6 Language learning actions in two 1x1 secondary schools in Catalonia: the case of online language resources

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Abstract

This paper identifies and describes current attitudes towards classroom digitization and digital language learning practices under the umbrella of EduCAT 1x1, the One-Laptop-Per-Child (OLPC or 1x1) initiative in place in Catalonia. We thoroughly analyze practices worked out by six language teachers and twelve Compulsory Secondary Education (CSE) students from two schools participating in a competitive research project analyzing digital literacies. Preliminary results show that at a project-based level, committed teachers find ways to innovate, use technologies efficiently and foster language learning in all skills. However, at an activity-based level, Online Language Resources (OLR) such as dictionaries, automated translation software, spelling and grammar checkers and others remain underused, if not unexplored.

Keywords: classroom digitization, 1x1 initiatives, digital language learning, online language resources.

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1. Introduction

In the context of the digital culture (Deuze, 2006), the digitized classroom may be like the same old wine in a brand-new bottle. Emerging technologies still cause technophobic or techno-deterministic attitudes (Bax, 2003). Some argue that the technological component must be normalized (Chambers & Bax, 2006) through, for instance, the integration of online language resources into language learning (Levy, 2009; Warschauer, 2009).

The competitive research project *IES2.0: Digital literacy practices*: *materials, classroom activities and online language resource* analyzes whether and how digitization has changed literacy as well as language teaching and learning practices across the curriculum (Cassany, 2013). Current lines of research a) describe technophobic and technophilic attitudes by teachers (Aliagas & Castellà, 2014), b) characterize the discourse by families against 1x1, c) analyze the norms set up by every school on how laptops must be used in the classrooms, d) explore how social networking can be used for educational purposes, and e) analyze specific aspects on how laptops can enhance language learning by means of effective informational searches or online language resources. In this sense, this paper focuses on technology-enhanced practices led by teachers of Catalan, Spanish and English in two selected schools, with special regard to how OLR, such as dictionaries, automated translation software and spelling and grammar checkers, are used in all three languages.

Research questions

- What are attitudes of teachers and students towards classroom digitization?
- Which are language learning practices led by teachers and students when in a digitized classroom?
- Which are the OLR used? How and for what purposes are they used?

2. E-learning

A report by Sangrà, Vlachopoulos, Cabrera, and Bravo (2011, p. 35) concludes that the most inclusive definition of e-learning would be a modality of teaching and learning, which may represent the whole or a part of the educational model in which it is implemented, which uses electronic means and appliances to ease the access, the evolution and the improvement of the quality of education and training.

With this definition in mind, we can easily agree that initiatives like OLPC programs are to be included into e-learning, yet with their own idiosyncratic features in front of other types of e-learning (such as long-distance e-learning), considering as well the variety of implementation formats of OLPC programs.

2.1. OLPC initiatives in Spain and Catalonia

In Spain, *Escuela 2.0* (School 2.0) was launched in 2009 and actualized under different tags depending on the region (*EduCAT 1x1* and *EduCAT 2.0* in Catalonia). From 2009 to 2012 many schools were able to set up power grids and Wi-Fi networks, and started using digital books, and, mainly, to provide every student with their own laptop. The Departments of Education of the different regions in Spain applied the program in slightly different ways. Common and divergent features are as follows (see Table 1 and Table 2).

Table 1. Common features of 1x1 programs in Spain

Technology/User	Every student has one low-performance laptop.
Network	Access to the Internet is universal.
Teaching materials	Teachers and students normally use digital books.
Information storage	Information delivery and production normally occurs through a Virtual Learning Environment (VLE), frequently Moodle.

Table 2. Common differences of 1x1 programs in Spain

Ownership	Students own the laptop, or the school owns the laptop.

Extension	The program can be implemented across the curriculum or in some selected subjects.
Level/Age	The program can be implemented in Primary (10-12 years old) or Secondary (12-16 years old) Education (CSE).
Teacher training	There is (no) specific training and/or support.

