

From Research to Development on Virtual Language, Content and Intercultural Learning Across European Schools

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Abstract. This paper presents an overview of the research conducted within a funded Comenius project which aims at developing a virtual European CLIL Resource Centre for Web 2.0 Education**. E-CLIL focuses on Content and Language Integrated Learning (CLIL), creativity and multiculturalism through digital resources. In this sense, our prior research on CLIL programmes across Europe revealed the need to equip teachers with relevant methodological strategies and appropriate materials. We also detected the need of specific guidelines for implementation together with specific resources which should guarantee excellence in language learning (Ramírez-Verdugo, 2010). To reduce the identified shortcomings, an interdisciplinary group of scholars have developed a resource centre for Web 2.0 Education which aims at increasing children's exposure to European languages and to improve the quality of teaching and learning through the implementation of CLIL. E-CLIL has a three-folded objective. First, it intends to provide support to current and future CLIL educative programmes all over Europe and beyond. Accordingly, E-CLIL is currently disseminating high quality and proven materials and resources for content and language learning. Second, E-CLIL material design and the guideline for teachers are founded on sound language and content learning principles. Third, E-CLIL attempts to enrich teachers' and children's knowledge of other European cultures. The paper shows the results from the pilot study and initial experiences at E-CLIL school network across Europe.

Keywords: virtual learning, European languages, CLIL, intercultural perspectives.

1. Introduction

In a global world where English has the status of the international language for communication, it is not always easy to preserve the current European linguistic

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diversity. For obvious reasons, learners will need to have a high command of English as a second or foreign language to attain success in their education and professional careers. Yet, this reasonable target could clash against the European policy of maintaining children's first language and promoting at least two foreign or second languages. This philosophy demands a well-designed syllabus across Europe to allow children time to learn specific contents and acquire fundamental competences, skills, strategies and languages to become citizens of the continent and of the world in the next few years and beyond.

An important attempt to achieve this aim has taken place in the last decades across Europe with an approach known as *Content and Language Integrated Learning* (CLIL, cf. Marsh, 2002). CLIL has already been established as a valuable methodology to both teaching foreign languages and specific subjects since it creates a meaningful context for learning. More specifically, CLIL pedagogical project involves using one or more foreign languages as the vehicle to teach certain subjects within the curriculum (cf. Marsh & Wolff, 2007). In a global CLIL model "both language and content are conceptualised on a continuum without an implied preference for either" (Coyle, 2007, p. 543). In Europe, core elements common to all CLIL practice coexist with diverse varieties in implementation depending on national, regional and local characteristics (cf. Ramírez-Verdugo, 2010).

Nevertheless, in spite of all the attention devoted to CLIL during the last few years, recent research reveals that even though this approach is gaining popularity across Europe, further work is still necessary on relevant methodological strategies and available materials (Ioannou-Georgiou & Pavlou, 2010). Therefore, it seems there is an important need for specific materials, resources and implementation guidelines to guarantee excellence in language and content learning. Our proposal, then, is to maximize the gains CLIL is achieving by the use of a technological enhanced learning environment. Our purpose is to create motivational resources that will raise engagement and confidence in language and content learning. This is one of the main goals within the project called *European CLIL Resource Centre for Web 2.0 Education**, funded with support from the European Commission. One of the main objectives of E-CLIL is to increase children's exposure to European languages and to improve the quality of teaching through the implementation of CLIL within the European demand for acquiring a mother tongue plus two foreign languages (MT+2, Eurydice, 2006, p. 8). E-CLIL falls within the European philosophy of long life learning programme. It focuses on language learning, learning strategies, multilingualism and multiculturalism. The approach used within E-CLIL involves CLIL and ICT as recommended pedagogical procedures and resources, respectively. Within this background, multilingual interactive resources for the use of CLIL teachers and learners have already been designed and developed, as explained below.

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2. Research design

Within the framework of this three year investigation, an initial piloting of the resources created was conducted June 2011 in Madrid (Spain). The feedback provided by teachers and learners was taken into account to specify the enhancement still required both in terms of content, language and technology development. Once that improvement was complete, the research was extended to a new pilot study in Belgium, Bulgaria, Turkey, Austria and Spain. When this pilot phase concludes, we intend to make the project resources available worldwide so that a large community of children and teachers can benefit from E-CLIL.

