

The use of mobile technology in the teaching and learning of foreign languages in French-speaking Belgium: the learners' perspective.

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Abstract: *In the last two decades several private and public initiatives have been contributing to the development and the integration of technological tools in secondary education. In Belgium, governmental projects such as 'les plans Cyberécole et Cyberclasse' since 1999 and 2005, 'l'Ecole Numérique' since 2011 and the recent 'plan du Numérique (see www.ecolenumerique.be and www.digitalwallonia.be for more details) have been set up to equip schools and educational environments with, among others, computers and tablets. Whilst surveys have regularly been conducted to evaluate the access to technologies in our secondary schools, little is known about the actual use and integration of these technologies in classrooms in general and in our foreign language learning classrooms in particular. In addition, despite available information about the access to computers in schools, the use of mobile tools has largely been underinvestigated.*

CALL researchers have shown increasing interest in MALL, as the creation of the EUROCALL MALL SIG and the organization of the related two-day symposium testifies. As a consequence, I have chosen to investigate the use of MALL in Belgium, focusing on language learning in the last 3 years of secondary education in the French-speaking Federation Wallonia-Brussels.

My presentation aims to assess the pupils' ownership, use and knowledge of mobile technologies in and outside the classroom. In order to do so, I designed three online questionnaires for pupils, teachers and school principals. The descriptive analysis of the results will first provide an overview of the current presence of the computer, the tablet and the smartphone in our pupils' life. The second part will then focus on the use of these tools in the learning of foreign languages. The aim of this investigation is to foster the use of mobile technologies, not only quantitatively but also qualitatively, by providing training to the different stakeholders in education.

Keywords: *MALL uses, learner perspectives, mobile tools, survey, Belgium*

1. Introduction

Technology is now part and parcel of communication and language learning. For language learners today, the acquisition of communicative skills also implies the mastery of digital literacies (Murray, 2000; Warschauer 2000, in Chapelle 2001), as Chapelle also adds (2001, p.1):

“As we enter the 21st century, everyday language use is so tied to technology that learning language through technology has become a fact of life with important implications for all applied linguists, particularly for those concerned with facets of second language acquisition.”

With the constant evolution of technology, computer-assisted language learning (CALL) researchers have been investigating how computers could enhance second language acquisition and learning. These experts have started to focus on mobile learning and its potential to offer various learning opportunities (see for instance Kukulska-Hulme and Shield, 2008; Godwin, 2008, 2011, in Ballance, 2012). Mobile-assisted language learning (MALL) researchers have conducted different types of research, the majority of which were characterized as experimental and presenting small-scale and short-term case studies (Viberg and Grönlund, 2012; Burston, 2014).

The Belgian government, willing to foster the use of technology in schools, has launched different projects meant to first equip the educational institutions with computer labs (viz. Plan Cyberécole in 1999 and Cyberclasse in 2005) and to then introduce a call for projects (viz. Ecole numérique from 2011 to 2014) in order to provide a certain number of schools with interactive whiteboards, tablets and other equipment. More recently, the regional government has launched a new project aiming at setting up Wi-Fi coverage in some pilot schools.

Although implementing mobile learning projects is essential, it seems, as Neil Davie (2015) points out, that a number of considerations must be made before implementing mobile learning in instructed settings. These include, among others, the analysis of the institution needs, the teachers and pupils' readiness to undertake activities integrating technologies, or the access to technology. Besides, Jarvis & Achilleo (2013) argue that today's permanent access to electronic devices makes it increasingly important for scholars and practitioners to know and understand the different uses of these tools outside school and the perceptions of their users.

In this context, there was a real need to first observe the current use of

mobile technologies in French-speaking Belgium and particularly, the use of MALL in secondary education before introducing any new MALL project in schools. The aim of the study was thus to look into how secondary school pupils use technology in informal and more formal contexts.

2. Design of the study

In order to determine the state of MALL integration in the Federation Wallonia-Brussels, data was collected through an online survey conducted from January to April 2016. Although it can arguably be stated that the computer is not part of mobile technology, it nonetheless appeared essential to collect information on this device as MALL is still at an early stage of development and cannot be considered apart from CALL in our Belgian context. The survey, which is part of a wider project on attitudes and the acceptance of technologies for language learning and teaching, sought to answer the following research questions:

1. Do pupils in French-speaking Belgium have access to technologies?
2. When and how (often) do these pupils use their computer, tablet and smartphone?
3. How are these three devices used for language learning in secondary education according to the pupils?

