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New technologies to support language learning

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13 New technologies to support language learning

Lisa Kervin and Beverly Derewianka

13.1 Introduction

Language classrooms have always used technologies of various kinds, from the blackboard through to the language laboratory. In recent decades, however, there has been an explosion in the resources available to teachers, to the point where many feel overwhelmed. This chapter, therefore, does not attempt to provide a comprehensive review of ‘state of the art’ technologies – primarily because the ground is shifting so rapidly that any such endeavour would soon be out of date. Rather, we have kept in mind an audience who are not necessarily interested in the finer points of technological innovations but who are seeking some practical input on those advances that are productive in fostering their students’ learning.

When it comes to electronic learning materials, we need to take into account the hardware, the software and the actual content such resources make available and the methodologies they promote. Ultimately, however, we are concerned with the quality of learning that these resources facilitate and the extent to which their use reflects sound learning theory:

• is the input relevant, accurate, accessible and yet rich?
• what kinds of interaction are encouraged?
• what degree of support is provided and how are learners encouraged towards greater autonomy?
• how is useful feedback provided?
• is motivation stimulated?

Blake (2008) describes the successful technology-enhanced FL curriculum as student-centred, carefully planned, technically well supported and, most importantly, pedagogically well constructed.

In this chapter we will look at how teaching the macro-skills (listening, speaking, reading and writing) might be enhanced through the incorporation of various digital materials. At each point we provide concrete examples of resources to illustrate the use of new technologies in language learning which classroom teachers have found to be useful in supporting their students’ language development. In concluding, we consider various pedagogical implications and speculate about future developments.

In exploring the role of the various technologies in learning, we have found it useful to think of language use along a continuum from ‘most spoken’ (oral interaction where language accompanies some activity in a shared physical environment) through to ‘most written’ (where texts need to be able to be understood by others who might be distant in time and space, independent of any shared experience). Moving along the mode continuum also involves a shift from more spontaneous, unplanned discourse where meanings are collaboratively constructed towards more heavily crafted, sustained, planned monologues. Learning at the more ‘spoken’ end of the continuum tends to involve interactive, ‘first draft’, exploratory language, where there is an assumption of shared knowledge. The value of such activity lies in the support provided by the immediate context and in the joint construction of meaning, with interactants supporting each other by elaborating, repeating, adjusting input, providing feedback, supplying relevant vocabulary, and so on. Towards the ‘more written’ end of the continuum, the learning potential changes. With the shift to a slower pace comes the opportunity to reflect on language use. There is now time to think, to consolidate, to research unfamiliar territory, to develop sustained arguments, to consider the audience’s needs, and to manage the organisation of extended texts. And as a reader, there is the time to read and re-read, to make connections, to work out obscure meanings, and, in the case of multimodal texts, to study the composition of the visual elements and to examine the relationship between the images and the accompanying text.

Figure 13.1 maps the use of various technologies along the mode continuum. There is, of course, no strict correlation between medium and mode. Emails, for example, can be quite ‘spoken-like’. However, it
enables us to see how various technologies can contribute to different kinds of learning depending on where their use falls on the continuum.

### 13.2 Enabling interaction

At the 'most spoken' end of the continuum we find oral interaction. Current language-learning theory stresses the role of collaborative dialogue in language learning (Gass 1997; Swain 2000). Traditionally, this has meant face-to-face oral exchanges. This has posed dilemmas for many classrooms in terms of time constraints and the availability of proficient speakers as interactants. Recent advances in technology, however, have forced a rethink. We now have the capability of interacting in a variety of modes and media at the spoken end of the continuum, even though they might not always involve the physical act of speaking. Here we will note a few of these opportunities for interaction.

#### 13.2.1 Oral interaction

The design of many digital activities invites face-to-face interactivity around problem-solving tasks in the classroom. Learners typically become so engrossed in achieving the objectives that they put aside their inhibitions around producing accurate sentences and instead push their boundaries in their attempts to make themselves understood.

