

# **Focus on Corpus-based EdTech: Experienced English Teachers Reshaping their Pedagogical Skill Set**

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The last two decades have seen enormous advancements in the theory and practice of language pedagogy, particularly in the field of computer-assisted language learning. Consequently, teachers who graduated before the age of information and communication technology might feel that their traditional pedagogical knowledge has become outdated. To tackle the challenge, they engage in various activities, such as taking part in ICT courses or attending EdTech conferences organised for language teachers. They might also pursue self-directed web-based lifelong learning. Their intended goal is to acquire a new set of skills for their professional and personal development.

Students on the MA in Teaching English as a Foreign Language programme at a Hungarian university were asked to reflect on their classroom practices and self-development methods. The aim of the focus group discussion and the individual interviews was to explore how technology is incorporated into their language teaching and learning. There was universal agreement among the trainees that using technology is essential and should be used on a regular basis. An important finding of the study was that most classroom teachers had heard about and used some widely known info-communication applications and learning tools, such as Padlet, Kahoot or Quizlet to create tasks, quizzes or polls.

It became also clear that the applications they mentioned had not been designed for language learning specifically. Teachers felt they lacked basic information about new vocabulary building reference materials, such as online bilingual and monolingual dictionaries, pronunciation guides, thesauri or collocation tools. None of them had tried using corpus linguistic or text analysis tools, either. Based on these findings, the part-time courses can be aligned more towards trainees' needs regarding language teaching and learning applications.

This study will outline why language teachers on the MA for TEFL course feel dissatisfied with the general ICT courses they are offered, and what specific knowledge and skills they want to acquire in order to feel competent in the 21<sup>st</sup> century language teaching context.

## *Technological pedagogical content knowledge*

In the 21<sup>st</sup> century, teachers should be intimately familiar with info-communication and education technology, not only in personal but also in professional contexts. When Shulman, in 1986, introduced the term *pedagogical content knowledge*, he argued that knowledge of the subject matter and knowledge of general pedagogy as two separate entities are not enough to comprise a teacher's knowledge base. Thus, pedagogical content knowledge is "the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction" (p. 8).

Nowadays, a third component: an integrated form of technological knowledge is also considered essential. The acknowledgement that technology is inevitably present in any pedagogical process, resulted in the concept of, as Mishra and Koehler (2006) labelled it, *technological pedagogical content knowledge or TPCK*. Technology, pedagogy, and content can be represented by three circles of a Venn-diagram. It is interesting to see how these forms of knowledge combine in the intersections. In the middle, where all three aspects meet, subject-specific content knowledge is formulated, which should be informed by pedagogy and delivered through technology. If vocabulary teaching is in focus, for example, we can operationalise TPCK, as what words to teach, how to teach them, and by using what kind of technology.

While teachers might have the necessary *content knowledge* and *pedagogical content knowledge*, without taking on lifelong learning as a habit, they are unable to integrate technology into education. Moreover, even if they possess the necessary general technological skills, they also need *technological pedagogical knowledge* to be able choose from the many available language reference tools, and *technological content knowledge* to explain to their students how to use these tools for learning a language.

## *New methods of language learning*

The last two decades have seen a proliferation of new language learning approaches, most of them based on info-communication devices and EdTech platforms. CALL (Computer Assisted Language Learning), MALL (Mobile Assisted Language Learning), online informal learning, game-based learning, social networking for language education, ubiquitous learning, edutainment and the increased interest in learner experience are novel areas to explore. Recent scientific observations have provided the field with theoretical underpinnings that have brought along research handbooks connecting instructional design with educational technologies, indicating that the field is ripe for academic pursuits.

## *A new set of skills for language teachers*

New educational spaces have appeared where teachers need to perform various novel tasks, and take on several innovative roles. The potential challenges of teaching millennials and digital natives (Prensky, 2001) can only be tackled if they are equipped with the right competencies for handling distance and online learning platforms and learning management tools. One would assume that teachers are highly motivated to pursue lifelong learning or continuous professional development activities in this direction but this is not necessarily the case. Many teachers do not welcome the change which has led to technology-based teaching. Kidd (2017) gives an account of a “rhetoric of fear” when describing stories of faculty who engaged in online education at his university. He observed, interestingly, that the teachers’ negative feelings towards online *teaching* added to their original negative feelings towards online *learning* (p. 75).

