Mobile Language Learning: the LFNY 1:1 iPad Program

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Abstract

Rocca (2015) [3] presented an empirical study in mobile language learning (MoLL) conducted in a private French bilingual school in New York. The study compared an experimental group of sixth graders to a control group over two years' time, first in sixth grade and then in seventh grade. Both the control and the experimental groups shared the same teacher, the same material, and the same number of classes per week. Unlike the control group, the experimental group was enrolled in the school 1:1 iPad program. Results obtained through a comprehensive standardized test showed that the experimental sixth grade group performed better than the control sixth grade group in listening, speaking and reading tasks, and even better than the control seventh grade group in speaking tasks. This paper illustrates how the iPad was utilized inside and outside the classroom for routine activities that represent the backbone of this study. One application in particular functioned as the basis for all the coursework: Notability. With its multimodal affordances, this application is a virtual notebook that allows the creation of file containing sketches, photos, oral and/or written texts, which can be typed or handwritten. External files can be imported and annotated, organized in folders and archived in the cloud. One feature of Notability proved particularly fruitful in this study, namely audio recording. Audio recording allows students to record themselves and monitor their oral output, thus enhancing their ability to self-evaluate their performance and become more independent in their learning process.

1. Introduction

The continuous advancements of technology have produced lightweight handheld wireless devices that are affecting the way people learn. Mobile learning is such not just because the technology involved is indeed mobile, but importantly, because mobile also are the learner and the learning contexts s/he is immersed in. Mobility is thus the defining trait of the technology, the learner, and the learning contexts that stretch the boundaries of space and time to anytime and anywhere there is a wireless connection. If we think of mobile learning as fluid and changeable, it is hard to think of a more fluid and changeable type of learning than language learning, which is sensitive to context and subject to progress and regress, peaks and plateaus, developments and setbacks. Furthermore, there is a history in that technology has always played a part in the teaching and learning of foreign languages, bringing the target language to life, adding authenticity and enhancing the classroom experience. At the crossroads of mobile technology and foreign language education lies MoLL, with all its potential for improving the language learning experience beyond the limitations of the foreign language classroom. But what exactly are the learning outcomes of this seemingly magic technology? Though fascinating, MoLL is a relatively new field with a scarcity of empirical studies. Given such dearth of empirical research, I designed a study where I would compare two groups of my students, an experimental group with iPads and a control group without iPads, to see if the former would perform better than the latter across the four language skills. It is important to emphasize that mobile devices do not necessarily mean mobile learning, say if they are collected at the end of a class period. Hence, for it to be 'true' mobile learning, I insisted on the importance that each individual student who was assigned an iPad should also be able to take it home instead of handing it back at the end of class. The school was able to grant permission for students to take their iPads home. In the school year 2012-13, the LFNY 1:1 iPad program was thus launched, promoting MoLL with children that, because of this day and age, can be considered as 'digital natives' (Prensky 2001) [2].

2. Procedures

In Rocca (2015) [3], I illustrate the methodology of this study and the interested teacher/researcher is encouraged to go there. The experimental group as well as in the control group consisted of bilingual French-English children who have been attending a private French bilingual school in New York since the age of three. Thus, in addition to French and English, students start learning Mandarin in third grade and when they reach sixth grade they can continue with Mandarin or choose another language from German, Italian or Spanish. Any modern language other than French and English is labeled *LV2* (*Langue Vivante 2*, i.e. 2nd Foreign Language) and taught according to the French National

Curriculum, which follows the guidelines of the Common European Framework of Reference for Languages (2001 [1] – henceforth CEF). Not only did CEF provide the basis for the course syllabus of the experimental as well the control group, but also for the end-of-year standardized test both groups were administered.

As Rocca (2015) [3] describes, what changed between the experimental and the control groups was the introduction of the iPad in the regular classroom practice of the experimental group, giving rise to distinct lesson routines. What follows are details to these routines. First and foremost, for the experimental group, the application 'Notability' functioned as a virtual notebook with multimodal affordances: a user can create a file – a 'note' – by typing (Fig.1) or handwriting (Fig.2) choosing from a variety of fonts, ink colors and ink thickness. The note can be further personalized using virtual paper, squared or lined, with an assortment of colors and patterns (Fig.3). Drawings and photos can also be inserted. Handwriting, sketching and annotating are facilitated by a zoom window at the bottom of the note. Whatever is written in the zoom window appears above in a target box, which is movable and resizable.