Of the 15 secondary schools contacted, 10 answered positively and took part in the survey with at least 3 groups of pupils per school. Each French-speaking province was represented in the survey and the questionnaire was administered anonymously to 1054 pupils in the fourth, fifth and sixth years of upper-secondary school level. The survey was first pre-tested in one school and was, as a consequence, slightly adapted. Pupils completed the online questionnaire individually in their school's computer labs. This method was chosen in order to obtain a higher response rate to the survey and to ensure the representativeness of the population. Topics addressed in the 15-minute survey included first the ownership of the computer, the tablet and the smartphone and - second - the use of these devices in the pupils' everyday life and subsequently in the language classroom. The questionnaire mainly consisted in closed questions. Further in the questionnaire, learners could provide examples of activities integrating some technology for language learning and could cite some digital tools and programmes they were familiar with. It should be added that pupils who did not own a particular device could not answer the questions relating to the personal use of that device.

The results were analyzed using descriptive statistics, and are presented

below.

3. Participants

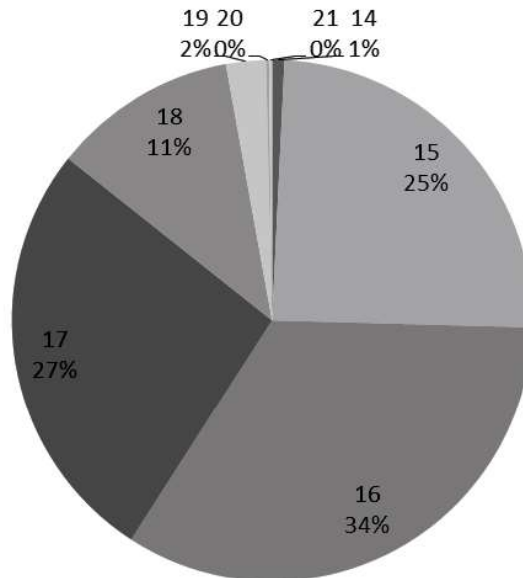
Out of the 1054 respondents, 56% are girls and 44% are boys. 94% of them speak French as their first language. 1.5% of the respondents are Dutch-speaking; the remaining 4.5% come from different linguistic backgrounds (e.g.: Spanish, English, Chinese, Russian).

As illustrated in Table 1, we collected between 56 and 325 completed responses per province (1 to 3 schools per area), with 38% of the pupils in year 4, 36% in year 5 and 24% in year 6.

Table 1: Participants' profile

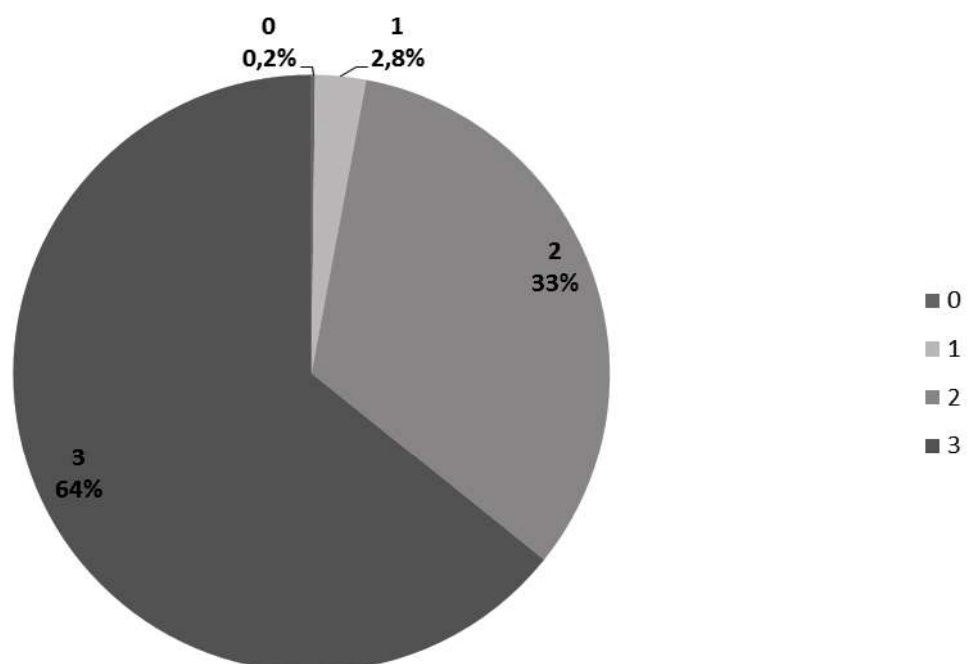
Province	Year 4	Year 5	Year 6	not mentioned	Overall total
Brabant Wallon	88	72	56	1	217
Bruxelles	12	22	22		56
Hainaut	130	115	60	20	325
Liege	25	32	39		96
Luxembourg	68	41	19		128
Namur	79	97	56		232
Overall total	402	379	252	21	1054
	38%	36%	24%	2%	100%

