

# What are the best models for EdTech teacher training and professional development? Valuable research, effective programmes and successful practices?

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A lively debate with a panel of speakers debating the best ways to support EdTech Teacher Training and CPD. The panel provided an outline introduction to the question and an audience contributed and engaged interactively.

*Chaired by Professor Sarah Younie, Journal Editor, Technology, Pedagogy & Education.*

## Challenges

### a) Teacher effectiveness and workload

#### 1. What are the barriers that hinder the application of EdTech training in pedagogy and practice?

Resources - access to EdTech, hardware, services etc.

Time - to reflect, discuss and share with others

Access - to research and the practice of others

Workload - the advice is to only make changes if you know it will have impact

#### 2. Is EdTech best practice shared effectively throughout the system?

With the demise of local authorities and the rise of multi-academy trusts there is not yet sufficient capacity within the system to support the sharing of best practice across the system both locally and nationally. Some research has been published by the EEF but it is limited in relation to EdTech. Where is the EdTech research? How do research schools engage or contribute to this work? Their research is not well disseminated nationally.

#### 3. Which research methodologies work and are trusted by the profession?

Should we challenge conventional social science methodologies or equally champion other methodologies? Education Endowment Foundation? Ofsted? Practice based research?

Other? What type of research enables teachers to get better at teaching with improved student outcomes? CPD is too often treated as an intervention to correct a deficit – how can all be responsible for sustaining predicted outcomes?

#### **4. Is EdTech substitution a distraction?**

All too often EdTech does not deliver improved teaching and student outcomes or the direct link between them is not made explicit. How can we use the Substitution, Augmentation, Modification, and Redefinition model (SAMR) and other models to ensure teachers and leaders see the benefits of any future investment in EdTech and the associated training?

### **b) Pace of change**

#### **1. Technological change vs pedagogical change vs curriculum reforms?**

Teachers are responsible for keeping their training and development up to date but do they really 'own it'? The pace of technological change can make this more difficult when assessing the impact of new and emerging EdTech on pedagogy. This is compounded further when schools are implementing a high-stakes testing curriculum. There is no funding where there is no priority for this topic.

#### **2. Is EdTech a priority in all schools or all subjects?**

With diminishing budgets schools are having to prioritise where money is spent with EdTech assets not being refreshed. The e-Bacc makes some references to technology-enhanced learning (TEL) but this is not a requirement and is not inspected. Are schools giving sufficient time to EdTech CPD? The change to Computing has resulted in a focus on Computer Science and little attention to the other two strands: Digital Literacy and Information Technology. How can it be given a priority commensurate with improved outcomes?

### **c) The wider education system**

#### **1. How can we improve the quality of initial teacher training (ITT) re: EdTech?**

Who trains the teacher trainers in the use of EdTech? There is general agreement in the profession to see there is a research focus in the strengthened qualified teacher status (QTS) for 2019. How will this be 'taught' to students? What about teachers of Computing and the HM Government Industrial Strategy? How can we influence this training? These are some suggestions from the community:

- administration;
- assessment;
- subject-specific EdTech;
- practice based research using EdTech;
- collaboration and dissemination.

#### **2. Do the solutions provided by suppliers enable the development of progressive pedagogy?**

Not all providers take responsibility for research into the efficacy of their own products? How can research ensure they are selling us what we need rather than selling us what they have developed? How can professionals be involved in product research and development?

### **3. How can we re-energise the level of civic expertise in the system – pupil, parents, teachers, leaders, governors and the community?**

Some EdTech enables better communication with parents e.g. progress, attendance, Ofsted ParentView but how can we develop this further to engage all stakeholders in the EdTech debate re: additional and targeted funding for schools will mean that more voices can be added to the debate.

## **Solutions**

*References are to the 'Challenges' sections of the report above*

### **\* Subject context and TEL – a2 and b2 challenges**

Some subjects e.g. Mathematics, Technology and Computing are making effective use of EdTech more than others with the use of Open Source, social media and weekend training sessions being a key driver to change. TEL is not equally applied across the curriculum.