Fig.1: Typing in Notability

Fig.2: Handwriting in Notability

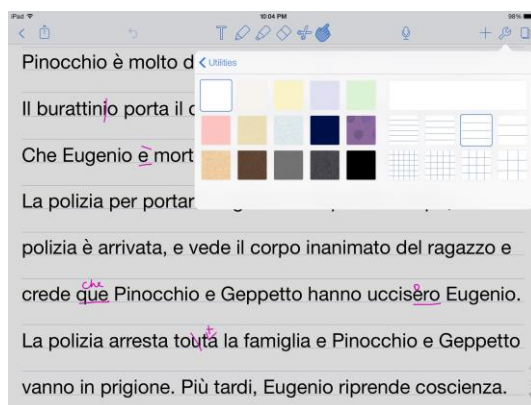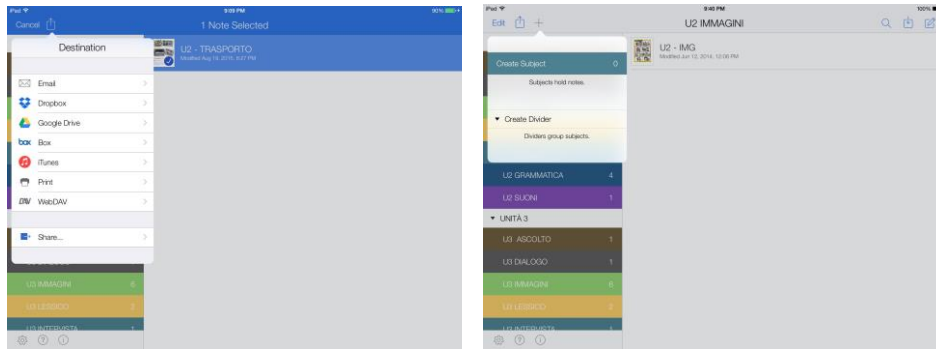

Fig.3: Utilities in Notability

Fig.4: Zoom Window in Notability

A typical class generally started with the teacher emailing the students PDFs with lesson content (Fig.5). The students open such files in Notability transforming them in notes. Notes are organized in folders containing the number of the teaching unit and the type of activity (e.g. U3 ROLE-PLAY – Fig.6).
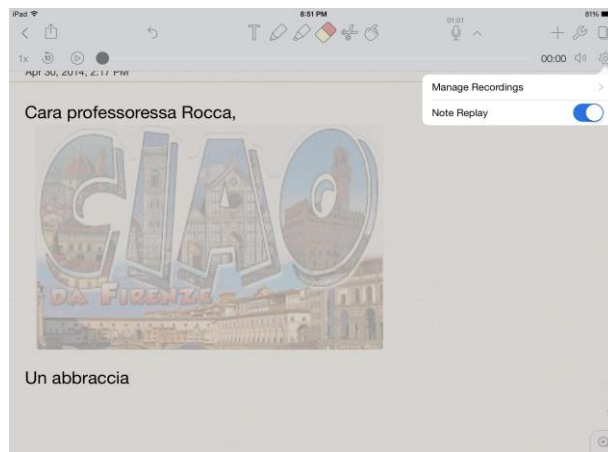
Fig.5: Sharing with Notability

Fig.6: Organizing with Notability

Assignments can be aural, oral or written; students work in pairs or individually, depending on the activity. Importantly, 'Notability' allows audio recording and students regularly recorded themselves, e.g. the 'talking postcard' in Fig.7, or each other, e.g. a role-play or an interview. Most importantly, they could – and did – monitor and self-evaluate their own oral production. Working in a convenient place and at a convenient time, students were able to record their output until they are pleased with their performance and then share their recorded note with the teacher for feedback.

Fig.7: Audio recording with Notability

In sum, I found after extensive usage that 'Notability' is a versatile note-taker that can be utilized to import PDFs (Fig.8), annotate them, create written and/or oral notes, organize them in folders and dividers, share them and store them in the cloud (Fig.9).