As can be seen in Figure 1, nearly all participants (97%) are aged between 15 and 18 with a slight majority of 16-year-old respondents. The greatest percentage of these pupils (87%) follows a general field of education whereas 11% follow a technical field of education. The remaining 2% did not specify the type of education.

Figure 1: Age of the participants

4. Devices ownership

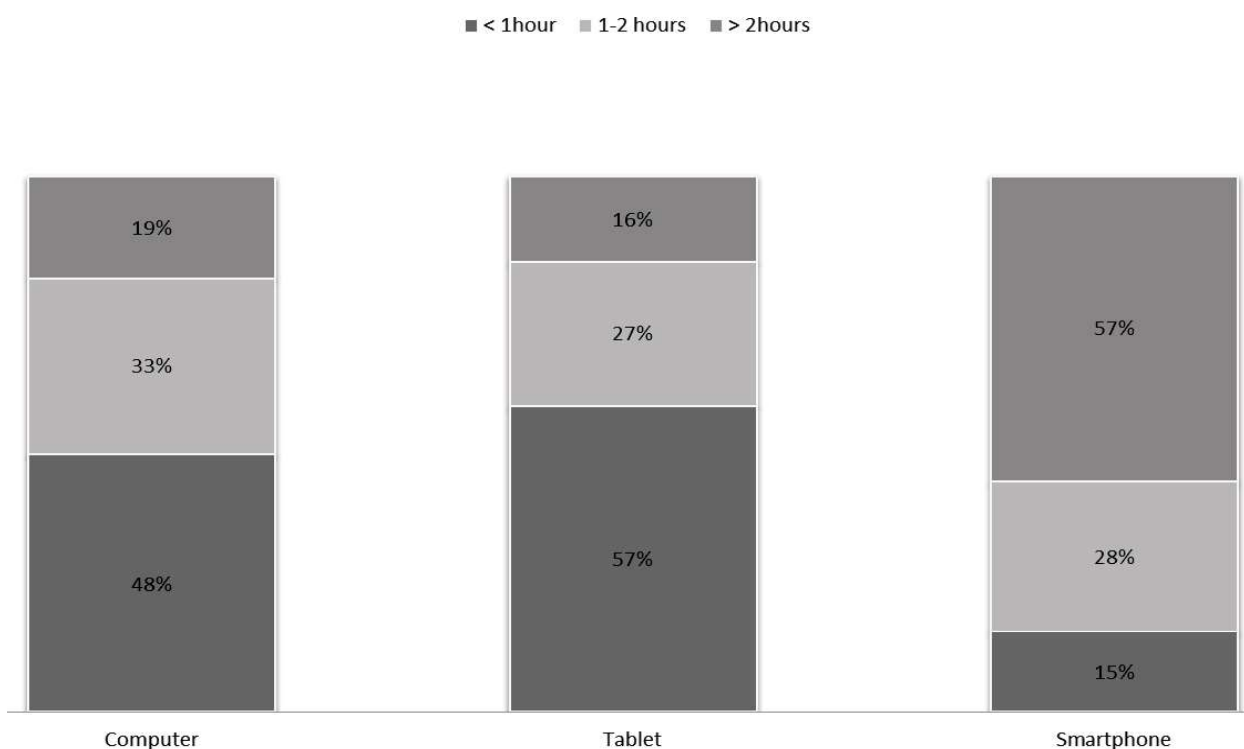
The survey established that nearly all respondents own a computer (98%) or a smartphone (91%). 72% of them reported that they have a tablet computer or an iPod, the two devices being included in the same category in the study. As shown in Figure 2, only 0.2% of the surveyed teenagers have no electronic device and 2.8% own only one device out of the three aforementioned. Most strikingly, 64% of the respondents possess the three devices and 33%, two of them.