Modern technology, however, also allows for oral interaction without being physically face-to-face, as in the use of Voice over Internet Protocol (VoIP) applications such as Skype, Tokbox videocall, ooVoo and Polycom systems. Each of these technologies enables voice communications to be transmitted via the Internet through use of a broadband connection and a computer with a microphone and a webcam. Whereas previously telephone conversations and videoconferences were prohibitively expensive and impractical, VoIP and Skype allow for cheap (or free) local and international interactions between individuals or groups.

With a whole class it is possible to project images onto a full screen and pass the microphone around to allow individuals to talk with a guest speaker. Despite certain security issues such as susceptibility to hackers and the fact that the technology is still relatively primitive in terms of its visual quality, teachers are using these technologies to promote interaction in a variety of innovative ways:

- for homework hotlines
- for conferencing with e-pals
- for connecting students from different schools who are preparing for a combined arts festival or vacation camp or immersion visit
- for groups of students participating in cultural exchange activities, talking about, for example, what they eat for lunch or their artwork or dramatisations they have prepared
- for linking students with experts in their field (e.g. medical students being interviewed by secondary students; authors being interviewed by students who are reading their novels).

The following anecdote provides an idea of how Skype is being used in classrooms:

> I was walking down the corridor, when I passed a year nine boy carrying a box with straw in. When I looked to see what he had, it was a blue-tongued lizard. So, I suggested he see if he could be dismissed from his usual class for 10 mins or so, as we were about to Skype with Korea Uijeongbu Science HS again.

> As we logged on, Nat came in with the lizard. So we were able to show our friends in Korea the lizard, which is an Australian animal, by placing him up to our small web cam. The Korean students could actually see the little blue tongue poking in and out.

> Next, our students asked what the weather was today, and the reply was that it was snowing. To our amazement, they took their camera to the window and we could see a school yard of beautiful snow falls complete with a Korean sweeping the snow with his sick type broom. It was simply amazing!!! We do not get snow at Hawkesdale.

> Another question posed to us was 'do we play cricket'. Cricket!!!! What a question! Of course we play cricket. One of the girls tried to describe the game but it was difficult, so she went off, collected a cricket ball, stumps and bat and demonstrated a game of cricket in the library. The questions soon came about the ball – was it soft or heavy etc. Students lost their nervousness with each other and the self-activated education flowed. Of course, we then had to get a meat pie – one of our favourite foods and show it to the camera. It is also difficult to describe verbally but is reasonably obvious visually (at least looks, shape etc, is). ‘Is it sweet?’, one student asked. Korean students then were able to show us their mobile phones. Next they lined up with their uniforms, which were beautifully tailored and we showed them our summer uniforms via the camera.

The electronic delivery of materials

Another example of a Skype project is Around the World with 80 Schools, initiated by an elementary school in Jacksonville, Florida that took on the challenge to circle the globe, connecting with at least 80 schools in different countries and continents: http://aroundtheworldwith80schools.wikispaces.com/

Other useful sites\(^1\) include:

http://skypeschools.pbworks.com/


13.2.2 Interacting in simulated environments

Virtual worlds such as Second Life (a parallel ‘society’ accessed through the Internet) provide opportunities for interaction in a three-dimensional space populated by a wide variety of residents who take on new identities and create an alternative existence. Whilst not specifically designed as a language-learning resource, it does nevertheless provide the potential for interaction within a realistic, social, immersive setting that has the capacity to support learners in their attempts to construct meaning.

The British Council, for example, has created an island within Teen Second Life which is a self-access centre geared towards the learning of English in an environment that appeals to tech-savvy young people. It simulates a visit to the UK and includes interactive learning activities, games, treasure hunts and quests based on UK culture. In this environment students can explore, meet others and participate in individual and group activities.

An online language school, Avatar English (www.avatarlanguages.com/home.php?lang=en), combines Second Life with Skype and other online teaching tools which allow learners and the teacher to work together on the same activity. Classes take place in custom-built virtual classrooms that reflect the theme of the classes, such as airports, markets, banks and cinemas. Similarly, sites such as Languagelab simulate a city where language learners can engage in activities such as checking in at the airport, visiting an art museum or visiting a business centre to give a presentation.