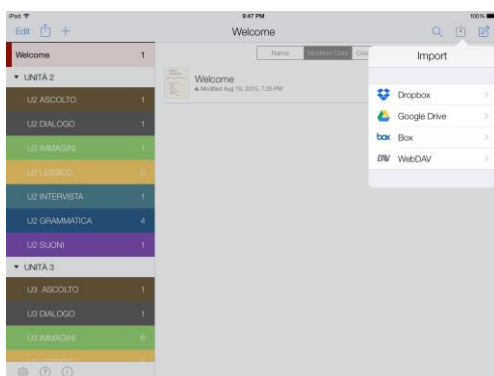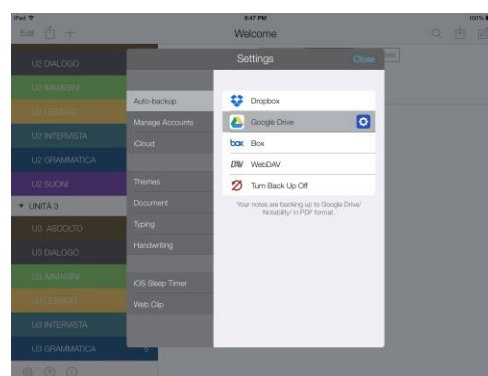**Fig.8: Importing to Notability**   **Fig.9: Automatic backup of notes**

At the end of the school year, both the control and the experimental group took a CEF level A1 test comprising four components of the CILS examination (*Certificazione di Italiano come Lingua Straniera* – Certification of Italian as a Foreign Language) offered by the Foreigners University of Siena. These four components correspond to four CEF language activities – listening comprehension, spoken
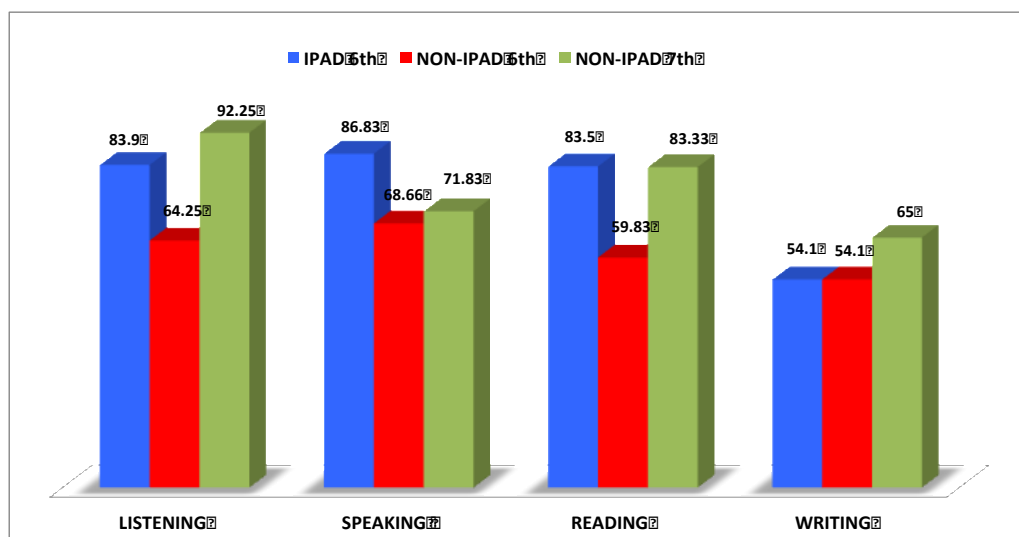
interaction, reading comprehension and written production. The control group took this test in sixth and seventh grade – same CEF level, different tasks.

