Integrating Content and Language at Primary School in Italy: Ongoing Experimental Research

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Abstract

This paper aims to provide insight into ongoing experimental research on CLIL carried out as a part of a PhD programme at *Sapienza* University of Rome and the University of Basilicata. The input for this research is the presence of few longitudinal experimental studies in the field of CLIL in the Italian primary school system. This paper presents the research design in details. The hypotheses to be tested concern the improvement of the qualitative and quantitative level of language learning and positive effects on learning subject content in a CLIL environment. The research project involves seven experimental classes and seven control classes in the Lombardy region, Northern Italy, for two consecutive years (4th and 5th grade). Apart from the tests of Italian language skills, all the other instruments have been fully constructed *ad hoc*. The participant teachers are monitored through face to face meetings, an e-learning platform and a journal which is kept throughout the process. This CLIL project is offering an effective training opportunity to reflect and share opinions of the teachers and researchers involved. Thus, the possibility to build up an academic and school research environment becomes a reality. Results and conclusions will be discussed at the end of the PhD research programme. This paper also offers an insight into CLIL experiences within the Italian educational context.

Keywords: Content and language Integrated Learning (CLIL); experimental research; research design; EFL teaching; primary education; in-service teacher education; language acquisition

1. Introduction

In the last few years, many European countries have developed an increasing interest towards Content and Language Integrated Learning (CLIL) and its gradual adoption has become a reality (Eurydice, 2006). Official European documents continuously focus on CLIL as an innovative and effective educational approach that “has a major contribution to make to the Union’s language learning goals” (Commission of the European Communities, 2003, 8). Considered as crucial in promoting multilingualism, CLIL provides “greater opportunities within the school curriculum for exposure to foreign languages” (Commission of the European Communities, 2005, 6). Moreover, CLIL has also been recently referred to as one of the methodological approaches which favours the development of intercultural competence (Europublic, 2007).

As for the latest Community action programme in the field of lifelong learning, referred to as the *Lifelong Learning Programme*, priority is given to projects which aim at implementing CLIL. This is deemed as strategic in the promotion of language learning and linguistic diversity. Thanks to this programme and to its predecessors, several projects and networks have been implemented throughout Europe so as to raise awareness on the validity of this approach, exchange information on good CLIL practices and enhance CLIL training for teachers.

In this dynamic CLIL climate, Italian institutions have triggered a series of initiatives to promote CLIL and to favour its spreading especially in certain contexts and areas where it is not implemented.
2. CLIL in Italy

Before focussing on positive and successful Italian CLIL projects and initiatives, it is important to stress that in Italy, in spite of the continuous EU encouragement to adopt this approach:
- there are no centralized CLIL actions;
- there is not a systematic and extended monitoring of CLIL initiatives;
- CLIL is more widespread at secondary school level than at primary.

However, there is a lively interest in CLIL from the publishing sector in the context of school materials. Recently, various schoolbooks have been published, proposing cross-curricular projects where language and content easily integrate.

Apart from the presence of bilingual programmes in schools characterized by two vehicular languages in the curriculum, the short term model seems to be the most popular one in the Italian school context, as initially hypothesised ten years ago (Coonan, 1998). The range of hours per year devoted to CLIL projects usually fluctuates between 10 and 20 so that a gradual rather than an abrupt introduction to CLIL takes place in schools.

It was with the introduction of the law on school autonomy (n. 59/1997) and of its regulation (DPR 275/99) that Italian schools were allowed to activate flexible CLIL modules autonomously. A series of CLIL initiatives, activated by regional and provincial education authorities as well as by individual schools and teachers, especially thanks to the Lingue 2000 Project (funded through L.447/97), began to flourish throughout the country.