\(^1\) Throughout the chapter the URLs of various sites have been included to provide examples. We recognise, however, that there is rapid change on the Internet and the sites can become dated or even disappear. In this case, a search engine such as Google can be used to locate similar sites on the topic of interest.

13.2.3 Interacting through writing

Moving along the mode continuum we find interactions which mimic oral conversations but which employ the written mode, using instant messaging applications such as Short Message Service (SMS), ICQ (a homophone for the phrase ‘I seek you’), Twitter and Google Talk.
The electronic delivery of materials

Each of these enables the transmission of short typed messages: SMS enables messages to be shared between mobile devices (such as mobile telephones), the Internet enables instant messaging through applications such as ICQ and Google Talk, and Twitter is a social networking service that enables users to send and receive messages referred to as ‘tweets’. Although the interactions are now written, they nevertheless have the characteristics of language at the more spoken end of the continuum. They are typically spontaneous, jointly constructed and located in the ‘here and now’. They differ, however, in the fact that the interactants don’t share the same physical space and that oral cues such as intonation and facial expressions are not available. This puts extra demands on second language learners as they do not have support from the immediate context – though on the other hand they are able to relax and reflect in the protection of greater anonymity.

Whereas texting generally involves short private messages between individuals often in real time, twitting is a microblogging service where messages of less than 140 characters (‘tweets’) are shared publicly. Language teachers have been quick on the uptake of this resource, such as projects involving e-twinning, where tweets are exchanged in multiple languages between sister institutions in a ‘twinned’ relationship, as in the exchanges between students of English and Italian in the USA and Italy in Figure 13.4.

The value of instant messaging for language learning lies in the rapidity, volume and authenticity of the interactions. The repetitiveness nature of the messages and their use of rather elementary structures and vocabulary, however, present a limitation for the more advanced learner.

Chat rooms often enable somewhat fuller conversations. These are social spaces where a number of participants interact socially around common interests or engage in playing games. Many language teachers have embraced the use of chat as an effective communication tool. The speed of chat presents opportunity for short, spontaneous exchanges. Systems such as AOL Instant Messenger or MSN Messenger allow the creation of ‘buddy lists’ – groupings of participants from different countries or social contexts who interact on a frequent basis generally in real time. Opportunities for the addition of voice and video options for communication increase the possibilities for instant messaging to support language learners.

Compared with the more nimble twitting, texting and chatting, tools such as email and listservs can appear somewhat ponderous and clumsy. Whilst the interaction is generally less immediate, they do lend themselves to more extended, considered responses of the type we would find towards the middle of the mode continuum, where there is still a degree of interactivity but the texts are often (though not always) longer and more reflective. In language learning, there is still a place for these more leisurely interactions which allow time for more careful structuring of responses, more elaborated sentences, the extension of vocabulary through the use of dictionaries and thesauri, and the more careful attention to interpersonal choices.

13.2.4 Interacting with non-human partners

Whilst natural interaction in authentic contexts represents the preferred option for language learning, it is often the case that this does not provide the kind of intensive, sustained practice needed to consolidate learning. To this end, extensive work in artificial intelligence has been undertaken in developing adaptive and responsive iCALL (intelligent CALL) programs using automatic speech recognition (ASR). Whilst some programs simply give feedback on pronunciation and syntax, others enable interaction with a ‘patient tutor’ as part of a self-directed learning program such as Jabberwacky. One such resource is a ‘chatterbot’ (‘bot’ being short for ‘robot’), designed to simulate an intelligent conversation with a human user through both typed input and synthesised speech.

The advantages include that they can be used anywhere at any time, they are generally free or cheap, they engender confidence, they can ‘converse’ on a wide range of topics and engage in lengthy interactions, and they can take on ‘personalities’ and learn as they interact, ensuring novelty. Jabberwacky, for example, learns from every interaction and adjusts to its interactants. A transcript of conversations can be produced so that learners can return to their chat sessions and self-assess.