3. Results

Rocca (2015) [3] presented the results of this study in detail. I summarize them in this section and represent them graphically in Fig.10. Results indicate that the experimental sixth grade group performed generally better than the control sixth grade group. More specifically, the experimental group performed better in listening (+19.65%), speaking (+18.17%) and reading (+23.67%), whereas the average score in writing was the same for both groups. With the exception of writing, the average score for the other three skills ranges from 59.83% to 64.25% for the control group and 83.5% to 86.83% for the experimental group. Fig.10 also shows the progress of the control group from sixth to seventh grade in all four skills. If speaking is the skill where the control six grade group achieved the highest average score, in seventh grade this is the skill that registers the lowest margin of progress (+3.17%), compared to listening (+28%), reading (+23.5%) and writing (10.9%). Overall, the seventh graders showed more progress in receptive skills, i.e. listening and reading, than in productive skills, i.e. speaking and writing. It is in comparing the experimental sixth grade group to the control seventh grade group that the results become even more interesting. The seventh graders performed better than the experimental group in listening and writing albeit with a smaller margin of difference compared to themselves a year prior. In reading, the difference between the experimental group and the older control group is imperceptible. While the seventh graders have improved their performance across the four skills since the previous year, the experimental sixth grade group outperformed them by 15% in spoken interaction.

Fig.10: 6th grade experimental group vs. 6th & 7th grade control group (Rocca 2015:37)

In sum, results indicate that the experimental sixth grade group performed better than the control sixth grade group in listening, speaking and reading, and most surprisingly, even better than the control seventh grade group in speaking.

4. Conclusion

It is easy to assume that the use of mobile devices implies mobile learning. In order for these promising devices to be used in a true mobile learning fashion, students must have access to such devices when the mood moves them, and thus the devices must be available to the students outside the classroom. Mobile learning implies the mobility of three factors: the technology utilized, the learner moving across space and time and the learning contexts s/he is immersed changing accordingly.

The results of this study, though limited, are as compelling as they are unexpected. First, unexpected was the result obtained in writing, in that both control and experimental sixth grade group scored the same, with or without iPad. It looks as if mobile technology does not seem to make a difference with this language skill. Writing is indeed difficult; in fact maybe the most difficult of the four language skills, and this applies to native and non-native speakers alike. A crucial reinforcing factor here is that the foreign language curriculum prioritizes oral communication versus the written one, especially at beginner level.

Second, it is in speaking that the results were both compelling and unexpected. Speaking was the language skill where both the control and the experimental sixth grade group achieved the highest score. In fact, the result in speaking was higher for the experimental group than the control group across the two years. Compelling and unexpected, considering the experimental group was almost double the size of the control group, and that this latter showed scarcely any progress in speaking at the end of seventh grade, even if a smaller group such as this one is generally believed to be more conducive to the best practice of oral skills.

Given that the control and the experimental group shared the same teacher and the same syllabus, what seemed to have made all the difference in these results was the mobile technology utilized, i.e. the iPad. Thanks to the iPad, individual students were able to record themselves, listen to their output, evaluate and correct it until they were pleased with their performance, before sharing it with the teacher by email for feedback. Students quickly became used to this routine practice, which sharpened the students' self-awareness as well their ability to self-correct and self-evaluate. Furthermore, thanks to the iPad, teacher feedback was more precise and effective, since, after receiving and reviewing their files, I could sit with each individual student and go through his/her recording to point out strengths and weaknesses.

Finally, the iPad, used in this way, removes one traditional nagging pedagogical issue: oral practice as problematic in a regular foreign language classroom. Normally, it is difficult to get every student to speak, and when they do, it is difficult to give them effective feedback. If we interrupt them while speaking, they might loose the flow, get upset or embarrassed. If we wait until they finished, they might have forgotten the details of what they uttered or how they uttered it. Whether we interrupt them or wait until they are done, their perception of what they said might be different from ours. In either case, our feedback could be pointless.

This is where using an iPad could be a helpful learning enhancer. In a 1:1 program, students do not need to speak in front of the whole class. Instead, they can speak into their iPad when and where they prefer, see if they like the way they sound, repeat the task if they don't. This ability to pace themselves gives students a sense of control over their learning process and the sense of ownership that ensues is conducive not only to higher student achievements but also to higher student satisfaction and self-confidence.

References

[1] Council of Europe (2001). *Common European Framework of Reference for Languages: learning, teaching, assessment.* Cambridge: Cambridge University Press.

[2] Prensky, M. (2001). Digital Natives, Digital Immigrants. *On the Horizon 9 (5), 1–6.*

[3] Rocca, S. (2015). iPadding sixth graders to impact language learners: An empirical mobile study. *The IALLT Journal 45(1), 23-43.*