Figure 2: Devices ownership

5. Usage patterns

The pupils were then asked to answer a set of questions related to the use of their personal devices. Table 2 shows the daily time spent on the digital devices ranging from less than 1 hour, 1 to 2 hours, to more than 2 hours. It can be noticed that the tablet computer is the device which is used the least by the participants. 57% report using it less than one hour a day whereas 16% use it more than two hours a day. With regards to the use of the computer, 48% of the owners indicate they use it less than one hour a day while 19% report spending more than 2 hours a day on the device.

Table 2: Daily time spent on each device



The figures regarding the use of the smartphone reflect a different usage pattern from what precedes. Only 15% of its owners use it less than an hour a day whereas 57% report using it more than two hours daily. Given that nearly all participants (96%) own at least 2 devices, spending less time on one device is for most of them explained by the fact that they use several devices a day and spend more time on the one of their choice.

The survey included additional questions related to the types of use of the three devices. Respondents were asked to select all tools they use on their computer, tablet computer and smartphone so as to highlight some usage pat-

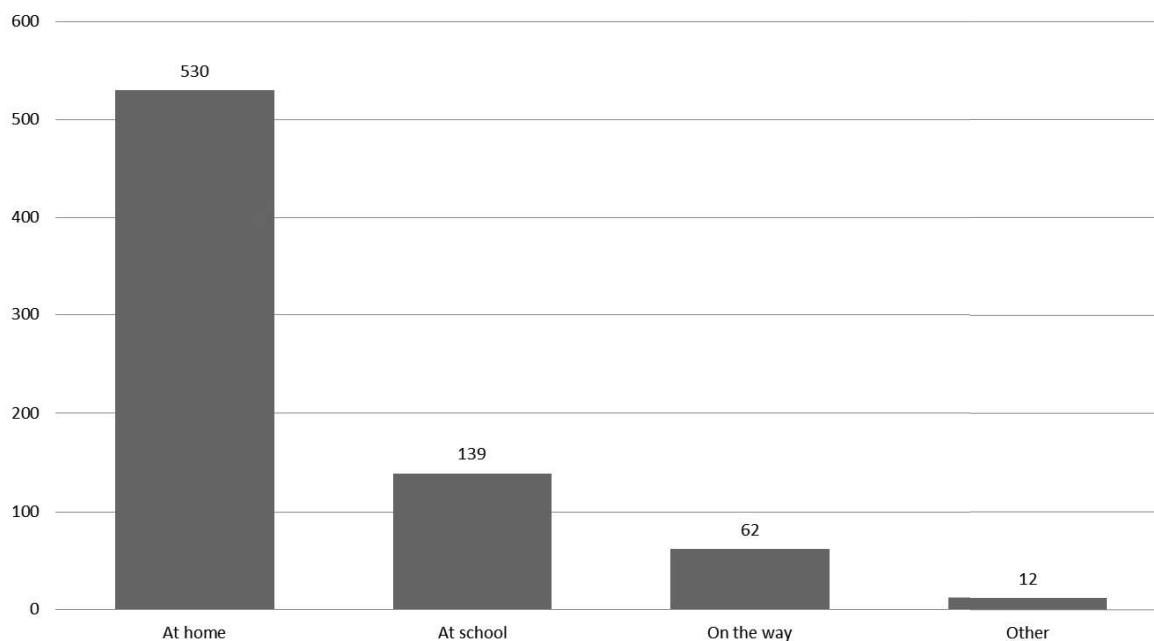
terns linked to each device. The results show that the three devices are considered primarily as communication and entertainment devices. Social media and music/audio come in the top 3 of the list together with games and videos for the tablet computer, and telephoning and photos for the smartphone. Although the computer is used for communication purposes and entertainment, it can be noticed that word processing tools and e-mailing are two other top uses of this device. It seems that the computer is used by a vast majority of its users for studying and learning. However, respondents report using translation dictionaries and web search on the 3 devices. Yet, few of them indicate they use educational apps for language learning.

