



United Nations  
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UNESCO Chair in  
ICT for Development  
Royal Holloway, University of London

# Guidance Note 10 Prioritising effective and appropriate teacher training

From the Report: Education for the most marginalised post-COVID-19: Guidance for governments on the use of digital technologies in education  
**ACT THREE (OF THREE): GUIDANCE NOTES**

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**Authors** Tim Unwin  
Azra Naseem  
Alicja Pawluczuk  
Mohamed Shareef  
Paul Spiesberger  
Paul West  
Christopher Yoo

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# Guidance Note: Prioritising effective and appropriate teacher training<sup>1</sup>

## Context

COVID-19 has highlighted the very important roles that teachers and facilitators have in supporting learning, but also the huge dearth that many also have in terms of understanding and experience of using digital technologies effectively to support learning. All too often during the pandemic, teachers have tried to 'teach' the same old way but with new technologies. In most cases this has resulted in depressing failure.

There have long been calls for teachers in Africa and Asia to be trained effectively in ways of using digital technologies, but governments have frequently chosen instead to roll out computers or laptops in schools, without sufficient attention being paid first to training teachers in their appropriate and effective use. The worst examples have even sought to replace teachers completely with digital hardware and imported video content, on the grounds that teachers are insufficiently competent to teach pupils effectively. Globally, it is estimated that around 15% of teachers in primary education are untrained, with the figure rising to about 30% in the least developed countries.<sup>2</sup>

Four main reasons help to explain why there has often been greater emphasis on getting digital technologies into schools rather than first training teachers effectively in their use:

- The promotion of a false belief — and wishful thinking — that digital technologies can solve all the problems of education without the need for teachers.<sup>3</sup>
- The school market is very much larger than the teacher training market, and companies interested in short-term gains have therefore been much more eager to sell 'kit' to large numbers of schools, rather than investing in the relatively small numbers of teacher training institutions.
- The belief that young people can use digital technologies better than teachers, which is often not true but always serves significantly to demotivate the latter. This failure is not a failure of teachers, but rather one of insufficient training for them in how to use these technologies effectively to support learning.
- Many governments have also been eager to use digital technologies in schools to promote their political agendas. Giving children tablets is a very obvious material way in which governments can be seen to be providing largesse, especially in the run-up to elections.

In contrast, countries with successful education systems always have motivated, well-respected teachers, who understand that learning is more important than the technologies used to craft knowledge (see for example, Finland). Transforming teacher education is therefore one of the most important parts of the much wider social and cultural transformation of pedagogy and learning summarised in *Section 12* of this Report.

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1 Lead author Tim Unwin.

2 Figures from World Bank for 2018 based on UNESCO Institute of Statistics, <https://data.worldbank.org/indicator/SE.PRM.TCAQ.ZS?end=2019&start=1997>.

3 But see, for example, Mitra, S. (2020) *Children and the internet: learning, in the times to come*, <https://www.cevesm.com/article-children-and-the-internet-2>.

In practice, teachers and facilitators should be encouraged to think clearly about, and gain relevant experience, in four main areas:

- How to use digital technologies to support their own learning about both pedagogy and subject content.
- How to use them to support and facilitate learning by pupils and students.
- How to use them effectively in formative and summative assessment.
- How to share material and ideas with their peers.

## **Guidance**

Teachers and facilitators are of central importance in all education systems. Governments should therefore prioritise appropriate pre-service and in-service teacher professional development to ensure that:

1. Teachers are **appropriately trained to use digital technologies to support all aspects of their own learning and teaching**, rather than merely to gain basic digital skills.
2. **Integrated pre-service and in-service training programmes** in the appropriate use of digital technologies are implemented for all educators and facilitators in public schools, colleges and vocational training establishments.
3. Schemes are implemented to ensure that **all teachers can afford devices and connectivity** in their homes or hostels.
4. **Appropriate and reliable infrastructure** (internet connectivity, electricity, devices and digital content) is **provided first to teacher training institutions** and only then rolled out to schools.
5. **Digital technologies are used as a means to help transform pedagogy**, rather than as an end in themselves.
6. The use of **digital technologies for learning is integrated across the school curriculum**, and not taught merely as a subject in itself.
7. **Teachers are closely involved in the design and crafting of relevant training programmes** for them on the use of digital technologies.
8. **Safety, security and privacy** are featured prominently in all training relating to the use of digital technologies.

