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Development

Առարկա՝ Անգլերեն

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Introduction

In this early part of the 21st century the range of technologies available for use in language learning and teaching has become very diverse and the ways that they are being used in classrooms all over the world, as illustrated in this book, have become central to language practice. We are now firmly embedded in a time when digital technologies, the focus of this book, are what Bax has referred to as ‘normalised’ (2003, 2011) in daily life in many parts of the world, although not amongst all people as there are digital divisions everywhere (Warschauer, 2003), and still not always in the world of education.

Since computers started to be introduced in language learning (and in education in general) people have rightly asked whether the investment we are making in these technologies gives us value for money. As digital technologies have taken a hold in society in general, this particular question is not asked quite so often, but it is still important to make sure that the technologies that we have available are used effectively.

People are always tempted to try to make an argument for technology having an impact on the development of pedagogy and in many cases we can see that the use of technology has enabled teachers to re-think what they are doing.

We also see people trying to populate this domain by talking about notions like the ‘flipped classroom’, ostensibly a methodology that sees input as occurring at ‘home’ and physical classrooms being used as spaces to explore what has been presented in the input. This is far from being a new idea, but these agendas are pushed for a while and then disappear again. What is a contender for a methodology that is central to the world of technology and language learning is that of blended learning (Motteram and Sharma, 2009).

The main goal of the study is to study Learning technologies for the classroom development.

Learning Technologies for the Classroom Language Development.

Secondary education

English language teaching at secondary level generally takes place during the school day, at schools either funded by the state or privately financed, and after school in language academies, where learners are sent by their parents for additional English classes, usually to reinforce the English being learned at school, or to help the learners prepare for a specific examination. For the purposes of this chapter, the term secondary education is used to refer to learners aged 11–18. According to UNESCO's International Standard Classification of Education (ISCED), secondary education can be divided into two parts: lower secondary (ISCED 2), and upper secondary (ISCED 3). Lower secondary education usually begins when children are aged 11–12 and lasts four years. The entrance age to upper secondary education to 'is typically 15 or 16 years' and lasts from 'two to five years of schooling' depending on the country. Teaching at lower secondary is typically subject-focused and aimed at preparing students for entry directly into working life or for upper secondary education, whereas the focus of upper secondary education is on preparing students for entry directly into working life or for tertiary education (UNESCO, 1997).

Growth of technology use

There has been a tremendous growth of information communication technologies (ICT) across the board in recent years. An overwhelming majority of teachers in Europe (90 per cent) use ICT to prepare their lessons (Empirica, 2006). All European Union (EU) countries have invested in ICT in schools and this has included spending on 'equipment, connectivity, professional development and digital learning content' (Balanskat, Blamire, and Stella, 2006: 2). Furthermore, the European Union has also set targets for enhancing digital literacy, skills and inclusion (European Commission, 2012).

Outside the EU, the story seems to be the same. In the US, the Office of Educational Technology (OET) has developed a 'National Educational Technology Plan' (OET, 2010) for transforming education through the power of technology. Across East Asia, 'enthusiasm for the use of computers and other information and communication technologies in education is undeniable and widespread (Trucano, 2012: 101); Tella et al. (2007: 5) report that 'the use of ICT in ... African countries generally is increasing', although

they complain of limited access, and in Latin America, ICT is also appearing in secondary schools, albeit unevenly (Garcia-Murillo, 2003).

In fact, it is now difficult to disagree with Mark Pegrum's view 'that technology and education have a tightly intertwined future' (Pegrum, 2009: 5). The increase in investment in ICT by education departments around the world since 1998 has been well documented (Macaro, Handley and Walter, 2012; Becta, 2004), but how is it being implemented and what are teachers using ICT for? In one study of the effect of ICT implementation in schools, Ilomäki (2008: 67) found two types of 'ICT stories'. The first saw expectations for ICT being overestimated in the majority of cases, with the process of implementation being top-down and 'without a strong commitment of the schools or the teachers'.

In some cases, however, success came when the focus was placed on the needs of a specific school and was supported by internal improvement of that school. The effect of supporting teachers and on training teachers to use ICT can also not be underestimated.

Things, then, have come a long way since Levy wrote (1997: 3) 'CALL remains a peripheral interest in the language teaching community as a whole, still largely the domain of the CALL enthusiast, and there is scant evidence to suggest CALL has really been absorbed into mainstream thinking, education, and practice.'

Teacher training and continuing professional development and ICT

Research indicates that 'Training in ICT skills is crucial in implementing ICT integration in the teaching and learning of English' and 'the extent to which teachers are given time and access to pertinent training to use computers to support learning plays a major role in determining whether or not technology has a major impact on achievement.' (Samuel and Zitun, 2007: 10).