In the case of Catalonia, every student owns their laptop. The program has been implemented in CSE, but only in schools which asked submitted a specific request for it. Schools are also free to implement the program in some subjects or in all of them. And teachers report the training available to date is not enough.

2.2. Technology-enhanced language learning

In the sub-context of language e-learning, the current trend is Technology Enhanced Language Learning (TELL), successor of Computer Assisted Language Learning (CALL), and representative of what Bax (2003) named integrative CALL, where the computer is a means for learning and not the end in itself, allowing for open, creative, collaborative practices with and through computers.

Now, technologies comprise all sorts of devices includable into language learning, both in and out of the classroom. This goes contrary to a conceptualization of technologies in the language classroom, or whatever the subject, as an aid for the automatization of certain activities such as assessment, as in the case of self-corrective grids.

3. Methodology and corpus of data

The methodology we adopted is the case study (Cresswell, 2012). We center our research on two schools as representative cases, because a) both schools are 1x1 schools, b) both schools self-portrait themselves as highly technological, and c) both schools are immersed in a different reality of Catalonia; urban, middle-class, cosmopolitan area against a peri-urban, low-class area.

In-depth semi-structured interviews were conducted with teachers and students to elucidate their attitudes towards the teaching methodology adopted with technologies, the learning practices attached, and to check whether, which, and how online language resources are used in the long run.

In Table 3 and Table 4 below there is the number of informants. To read the tables, '3 (5)' would be read as three informants and five interviews conducted with those three informants. Schools and informants have been given nicknames for confidentiality reasons.

Table 3. Number of informant teachers and interviews by role or subject

Role/Subject School	Principal	Catalan	Spanish	English	Social Sciences	Math	Natural Sciences	**TOTAL**
Hope	2 (2)	3 (5)	2 (2)	1 (1)	2 (2)	1 (1)	1 (1)	**12 (14)**
Torrent	1 (1)	-	2 (2)	2 (3)	-	-	-	**5 (6)**
TOTAL	**3 (3)**	**3 (5)**	**2 (2)**	**3 (4)**	**2 (2)**	**2 (2)**	**1 (1)**	**17 (19)**

Table 4. Number of informant students and interviews by level

Students					
Year School	1y CSE	3y CSE	4y CSE	1y BAC	**TOTAL**
Hope	4 (2)	-	4 (2)	-	**8 (4)**
Torrent	-	2 (7)	2 (7)	2 (7)	**6 (28)**
TOTAL	**18 (12)**	**2 (7)**	**12 (12)**	**10 (10)**	**(41)**

4. Preliminary results and discussion

The analysis of results is at a preliminary stage. Nevertheless, some attitudes and teaching practices were identified to be representative of the teachers involved in the study.

4.1. Attitudes towards classroom digitization

Reticent attitudes were identified as derived from problems in the implementation of the program, as seen in the quote below:

> "The first problem is to study on the screen. One thing is to search for information on the computer, and another is to study. The other problem […] is that the screen conditions the contents and not otherwise, so that the lectures need to be adapted to the screens" (Rosa, teacher of Catalan) [Translated from Catalan].

Teachers and students complain largely over the quality of the digital books and manuals at their disposal. In her words, Rosa suggests that screen size limits the quality of the content of the digital books made for the purpose of e-learning and School 2.0. This impacts on a number of linguistic aspects, such as the study of text genres, as she holds that "on screens a description is rarely longer than a paragraph".

They also say that the characteristics of the computers limit the quality and outcome of learning, as simple tasks such as watching a video can cause major slowdown in the computer. Apart from digital material limitations, scarcely funded schools with some or no technical support struggle to keep up with broadband demands.

