



INTEGRATION OF LANGUAGES AND SUBJECT AREAS IN GLOBAL PROJECTS: A PROPOSAL INTEGRATING SOCIAL AND NATURAL SCIENCE, BASQUE, SPANISH AND ENGLISH

Di seguito sarà presentato un progetto sperimentale¹ che mira a integrare i contenuti e le lingue in una scuola elementare della Comunità autonoma basca. Nel modello proposto i temi della Scienza diventano un asse intorno al quale si sviluppa un progetto globale, un progetto che coinvolge le tre lingue del curriculum basco primario, cioè il basco, lo spagnolo e l'inglese, e che utilizza un approccio comunicativo e testuale.

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1. Introduction: the Basque context and the origins of this experience

The Basque Autonomous Community's (BAC) latest curricula – especially from 2007 onwards – have insisted on the need to progress towards increasing integration between curricular languages on the one hand, and languages and subject areas on the other hand. At the same time, there is a strong recommendation that English be taught not only as a subject, but following CLIL principles. It should be noted that the BAC educational system is linguistically complex, as there are three compulsory curricular languages in primary school – Basque, Spanish and English (to which a fourth one can be added in secondary as an option). It is therefore a trilingual system, but with one important particularity: one of the languages, Basque, is a minority language in the process of revitalization.

Basque had reached its lowest point of decline by the 1970s, when a mere 22% of the adult population spoke the language (1981 survey, Basque Government). The new democratic period opened in

1978 and the creation of the BAC made a pro-active language policy in favour of Basque possible. This policy has been successful in reverting the decline of the language (today 34.6% of the 16+ population can speak Basque (Basque Government, 2014)). Introducing Basque in Education, chiefly through immersion schools², has been crucial for the growing recovery of the language. Indeed, of the 300,000 speakers that Basque has gained in the last 35 years, two thirds have learned it at school and, as a result, in the 16-24 age group the number of Basque speakers is 73.2% (Basque Government, 2016b). It should be noted that a considerable proportion of those who have learned in Basque-medium schools live in dominantly Spanish-speaking areas, and therefore the school is the main domain for language learning and use.

As we will see, the challenges posed by the complexity of the Basque educational system, as indeed the sociolinguistic situation of the BAC, are at the core of the decisions made in the proposal described in this article.

The origin of the proposal goes back to 2010, when a primary school with which Begoñako Andra Mari Teacher Training College (henceforth BAM) collaborates regularly, Txomin Aresti public school, contacted us seeking advice for the implementation of CLIL to improve their students' levels of English. This school had been working towards the integration of the two main curricular languages (Basque and Spanish) for a number of years, and they asked us to frame our proposal in a more global integration model where Basque and Spanish were included as well. Initially the project would run as a pilot for grades 4th to 6th, with the idea of extending it to the lower levels later on.

Using English as the vehicular language for teaching one or more school subjects is considered a good option for improving the learning of English, but many schools in the Basque Country are faced with the dilemma of extending exposure to English at the expense of reducing the time dedicated to teaching subjects in Basque. For many schools located in mostly Spanish-speaking environments, this option means endangering the achievement of the objectives set for the Basque language. This was the case of Txomin Aresti, a Basque-medium school³ located in a Spanish-speaking town in the Greater Bilbao metropolitan area, whose students' L1 was Spanish.

In this article we present the model designed for the particular needs and context of this school. As explained in the next section, the key elements of this model are: integrated planning of languages and non-linguistic subjects (in this case, Science with Basque, Spanish and English), project-based learning, and a text-based approach.

2. A project-based integrated model for Txomin Aresti

In a nutshell, the model for Txomin Aresti had to respond to the CLIL principles for English, yet not reduce the school time dedicated to the Basque language and it also had to take into account the English level of 4th, 5th and 6th grade primary students. Diagnosis of the students' level of English made it clear that they did not have sufficient communicative competence in this language, so any plan