In many cases, however, this training is not given, and more likely than not, teachers are left to their own devices. More and more, it is a certain type of individual teacher who takes the initiative and implements technology into their classrooms. The case studies included in this chapter reflect this. Generally, these teachers are using readily available, free online tools and are finding out how to use them through social networks and online communities of practice (Lave and Wenger, 1991: 98). These teachers build their own

personal learning network (Couros, 2008) and connect with other teachers around the world to share what they know and help others learn.

Personal learning networks (PLNs) developed out of the idea of building a personal learning environment (PLE), which is built out of a collection of web tools set up and owned by the learner. In this way, the 'management of learning migrates from the institution to the learner' and learning also 'evolves from being a transfer of content and knowledge to the production of content and knowledge' (Downes, 2007: 19). Since 2007, the focus has shifted to PLNs to reflect that most of the learning in a PLE comes from connecting to other people. An example of the increased interest in using PLNs in language teaching is the aPLaNet project (www.aplanet-project.eu), which aims to help teachers build their own PLNs for professional development.

As Perkins reflects, continuing professional development (CPD) 'is very personal...' and is 'an excellent barometer of the level of passion' a teacher has for their chosen career (Perkins, 2002: 97). Often, as the case studies here show, teachers who connect to colleagues online in this way and learn how to implement technology readily become involved in the ICT training of colleagues. Being part of a large online network of ICT-using language teachers means you regularly receive information from practising teachers about classroom technology, about what works and what does not work, and about what other teachers recommend you use in which situation. Of course, not all secondary teachers have access to technology they can use at school, but, as our first case study shows, the 'so-called "digital divide" is as much a literacy issue as an economic one' (Pegrum, 2009: 4), with the teacher in question overcoming the lack of technology by bringing her own laptop computer to class.

The teacher in question is Ayat Tawel, a secondary school teacher in Cairo, Egypt, who has been using telecollaboration to connect her students' language learning to the real world outside the classroom. Telecollaboration is 'a shared teaching and learning experience that is facilitated through the use of internet technology between distanced partners in institutional settings' (Dooly, 2008: 21). Collaborative learning can increase students' interest in learning (Dooly, 2008: 22), especially when the students are actively exchanging and negotiating ideas, engaging in discussion and taking responsibility for their learning.

It is important for there to be group goals and individual accountability (Slavin, 1989: 231) and that each member of the group be responsible for a concept necessary for completing the task. Social interaction when working together can lead to students performing at higher intellectual levels than when working individually (Vygotsky, 1978: 84). Another important aspect of telecollaboration in language learning is the intercultural one. Cultural awareness is, as Byram and Fleming (1998: 4) state, 'a significant aspect of language learning', so much so, that 'without cultural awareness, a language cannot be properly understood'. Corbett argues that intercultural language learners 'need to acquire an understanding of how interaction works, and how individuals relate more generally to those around them and to society at large' (2010: 2) and cites the benefits the internet can bring to the intercultural classroom, with its 'rich opportunities for "authentic" language use and comparison of different cultural practices' (2010: 7). Guth and Helm (2010: 121) suggest that it is important to view telecollaboration in a broader sense, taking into account the intercultural aspect rather than focusing purely on pedagogical practice.

The teachers in our first case study have done this with their project. The first case study is one example of how some English language teachers are opening up their classrooms to the real world and inviting guest speakers to engage their learners through intercultural telecollaboration. Hoffman identified this ability to link language learners with other language users as being possibly 'the most compelling appeal of computer networks' because it offers learners 'the exposure to authentic communicative language use that is so often missing in the micro-world of the classroom' (Hoffman, 1996: 68).

Research by Swain (1985) on what has been called 'the output hypothesis' suggests that collaborative tasks may be the best way to get students to produce comprehensible output, because when working together students need to negotiate meaning, and as a result are supported in producing comprehensible output beyond their own individual level of competence. Social interaction can lead the learners to language development through interactional exchanges and negotiation of meaning. Technology can facilitate this by making it easier for different groups of learners from different parts of the world to talk to each other, especially through telecollaboration.

Telecollaboration at a secondary school in Egypt

Ayat Al-Tawel has been a teacher of English for more than ten years and teaches at the Baby Home Language School in Cairo, Egypt. She teaches English to lower secondary learners, with the average class size being 28–30 students and the language level of the learners ranging from pre-intermediate to intermediate level. There is an internet-enabled computer lab in the school, but Ayat doesn't have a computer in the classroom, so she uses her own laptop. Recently, the school bought a projector which she sometimes uses in class with her laptop.