In their current state, however, such tools are more of a novelty and most useful for advanced learners. The technology is very much in its infancy and chatterbots are incapable of providing the kind of contingent microscaffolding that teachers provide to learners.
13.3 Speaking and pronunciation

For those learners who want to improve their speaking skills there are numerous software applications and programs available that encourage multiple revisits of specific sounds and intonation patterns.

Software applications such as GarageBand provide opportunities for voice to be recorded, listened to and waveforms analysed. For example, a teacher (or other proficient language user) can record their voice on one of the available tracks. Students can then record their own voice on another track as they repeat and emulate the spoken language model provided on the first track. Comparing these tracks through the ‘Audio Region’ function enables the learner to analyse the two samples through the visual representation provided as they investigate similarities and differences between the two samples (see Figure 13.6).

A useful website from Cambridge University Press (Figure 13.7) presents entertaining animations to reinforce individual phonemes and sound patterns. If you click on the Word Stress button, for example, the word is pronounced whilst the stressed syllable of the written word becomes emboldened and expands. When a sentence is read aloud, the written text rises and falls to indicate the intonation contours. Animated cartoons illustrate particular sounds.

For detailed work on phonemes, a website designed by the University of Iowa allows you to select sounds according to their manner of articulation, their place of articulation or their voice quality. Once you have

chosen a specific sound, you are provided with an animated diagram of the mouth demonstrating exactly how the sound is made along with a video of someone actually saying the sound (see Figure 13.8).

Whilst recognising the role of listening as part of an interactive exchange, it is sometimes useful to be able to treat listening as a discrete skill, providing our students with practice in purposeful attention to oral input. Attentive listening is an area that often has been relatively neglected. With the current abundance of online listening materials, however, it has started to gain increased prominence. Resources available electronically include both oral input and multimodal input (involving audio and visual material).

A major source of listening materials is made available through podcasting – the process of delivering content to an individual’s computer or mobile device via an automated download through the Internet. Podcasts can take one of three forms:

1. Audio-based content (a sound file)
2. Enhanced content (inclusive of audio, visuals and text)
3. Video (often referred to as a vodcast)

The phenomenon of podcasting has quickly become a powerful tool in contemporary society. Language-focused podcasts are the most popular
form of educational podcast (Apple.com/iTunes, July 2009). These free podcasts present a range of opportunities for learners to engage with listening experiences. Once a podcast library has been sourced and initially subscribed to, RSS (Really Simple Syndication) feeds update the computer or mobile device as new content is added to the library.

Oral input presented as audio files focuses the language learner attending to the sound stream. The inclusion of both audio and visual elements (for example through still images or video clips) enables the learner to use contextual cues to support comprehension. Opportunities to both access and create these texts present potentially rich learning experiences for language learners.

The accessibility of video clips has increased enormously with the advent of Web 2.0 applications used on such sites as YouTube, MySpace and Google Video, and due to the ease of uploading video material recorded using digital cameras, PDA (Personal Digital Assistant, also referred to as a palmtop computer) webcams or even cell phones.

Without any prompting from teachers, learners are spending hours learning themselves in videos covering a huge range of authentic subject matter. Many of them engage in interactions around the
videos, posting their brief responses in the comment box. Apart from the video clips available on YouTube and similar sites, streaming video of many television programs is now freely available—a source of much more predictable and professional video material. The SCOLA website, for example, provides access to over 100 edited television programs in 95 different languages along with transcripts and English translations.

Apart from readily available audio and video material that learners access primarily from the Internet in their 'raw' state, there are listening materials that are structured specifically for language learners, using audiovisual content that is either authentic, semi-authentic (i.e., modified or simplified) or custom-made.

Some instructors, for example, create their own video activities on specific topics to share with their students, using video editing tools such as Jumppcut or Videoegg (Windows) or iMovie (Macintosh). To assist students to deal with listening to native speakers interacting at normal speaking rates and using authentic language, support can be provided through captions, vocabulary activities, annotations and transcripts. Victory Author, for example, from Purdue University provides templates for creating video-based lessons that include interactive exercises. Also, students can be encouraged to create their own videos for sharing with others. These might include projects they have completed, musical items or dramatisations.