At this point, it is important to highlight the difficulties in mapping projects that sometimes have not been the result of formal training events, but of more informal self-training actions. In these cases, the personal initiative of teachers and head teachers in trying this new approach in their classes, because they have either read or heard about it, is where the decision to implement CLIL modules has sprung from. Although the lack of documentation renders the mapping work still more difficult, it is noteworthy to draw attention to GOLD, the database of the most significant and innovative experiences realized in Italian schools and run by ANSAS (National Agency for the School Autonomy Development), where it is possible to identify CLIL initiatives that have not been officially framed (http://gold.indire.it/nazionale).

Officially, documented and significant CLIL initiatives in Italy are mainly concentrated in Northern Italy. Beyond the initiatives concerned with models of bilingual education, TIE (Translanguage in Europe)-CLIL, funded through Socrates-Lingua Action A, was one of the first official Italian-coordinated CLIL projects. In 1998, together with nine partners from seven different countries, the Regional Education Authority for Lombardy aimed at providing pre- and in-service CLIL programmes for language and non-language subject teachers (Marsh, Langé, 1999; Marsh, Langé, 2000; Pavesi at al., 2001; Langé, Bertaux, 2002). In the wake of this project, ALI (Apprendimento Linguistico Integrato)- CLIL was implemented in 2001 by the same institution, aiming at training a consistent number of teachers in preparing modules, mainly through an e-learning platform, to be used in their classes (ALI-CLILonline) (Progetto Lingue Lombardia, MIUR USR Lombardia, 2005; Progetto Lingue Lombardia, MPI USR Lombardia, 2006, 2007a, 2007b). In 2006, the Regional Education Authority for Lombardy, the Centre Culturel and the Goethe-Institut in Milan implemented a new CLIL project, training high school teachers of German and French in a blended learning environment. They designed modules of contemporary History in German and French, using as a reference the French-German text-book of History Histoire/Geschichte L’Europe et le monde depuis 1945- Europe und die Welt seit 1945 published by Nathan / Klett in 2006. Moreover, the Regional Education Authority for Lombardy has recently monitored CLIL provision in Lombardy over the last five years. The results indicate a consistent number of CLIL experiences, distributed among 105 schools (Langé, 2007).
In 2001, IRRSAE (Regional Institute of Educational Research and Experimentation) Piedmont and the Regional Education Authority for Piedmont implemented SLIL (Science and Language Integrated Learning) for two school years. This project, which involved 45 classes from different school levels, was aimed at producing teaching modules that implied the use of a foreign language to learn scientific curriculum content (Barbero, Boella, 2003).

Beginning in 2002-2003 for two school years, the University of Venice, in collaboration with IRRE (Regional Institute of Educational Research) Veneto and the Regional Education Authority for Veneto, implemented Apprendo in Lingua 2. This project, which involved 14 secondary schools, was aimed at verifying whether communicative competence improves without disadvantaging the content learning if students are exposed to the foreign language for another segment of the curriculum (Cornivieri at al., 2004; Coonan, Marangon, 2007). Moreover, Laboratorio CLIL-University of Venice organizes annual CLIL on-line courses (http://venus.unive.it/labclil).

Rete CLIC/CLIL Udine was initiated in 2000 and it evolved into an association in 2001-2002. Ten secondary schools are part of this network, together with IRRE Friuli Venezia Giulia and the Regional Education Authority for Friuli Venezia Giulia. The network is aimed at sharing good CLIL practice.

In 2002, IRRE Emilia Romagna administered a regional survey on CLIL experiences. As a result, twenty-six schools confirmed they were using CLIL (Cucciarelli, 2003). Moreover, some CLIL experiences at primary school level in the Emilia Romagna region are presented in Bondi et al., 2006.

In the Special Statute region of Trentino Alto Adige, some CLIL experiences have been developed (Coonan, 1998; Ricci Garotti, 2004, 2006). The multi-year project ALIS (Progetto Apprendimento delle Lingue Straniere), implemented by IPRASE (Provincial Institute of Educational Research and Experimentation) Trentino, was aimed at promoting and sustaining motivation and enhancing linguistic competences. Thanks to this project, various CLIL roadmaps were developed in several classes at different school levels (Lucietto, 2008). Moreover, under the co-ordination of the University of Trento and the University of Venice, the research and research-action group LI.VE. (Lingue Veicolari) collected the experiments conducted in the regions of North-Eastern Italy (Ricci Garotti, 2007).