Ayat first became interested in using technology with her learners when she joined the TESOL (Teachers of English to Speakers of Other Languages) Electronic Village Online (EVO) session 'Becoming a Webhead' (BaW) in January 2011. The TESOL EVO is organised by TESOL's CALL Interest section and run by volunteers. For five weeks at the beginning of the year, participants can engage with experts in collaborative, online discussion sessions or hands-on virtual workshops of professional and scholarly benefit. The BaW EVO session is an introduction to Webheads in Action, a long-standing Community of Practice of language teachers worldwide which developed out of a session in the first TESOL EVO. Since then (in 2002), 'the Webheads in Action community members continued to interact and learn from each other, prompting work on projects of mutual interest in spontaneous development of what we have come to call a community of practice' (Stevens, 2004: 204). Since taking the EVO session, Ayat has done a number of projects with her learners, and became a moderator of the BaW EVO session in January 2011.

Ayat is a firm believer in lifelong learning, and thinks that one of the best ways of developing professionally is by sharing with colleagues around the world that she has met online. Ayat's interest in using learning technology is based on her belief that language learning should be as communicative as possible, and that the learners should have a real reason for communicating in English. She believes that 'A language is to use', meaning that 'it is not enough to just teach in class for students to study and pass a test', but the learners should 'have to use the language in real-life situations'.

As for ICT, Ayat feels that as the use of technology is increasing, both in Egypt and elsewhere, and because young students are fond of trying and using this new technology, there is a place for it in the classroom. Her main interests are in using blended learning and Web 2.0 tools to enhance the learning

environment and inspire creativity in the classroom. For this reason, she has started a number of projects that involve her bringing guests into her classroom using the internet telephony programme Skype (www.skype.com). During the hands-on online workshop BaW in 2011, Ayat met and started a friendship with a colleague, Maria Bossa from Argentina, and together, at the end of March 2011, they came up with the idea of an intercultural project with their lower secondary school learners. They decided to each be a guest in the other teacher's class and let the class interview them using Skype.

In a podcast discussion about the project, Ayat said they chose Skype 'because it's a synchronous web tool which allows real-time live discussion and it extends the walls of the traditional classroom and it engages students to communicate with an authentic audience, and having an authentic atmosphere in class is something very important and it's not always there, we have to seek it' (Bossa, Stevens and Tawel, 2012). One thing Ayat is clear about is the need to carefully manage the telecollaboration, which Corbett (2010: 7) states is a very important factor if online exchanges are to be effective. The exchanges were also planned to be as authentic as possible, and although they involved substantial teacher preparation, they can be claimed to be authentic as defined by Higgins (1991: 5) as 'anything not created by a teacher for the purpose of demonstrating language at work'.

To prepare for the interviews, each teacher thought of a context for the language practice so that it would fit with their syllabus. In Ayat's case, there was a unit in the coursebook she was using with her learners on global warming, with one section covering rainforests. She decided to start there, and asked her students about countries where rainforests could be found. They mentioned Chile, Argentina and Brazil. Ayat then asked them what Argentina was famous for and finished by asking the students what they thought about interviewing someone from Argentina. They were all positive about this opportunity. Ayat's class then started to prepare questions.

She encouraged the learners to ask any questions they wanted. She compiled these questions and sent them to the other teacher in advance. Before the first interview, Ayat said that the students didn't seem that interested. She thinks this was because they 'couldn't really imagine how they were going to be able to have an interview live'. However, once they entered the computer lab and started the activity, they were 'thrilled

and motivated' when they saw the other teacher live on the screen and realised they were able to talk to her directly.

Ayat conducted the interview with two classes of lower secondary learners. The second class did the interview after they had heard about the experience of the first class, so they were more motivated beforehand, and even decided they wanted to prepare something in Spanish to tell the other teacher.

Ayat collected feedback directly afterwards, asking the learners to rate the activity (from 1–10) and write a comment about what they thought. She usually asks her learners for their instant feedback after a new classroom activity 'to get their real feelings of how the experience was' (Tawel, 2012). Analysing this afterwards, she believes it clearly demonstrated the educational and cultural value of the experience. Here is a sample of what the learners wrote:

- 'We learned a lot of things about Argentina and had a great deal of fun'.

- 'It's good to know about other countries ... I hope we can do it with other countries'. Ayat then asked the learners to do some writing based on the interview.

The learners chose the genre. Some of them wrote it in the form of a dialogue, or as a diary entry, others as a biography, or a story. The activity was so successful with the classes of both teachers that they decided to continue the collaboration. Another reason why the teachers wanted to extend the project is because the students 'wanted so much to communicate with the other teacher's students – not just the teacher' and they also didn't want the experience to end. Because of time differences, a Facebook group was chosen for the next stage of the learners' communication, and the teachers set up a private group (www.facebook.com/groups/argentegypt), to let the learners communicate with each other online. The teachers chose Facebook because the students already used this social network, spending lots of time on it. The learners joined the group voluntarily, asking each other questions about a range of topics, and sharing information about their own lifestyle, culture, traditions, festivals, some linguistic points, idioms or expressions etc. Ayat and Maria believed that it was very important to set a rule that all communication in the group should be in English, which was an important objective to practise the language. However, later on they allowed some Spanish and Arabic words because the learners in both classes wanted to know some basic words of the other language.

