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Web-based language class activities: contexts of uses and background methodologies

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Abstract

Over the past two decades, a growing number of educational researchers have studied the benefits of using information and communication technologies (ICT). Research on Computer-Assisted Language Learning, mostly foreign language learning, shows that the use of ICT is beneficial to the development of learners' competences. This paper presents the preliminary results of an ongoing research on this topic. Building on a brief review of the literature and the analysis of lesson plans of Portuguese language teachers, this study argues that ICT are mainly used to support traditional methodological approaches, contrasting with the learner-centred ones encouraged by recent research on the topic.

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1. Introduction

In recent years, there have been some changes in the Portuguese Language National Curriculum. Both mother tongue and foreign language syllabuses today are task-based oriented, focused on the development of competences and more interested in processes than in products.

On the other hand, the Technological Plan for Education (TPE), which was approved by the Portuguese government in 2007, has aimed to modernise elementary and secondary schools by investing considerably in technological infrastructures, in connecting schools to the Internet, in promoting the use of computer-assisted language learning (CALL) strategies, Course Management Systems (CMC) such as Moodle, etc. (TPE; Alves et al, 2012). Moreover, we have witnessed a generalised use of web tools to support class activities. Teachers plan their language classes building not only on textbooks, authentic documents found in newspapers and other printed material, CDs and DVDs, but also on audio recordings, podcasts, video clips or short movies, texts and images they look up on the Internet.

This paper presents the main results of on-going research about Learning and Teaching with Web-based tools on Language Classes. The aim is to understand how the teachers integrate web-based tools in the teaching and learning process in the context of Portuguese language classes.

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2. Integration of Web based tools on language classes

2.1. Social and educational contexts

In recent years, language education has shifted from a teacher-centred and instruction-based approach to one that is student-centred and task-based (Richards, 1985; Nunan, 1989, 2004; Candlin & Mercer, 2001; Cuq & Gruca, 2002; Figueiredo, 2004; Lomas, 2003; Cabral, 2010; *Common European Framework for Languages: learning, Teaching, Assessment*). Students are required to engage in prepared authentic situations of communication, where they have to acquire and develop a limited number of language competences and skills per level of proficiency. At the same time, digital technologies have greatly increased, entering progressively, and almost naturally, in all social spheres. In fact, “the repercussions touch our lives in our home, our workplace, our schools, even in our leisure activities. Language teaching has evolved in concert” (Desjardins & Peters, 2007, p. 3).

Recent survey research on the use of technology by people under 20 years old shows that they use it to “communicate with friends through instant messaging, download music to their iPods and MP3 players, hang out on MySpace [and Facebook], surf the Web, and meet friends online” (Solomon & Schrun, 2007, p. 26). We can add that, nowadays, they also search the Web for their learning activities. According to an American survey cited by Solomon and Schrun (2007), students “are setting trends with their use of technology both in school and out of school”; “communication is a key motivator for students and drives their use of technology for learning and for personal use”; and they are “strong believers in the power of technology to enrich their learning experiences” (p. 27). Even if, until recently, this enquiry did not exist to the same extent in Portugal, we can state that Portuguese students should not be considered different, especially since the implementation of the TPE, which has given them access to netbooks and mobile Internet at more affordable prices, and since progress in smartphone technology has made it possible to be permanently wired to the Internet.

For present-day students, technology is not an extra; rather, it is a natural way of getting information and staying connected to friends and teachers. Prensky (2001) includes them in the digital natives group, defending a generation gap between students and instructors, who are categorised as digital immigrants (p. 1). For Prensky (2001), students today “are no longer the people our educational system was designed to teach”; they represent “the first generation to grow up” surrounded by technology; they “think and process information fundamentally differently from their predecessors”; and “our students today are all native speakers of the digital language of computers, video games and the Internet” (p. 1). On the other hand, the digital immigrants are the instructors, who can learn and adapt to this new environment, but retain some past practices and mix them with the new ones (e.g. print emails, SMS to ensure that someone received and read an email, print articles to read them). Recent researches also demonstrate that some teachers “feel their status is threatened because they find themselves in a situation where the pupil is more skilled and knowledgeable than they are” (Morris, 2010, p. 144). This generation gap can also be extended to teaching and learning activities. In fact, “today students know that they are tech-savvy and report that their schools are not. Schools are still more text-dominated and do not integrate technology into students learning effectively” (Solomon & Schrun, 2007, p. 31). The goal of the Portuguese TPE was to transform schools by giving them the necessary infrastructures to integrate technology in the teaching and learning processes. However, that does not mean that these processes are really changing, since “the effective integration of ICTs into the educational system, particularly, the in-class performance, is a complex process that involves a reconfiguration of the curricula, the pedagogical method and other less visible aspects” (Alves et al, 2012, p. 1802).