- What are the factors where EdTech supports the subject pedagogy?
- Can this knowledge be transferred to different subjects or contexts?
- When and where should it not be applied?

### **\* Access to wider research in HE – b3 and c1 challenges**

Access to research HE education research journals should be extended to include all teachers in England enabling them to draw on a wide variety of EdTech research findings from ITT through to Masters (including practice based research) and leadership development. It would be beneficial if this research were catalogued in some way to direct students and teachers to the resources they require.

Good practice exists when research community members are engaged as co-researchers collaborating on similar projects or in peer review. Practice based research projects that influence change in policy and practice should be the norm.

### **\* Online teacher development portfolios – a1, b1 and c1 challenges**

Online, professional teacher portfolios should enable a teacher to evidence development throughout their career. Such systems should be simple, easy to use, light on workload, include the teacher standards, leadership standards (where appropriate), encourage reflection, evidence impact and save time and paper. The facility to collaborate with others and share proven, best practice should be evident.

### **\* Training and CPD that sticks – b4 challenges**

In addition to formal training sessions and INSET days successful schools have implemented the following to ensure any new EdTech is effectively deployed:

- Digital champions in curriculum areas
- Breakfast meets
- EdTech speed dating – share and steal, show and tell
- Mini-teachmeets
- Theme-focussed CPD re: EdTech, consistent evaluation and sharing – what works?
- PLCs

**\* EdTech supplier model for change management – c2 and c3 challenges**

In addition to what schools do internally the following model has been applied when schools make significant investment in new EdTech:

- ‘Go Live’ training - usually for the IT support team
- Functional training - for all teachers applying the new EdTech in their work
- Pedagogical training - for all teachers once they are familiar with the EdTech
- Development consultancy - additional session to tailor the software/hardware to context
- Project-based professional learning - establishing learning communities to trial use and share best practice

**\* Effective, online learning – b3 and c2 challenges**

The following factors need to be considered when designing an online community:

- Design – mix of tools for technology-mediated, social learning
- Time to take the training and development offered
- Standards – teacher standards vs online standards, what does effective, virtual learning and teaching look like?
- Training – learning to learn and teach online
- Engagement – participant agency and voice, asynchronous vs synchronous learning
- Roles – trust and reciprocity in an open learning environment

Online delivery research suggests:

- Restructure delivery methods using EdTech in favour of collaborative, active learning and working together
- Formal training about how to teach and learn online with particular reference to research into developing communities of practice and developing an e-mentoring personality
- Recognise the power of visuals in quickly conveying ideas and as anchors for discussion and content creation
- Allow for complex learning pathways – differentiation
- Nurture idea sharing to generate rich, content creation
- Enable two-way collaboration that builds trust and knowledge-sharing
- Facilitate student-generated content through reflection and interaction (digital making)
- Acknowledge a mix of the three dualities:
  - ✓ Personal-Collective

- ✓ Digital-Physical
- ✓ Talking-Creating

## **Which solutions can TPEA ( ITTE/MirandaNet) community offer as well as resource?**

### **\* Subject context and TEL – a2 and b2 challenges**

TPEA has already been invited by the Council for Subject Associations to work with subject specialists on EdTech CPD programmes.

### **\* Access to wider research in HE – b3 and c1 challenges**

Joining TPEA offers access to the TPE journal and other research information which could be developed as a service with funding.

### **\* Online teacher development portfolios – a1, b1 and c1 challenges**

TPEA offers a Fellowship award to professionals who publish their work for others. The format would be a blog with the portfolio attached for those who want more detail

Example <https://mirandanet.ac.uk/mirandanet-publications/>

### **\* EdTech supplier model for change management – c2 and c3 challenges**

The Edtech company involved in research, Gaia, have produced a model that works:

<http://gaia-tech.education>

### **\* Effective, online learning – b3 and c2 challenges**

Some members of TPEA are working with CCoT on research into e-mentoring which will be published by the end of 2018 but already offers a context-rich and current data to underpin a e-mentoring continuing professional development programme.

## **References**

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