that involved learning curriculum content in English was not suitable. In addition, the proposal needed to include and integrate Basque and Spanish, languages in which the students did have good competence. We took these constraints as real opportunities to explore the benefits of coordinated planning and integration. In our model, each Science topic became the axis around which a global content-languages project was designed. The basic contents of the selected topic were taught in Basque. With this, we guaranteed that curricular content was learned in a language the students mastered sufficiently well, and ensured that the exposure to the minority language did not diminish. But the peculiarity of the model is that the work done in the subjects of Basque, Spanish and English languages was linked to the Science topic, developing related contents, case studies, new interpretations, etc. In this sense, the CLIL principles were applied to the three languages, including the weakest one, English. We found that there were a great number of topic-related linguistic tasks that the students could perform in English, precisely because the conceptual framework and skills they required had already been learned in another language. The work done in each language consisted in performing a task that required interaction with new contents, and which allowed for the development of comprehension skills and specific language work as well as general and thinking skills such as group work, critical thinking, or the use of ICT, for instance. Following our text-based approach, in every case the task required the production of an oral or written text, which allowed for further linguistic work. The tasks were planned so that each worked on a different genre, ensuring that all text types (narrative, expository, argumentative, instructional) were developed during the six primary grades.

As we have seen, each Science topic becomes a global project that includes the three curricular languages. An illustration of the project on the topic of "Our diet and our health" for Primary 4 can be seen in Table 1 (see next page). The table shows the presentation of the project in the original languages, but the Basque and Spanish columns are explained below.

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- 1 A most comprehensive description of the project can be found in Ortega, A. & Anakabe, M.J. (2015). 'Integración de lenguas y áreas desde los proyectos globales: una propuesta de integración de las materias Conocimiento del Medio, Euskera, Lengua Castellana e Inglés'. In I.M. García-Azkoaga & I. Idiazabal (eds.), *Para una ingeniería didáctica de la educación plurilingüe*. Pp. 291-319. Bilbao: University of the Basque Country.
- 2 According to 2016-17 enrolment data (Basque Government 2016a), 90+% of students in compulsory education attended (total or partial) Basque-medium schools.
- 3 In Basque medium schools (called D-model schools) all subjects are taught in Basque, and Spanish and English are taught as subjects (3 or 4 hours a week).

The first column shows the Science content of this unit, taught in Basque:

- > To get to know healthy habits such as a balanced diet, hygiene, sports, rest...
- > To get to know oneself better after analyzing one's habits and to show a suitable attitude towards changing unhealthy habits.
- > To acquire habits for a healthy and balanced diet.
- > To identify the basic types of food and their functions.
- > To collect information, analyze it, and reach conclusions about the 7 food groups in the food wheel.
- > To assess what a balanced diet entails and to become aware of the importance of healthy eating for our well-being.

The second column shows the work to be done in Basque. The students perform a task that requires writing about their diet based on a diary where they will record what they eat at the different times of the day for one week. The students receive the following instruction: *"For one week you are going to record everything you eat and drink in a diary, and then you will use that diary to write a report describing*

and assessing your diet." Performing this task requires using what they learned in Science but also the linguistic abilities to write the report. These will be specifically worked on.

The third column describes the work to be done in Spanish. The topic is childhood obesity, clearly an "extension" topic related to the general theme of health, which uses concepts learned before, but which also includes new things. They read and listen to informative and opinion texts, interpret graphs, and at the end produce a Letter to the Editor with their opinions. This allows for targeted linguistic work, specifically, on the comprehension skills of different texts, and, of course, on the abilities to write the set argumentative text.

Finally, the fourth column shows the work done in the English language. Here the topic of "diet" is "recycled", but this time focusing on the diet and eating habits in the Basque Country and in other countries; the final product is a letter to an English pen friend who is planning a visit. All this allows for further reading, new content, and substantial linguistic work.

Table 1. GLOBAL PROJECT "Health" (Txomin Aresti School, Primary 4)

