

## Digital language learning and teaching: Research, theory and practice (a review)

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For many reasons, from purely economic to frankly reactionary, education struggles to keep up with technological developments. But with new recruits to the teaching profession growing up – for the first time – as digital natives, we can expect things to change. This book of 20 chapters presents a range of recent research as well as a number of articles offering an overview of the key developments in digital learning from a pedagogical perspective.

Most people interested in the field, whether students, teachers, academics or software developers, will, I suspect, treat it like a box of chocolates and go for the chapters that particularly interest them rather than work their way through it. Yet, if we are interested in learning, there is an argument for sampling precisely those areas that we know less about or feel less drawn to. From that point of view, this collection is well judged in

terms both of scope and of length of article and it successfully avoids becoming either too technical or too theoretical.

After a concise introduction to the field of digital learning, the first half of the book presents 10 chapters based on doctoral research into a wide variety of topics. Inevitably, given that these studies cover such different areas and often have a very specific focus, each chapter appears self-contained and independent. One, for example, about a group of Chinese students learning English, examines the development of a tailored self-help digital resource to address the needs of that particular group. Another, whilst pointing out the downside of the use of digital technology for university students, highlights the value that access to media and messaging can bring to their language learning. If the price of the ubiquitous smart phone is that some students' attention to the

teacher is diminished, there is, it argues, little doubt that this disadvantage is outweighed by everything else that internet access offers.

Of course, what all the chapters do have in common is that they address some aspect of the transformational impact of digital technology. A chapter on open educational resources, free for teachers to reuse and remix, takes the example of FLAX, a corpus-based extracting tool, now available in the digital commons, and potentially of use not only in English for specific academic purposes but in the K-12 sector too. I would encourage readers not interested in the specifics of such research to nonetheless read the conclusions and policy implications of a chapter like this.

Another example of this is the article on 'Attitudes towards Blended Learning'. This focuses on a study where blended learning (in the primary sense of a combination of digital and traditional teaching methods) had been introduced for the first time to a group of doctoral students in China. Whilst its context is too specific to afford any significant, general conclusions, its observations about the cultural difficulties of Chinese students adapting to such practices as mutual criticism in an open discussion forum are fascinating.

A persuasive chapter deals with the use of the flipped classroom with Japanese university students. Whilst highlighting the benefits of this

model, the article also usefully identifies some of its practical challenges for both teachers and learners. The key role of technology in enabling the flipped classroom to reach its full potential is well illustrated, not least in the opportunities for communication and discussion that it offers students prior to face-to-face time in class.

Other chapters present the value of combining audio with text feedback in asynchronous online courses and the use of a bilingual platform to promote writing. The latter illustrates the flexibility of digital spaces as opposed to linear textbooks and the way that online systems enable students to develop their own learning path to suit their personal preferences and interests.

Two studies highlight the importance of good training when new technology is introduced. One examines the underutilisation of interactive whiteboards amongst a small sample of TESOL teacher educators in a South Korean University. Whatever reservations some may have about the IWB's tendency to reinforce the model of a teacher-fronted class, most practitioners would probably acknowledge their usefulness.

The need for appropriate training to be put in place to encourage teachers to use them – particularly in such institutions where their use is not commonplace – may seem obvious but is clearly easy to overlook.

The other case study that underlines the importance of training is that of the African Storybook pilot in a Ugandan primary school. Insufficient training, or limited access to digital resources, can end up making technology more of a hindrance than a help, and so squander or discredit its immense potential. In this project, the key piece of equipment was the projector, which enabled pictures to be shared with the class and so bring stories to life – an interesting illustration that it is not only the most advanced technology that can transform teaching!

The last of the research-based chapters shows how the use – and particularly creation of – digital stories can hugely increase students' personal investment in language learning, bringing, as it does, so much of their own experience as well as a creative challenge to the acquisition of linguistic skills. Learning the new skills of, for example, voice, music and image editing clearly broadened the interest of the task. Indeed, the study provides convincing evidence of how a 'multimodal' or 'multiliteracies' approach, involving a range of technology tools and demanding creative and critical thinking, can achieve far more than a conventional approach to language learning. To a considerable extent, this is because the task itself stimulates genuine discussion, requests for help, and sharing of ideas and opinions (themselves all enabled by technology) on something that quickly comes to matter to students personally.

The second half of the book presents a range of current thinking on digital learning in ELT. There is no doubt that technology is going to impact here as in every other of area education. I have long believed that this will be a positive change, providing educators are given the support they need (most students will need no persuading!) The first chapter on synchronous online teaching offers useful practical advice on how to prepare students for as well as how to manage and give feedback on online sessions. It ends with the following bold statement:

*'With the development and integration of these new technologies and a greater understanding of the way students and teachers interact and develop online, we could finally see, after thousands of years of dominance, the place of the physical classroom finally being challenged.'*

An excellent chapter investigates what is required to combine good user experience (what makes a product easy and enjoyable to use) with good learner experience (what makes it an effective way of learning). The lucid and jargon-free analysis of what makes for good 'learner experience design' is interesting not only for people making choices about digital educational resources but also for anyone curious about what makes for an effective learning experience with technology, whether they are themselves involved in developing

products or not.