2.2. What kind of technologies, and for what purposes

Aviram and Talmi (2005) describe two different approaches concerning the use of technology in educational contexts. The first, called *disciplinary form*, considers ICTs as a subject to be taught and learnt, as a separate subject in schools, where students learn to work with ICTs. The second approach, the *integrative form*, views ICTs as a part of the curriculum, which means that they are integrated in many different school subjects. In recent years in Portugal, we have alternated a couple of times between the two approaches. Since the implementation of the TPE, secondary school students have had a specific subject on ICT, whereas primary and middle school students have had ICT integrated in other subjects as tutorships or project areas. Nowadays, there is growing pressure again to separate

ICTs from other subjects in middle schools. Nevertheless, the teachers can always use and integrate ICTs in teaching and learning practices. They also need to understand that technologies give them the possibility to access digital resources for the language class. It is certainly not a new teaching method, but a way of creating collaborative and dynamic learning environments. Internet offers a great number of resources to support teaching and learning practices in order to organise socio-constructivist, student-centred and task-based lessons. Table 1 synthesises the web 2.0 tools according to the categories of Pitler et al. (2007), which we adapt and review.

Table 1. Categories of Web-based tools for language teaching purposes

Technology Category	Definition	Competencies	Examples
Word processing applications	Application that enables the user to type and manipulate text in single or group activities.	Writing Reading	Microsoft Word, LibreOffice, Google Docs, Zoho writer
Organising and brainstorming applications	Application that enables the user to create idea maps, KWHL charts and category maps.	Writing Reading Speakink	Inspiration, SMART Ideas, Visual Mind, MindMapping, bubbl.us
Multimedia	Application that enables the user to create or access visual images, text and sound in one product.	Speaking Writing Reading Listening Content-based	iMovie, Windows Movie Maker, Adobe Photoshop, Microsoft PowerPoint, KidPix, Google Presentation, LibreOffice, Audacity, GarageBand, Flickr, Picasa; Serious Games
Web content resources	Resources available on the web that enable the user to gather information or apply or practice a concept.	Content-based	Virtual tours, Wikipedia or other encyclopedias, applets, movies, pictures, online multiple-choice questions (quiz)
Communication software	Application that enables the user to communicate via text, voice, or video-call.	Speaking Listening	VoIP, Instant messaging, social network (Facebook, Hi5, Orkut, Ning)
Cooperative & social network applications	Applications that enable the user (i) to engage in collaborative group learning activities; (ii) to share knowledge; and (iii) to publish content.	Content-based Writing	Wikis, blogs, social network, VoIP, microblogging, Bookr, Bubok, Think.com, Google Docs
Authoring tools	Software that enables the user to create an online course or on/offline activities for language classes	Speaking Writing Reading Listening Content-based	CourseLab, Hot Potatoes
Course management systems	Software that enables user to administrate, create, organise lessons plans, including post documents, exercises, etc.	Speaking Writing Reading Listening Content-based	Moodle, Edutools, Sakai

The list is certainly not exhaustive. We purposely exclude e-learning and b-learning Web-based tools in order to concentrate on activities developed by the teacher in his/her language classes, even if students can start or finish the activities as homework or as project-based work.

In the last decade, research has focused essentially on writing-based activities using blogs (e.g. Poling, 2005; Godwin-Jones, 2006; Penrod, 2007) and wikis (e.g. Leuf & Cunningham, 2001; Godwin-Jones, 2003; Arnold,

Ducate & Kost, 2009; West & West, 2009; Bota & Guerra, 2011) and, a few, on exploiting online text processors (e.g. Dekeyser & Watson, 2006; Kessler, 2009; Gamer, 2010; Guerra & Bota, 2011; Guerra, 2012) so as to demonstrate their value in the increase of collaborative learning (socio-constructivist view of education). This allows students to create, share and learn knowledge simultaneously and to acquire writing competences.