For those who feel daunted by the time-consuming process of preparing video materials, there are language immersion sites such as Yabla, which provide authentic television, music videos, drama, interviews, and travel videos which can be used in slow play with integrated dictionaries, listening games and dual language subtitles.

The Virtex project (www.worldenough.net/virtex/) uses digital video clips depicting real-life scenarios to prepare foreign language students for work placements in hotels and catering. The students watch repeated replays of a conversational exchange or an on-the-job interaction. After watching the video, the students can access background information, transcripts, learning tips, isolated audio playback, cultural notes or lists of idiomatic expressions. Students are then asked to answer questions relating to the specific information in the video.

The BBC website also provides an abundance of video material both from its own archives and created specifically for language learners and teachers. The series called Six Minute English takes a current news item and reworks it for learners of English, including comprehension activities and audio podcasts that can be downloaded for listening at leisure. There is also a series on Academic Listening that introduces students to the skills involved in listening to lectures for specific information.

Robin (2007) makes a distinction between the kinds of 'pre-packaged' resources mentioned above (where students are reliant on audiovisual materials developed by instructors or companies) and the wealth of 'unpacked' resources readily available through sites such as YouTube. Rather than restricting students to the pre-packaged resources, Robin argues that students should be taught to exploit the potential of the unpackaged material by learning to deploy those user-controlled technological devices that currently support mainstream listening and viewing, such as repeated audio/video delivery, slowed speed, links to related texts and images, chunking, textual and pictorial glossing aids, captioning, scripts and translation bots (web robots’ that perform specific tasks on the Internet).

13.4 Reading

One of the most obvious benefits of the Internet for language teachers is the unprecedented access to a copious supply of authentic reading material such as newspaper reports, stories, recipes; craft activities, geographic information and journal articles. Whilst these can be engaging and motivating, they can also pose comprehension problems for the language learner, particularly the more dense and abstract texts at the written end of the mode continuum.
The electronic delivery of materials

A major obstacle to reading comprehension is encountering unknown vocabulary items. New technologies, however, provide a number of supports for the reader that were not previously so readily available during the reading process. Using the online program WordChamp, for example, you can insert a reading passage (or a URL) into a text box and then roll the cursor over any word, activating a pop-up with a definition of that word in any selected language and an audio clip pronouncing the word. Using a search facility, examples of the word from literary texts are provided to illustrate the item in use. Similarly, the Academic Word List Highlighter allows you to enter a text which is then analysed, displaying in bold all the common academic words, enabling the reader to focus on frequently encountered words from academic contexts.

Visual elements in multimodal texts provide considerable support for the reader in comprehending the verbal text. Photos, illustrations, maps and diagrams of various kinds offer visual cues, allowing the reader to make informed guesses about the meaning of unknown words. They also make available rich sources of information on culturally embedded concepts and practices.

Various software programs provide support by the inclusion of aural cues. The reader can select a sound track to accompany the written text. This can be stopped, repeated or slowed down at any point. The sound clip plays, it is often possible to have the text highlighted in time with the spoken words.

It is often the case that readers need assistance in reading complex images and diagrams. Here animations can be used to access the visual information. A dense diagram, for example, can be built up incrementally, so that the reader can understand how the various parts of the diagram relate to each other. Magnifications can zoom in and out, highlighting particular features. Timelines can unfold to represent a series of events. Animated processes can explain how something works.

Apart from making texts more accessible, technology can be used to teach students strategies for comprehension, enabling them to become more independent readers and to engage in deep processing. Roll-over prompts can be inserted into the text at key points, for example, encouraging the reader to predict, or to guess from context, or to use skimming and scanning skills, or to attend to topic sentences, or to refer to a relevant image. Use of such tools, in connection with strong pedagogical practices, can support students in achieving the deep processing of information. Similarly, questions can be inserted in the text to raise students’ critical awareness: ‘how does the use of this word affect your perception of the issue?’ ‘why did the writer choose to use perhaps here?’ ‘whose perspective is being privileged at this point?’ ‘who is excluded from this image?’ The value of such rollovers lies in their immediacy and their embeddedness in the context, modelling for the learners the kinds of questions they themselves could be asking.