Ayat documented the interview with photographs and used the web tool Photo Peach (<http://photopeach.com>) to create a record of the interview as a video presentation which she was able to share with the learners, colleagues and parents. Sharing these documents on Photo Peach with her PLN means that she receives comments from colleagues and friends from around the world, which help to motivate and inspire her learners, who find it very rewarding as well as exciting that what they do in their classroom has an audience in the real world outside.

Because of the success of this project, Ayat decided she wanted to continue using Skype to invite guests to her classroom, to give her learners the chance to use English to speak to someone from abroad and to find out about their culture, especially if the learners were studying the country the guests were from.

After the first round of interviews, she realised that it would be beneficial to make recordings of the conversation. Since then, Ayat has used MP3 Skype Recorder (<http://voipcallrecording.com/>) to make recordings of Skype interviews, which allow the learners to listen to the interviews afterwards and understand the information that they might have missed the first time round, during the live interview. As her experience in arranging these interviews has increased, Ayat has found she can better prepare her learners for them, and better take advantage of the language learning opportunities that these interviews lend themselves to. Ayat has also discovered that 'Skype helps to improve listening skills as the user has to pay active attention to what the interlocutor is saying. It's also useful to practise vocabulary and everyday language in a natural way, it fosters improvisation and puts our knowledge to the test when you're trying to write or to speak' (Bossa, Stevens and Tawel, 2012). It is clear that the learners appreciate this kind of activity.

At the end of the Photo Peach presentations which documented a follow-up classroom guest interview using Skype (<http://photopeach.com/album/xnv4bg> and <http://photopeach.com/album/dlcrbb>) some of them added the following comments:

- 'Thank God for being my teacher this year, you r realy very excellent, I really enjoy english with u'.
- this was a very nice interview and I love ms ayat and I love english thankyou and goodbye.
- thankyou miss ayat for the interview and we are so lucky that you are our teacher.

■ thank you miss ayat to make us share in an experience like this, I am so lucky to be one of your students.

Ayat has subsequently started a number of other cross-cultural projects, raising the awareness of her learners and motivating them to become involved in using the language to communicate with, and learn about, other people in different parts of the world. This year, after the success of the Skype project, she started a collaborative online book project with Bernadette Rego, a Canadian teacher, and her classes, concentrating on the book *Harry Potter and the Philosopher's Stone* by JK Rowling, and using Edmodo, a private social network (www.edmodo.com). Edmodo has proven to be an ideal safe environment where the students can meet and discuss the book as well as share information with the other class. Voxopop (www.voxopop.com), an audio forum tool has also been used, for recording introductions and sharing questions and answers.

Web 2.0

The case study above is a clear example of a secondary language teacher embracing the affordances of recent developments online. The term Web 2.0 is often used as a label for these developments, and although it is a term that means different things to different people, for our purposes, we can think of it as 'a shift from what were primarily informational tools to what we might call relational tools – so that if Web 1.0 was the informational web, Web 2.0 is the social web.' (Pegrum, 2009: 18).

Web 2.0 tools have proliferated in recent years, and as most allow for some degree of content creation and communication, they are often ideal for language learning. At the heart of Web 2.0 is the blog, short for web log. At its most basic, a blog is an online journal that can be used by teachers to publish information about a course, links to resources and other information directed to learners or other teachers. Ease of use was identified as one of the most important factors behind 'the significant proliferation in the number of teaching blogs' used by secondary school teachers in a recent study (Lai and Chen, 2011), and there is no doubt that the push button publishing first promoted by Blogger (www.blogger.com) has encouraged many teachers to embrace online publishing who otherwise would not have done so.

Many teachers also now encourage their learners to blog, publishing their written work and projects online in ways that go beyond sharing their work with an audience beyond the teacher, and which help prepare learners 'for the digitally-driven post-industrial world into which they'll graduate – a world where

our understanding of knowledge, culture, truth and authority are in the process of being rewritten.’ (Pegrum, 2009: 28).

The other popular online publishing platform that has become well-used by secondary school teachers and learners is the wiki. The term comes from the Hawaiian for ‘quick’ and a wiki is a collaborative web space allowing for pages that can be created and edited by multiple users easily without any knowledge of web design. The wiki is similar to the blog in that it allows for quick and easy publishing, but the more flexible structure of the wiki means that it is good for project work, whilst the blog is better as an ongoing record of classwork as the latest work is always displayed at the top of the page.