Blogs and wikis allow students to practise, in a real world writing context, stylistic, rhetorical or mechanical conventions learned in the classroom. They also provide a place to publish students' texts and to give them a real audience; genuine feedback, not only from the teacher, but also from his/her peers, family, friends, etc. In wikis, the learners work collaboratively, negotiating meanings, sharing knowledge and developing critical thinking skills.

Online text processors, like Google Docs, allow a small group to view and edit "the same document in real time. They also can discuss the work in progress through the chat room available in the same web page, i.e., there is no need to have more programs in use (MSN or Skype) and switch every time from the chat to the document" (Guerra & Bota, 2011, p. 6151).

Oral competences have recently received the same attention. Podcasts are audio files (.mp3 format) that the teachers can create with *audacity* or *GarageBand* software or using webservers like podOmatic, which contains any audio recorder provided to the students to expand their listening skills. This tool is really user-friendly. Students can hear the audio files using a computer, in the classroom or at home, or they can download them to their portable media player, listening to them at a time and place of their choosing, solving the activities provided by the teacher. In foreign language teaching, for instance, it is an effective way of giving native speakers access to different varieties of the language, of listening to different types of texts, of comparing written and oral linguistic structures and conventions, etc. (Godwin-Jones, 2005, Peckham, 2006; Rosell-Aguilar, 2009).

Instant Messaging (IM) was firstly studied as a way of practising written language. In fact, according to Daiute (2000), "communicating in cyberspace chatrooms and e-mail involves children in writing for reasons other than communicating with a teacher for or writing for its own sake. Because cyberspace audiences can respond immediately, writers there often envision more authentic reasons to write [...]" (pp. 257-258). Furthermore, they develop a metalinguistic awareness because they have to adapt the discourse and the language to the audience and to the particular context, and to think about language in order to do this. The short text message written by the student is a way of exploring different genres, because he/she has to be the more explicit as he/her can to avoid the "miscommunication due to lack of verbal and visual cues" (Yang, Gamble & Tang, 2012). Nonetheless, IM can also be used to develop speaking and conversational competences in foreign language classes. The teachers can connect his/her class to another teacher, to someone who studies the same language or to a class of native speakers in order to put his/her students in real situations of communication. For instance, *Skype* has launched a service for instructors to promote collaboration between teachers around the world, a system that allows them to find 'netpals' for the class and to encourage students to communicate in the target language (Godwin-Jones, 2005).

Consequently, the integration of these tools should permit the creation of interactive language classes, focusing on student learning activity.

3. The Research method

For this study we have used an eclectic methodology so as to obtain a deeper understanding of our phenomenon. This means that depending on the phase or data of the research, we use quantitative and/or qualitative techniques for gathering information.

3.1. The project phases

This research is organised into three phases. The first phase aims to establish *l'état de l'art*, i.e., a review of the literature on web-based tools for language teaching and learning. Concomitantly, we collect the data, teachers' lessons plans with ICT supported activities, and analyse them with quantitative methods. These are then organised into categories and in accordance with the competences they aim to develop. We explore the same activities, applying qualitative methodologies, analysing the discourse to try to understand and to detach the implicit background methodology. In a second phase, we examine the National Curriculum for Portuguese Language (NCPL), tracking references of Internet or Web-based tools to support the teaching or learning activities. This

analysis allows us to understand which methodological contexts of use the National standards privilege. This also helps us to understand whether the indications given in the NCPL influence and justify teachers' practices. Finally, we apply a survey and conduct interviews with a random group of teachers in order to gather information about their knowledge of Web-based tools and opinions they have regarding their use.