GAIA: Osasuna-La salud- Health diet and our health.		PROIEKTUA: Gure dieta eta gure osasuna-Nuestra dieta y nuestra salud-Our	
INGURUNE (Natural and Social Science)	EUSKARA (Basque language)	LENGUA CASTELLANA (Spanish language)	ENGLISH LANGUAGE
<p>GAIA: Osasuna Proiektua: Gure dieta eta gure osasuna</p> <ul style="list-style-type: none"> • Ohitura osasungarri batzuk ezagutzea (higienea, atsedena, kirola, jarrera egokia eta elikadura orekatua). • Norberaren ohiturak aztertuz, norberaren burua hobeto ezagutu eta behar diren aldaketak egiteko jarrera egokia azaldu. • Elikadura osasungarri eta orekatua jarraitzeko ohiturak hartzea. • Oinarrizko elikagaiak ezagutzea eta dituzten funtzioez jabetzea. • Elikagaien gurpileko zazpi taldeei buruzko datuak hartzea, aztertzea eta ateratako ondorioak adieraztea. • Dieta orekatua identifikatzea eta osasunerako duen garrantziaz jabetzea. 	<p>GAIA: Nolako da nire dieta TESTU GENEROA: Txosten EGOERA KOMUNIKATIBOA: Ingurunearen landutako edukiak erabiliz, ikasleek euren eguneroko dietaren deskribapena egingo dute eta ondoren, balorazio pertsonala. Astebetean zehar ikasleek eguneroko baten jan eta edaten duten guztia batuko dute. Gero, hori erabiliz, euren dieta deskribatu eta ebaluatuko dute txosten baten.</p>	<p>TEMA: La obesidad infantil GÉNERO TEXTUAL: Carta al director SITUACIÓN COMUNICATIVA: El Gobierno Vasco está lanzando una campaña contra la obesidad. Los niños, después de estudiar en qué consisten las propuestas y valorarlas, escribirán una carta al director para que se publique en el periódico. En esa carta darán su opinión sobre las medidas que propone el Gobierno, valorando si les parecen acertadas, eficaces, suficientes, o no.</p>	<p>TOPIC: Our diet in the Basque Country and other diets TARGET TEXT: Letter to a pen friend (expository text) COMMUNICATIVE SITUATION: Our school is organizing an exchange with students from a British school. The partner school's teachers would like information about cultural aspects of the Basque country, including the type of food that their students will eat here. What a good opportunity for our children to talk about their diet and their meal routines! Our children will write a letter to their pen friend describing them how many times a day they eat, what they eat in each meal and generally, what type of diet we have in the Basque country.</p>

3. Theoretical justification of the model

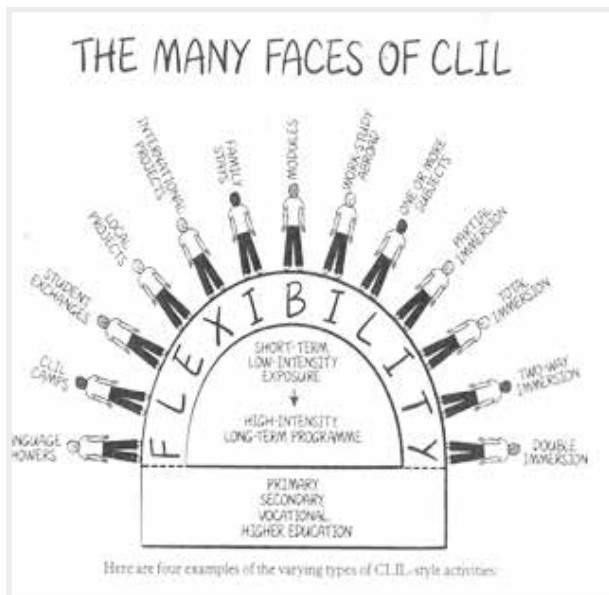
The basic principle of CLIL is that learners learn the L2 better if they use it to carry out meaningful tasks for learning other curricular content. This principle fits perfectly with the communicative approach to language teaching, according to which the learners must be involved in tasks that have authentic objectives

Project by project, an integrated curriculum was completed. Each of the three grades from 4th to 6th developed three global projects following the same principles. Table 2 shows the resulting curriculum, an integrated content-languages curriculum linked to Science.

Table 2. Txomin Aresti School – BAM: Integrated curriculum Natural and Social Science-Basque-Spanish-English (Primary 4-6)