Another development of Web 2.0 is the podcast, which comes from the combination of the words iPod and broadcast. Podcasts are audio or video files that are broadcast via the internet and can be downloaded and listened to on a computer or mobile device. Apart from software allowing the creation and sharing of podcasts, there are many other Web 2.0 tools that make use of audio, and to many users podcasting now refers to any creation and sharing of audio online. Our next case study is an example of a teacher who uses Web 2.0 tools, especially audio, with her classes.

Sharing the experience of web tools in Brazil

Ana Maria Menzes is an English teacher, teacher trainer and head of the Edutech Department at Cultura Inglesa, a language institute in Uberlândia, Brazil. She teaches mainly classes of teenagers. Ana is convinced of the value of using Web 2.0 with teenagers in particular, and thinks that one of the benefits is providing extra skills practice for the learners to do at home. She believes that although many teachers have integrated technology into their classroom practice, far fewer ask their learners to use technology for language learning at home.

Ana has tried out a lot of web tools and makes a point of selecting the tools depending on the skills she wants her students to work with. Her learners have all said they prefer this type of homework. Internet-based project work group activities which ‘lend themselves to communication and the sharing of knowledge, two principal goals of language teaching itself. The use of projects encourages co-operative learning, and therefore stimulates interaction.’ (Dudeney and Hockly, 2007: 44)

Let's look at a typical project of hers; one that she has recently started with a class of upper-intermediate students aged 15–16. Her objective is to provide the learners with extra writing, reading, listening and speaking practice at home. Each week one volunteer learner creates a short text (50 words) for a listening dictation with the content being chosen by the learner from a previous lesson done in class.

The teacher corrects the text, the learner then makes recordings of the text and shares it with the others in the class. Next, all the learners listen to the recording and transcribe the text. This means that every week, there is a different listening activity created by the learners and Ana says that 'from what I have observed, students have been taking great care pronouncing as best as they can, making sure their classmates understand what they say.' Originally, Ana thought she would have the learner write their first draft, which she would correct and give them back on paper, but she decided instead to record a screencast while she corrected the text, explaining the learner's mistakes, at the same time providing a pronunciation model of how to read the text.

The learner could then watch this video, change their texts according to the teacher's suggestions and then later record themselves reading their own texts. Not only does this method of corrective feedback take less time to record than it would to traditionally mark writing texts, 'the amount of information that can be provided by the teacher is much greater, and students feel it is the nearest thing to a one-to-one feedback session' (Stannard, 2006). The learner also gets additional listening practice.

Ana is always looking for new ways to do things, especially when it comes to using technology to improve her classroom practice and help her learners. She also tests the efficacy of the tools and then shares her findings in her blog. For example, for the screencasting part of this project, she tried out the tool Educreations (www.educreations.com), which makes it easy to share videos with learners.

Ana strongly believes that publishing learner work online is motivating for learners, so the recordings the learners make are often posted online. As Hoffman found, having learners' work read by people other than teachers and classmates 'gives learner writing validity' and 'content, style and linguistic accuracy can be put on display before a variety of audiences meaning 'the writing that is shared becomes more than a demonstration of learning for a teacher: it is communication.' (1996: 64).

This shift in emphasis to collaborative writing and focus on learner created texts often leads to the textbook becoming ‘much less important as a pedagogical focus than the writing which the students produce’ (Barnes, 1989: 27), which is the case in Ana’s teaching situation.

After gaining permission from her learners, Ana typically shares the work they do with her extensive PLN, via her Twitter account (www.twitter.com/anamariacult), on Facebook, and on her blog. For the project described above, she chose Voki (www.voki.com), which lets users upload audio and choose an animated avatar to go with it, adding an element of fun to the publishing process, such as in this example by one of her learners, who chose the topic ‘Education in Brasil’: <http://bit.ly/T5nMar>

Ana also uses the educational private network Edmodo (www.edmodo.com/) with her learners. This allows her to get to know the learners better, to share links to useful resources and information about the class, and allows the learners to chat with their classmates in English between classes. It also means that the work they do using web tools can be collected in one place, and the learners can look back and see the progress they have made since the start of the course.

What the learners have created here, then, is something between an e-portfolio (i.e. a space used to display student work) and PLN, both of which can be ‘individually tailored constructivist spaces built by and for learners’ the difference being that ‘while PLEs typically have a learning focus, e-portfolios may also serve display purposes.’ (Pegrum, 2009: 28). With this class and others, she has used other Web 2.0 tools, and has documented their use on her blog (<http://lifefeast.blogspot.co.uk>).