13.5 Writing and composing

Moving along the mode continuum towards the more ‘written’ end, beyond the spoken-like texting and twittering, we find writing of a more sustained, reflective nature, where greater attention is paid to the composing process.

Sitting around the mid-point of the continuum, we might locate discussion forums, which provide an avenue for learners to communicate meaningfully with peers and teachers. Discussion forums enable synchronous group exchanges, and they maintain automatically a log of all messages in a threaded, hierarchical structure. Discussion forums are often seen as an equalising tool, which encourage universal participation in discussion compared to face-to-face dialogue. There is a range of software applications available to facilitate online discussion forums (such as WebCourse, WebCT, Blackboard and WebCrossing).

In a similar vein, we have the more recent phenomenon of blogging. Blogs (or web logs) are essentially online journals. Webpages are authored with writers able to use hypertext to connect their own text to what others have written or to resources on the Web. A comment button typically follows a blog entry. This enables readers to compose a response, which is then logged and linked, along with all other comments, into the original text. Whilst most blogs are created and managed by individuals, group blogs are also possible as blogs are linked and cross-linked to create larger online communities. Although not necessarily the case, blogs tend to offer more considered views, dealing with an issue at some length. Writers tend to spend some time thinking about how to present their viewpoint and how to engage with prospective respondents. The development of the blog becomes a collaborative process, with authorship distributed amongst several interactants, in ways that writing in hard copy could never achieve. For the language learner, blogging provides an opportunity to participate in the composing process without the pressure to produce a whole text independently. Language learners could utilise a personal blog, linked to a course, as an electronic portfolio to demonstrate development over time. Sun (2009) found that students perceived blogging as a means of learning, self-presentation, information exchange and social networking and that they foster extensive practice,
learning motivation, authorship and development of learning strategies. The following sites provide useful examples of blogs:

www.blogs.com/ropten/top-10-language-learning-blogs/
www.transparent.com/arabic/
http://chinesequest.blogspot.com/index.html
www.transparent.com/irish/

Likewise, wikis (a website with interlinked pages that can be easily edited) allow for multiple writers to contribute towards the development of a text. In this case it is not a matter of responding to issues raised, as in blogging, but of jointly working on the construction of a text, generally providing information on a particular area of interest. Writing within a wiki enables authors to create, share and edit text on a series of interconnected webpages. Wikis feature loosely structured sets of pages, which are linked in multiple ways to each other and to internet resources. They contain an open-editing system in which anyone can edit any page using simple formatting commands (similar to word processing software). The goal of wiki sites is to become a shared repository of knowledge, with the knowledge base expanding but becoming more refined over time. In Wikipedia, for example, anyone can initiate a text on any topic. Others can then amend the details of the text or add further information. Again, the individual writer is relieved of taking responsibility for the whole text but can still experience what is involved in the writing process: researching the information, considering how best to communicate that information, selecting appropriate vocabulary, thinking about the audience and purpose, and so on.

Some useful wiki resources include:

Wikispaces – www.wikispaces.com
PB wiki – http://pbwiki.com
WetPaint – www.wetpaint.com
Stikipad – http://stikipad.com
OttoWiki – www.ottowiki.com

A common environment for telecollaboration is webquests or enquiry-oriented study, where learners undertake online research tasks involving advanced word processing skills, desktop publishing, authoring webpages, the creation and use of templates and the production of video, resulting in a multimedia composition which can be shared online with peers, parents, assessors and the general public (http://webquest.org/index.php provides an introduction to webquests). One such initiative is the Flat Classrooms Project, where students from the USA, Qatar, Oman, Spain and Australia participated in a range of projects including such topics as The New Age of Connectivity, The Changing Shape of Information, Google Takes Over the World, and Social Networking, culminating in a virtual global student summit (http://flatclassroom project2008.wikispaces.com/Topics). Using wikis and videos, students from the different schools collaborated in responding to questions such as: where will this trend take us? How do you envision the future? Do you think this trend will be replaced by another? What inventions are needed because of this trend? Collaborative projects can be stimulating contexts for deep learning of substantial content; however, they require a great deal of organisation and management. And there is the danger that the time spent on learning to use the tools and constructing the multimodal elements could outweigh the language-learning outcomes.