Acknowledging the challenges, TESOL, the International Association of Teaching English to Speakers of Other Languages, devised standards for language learners and language teachers regarding their desired technological competencies (Healey, et al., 2011). The document outlining the *TESOL Technology Standards for Language Teachers*<sup>1</sup>, sets forth the following as the essential 21<sup>st</sup> century competencies:

Goal 1: Language teachers acquire and maintain foundational knowledge and skills in technology for professional purposes.

Goal 2: Language teachers integrate pedagogical knowledge and skills with technology to enhance language teaching and learning.

Goal 3: Language teachers apply technology in record-keeping, feedback, and assessment.

Goal 4: Language teachers use technology to improve communication, collaboration, and efficiency.

The Standards include several subskills, such as “being able to evaluate whether technological resources are suitable for language learning”, or a coherent integration of technology and pedagogy. As can be seen, the goals comprise the whole teaching process, including learning management and assessment, using technology.

## *Teachers’ beliefs about technology use*

Lack of experience and the fear of the unknown are key factors forming teachers’ reluctance when they engage with education technology. The first influential model to provide measures for predicting and explaining technology use was Davies’ (1989) Technology Acceptance Model (TAM), which, in line with other cost-benefit research, was built on two theoretical constructs: perceived usefulness and perceived ease of use. The model

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<sup>1</sup> Available from: [https://pages.uoregon.edu/dhealey/uruguay2011/healey-tesol\\_technology\\_standards-pad.pdf](https://pages.uoregon.edu/dhealey/uruguay2011/healey-tesol_technology_standards-pad.pdf)

considered these two to be the main determining factors of system use. In the following years, the model was extended by including more variables. The most up-to-date version is the Unified Theory of Acceptance and Use of Technology model (UTAUT) by Venkatesh and colleagues (2003), which basically states that technology use closely correlates with three variables: attitudes towards technology, beliefs of self-efficacy and computer anxiety.

Based on the TAM and the UTAUT models, it should be obvious that learner (and teacher) training is necessary regarding technology. It is especially so for language teachers, whose knowledge of the language (their content knowledge) can also easily become obsolete. Still, a number of studies which focus on the concept of learner training in technology debate whether such training is necessary. Some, for instance *Prensky* (2001), go as far as claiming that current students or “digital natives” already possess such skills. *Hubbard* (2013) contradicts these studies, and puts forward several arguments explaining why learner training in technology is necessary, at least in a CALL environment. He suggests that even if the learning tool is designed well and tasks are logically built, learners might not be aware of the purpose of the tool. The so-called “digital natives” still require training because, even if they are knowledgeable in many aspects of technology, in other areas they need guidance. One such area is how to exploit their IT skills for language learning. Furthermore, technology is not yet integrated into all fields of education, nor are all-purpose technology standards established across existing fields. Therefore, it seems, learners will need training in the foreseeable future.

### *The focus group discussion and the interviews*

The focus group discussion based around 21<sup>st</sup> century EdTech needs of language teachers consisted of two parts. In the first part, trainee teachers were asked to broadly describe their daily school practices as far as education technology was concerned: the applications they liked using while teaching English, as well as the applications they knew about but were reluctant to use for some reason. They were encouraged to name any particular programmes they used and for what purposes. Additionally, several, relatively new terms connected to EdTech were offered to further the conversation, such as *interactive whiteboard*, *online learning*, *blended learning*, and *flipped classroom*. The group reflected on having heard about them or having some experience using them.

In the second section, six discussion points or scenarios were put to the group. The aim of these questions was to find out whether or not applications specifically designed as language reference tools were incorporated into the teaching process. Each reference tool originated from corpus linguistics, a subfield of linguistics which K-12 language teachers (elementary and secondary level school teachers) might not have been acquainted with, especially if they had earned their latest degree ten

years before or even earlier. The assumption was that the teachers would mention one or two such reference tools (for instance, online monolingual dictionaries), but they would not use them on a daily basis. The questions were the following:

1. Could you name some reliable online monolingual or bilingual dictionaries that you yourself use or you can recommend to your students?
2. Can you refer your students to some websites where they can check the pronunciation of unknown words?
3. Do you know any applications that can show your students whether certain collocations are acceptable or not in English?
4. If your students look for synonyms or related words, which websites do you refer them to?
5. Do you know any online tools that can help if your students' writing is too informal?
6. Your students are preparing for the B2 CEFR level exam, but their speech and writing contain only lower level words. Where can they check the words of a text for level?