6. Technology for language learning

The following set of questions dealt with the use of the 3 devices for language learning. According to the respondents, 35% of them use the computer during language classes but the vast majority uses it 'rarely' to 'sometimes'. 10% indicate they use their smartphone in the language classroom. More than 60% of them report using it 'rarely' to 'sometimes' and about 30% 'quite often' to 'all the time'. Out of the 1054 participants, only 2 pupils mention the use of tablets in the language classroom, which came as a surprise considering the different actions that have been taken by the government with the *Ecole Numérique* plan.

Outside the classroom, 25% of the tablet owners and 51% of the smartphone owners use their device for their homework, the majority of them using it 'sometimes'. The tablet and the smartphone are still mainly used at home even though they are portable devices which could be used anywhere. As illustrated in Figure 3, over 50% of the pupils (530) indicate that they use their smartphone for homework at home. 139 respondents also use it at school and 62, on the way.

Figure 3: Smartphone use for homework - location



7. Conclusion

Despite the growing interest in MALL research and practice, the field is still at an early stage of development. In the French-speaking context of Belgian education, drawing a picture of the current situation in terms of mobile uses among pupils seems therefore, according to MALL literature, highly pertinent if we are to develop mobile learning in institutions. This paper looks into the digital resources of Belgian pupils as well as their usage patterns in order to determine the tools they are using and the activities they do on their mobile devices. The online survey, taken by more than 1000 pupils all across the Federation Wallonia-Brussels, provides quantitative insights into the current situation. It also brings valuable information for the development of Bring Your Own Device (BYOD) scenarios as it shows that, for the moment at least, mobile devices for language learning are mainly used at home and that the ‘mobility’ feature is not exploited to the full.

The fact that 96% of the respondents own 2 or 3 electronic devices answers our first research question positively. It appears that pupils aged 15 to 18 do have easy access to computers, tablets and smartphones. As for the second research question (i.e. when and how (often) do these pupils use their computer, tablet and smartphone), the usage patterns of the three devices vary depending on the type of device used and the number of devices owned. However, it can be highlighted that the majority of the participants use their smartphone more than 2 hours a day, as opposed to the computer and the tablet which are used by more than half of the users less than one hour a day. All three devices are mainly used

for communication and entertainment purposes. Only the computer is used for more (language) learning tasks by most respondents. With regards to the use of these technologies in secondary schools, the study demonstrates that, although the computer is used in the language classroom by 35% of the pupils, the tablet is still largely absent in the language learning context. As for the smartphone, it is scarcely used for learning purposes at school. However, it appears that mobile devices are more widely used for homework purposes, but mostly from home and only sometimes at school.

8. Limits of the survey

Although the distribution method of the survey ensured that it was completed by at least 1000 pupils in upper secondary school in the different provinces of the FWB, the representativity of that population was not without limitations. As indicated in the study description, the 15 schools that were contacted did not all answer positively. Therefore, the sample of respondents has become less varied with regards to the two main school networks in the FWB (viz. public-run and public-funded schools) and educational orientations. Besides, it must be added that the data collected is based on pupils' perceptions and cannot therefore be considered as true 'facts of use'. Taking all this into consideration, it can be said that the survey is more representative of the population of pupils belonging to the general and technical fields of education in institutions of the public-funded network.

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Author's biography

Julie Van de Vyver is a PhD student and teaching assistant in English linguistics and didactics at the Université catholique de Louvain, Belgium. Her main research area is foreign language teaching and, more specifically, the integration of mobile technologies in the foreign language learning classroom and curriculum. Other research interests include the role of mobile learning and the use of data-driven learning both in instructed foreign language teaching and in adult education.