One of the most popular of these was Songify2. She asked the learners to write sentences, and then using her iPad, recorded the students speaking to Songify, and then the app converted the sentences into songs. Ana said the learners had a lot of fun with this and probably spent more time practising the pronunciation of the sentences than they would have normally done.

Ana, like Ayat (Case Study 1), is also another example of a secondary teacher who has taught herself to use ICT and who also teaches others to do so. She has been using educational technology since 2006, when she attended a number of online courses held as part of the TESOL Electronic Village Online (<http://evosessions.pbworks.com>). She then volunteered to be a co-facilitator of ‘Blogging for Educators’ in

the TESOL Electronic Village Online in 2008 and 2009 and has been sharing her experience and knowledge online with teachers ever since.

Research and practice

All of the case studies here show practitioners using their own networks, knowledge and resources rather than turning to classroom research for new ideas. With new tools appearing constantly, and the emergence of the 'perpetual beta' (Pegrum, 2009: 19), it is only normal to see research in learning technology trailing behind what is being done by innovative secondary school teachers. This is not new, however. As far back as 1977, Kemmis et al. stated 'CALL is practitioner led as opposed to research based' and 20 years later, Levy (1997: 4) stated that 'many developers rely on their intuition as teachers rather than on research on learning'.

At the heart of the issue here is the question whether the use of technologies in the classroom improves acquisition or development of language skills or if it is simply a distraction. In the systematic review of research undertaken by Macaro, Handley and Walter (2012: 15–20), the authors examined the evidence for this and concluded that 'some language learning benefits of CALL have been shown'. These include evidence that CALL helps secondary learners with listening and writing (particularly improvements in the amount of writing, length of texts and discourse features of these texts), with some suggestion that speaking can also be improved. However, the research on whether CALL improves reading, and on the acquisition of grammar and vocabulary were inconclusive.

As far as non-linguistic benefits are concerned, the research provides 'evidence of positive attitudes towards CALL' (2011: 21) and learners perceived an 'increase in confidence' in 'engaging in real learning experiences not found in books and speaking activities' (2011: 21). One of the dangers of practitioners relying on intuition, and using technology in ways they see fit is that emphasis is placed more on the technology than the pedagogy, and Stockwell, reviewing studies from 2001–05 concluded that there was 'an element of failure to stipulate why a given technology was used in achieving learning objectives' (2007: 115).

Reviewing the history of CALL (Delcloque, 2000), it also has to be noted that the field has been largely 'technology-driven rather than serving pedagogical needs' (Macaro et al. 2012: 2). It is obviously impractical for teachers to wait for research to show whether a web tool is effective or not, but teachers can, as Chapelle

(2001: 16) suggested, use ethnographic methods to investigate CALL effectiveness. Practitioners can ask not only whether a certain technology is effective, but also why it is effective.

What also helps, and which can be seen in evidence in the case studies in this chapter, is teachers asking for feedback from learners and documenting the results of this, as well as stages of implementation in blog posts and in other publications (journals, newsletters, etc.) aimed at language educators. Others believe that it is a question of time: 'Until technology becomes normalised, there's typically too much focus on the technology itself and not enough on how it's used pedagogically, socially, politically or ecologically' (Pegrum, 2009: 24).

Normalisation of ICT

Normalisation can be defined as the stage in which 'CALL finally becomes invisible, serving the needs of learners and integrated into every teachers' everyday practice' (Bax, 2003: 27). The concept was recently revisited (Bax, 2011), which was felt necessary because of the changes in technology use, especially the internet, which has become 'a high-stakes environment that pervades work, education, interpersonal communication, and, not least, intimate relationship building and maintenance' (Thorne and Black, 2007: 149).

While technology is, as research seems to indicate, not yet normalised in language education, and, as Thomas (2009: xxi) states: ...while those involved in educational technology often assume that their pursuits are central to what is happening in their institution, the reality is that a rather limited percentage of any given group of educators, either in the school or university sector, consistently integrate technology to any great effect... There are definite 'signs of a more fully integrated approach to CALL emerging because of Web 2.0.' (Motteram and Stanley, 2011: ii).

Integration of ICT in secondary language teaching

Aside from Web 2.0, more traditional uses of ICT continue too. Jewell points out that many stand-alone applications such as word processing and presentation software (for example Microsoft Powerpoint) can be used effectively by secondary school learners to 'improve their language skills through research and by sharing their findings in oral presentations' which also 'provide real-world contexts and technological skills and enable students to develop confidence in their language abilities' (2006: 176).

Whether using established or emerging tools, it is when technology is utilised by teachers and learners and thoroughly integrated into the curriculum, as it is in the next case study, that wide-ranging benefits can be detected.