The Goethe-Institut in Italy has recently adopted the project “CLIL - Per un dialogo interculturale in Europa”, involving German Language and History teachers from different Italian schools and teachers from the Deutsche Schule in Rome. Three CLIL modules about History using the German language have been developed. They focus on important events that occurred in the 19th century and 20th centuries which represent significant turning points for the development of contemporary Europe (http://www.goethe.de/ins/it/lp/prj/pvo/the/clil/itindex.htm).

In addition to regional (Maggi et al., 2002), provincial and local seminars on CLIL, organized by education authorities and professional teachers’ associations (ANILS, LEND, TESOL), a national conference, devoted exclusively to CLIL, took place in Venice in 2004 (Coonan, 2006).

Among some other initiatives in the CLIL field, it is important to note that recent trainee school teachers are provided with CLIL materials and forums on the national ANSAS platform. Moreover, the University of Macerata, in collaboration with the University of Molise and IFOR (Training, Vocational Guidance and Research Institute) Matera, inserted a CLIL module in its online master course for teachers in 2007-2008 (http://celfi.unimc.it). Out of the 174 teachers attending the programme, 33 teachers from the Basilicata, Campania, Marche and Puglia regions chose to enrol in the CLIL module.
3. The need for an experimental approach to CLIL

Taking into account the specific Italian CLIL context and broader understanding of CLIL, a PhD research programme in “Experimental Education” at Sapienza University of Rome and the University of Basilicata began development in the field of CLIL in 2006-2007.

Working from the evidence that few experimental and longitudinal studies have been conducted in this field, and that there is a widespread consensus for a clear and deep investigation into the effects of CLIL in the Italian primary school context, the adoption of an experimental approach to CLIL seems to be both obvious and necessary. It is evident that the possibility of implementing a research study using the range of qualitative and quantitative methodologies may be explored in this area.

Engaging a rigorous experimental research on CLIL means being firmly linked to the theoretical framework on one side and being supported by empirical evidence on the other. Applying certain scientific procedures makes it possible for CLIL factors to be recorded as variables described according to precise statistical and analytical parameters so that the relationship between them can be envisaged and variations explained. Moreover, these procedures ensure that results are as objective as possible, therefore avoiding subjective appraisal.

4. The longitudinal research design

The initial step of this PhD research consisted of the clear and unambiguous identification of the problem to be studied in order to define a set of methods and procedures to test the research hypotheses with a high degree of confidence (Bieger, Gerlach, 1996). After focusing the PhD research on CLIL in Italian primary schools, a research design, defined as “the plan and structure of investigation, conceived so as to obtain answers to research questions” (Kerlinger, Lee, 2000, 449), was needed to offer some level of control over the study. In particular, it was clear that data would be analysed both quantitatively and qualitatively. This means that measuring characteristics as well as descriptions of attitudes and elements are both required. This is because the research goals pertain to both descriptive and relational research, offering a dual perspective of the problem to be analyzed. As a result, data being collected and analyzed through some techniques may be organically enriched by what emerges from the use of techniques of a different nature.

In particular, the goals to be achieved in this research are the following:

- mapping CLIL experiences in the Italian primary school context;
- describing various CLIL teaching models at primary school level;
- verifying the effectiveness of CLIL at primary school level, employing a longitudinal experimental design;
- building effective teacher-training programmes collaboratively.
4.1. Hypotheses

The hypothesis statement represents the most delicate and important phase, the most difficult to clarify and to codify (Fraisse, Piaget, 1966). Being precise and careful in stating hypotheses is fundamental to making the research enterprise worthwhile. To render the work of defining our CLIL hypotheses easier, the problem statement is based on a concrete need emerging from the literature framework. That is the need for a relevant investigation of the effects and benefits of CLIL teaching in primary school classes. In order to obtain a minimum amount of scientific information, it is always advisable to make at least one formal comparison (Campbell, Stanley, 1963). As a consequence, in our research design, the comparison between some CLIL classes and traditional ones has been scheduled for two consecutive years.