3.2. Research methodology: phase 1

For the data collection, we asked twenty-three Portuguese language teachers to share a lesson plan where technology was used as a support for teaching or learning activities. Fifteen of them responded to the call and we received a total of fifty-three lesson plans. The teachers were selected randomly in order to have different sex, age, and professional backgrounds, but all teach Portuguese as a mother tongue in middle and secondary schools. At this stage, we did not analyse the data according to these factors, due to the poor representativeness of the sample. Additionally, recent studies (Rogers, 2003; Adam, 2007) suggest that a person's age is not really a factor to take into account in terms of the aptitude to use ICT applications as educative resources. Rogers (2003) argues that the key is the "innovativeness", that means the degree to which an individual adopts technologies for personal and/or professional purposes, and new ideas sooner than other members of a system (p. 22). In fact, we are interested in investigating Web-based tools and their contexts of use *per se* and not in investigating whether a teacher who is attending a Master Program on Language Education uses ICTs differently from a teacher who finished his professional training several years ago. Moreover, all teachers have recently attended a course on the uses of the Internet in Education and they all teach in a school modernised by the TPE governmental programme.

4. Data analysis and discussion

We found a total of 91 activities with computer, Internet or Web-based tools as a support. The overall tendency among the teachers is to use PowerPoint presentations, followed by video-clips taken from the Internet (*Youtube* mostly), and audio recordings (see Figure 1). There is only one activity that requires the use of a text processor and six that require content search on the Internet. Fifteen of the reported activities have audio recordings as support. According to the teachers' lesson plans, it seems that they avoid dynamic and collaborative activities. As Alves et al. (2012), we can probably argue "ICT are mostly used as a different way to reproduce the traditional forms of teaching, where the student continues to have a more passive role in the learning process" (p. 1804).

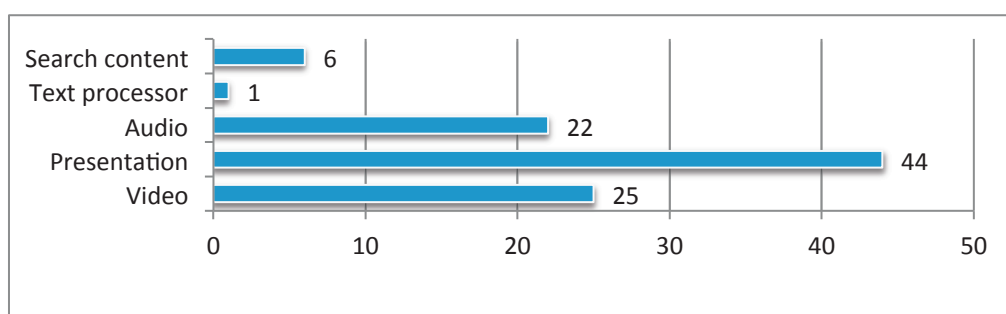


Figure 1. Web-based activities

Figure 2 helps us contextualise the use of the ICT tools according to the targeted competences. Content searches on the Internet, referred to as a small group activity on the plans, are a content-based strategy aimed at finding more information about the subject of the class. One of the activities was indicated as homework to prepare students for the next lesson. Text processor (Microsoft WordTM in this case) was used individually to write a text about the content searched earlier in small groups on the Internet.

Audio recordings are generally used for listening competences in class. The teachers used them fifteen times with this goal in mind. They asked students to listen to a podcast or to watch a *youtube* video-clip, and to fill the blanks in

a text or to take notes about the content for further discussion. The other seven audio recordings correspond to a demonstration or an exemplification. They are mostly songs, and they introduce a subject and the discussion. In a certain respect, they used it exactly the same way that teachers used CDs and audiotapes some years ago. Furthermore, even if they utilise listening competences for these types of activities, the aim is to know if students acquire the right content about a Portuguese author or literary movement and not if they develop cognitive strategies for a better understanding in listening activities.

Video-clips follow the same tendency. In five of the lesson plans, the teachers use video-clips found on the Internet to demonstrate or exemplify a topic studied in class (five of them). These video-clips include excerpts of movies or plays concerning the text they are studying. In four of the lesson plans, video-clips are used to introduce a subject and subsequent discussion, as is the case with music video-clips related to the topic of the text being studied. Sixteen of the video-clips develop listening competences. Students had to listen to and take notes about the subject in order to discuss it later. Unlike audio recording activities or reading strategies, the main goal here does not seem to be to develop listening, but to validate the information learned by students. In other words, the way the learners decode, understand, retain and assimilate the oral and visual information are not the skills to develop.