During the individual interviews, teachers had the opportunity to describe what kinds of self-development methods they used in order to keep up with recent technological advancements. They were also asked if there were any particular language reference programmes that they wanted to learn more about. The aim of this phase was to map the appropriate range of online tools for later courses.

## *Findings*

All of the teachers agreed that education technology was essential: it was part of their daily practice, and to some extent, using info-communication devices and the Internet was even unavoidable in the 21<sup>st</sup> century. The only device they disagreed on was the smartphone and its use in the classroom. There was general consensus that smartphones were unnecessary and disruptive for children under the age of twelve. A minority of the teachers who worked at secondary schools mentioned some benefits of using mobile technology but even these teachers agreed that they “could easily do without” phones during lesson time.

Most classroom teachers already used a number of info-communication applications and learning tools. They mentioned, for example, Padlet, Kahoot and Quizlet to create tasks, quizzes or polls. Most of the teachers had already used interactive whiteboards (even though their usefulness was debated) and had first-hand experience in online learning. Some took part in a course with a blended teaching curriculum, and several teachers had already tried out flipped classrooms (they knew the concept, but they did not know it was the terminology for it).

An interesting outcome was that teachers were aware of the affordance—effectivity side of using technology. For the question *What*

*preparation is needed for a technologically enhanced lesson?* they agreed that the preparation for an EdTech lesson took longer, and that the extra time and effort should be taken into consideration when evaluating “whether it was worth it at all” in the given context. It seemed that the time-consuming planning phase of EdTech was a key (de)motivational factor for the teachers in the group. Some suggested that technology should be used sparingly, and it should not be used for its own sake.

The applications the teachers mentioned had not been designed for language learning specifically. In the second part of the discussion, when the language reference tools were asked about, they unanimously agreed that they lacked the necessary knowledge about even the most basic reference tools, such as good-quality online dictionaries. They felt they lacked basic information about language reference materials, and expressed their resentment towards some general ICT and teacher development courses they had attended, which did not equip them with knowledge specifically for teaching English. None of the teachers had tried using corpus linguistic tools for text analysis previously. Some only had a vague understanding of corpus linguistics but could not define it, neither could they describe its role in language teaching and learning research.

### *Implications for designing part-time courses*

This paper highlighted some of the new technological knowledge base required from language teachers and some potential causes of trainee language teachers’ dissatisfaction with the general ICT courses they had participated in during their continuous professional development sessions. Based on these findings it is clear that future university part-time courses should be aligned more towards trainees’ needs regarding education technology. Particularly, the (relatively) new reference tools available for language learning and teaching require special attention, as an uncharted territory in which teachers need practical and theoretical grounding.

As is the case with full-time students, who are taught corpus linguistic tools in a contextualised manner, technology should be integrated into part-time students’ classes, as well. Both language teaching and language learning tools should be introduced and practiced. Non-native language teachers being language learners themselves also necessitates that they become role models as lifelong learners and professional language users. They are required to use new tools for self-improvement and train their own students to become autonomous learners. Universities should offer specific knowledge and skills practice so that graduates can feel competent in the 21<sup>st</sup> century language teaching context. Special attention should be paid to practicing teachers who earned their degree before the concepts of e-learning, ubiquitous learning and mobile learning became widespread.

## References

- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13 (3), 319–340. doi:10.2307/249008
- Healey, D., Hanson-Smith, E., Hubbard, P., Ioannou-Georgiou, S., Kessler, G., & Ware, P. (2011). *TESOL technology standards: Description, implementation, integration*. Alexandria, VA: TESOL International.
- Hubbard, P. (2013). Making a case for learner training in technology enhanced language learning environments. *Calico Journal*, 30 (2), 163-178.
- Kidd, T. (2017). The rhetoric of fear: Voices and stories told of faculty who engage in online teaching. In Terry Kidd and Lonnie R. Morris Jr. (Eds.) *Handbook of research on instructional systems and educational technology. Advances in educational technologies and instructional design series* (pp. 69-77). IGI Global.
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108 (6), 1017-1054.
- Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon*, 9 (5).
- Shulman, L. E. (1986). Those who understand: Knowledge growth in teaching. *Educational Research*, 15 (2), 4-14.
- Straub, E. T. (2009). Understanding technology adoption: Theory and future directions for informal learning. *Review of Educational Research*, 79 (2), 625–649. doi:10.3102/0034654308325896
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: toward a unified view. *Management Information Systems Quarterly*, 27 (3), 425-478.