no established theoretical framing to guide this particular programme within its cultural and historical context. The ongoing research that is analysing the short, medium and long term impacts of the programme on its participants serves to evaluate the effectiveness of the programme and contribute to the development of such theories. In particular, the work of doctoral candidate Anissa Moeini is theorising the notion of the Evidence-Led Learning Technology Enterprise (ELLTE), which was introduced to the eetn community at the International Study Programme that took place in Finland in February 2020.

## READ MORE

Clark-Wilson, A., Moeini, A., Anand, K., Blake, C., Cukurova, M., De Ossorno Garcia, S., . . . Weatherby, K. (Accepted). Supporting small and medium-sized enterprises in the educational technology sector to become more research-minded. An introduction to the collection of articles. Research for All. <https://www.ucl-ioe-press.com/research-for-all/>

Cukurova, M., Luckin, R., & Clark-Wilson, A. (2019). Creating the Golden Triangle of Evidence-Informed Educational Technology with EDUCATE. *British Journal of Educational Technology*, 50(2), 490-504. doi: <https://doi.org/10.1111/bjet.12727>

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Star, S. L., & Griesemer, J. R. (1989). Institutional ecology 'translations' and boundary objects: Amateurs and professionals in Berkeley's museum of vertebrate zoology, 1907–39. *Social Studies of Science*, 19, 387–420. <https://doi.org/10.1177/030631289019003001>