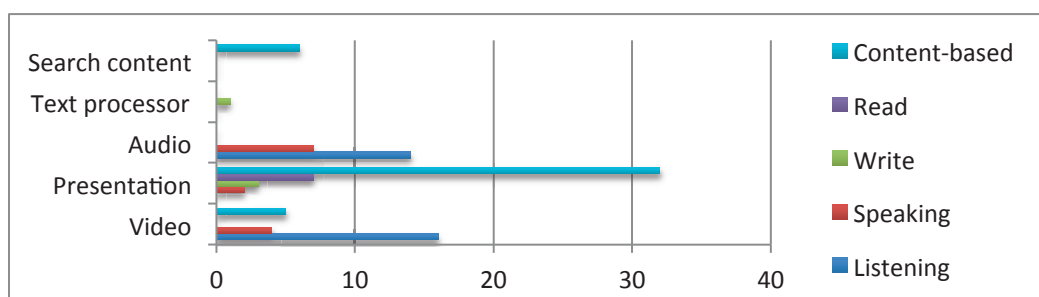


Figure 2. Web-based activities related to competences development

As we can observe in Figure 2, presentations are the ICT support most used by the teachers, with several different goals and activities aimed at working different competences. An analysis of the activity descriptions shows that some of them are not that different, even if the targeted competences are indeed different. For instance, for speaking, writing and reading, the teachers project an image (one or more than one) and ask the learner to write or to talk about it. The student conversation or exposition can be about the emotions concerning the image, the description of the picture (a painting, for instance) or the relation to the text that has either been read or is about to be read. In a class context, they serve the purpose of introducing a subject or of further exploring the subject of the text. Presentations can also be used as a support to reading activities (e.g. when teachers project an excerpt of the text to underline some of its rhetorical or structural aspects).

Presentations operate mainly as a support for the explanations given by the teacher (content-based). They substitute overhead transparencies, but have the same goals: to summarise the oral content; to give content structure; and to help students' note-taking activity (even if the file is later made available on Moodle). The content of the presentations can include grammar aspects, text structure (of a piece of news, for instance) and rhetorical characteristics of a Portuguese author or of a literary movement.

5. Conclusions and final remarks

Our results are consistent with those of other studies (e.g. Almeida, Delicado & Alves, 2008; Morris, 2010; Alves et al., 2012), which point to the “preferred tendency towards display technologies for whole class teaching [...] or the prolific use of multimedia and word processing [...]” (Morris, 2010, p. 144). Demonstration and presentation/exposition are the most common uses of ICT. In fact, we can infer from these results that dynamic activities like chat conversation, collaborative writing or serious games, for instance, are excluded. They seem to avoid all kind of cooperative and social network Web-based tools. We find some brainstorming and map-minding

activities in the plans, but they are organised on the blackboard, when they could be realised and presented through specialised web pages. Partly, these results can be explained by the conditions in which classes take place. For example, the classrooms typically only have one computer (for the teacher). However, some schools have notebooks that teachers can bring to class or ICT rooms that can be booked. The fact is that even after the implementation of the TPE, the generation gap (Prenky, 2001) is still present in our schools: the investment does not seem to be sufficient and/or the teachers' ICT training needs to be more systematic. Furthermore, Morris (2010) acknowledges that “few teachers would appear to employ a wide range of ICT applications on their teaching, and the usage is confined to only a few types “ (p. 148).

However, we have to agree with Ducate and Arnold (2006) when they state that there is need for information about “pedagogical design of CALL activities instead of a technology-driven approach” (p. vii). In fact, we can find a considerable amount of research and learning results on using ICT in classroom, but at least in Portugal and as regards mother tongue education, we find fewer practical methodological approaches to help teachers project their personal syllabuses. As noted by Zhao (2010), the existing studies are limited to a specific context, usually that of higher education, and limited to foreign language.

Finally, for further developments, we need to compare these types of practices with the recommendations of the Portuguese Language National Curriculum and with the survey and interview results, in order to understand better why they privilege ICT tools to support traditional practices of teaching instead of moving to dynamic and cooperative learning strategies.

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