4.2. TELL practices

We have identified a number of practices which were representative as they used computers actively and beyond the mere automatization of certain features of teaching a language. In the case below, Eliseo comments on how Spanish as a first language should be taught: "to communicate and to learn to love to read and write". He explains a creative writing project:

> "In pairs [the students] had to compose a story to read during the holidays. All of the stories made by each pair were published on a blog, where

> we voted which of them should be continued. [On the blog] we edited the selected text and each pair had to continue the story in a limited amount of time under a number of parameters concerning time unit, space, characters, and so on. They used Google Docs at home; they self-organized to compose their part of the story. They sent the final draft back to me and I published it on the blog for the whole classroom. The pair of students who would write the end of the story were the ones who started it, and they had to title it. […] In the end, we held a debate over the text, if we had respected the initial plot or not, who had introduced new characters, who had driven away from the plot, who had abandoned some character, who had created troubling components which added nothing to the text" (Eliseo, teacher of Spanish) [Translated from Spanish].

Other cases of innovative and leading projects in language learning were also identified, namely projects concerning augmented reality in English as a foreign language, or the use of social networking as a means for language learning. However, we have not seen school-wide innovative learning projects, as they tend to be teacher-driven, even if School 2.0 is conceived as a learning philosophy for the whole academic institution implementing it.

4.3. Online language resources

In contrast with larger projects led by innovative teachers, daily classroom activities seem to be less imaginative and productive. Teachers are aware of the need students have to know how to use OLR, yet they tend to give little or no instruction. This instruction is usually rather intuitive, and the range of OLR known by them and taught to the students is rather limited. Eliseo's quote is an example of how OLR are seen:

> "I never correct students' spelling mistakes by giving the correct answer. I merely underline it and they are responsible for correcting it. […] They need to make use of the resources [he refers to dictionaries such as DRAE and WordReference, to Wikipedia and spelling and grammar checkers] to find out and correct it. [Have you ever taught these resources

> in some way?] Of course, I taught them all in the 1st year of CSE. All of the students can use them. […] For instance, the grammatical aspect of whether "pálido" [pale in Spanish] is an adjective. What do I do? [I tell them:] "the DRAE has it and besides that, please read the meaning" (Eliseo, teacher of Spanish) [Translated from Spanish].

He assures he teaches OLR, yet the example he gives as to how he teaches them is poor and leaves the students with a number of unknown features present in the dictionary. No teacher in the cases studied has reported any OLR-oriented activity. So, besides further training, other resources could be added for specific linguistic needs. A whole set of types of dictionaries (by language, by search functions, etc.), a range of useful spell and grammar checkers, basic automated machine translation software, and possibly parsers, conjugation software and text corpora in higher levels. Depending on the linguistic context and purpose, different text-based activities should be designed for each set of OLR.

5. Concluding remarks

A number of preliminary conclusions can be extracted from this ongoing research:

- School 2.0 and OLPC programs are not guaranteed for success

Digitization is inherent to the 21st century society. Schools cannot and should not be kept aside, but school digitization should happen in a way that allows teachers and students to take maximum profit of technology both in technical aspects and, mostly, as regards teacher training.

- Individual teachers make change happen, and not technology in itself

If technology leads the way of teaching in a digitized classroom, teachers tend to constrain themselves to the limitations of computers and digital materials, rather

than make the computer their ally in order to motivate students and liberate themselves from books and manuals. Teachers who create their own material and search for new sources of information and materials beyond the digital textbook normally come up with engaging projects where students learn what the curriculum expects them to learn, but using the affordances technologies put at their disposal. Collaboration is of the essence for innovation to be contagious, otherwise innovative projects die within the boundaries of specific classrooms and teachers lose their momentum to connect with the school and community as a whole. In this sense, teacher training and motivation is what the administration should take into consideration.

- OLRs remain unknown, underused, and poorly taught

The same lack of training has an impact on daily activities with language resources. The learning of OLR is taken for granted as they are easily accessible, yet few teachers teach or use them in their teaching. The examples identified in this regard make a poor use of OLR and leave their learning to rustic methods of rehearse-error and intuition, whereas formal instruction through OLR-oriented, text-based activities could arguably help students get familiar with a whole range of OLR, use them when appropriate for specific linguistic purposes in online or offline communicative situations, in the most effective and autonomous manner as possible.

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