Whilst new technologies encourage the joint authoring of texts and interactivity between the modes ('reading to write and writing to read'), one of the greatest challenges for language learners is to independently write the kinds of extended, individually authored texts valued in academic contexts which are located firmly at the reflective, 'highly written' end of the mode continuum. Even though the composing of sustained written texts is typically a solitary, private activity, digital technologies can assist in various ways. Spelling and grammar checks and the availability of an online thesaurus have made the writing process much more efficient. Such tools, however, do not address issues concerned with the construction of meaning, the overall organisation of the text and appropriate register choices. This is where tools such as 'track changes' and 'insert comments' can allow instructors and peers to give relevant, timely feedback on such matters in electronic form. As an alternative, learners can be provided with repositories of model texts, with animations demonstrating how such texts are organised to achieve their purpose and with language features highlighted that are characteristic of such genres. A similar approach was adopted by the Bridges to China project (Brown 2005) where self-assessment was facilitated by annotated samples of learner-produced texts, elucidating both the criteria for judging performance and the standards expected. Writefix (www.writefix.com/) also models text organisation, paragraphing and transition words.

13.6 Grammar and vocabulary

Whilst there is a place for grammar and vocabulary exercises, it has to be said that there is a great deal of poorly designed material on the Internet and teachers and students are well advised to exercise care.
The electronic delivery of materials

In the selection of web resources we would encourage consideration of the following:

- Who has created the resource?
- Who is the resource intended for?
- What is the underpinning grammatical theory?
- How accurate are any supporting notes that are provided?

Much of the material is simply textbook drills transposed online. Chapelle and Jamieson (2008: 41) caution that grammar activities presented on many websites ‘are rather limited, as context is often at sentence level and practice is often in the form of recognition [instead of meaningful production]’.

There are some activities, however, which do exploit the potential of digital technology to a certain extent. Scootle (www.scootle.edu.au/ccc/pr/home, accessible in Australia only), for example, hosts some 8,000 digital learning resources, many of which have been created for language learning. In one learning object learners watch an animated story and then have to recreate the text by rearranging scrambled sentences, concurrently learning to recognise the grammatical categories involved (e.g., Who? Did what? Where?). The student then uses a simple ‘drag and drop’ technique to select and insert vocabulary items from a word bank to enhance the otherwise bland text (see Figure 13.11).

The BBC news website has a number of vocabulary activities based on current news stories (see Figure 13.12).

One area in which digital technology has been used to achieve previously impossible outcomes in relation to vocabulary and syntax is the development of language corpora – huge collections of texts assembled in a database that can be searched in a variety of ways. The Collins WordbanksOnline English corpus sampler (www.collins.co.uk/Corpus/CorpusSearch.aspx), for example, is composed of 56 million words of contemporary written and spoken text from British and American books, radio broadcasts, newspapers, magazines and transcribed speech. By using a concordancing tool, it is possible to retrieve innumerable examples of any particular word together with its immediate context. If, for example, you want to see what anxious is typically preceded or followed by, you might be provided with the examples in Figure 13.13.

The learner can thus see that you can become, get, or be anxious, that the degree of anxiety can be indicated by really, fairly, a bit, very, too, quite, sort of and absolutely, and that anxious can be followed by about, to and that constructions. Concordancers can provide instructors with a wealth of examples of authentic vocabulary used in context along with the words or structures with which they are typically
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associated, providing the basis for exploratory, constructivist learning activities investigating how language is actually used by native speakers. Lextutor (www.lextutor.ca/concordancers/concord_e.html) offers similar concordancing resources but also includes a dictionary, a cloze building device, hypertext links and a database with an interactive self-quizzing feature.