In the present paper I report on the findings obtained from the second piloting phase in Madrid from February to April 2012. This study investigates the worth interactive digital resources may bring to a Primary education context. In this sense, a central digital story and related CLIL Internet-based games, all originally created for this project, entail three main learning objectives which involve exposing young learners to European languages, children's literature and science content. Our main hypothesis at this stage of the study was to prove whether these interactive digital resources may enhance 8 to 10 year-old students' learning involvement and CLIL achievement. In this piloting phase of the study, these digital materials were presented to over three hundred students enrolled in six different CLIL schools in the region of Madrid. Six experienced English teachers participated in the study and followed the guidelines provided by the project researchers. In order to gather objective data that may prove our hypothesis, both learners and teachers completed specific pre- and post-questionnaires which were then statistically analysed. The data gathered through questionnaires, interviews and field observation has been used to extend the piloting progressively to other European countries participating in the project. This larger study will hopefully provide information on cross-cultural similarities or differences regarding the results already obtained here. The initial findings indicate this approach adds a very positive value to a CLIL learning context at linguistic, content, literary, cognitive, social and cultural levels. This outcome is very much in line with the ideas expressed earlier by scholars such as [Johnstone, Kubanek-German, and Taeschner \(1998\)](#), [Marsh, Maljers, and Hartiala \(2001\)](#), [Marsh \(2002\)](#), or [Mehisto, Frigols, and Marsh \(2008\)](#).

3. A digital story and interactive games in a CLIL context

Draco's Band is an original digital story written specifically for this project. It aims at stimulating a positive response towards the storyline, and increasing learners' motivation towards learning. It is interactive and includes sounds and visual elements. The use of the digital resources also promotes learners' autonomy. They can choose to listen or read the story at their own pace or they can listen and read the story as a whole group in a choral activity.

Another important motivation for writing this story refers to the need of providing coherence to the different content topics covered at schools within a CLIL approach. Science topics are integrated within a storyline which favours a feeling of achievement and development. The initial chapter presents the characters, the main situation and some hints for following chapters which take place in different settings. Each of those chapters implies a new adventure and challenge that needs to be accomplished. The *fantastic worlds* where the characters travel to correspond to the curriculum areas covered in Primary Education across Europe. The digital games designed are based on sound learning principles and are integrated within the storyline plot and development.

4. The European dimension

These resources have been translated into the project languages to promote multilingualism among European learners. The use of blogs and videos enables partners to show the most remarkable festivals and traditions in their countries. This visual, oral and written information is intended to encourage children to learn about the cultural richness and diversity within Europe in a meaningful way. These multicultural resources should also, hopefully, enhance mutual understanding and respect.

5. Results

A qualitative analysis of the pre- and post-questionnaires provides an interesting picture of teachers' and learners' expectations toward ICT resources for language learning. These kinds of resources are mainly expected to increase their motivation and provide amusement. However, in the post questionnaires, the teachers participating in this project's piloting phase consider that the storyline helps children grasp the story's global meaning and identify specific information, both oral and written. These teachers believe the digital resources help children read, chorally and individually, and understand varied and simple content relating to their communicative competence and science topics. They also agree when they state that both the story and the related games help learners perceive and use common L2 forms and structures. They valued very positively the fact that *Draco's Band* exposes learners to the L2 sound, melody, rhythm and intonation within meaningful communicative contexts.

Learners participate actively in the proposed games, riddles and puzzles. These resources help children to activate their prior knowledge on the content and language, anticipating, guessing, deducing, receiving appraisal, etc. Their responses to the questionnaires were very positive and indicated they had enjoyed this way of learning.

Teachers considered the fact that these materials could be accessed in different languages important. This multilingual dimension raised their learners' awareness towards people from other countries, cultures and languages and their curiosity to learn more.

6. Conclusion

The positive feedback and outcome obtained so far commit us to advance in the current areas of research involved in E-CLIL, mainly, bilingual and multi-language learning; CLIL implementation and outcome; the impact of technology enhanced environment on language learning, content and culture; and the important correlation between cognition and bilingualism. Elements that are all present in a digital context when resources are thoughtful and well designed.

Finally, the initial development of this project has focused on science topics at a Primary Education level. However, in line with the project philosophy, future work will progressively include both early and advanced levels of education. We believe the findings presented here address the objectives and priorities stated by European Commission with regards to the quality and relevance which should be involved in language learning: To promote language learning & literacy skills; to support innovative ICT programme and to promote cultural and linguistic diversity.

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