Digital storytelling in Argentina

Vicky Saumell is co-ordinator of the EFL Department at Instituto San Francisco de Asís, a private school in Buenos Aires, Argentina that has 800 students at all levels, from kindergarten to secondary. Although private, the school is mostly funded by the state (to keep the fees low) and the students have three hours of English a week. She has worked there for 20 years and has been using learning technology with learners and teachers for six years, first becoming interested through the Webheads in Action community of practice (<http://webheadsinaction.org>). Since then, she has developed from using ICT in her own classes to helping other teachers integrate technology into their classroom practice, training other teachers as well as being tutor of the module New Learning Environments for the Master's in ELT at Universidad de La Sabana, Colombia, where she has been teaching online since 2009. Vicky is also a materials writer, teacher trainer and is passionate about sharing her classroom practice with other teachers in Argentina and around the world, presenting at local, national and international conferences, as well as online events.

In 2008, while reviewing the way English was taught at the school, based on feedback from learners and teachers, Vicky became convinced that something needed to be changed. She 'started feeling that students, especially teens, were not being offered the best option for their learning' (Saumell, 2010). The problem was based on a number of things, but she determined that at the heart of the problem was the department's reliance on a coursebook to drive the English curriculum.

There was a pressure on teachers to stick closely to the chosen coursebook, to finish it because it had been bought, but this meant teachers had little time to do other things, which they felt were more creative, fun or relevant. The coursebooks 'did not fully reflect the students' interests and culture or the language we wanted them to learn or how we wanted them to learn' and in general learners were not motivated by them, whereas the occasional projects that were undertaken 'were welcomed with enthusiasm and offered a more creative output, which resulted in increased motivation for both the teachers and the students.'

After consulting her colleagues, and ensuring consensus, the department decided to abandon using coursebooks in favour of designing their own curriculum and materials. The focus would be on project-based learning more directed at their students' interests and knowledge, in order to better engage them in the learning process.

The new curriculum, for Grades 6 and above, was launched in March 2010. The teachers design their own projects, taking into account the needs and interests of their students and the new syllabi. Vicky says this new direction embodies much of what she feels to be important about learning a language today, and is a combination of 'constructivism, connectivism, multi-literacies education for the 21st century, collaborative learning and the promotion of autonomous and lifelong learning.' Teacher discussions were held about the role of the teacher in the classroom.

Encouraging students to speak the language was made a priority, and giving them real-world, authentic tasks, often through using Web 2.0 tools, was encouraged. At the heart of this was a change from a teacher-centred paradigm to a more studentcentred one. The key is giving learners more choice. Vicky says this is 'motivating for teenagers because they can express their individuality through their choices and they feel they are being taken into account and respected' (Benwell, 2010: online). One of the major concerns when making the change was assessment. The idea was to shift 'from formal testing to continuous assessment through observation during the project development process and assessment of the final product.' (Saumell, 2010).

A wiki (<http://isfa.wikispaces.com>) was set up to be used as a project repository and to keep a record of which projects were done with which class. This wiki was also used to provide help for teachers, with advice on implementing project-based learning and integrating technology into the curriculum, as well as links to guides and tutorials for Web 2.0 tools and any other supporting material. Making the change proved to be a lot of hard work. Vicky discovered that it was necessary to provide constant teacher support and she set up a system to monitor progress through a system of periodic assessment so that any problems in the development of the project could be identified and solutions found to improve the program once issues had been analysed.

Vicky integrates technology on a daily basis with her own classes and she believes this has proved to be highly motivating for her learners. One of her recent projects, with three classes, of 20 learners, aged 17, has been using 'digital storytelling'. There are many different definitions of digital storytelling, but, as Robin (2006) says, 'they all revolve around the idea of combining the art of telling stories with a variety of digital multimedia, such as images, audio, and video'. Barret (2005: 1) says that 'digital storytelling facilitates the convergence of four student-centred learning strategies: student engagement, reflection for deep learning, project-based learning, and the effective integration of technology into instruction'.

According to Vicky, using digital storytelling with teenage learners is motivating because 'it gives the learners a voice as well as freedom and creativity to express themselves.' It is also a way for the learners to use English in a meaningful way on a project they have a say in, and, because it is published online, which they can share with their classmates, parents and any other interested parties. She has used a wide range of different tools for digital storytelling.

One example involved the learners creating 'Art Stories' collaboratively. For this, they worked in groups, chose a number of different famous paintings and wrote a narrative that linked the stories together. Finally, Windows Movie Maker was used to create an animated slideshow, with the learners recording a soundtrack of the story to go with the images. Another variation of this had the learners take photos of street art using digital cameras and their mobile phones and then again creating animated slideshows using Windows Movie Maker, but the soundtrack this time consisted of the learners discussing what they liked about the graffiti.