Further information on concordancing can be found in Chapter 2 of this volume by Randi Reppen, in Chapter 3 by Jane Willis and at:


13.7 Integrated learning environments

So far we have dealt with the macroskills independently of each other and with the various digital resources as relatively discrete phenomena. It is important to note, however, the ways in which these are brought together in a single online context.

Social networking sites such as Facebook and MySpace, for example, provide opportunities for motivated, authentic interaction and allow input through a variety of media (video, photos, audio). Such sites, however, are generally relatively limited in terms of providing substantial content, so sites designed specifically for language learning have been developed. These use integrative learning management systems (or personal learning environments) where students are provided with a range of tools, applications and activities in a single context which they can utilise with varying degrees of flexibility and independence, making for a richer language-learning experience, particularly when the various media support each other. Examples of such sites include Moodle (a virtual learning environment that provides access to highly collaborative communities of learning, forums, wikis, databases, quizzes and so on) and Livemocha (a social network service with three million members, which seeks to build an engaged global language community, where learners support each other through peer tutoring, along with more structured reading, listening, writing and speaking exercises). For teachers who prefer their students to interact within a closed social network site, they can use an application such as Ning – a site that allows you to create your own customised social network on which members can post discussion items, blogs, photos and videos. Rather than being limited to the categories of any ‘pre-packaged’ social networking site, teachers and students can create their own sites based on the interests of their specific learning community.

13.8 Pedagogical considerations

In considering the use of electronic materials and learning environments, teachers should bear in mind:

- how the electronic material fits with the aims, outcomes and objectives of the proposed learning experience;
- Why am I using this material?
- What connections can I make between the electronic material and curriculum expectations?
- connections between the electronic material and learning theory;
- How does the resource match my beliefs about language learning?
- connections between the electronic materials and student learning needs;
- How will my students engage with the resource?
- How does it support identified learning needs?
- specific pedagogical practices needed to support the use of the electronic material during the language teaching and learning experience;
- What information, skills and strategies do the students need to engage with the material?
- What explicit modelling and scaffolding of the necessary knowledge, skills and strategies do I need to offer?
The electronic delivery of materials

- How will they be able to analyse, interpret, synthesise and evaluate the input provided by the electronic material?

The electronic materials available to support language teaching continue to change and expand. What is critical, though, is that teachers have a clear rationale for the use of any materials within teaching and learning experiences.

13.9 The potential of electronic materials to transform teaching and learning

We have seen that there is a plethora of digital resources available to language teachers and learners. In this chapter we have sampled a few of these in terms of how they might be incorporated into language programs as we currently know them. The challenge, however, is not to see digital resources as ‘add-ons’ but to understand how profoundly they are changing the very nature of teaching and learning, bringing about new ways of knowing and, indeed, new ways of being. Kress (2003: 16) sees these new modes as ‘governed by distinct logics [which] change not only the deeper meanings of textual forms but also the structures of ideas, of conceptual arrangements, and of the structures of our knowledge’. Not so long ago, for example, language teachers would have needed a room to accommodate their language laboratory, desktop computer, digital camera, camcorder, CD library, radio, television, tape recorder, microphones, sound system, telephone, textbooks, dictionaries and game activities. These – and more – are now converged into a single mobile device from which our students are inseparable, promoting nomadic or ‘anytime, anywhere’ language learning (see Chinnery 2006 and Godwin-Jones 2008). The boundaries between life activities and school continue to blur, as do the boundaries between mediated and unmediated learning. Literacy practices have undergone rapid changes with the advent of digital technologies, disrupting notions of authorship, authority, audience and text genre (Warschauer 2004). Jewitt (2003) argues that, with every new technology, new kinds of texts emerge that call into question what it means to be literate, whilst Lankshear and Knobel (2006) foresee the emergence of radically different social and cultural relations brought about by new technologies. Such developments demand that we remain open to the potential of such technologies whilst critically evaluating their pedagogical benefits.

References