Primary Grade	NATURAL AND SOCIAL SCIENCE TOPIC	TARGET TEXT IN BASQUE	TARGET TEXT IN SPANISH	TARGET TEXT IN ENGLISH
4th	Health	Text: Report on one's diet.	Topic: Childhood obesity Text: Letter to the editor	Topic: Diets and eating habits Text: Letter to a pen friend.
	Plants	Text: Opinion article on webpage about the importance of plants and why we should take care of them.	Topic: Experimenting with plants. Text: Oral presentation (process description).	Topic: My favourite plant Text: Oral presentation with visual support (in a poster)
	Machines. Project: We are going to make a machine. Exhibition of machines.	Text: Debate: the most important machines throughout history.	Topic: (Project) The machine that I have made. Text: Oral presentation for parents about the machine I have made.	Topic: Exhibition of machines made by the students Two texts: Piece of news announcing the forthcoming event and news report on the event itself after it happened. Both on the school website.
5th	Invertebrate animals	Text: Scientific exposition on invertebrate animals.	Topic: Pets and the abandonment of animals. Text: Awareness mural (Campaign against pet abandonment)	Topic: Adopting a zoo animal. Text: Informal letter in which children describe their adopted animal to their pen friend.
	Energy	Text: Discussion on renewable energies	Topic: Energy saving Text: Opinion article	Topic: What can we do to save energy? Text: Poster with recommendations.
	The Basque Country	Expository-descriptive text on a favourite place of the Basque Country	Topic: Being a tourist in the Basque Country. Text: Account of a day-trip	Topic: The Basque Country. Text: Expository text with basic information (extension, population, language ...).
6th	The Earth and the Universe	Expository text on why certain phenomena happen.	Topic: Orientation Text: Instructions to build a compass.	Topic: Directions and orientation. Text: Instructional text: a treasure map
	Travelling around Europe	Text: Tourist guide on a European country (Introductory section about the geography and climate of the country).	Topic: Where are we travelling? Text: Argumentative text to defend one's preference of three possible destinations.	Topic: Organizing a trip to England Text: Day-by-day trip plan
	The New World	Text: Historical account.	Topic: Historical characters Text: Biography	Topic: Who were Pocahontas and John Smith? The true story Text: Fictional narrative

Figure 1. "The many faces of CLIL" (Mehisto et al. 2008: 13)



and authentic meaning exchanges for them: "Students who learn content in a second language are using the language with real goals and to complete authentic real life tasks" (Met 1999:14, our translation). As we have seen, this is the principle that guided the design of the tasks for each language.

It is not always clear in the literature what counts as CLIL. Our proposal is based on a broad and inclusive conception of CLIL, in which programs of different intensity and duration have their place, and where programs that prioritize content learning as well as those that prioritize L2 or L3 learning also have their place, very much in line with the view shown in Figure 1.

In the Basque context, CLIL in English has very often been understood as teaching one whole subject in this language. However, according to Mehisto's view, there is no unique and "correct" model to implement CLIL. We think that this variety and this flexibility is precisely one of the strengths of the CLIL approach,

so that schools can choose the type that best suits them. Clearly, sound criteria should be used to ensure success. In our case, we took into account the ones that experts Met (1997) and Pérez Esteve & Roig Estruch (2004) suggest:

1. The level of linguistic competence of the students.
2. If the non-linguistic contents are essential and obligatory curricular content, and therefore, if their learning should be guaranteed.
3. The extent to which the communicative situations emerging from the learning of the chosen content fit the desired linguistic objectives in the language.

The first two points state that a minimum linguistic competence is necessary to face complex contents, especially if it is to be learnt at an acceptable level of academic depth. The third point refers to the importance of analysing the linguistic needs of the subject content and coordinating them with linguistic objectives.

Another key element is how to organize subject area content in the different languages. According to Pérez Esteve & Roig Entruch (2004), the key principle is that the contents taught in each language must be well-structured so that they are not repeated but complemented, expanded, or used to learn new things. An example for English: if students are learning about natural resources in the ordinary Science class, they can learn about alternative energies or specifically about solar energy in the English lessons. But previous knowledge is not just about area content: the general linguistic abilities, as well as practical knowledge of genres, which are going to be developed in English, must have been previously worked on in the L1 (and/or in the L2). For example, in the case of the weaker language in our system, English, if students have to write a news report about the advantages of the solar energy, they need to have worked on news reports previously. In short, it is all about planning around cross-curricular topics, but planning is indeed the key factor.

Conclusions

As we have argued in the article, the integration of languages and content offers a large number of possibilities and these should be taken advantage of in order to improve language learning. Choosing or designing the right model, however, should be based on an honest and thorough diagnosis of the situation of each school in the framework of its objectives.

In our particular context, the proposed model was a good option to develop the trilingual competence of the students, but without risking the development of the minority language, Basque. But it is a CLIL model that could work in any bilingual or trilingual school in which the competence in one or more of the students' languages is too low for learning curricular content with the necessary depth.

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