## **UNESCO's ICT competency framework for teachers**

Recognising that it was important for there to be clear global guidelines for teacher competency in the use of ICTs, UNESCO and its private sector partners initiated the development of a competency framework in the mid-2000s, which was first published in 2008. As the use of digital technologies in education has evolved, this has been revised twice, with version 3 being made available in 2018. This latest version links the framework explicitly to the UN's Agenda 2030 for Sustainable Development, and includes a focus on inclusive education and Open Education Resources. It also emphasises the need for teachers 'to help students become collaborative, problem-solving, creative learners and innovative and engaged members of society'.<sup>4</sup> The framework identifies six areas of a

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4 UNESCO (2018) *UNESCO ICT competency framework for teachers*, Paris: UNESCO, p.7, [https://www.open.edu/openlearncreate/pluginfile.php/306820/mod\\_resource/content/2/UNESCO%20ICT%20Competency%20Framework%20V3.pdf](https://www.open.edu/openlearncreate/pluginfile.php/306820/mod_resource/content/2/UNESCO%20ICT%20Competency%20Framework%20V3.pdf).

teacher’s professional practice, and three successive stages of development in making pedagogical use of ICTs as outlined below:

	Knowledge acquisition	Knowledge deepening	Knowledge creation
Understanding ICT in education	Policy understanding	Policy application	Policy innovation
Curriculum and assessment	Basic knowledge	Knowledge application	Knowledge society skills
Pedagogy	ICT-enhanced teaching	Complex problem-solving	Self-management
Application of digital skills	Application	Infusion	Transformation
Organisation and administration	Standard classroom	Collaborative groups	Learning organisations
Teacher professional learning	Digital literacy	Networking	Teacher as innovator

Source: derived from UNESCO (2018) UNESCO ICT competency framework for teachers, Paris: UNESCO, p.7

### Examples

Examples of interesting initiatives that have sought to train and support teachers in their appropriate use of digital technologies include:

- The Mohammed Bin Rashid Smart Learning Programme (MBRSLP) in the United Arab Emirates, see Jigsaw Consult (2014) *MBRSLP research 2013–2014*, <https://www.pdfFiller.com/jsfiller-desk14/?projectId=489789602#c765ffcddeefbf8b40834f1e51c634bb>.
- UNESCO ICT competency framework for teachers (2018 version 3) <https://www.oercommons.org/hubs/UNESCO>.
- Rwanda ICT essential for teachers course [https://www.oercommons.org/groups/rwanda-ict-essentials-for-teachers-course/1207/?\\_\\_hub\\_id=32](https://www.oercommons.org/groups/rwanda-ict-essentials-for-teachers-course/1207/?__hub_id=32).

- Meisalo, V/, Lavonen, J., Sormunen, K., and Vesisenaho, M. (2010) *ICT in Finnish initial teacher training*, Helsinki: Reports of the Ministry of Education and Culture, Finland 2010:25, <https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/75509/okm25.pdf?sequence=1>.

### **Suggested further reading**

- Fisher, T., Higgins, C. and Loveless, A. (2006) *Teachers learning with digital technologies: A review of research and projects*, Futurelab (report 14), <https://www.nfer.ac.uk/publications/futl67/futl67.pdf>.
- ITEC: Designing the Future Classroom (no date) *ITEC Knowledge Map*, <http://itec.eun.org/web/guest/knowledge-map>.
- Kihzoza, P., Zlotnikova, I., Bada, J. and Kalegele, K. (2016) Classroom ICT integration in Tanzania: Opportunities and challenges from the perspectives of TPACK and SAMR models. *International Journal of Education and Development using ICT*, 12(1), <https://www.learntechlib.org/p/173436/>.
- Tondeur, J., Aesaert, K., Prestridge, S. and Consuegra, E. (2019) A multilevel analysis of what matters in the training of pre-service teacher's ICT competencies, *Computers & Education*, 122: 32–42.
- Trucano, M. (2005) *Teachers, teaching and ICTs: A knowledge map on information and communication technologies in education*, Washington DC: infoDev/World Bank, <https://www.infodev.org/articles/teachers-teaching-and-icts>.
- Unwin, T. (2005) Towards a framework for the use of ICT in teacher training in Africa, *Open Learning*, 20(2): 113–129.



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