Another digital storytelling activity she did with learners involved them recreating part of the story of Shakespeare's *Midsummer Night's Dream* using various tools. Some of the learners made animated cartoon versions using animated movie-making software Zimmer Twins (www.zimmertwins.com) and recording a soundtrack.

The finished work can be seen here: <http://isfa.wikispaces.com/A+Midsummer+Night%C2%B4s+Dream> Apart from being for the benefit of her teachers, Vicky is happy that the school wiki (<http://isfa.wikispaces.com>), where work done by the learners is published, serves as a source

of ideas for projects for other teachers around the world. Vicky also has a blog (<http://vickysaumell.blogspot.com.es>), which she updates regularly.

Digital literacy and mobile learning

The incorporation of technology into school-wide teaching pedagogy as outlined above means that students will also develop digital literacy skills at the same time as acquiring a second language. It can be argued that because ‘the ever expanding connectivity of digital technology is recasting social arrangements and relations in a more open, democratic and ultimately empowering manner’ (Selwyn, 2013: 2), so ‘teaching our students language in its traditional media is no longer enough’ and ‘increasingly, in everyday and professional life, people need the skills of electronic literacy.’ (Healey et al., 2011: 9).

Clearly, because ‘learning and literacy are changing radically in the internet age’ (Richardson, 2012: 15), a place must be found for digital literacy in education, but what does being digital literate entail? There are many definitions of digital literacy, and what is interesting is the way the definitions have evolved to reflect the way the technology has changed. One definition, for example, states that it is ‘the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers’ (Gilster, 1997: 1), whereas a more recent definition expands it to ‘[a] person’s ability to perform tasks effectively in a digital environment...

Literacy includes the ability to read and interpret media, to reproduce data and images through digital manipulation, and to evaluate and apply new knowledge gained from digital environments.’ (Jones-Kavalier and Flannigan, 2006: 1). One thing is certain, to be literate in the 21st century requires a more ‘multimodal’ (i.e. combining words, images, and sounds) approach because ‘multimodality is more pervasive, diverse, and important today than ever before’ (Gee and Hayes, 2011: 5).

One could also argue that digital literacy is more important now that more and more of our secondary learners come to school with mobile devices that have the potential to revolutionise what happens in the classroom. Mobile Assisted Language Learning (MALL) is one of the most interesting emerging types of technology enhanced learning, especially now that mobile devices are carried by more and more people every day, and that the mobile phone ‘has evolved from a simple voice device to a multimedia communications tool

capable of downloading and uploading text, data, audio, and video – from text messages to social network updates to breaking news, the latest hit song, or the latest viral video’ and that it can also ‘be used as a wallet, a compass, or a television, as well as an alarm clock, calculator, address book, newspaper, and camera.’ (Kelly and Minges, 2012: 11).

It is not just about the developed world, either: ‘The developing world is now more mobile than the developed world’ and ‘the pace at which mobile phones spread globally is unmatched in the history of technology’. In 2003, 61 per cent of the world’s population had access to a mobile cell signal, rising to 90 per cent by 2010. (Kelly and Minges, 2012: 9). In secondary education this is important because ‘nearly every student carries a mobile device, making it a natural choice for content delivery and even field work and data capture’ (Johnson et al., 2009).

This combination of available applications and a device that learners usually carry offers an opportunity to introduce learners to tools for study which could help them in later life, as well as new motivating ways of learning a language. Because of this, the implications for secondary education are dramatic. However, in most secondary teaching situations, learners are not allowed to make use of these devices, even when, in many cases, these could be powerful aids to language learning. The final case study is an example of a teacher who has started to implement mobile learning in her classes, and how she and a colleague overcame resistance from the school and some of their colleagues.

Conclusion

There are a number of different conclusions that can be drawn from the case studies presented here:

- Using technology to enhance language learning, as Jewell mentions ‘allows for increased learner autonomy and control, providing a more student-centred pedagogy’ with learners at the centre of the learning process and ‘more actively engaged in their learning than in traditional direct instruction methods’ (Jewell, 2006: 178).

- Learning technologies are becoming more normalised in language classrooms, as Bax (2003) predicted, and teachers are beginning to ‘stop seeing them as technologies and start seeing them as tools which suit some purpose and not others’ (Pegrum, 2009: 23).

- Many teachers are self-directing their own learning when it comes to using technology, and are increasingly turning to online communities of practice, taking courses and building their own PLNs to act as a support system to help with the implementation of learning technology.

Finally, encouraging the use of educational technology in secondary language education has wider implications.

As Dooly (2008: 23) mentions, ‘[i]f we are truly interested in preparing our students to be responsible citizens in an increasingly technologically advanced society, then our way of teaching our students must reflect this.’

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