Blended learning almost certainly comes into these considerations. In his chapter, Pete Sharma identifies the challenges and potential benefits of this methodology, and concludes that a) the term is necessarily broad in meaning and that b) it remains open to further developments in technology, including – but not limited to – mobile and adaptive learning. As he hints at one point, it is most probable that the term will become superfluous once the use of online material becomes an accepted and inevitable part of language learning.

On another note, Russell Stannard offers an insightful exposition of the advantages of using screen capture software to give feedback on written work. These include not only the scope to make feedback more engaging, precise and nuanced – above all, more human – than purely written feedback, but also its tendency to make students more likely to respond to it and actually take note of it. The author, speaking from ample experience, is pleasantly undogmatic, recognising the variety of circumstances that may apply, and gives useful, practical advice, making a powerful case for this kind of feedback.

In considering advances in digital assessment, including adaptive testing and the potential of machine learning, Nick Saville emphasises how

developments in technology can enhance the interrelationship between assessment and learning by adapting both testing itself and feedback to the individual. ‘Learning-oriented assessment’ thereby becomes more personalised for the learner and of greater planning value to the teacher, as well as saving valuable time. Saville also points at ways in which new digital developments will enable accurate assessment of the productive skills of speaking and writing – two areas which at the moment still generally have to be assessed in the ‘old-fashioned’ way.

The chapter by Michael Carrier and Andrew Nye targets the often-overlooked area of teachers’ own skills in relation to technology and describes how, in order to address this, the Cambridge English Digital Framework Research was developed to complement the existing Teacher Competence Framework. This, as its name implies, provides a structure to help assess (and auto-assess) teachers’ knowledge and skills, and identify areas and concepts in which they need training. It is indeed all too easy, given the way that online technology has evolved, to assume that teachers will be familiar with the latest developments, but one read of this book will show most readers how far that is from the truth! This chapter underlines that even those au fait with the technology (and there are many teachers who are not and who even fear it!) have not necessarily taken the next steps towards understanding the pedagogy of digital learning,

and that this is something that needs to be consciously addressed.

It is invaluable to see examples of some of these ideas being put into practice. Plan Ceibal in Uruguay is a well-established and successful project which uses video conferencing to bring an experienced English teacher into classrooms where the teacher knows little or no English. It has built up and refined, over a number of years, a system that enables the remote teacher, often in another country, to work closely with the class teacher in a way which, at first sight, many would probably be sceptical about, not least because of the additional technical coordination and skills required by both parties. I was fortunate enough to be able to witness this myself in Montevideo some years ago. A study quoted by the author of this piece, Graham Stanley, underlines the importance of good practical organisation and support to the project's success, saying that *'no amount of guidance can substitute for the actual practice.'*

The quote made me hungry to see examples of this in action and left a lurking suspicion that there may be some irony in a book trying to capture a panorama of digital learning.

Nevertheless, the final chapters of the book offer useful insights on the implications of future technology for teaching and learning. Here we confront the latest, really challenging and potentially transformational developments in the

field. The power of technology to democratise learning, to overcome barriers of time and place, and make education available at low or no cost, is beyond doubt, though in practice this still has a long way to go. Teachers will have to adapt and will probably have to accept that they have a less centre stage role, becoming more facilitators, supporters and guides – and, of course, motivators and inspirers!

The penultimate chapter explores the potential of virtual reality, through its ability to bring imagined situations to life and to offer fully convincing interactions as rich and personally responsive as those in real life. Given that arguably the greatest obstacle to language learning is that the student is not where they really need to be – in a place where people are really using the language around them – this is obviously an immense opportunity. But as with all such advances, it is educators who will need to shape and design how it is exploited.

The final chapter confronts the possibility that simultaneous speech-based translation may render it as unnecessary to learn other languages as the telephone made it unnecessary to meet someone face-to-face in order to have a conversation. But for the time being, the challenge is predominantly how to integrate the new so-called 'affordances' into the practice of teaching. Blended learning and flipped learning both represent a move in this direction, while adaptive learning and machine

learning offer what some traditional teachers may see as more of a threat, namely the ability to tailor a learning path to every individual's needs and tastes. These changes promise to be with us sooner rather than later.

No one involved in language teaching can afford to ignore the huge range of opportunities and challenges opened up by technology. How

effectively these are exploited will depend on many factors, some beyond the direct influence of educators. But it is educators whose input – from painstaking research to creative inspiration – is essential in order to realise those possibilities. This collection of articles, taking examples from all over the world, vividly illustrates how exciting and transformational the future of language learning can be.