In particular, the hypotheses to be tested in this PhD research are:

- CLIL promotes a more meaningful learning of foreign languages at both qualitative and quantitative levels;
- CLIL evokes positive impact on learning subject content.

4.2. Sampling

Our PhD research design is characterized by the monitoring for two consecutive years of seven experimental primary school classes (4th grade in 2007-2008) where CLIL teaching is employed and seven control classes where the English language is taught in a traditional way. This specific sample size is fixed to guarantee internal balance in the research sample.

Taking into account the long and significant CLIL experience at primary school level in Lombardy, the selection of the sample in that region was guided by specific factors. Although the original idea was to involve those teachers who had taken part in the CLIL monitoring process, implemented by the Regional Education Authority for Lombardy in 2007 (Langé, 2007), it was soon evident that none of those teachers was currently teaching in the 4th grade. Thanks to the meticulous search for teachers carried out by Gisella Langé, Foreign Languages Inspector with the Italian Ministry of Education, University and Research and responsible for foreign language policies and projects at the Regional Education Authority for Lombardy, it was possible to identify seven teachers, available to participate in the experimental part of the research. In particular, they were chosen on the basis of a specific professional background, CLIL training included, and of their immediate agreement. As a result, five teachers are specialisti (teaching only the English language) and two teachers are specializzati (teaching the English language and other school subjects). In cases where the participant teacher is a specialist, the non-language subject teacher of that specific class is involved in the research as well. However, this double presence in the CLIL class is not routine because in Italy “gli insegnanti di scuola primaria hanno la fortuna di avere già una doppia competenza (linguistica e di materia) al contrario dei docenti di altri gradi di scuole” (primary school teachers luckily have a double competence (language and content) unlike the teachers at other school levels) (Costa, 2004, 124). This means that primary school teachers can easily move from language to content because their training allows them to set up CLIL projects without necessarily calling for help from class colleagues or getting the non-language subject teacher to attend CLIL lessons.

The experimental and control classes are situated in seven different schools in the area of Milan, Bergamo and Pavia. The amount of hours devoted to CLIL teaching is about twenty per year and the subjects involved are history, technology, art and science.
The sample consists of approximately 280 students, some of whom are excluded according to the same rules which were applied to PISA (Programme for International Student Assessment), 2006. In particular, the excluded students take part in the treatment and data collection but their performance is analyzed separately from the main sample. Students with functional and intellectual disability and with insufficient assessment language experience (OECD, 2005) are excluded from the main study, but they are given the opportunity to take part in the research. The exact extent of exclusions is reported by the participant teachers in each school sampling frame.

4.3. Instruments

As frequently mentioned (Borg, Gall, 1989; Bieger, Gerlach, 1996), in order to accomplish a high degree of confidence in testing the research hypothesis, it is essential to provide a series of instruments and procedures which allow the researcher to conclude that the obtained results are mainly referable to the treatment variables to be studied and not to extraneous factors. In order to analyze the treatment effect, a set of instruments has been developed to control and to highlight the specific interaction among variables. In particular, some of these instruments were administered in 2007-2008, at the beginning and at the end of the school year (4th grade). The rest of the instruments are to be administered in 2008-2009 (5th grade).

The instruments to be used have been fully constructed ad hoc for the experimental research, with the exception of the entry and exit tests of Italian language skills. In this case, reading comprehension and vocabulary exercises have been taken from a set of exercises used in a previous PhD research project (Corsini, 2007).

The instruments to be employed are the following:

- Entry-questionnaire for teachers of English (4th grade)
- Entry-questionnaire for non-language subject teachers (4th grade)
- Experimental class questionnaire (4th grade)
- Entry Student questionnaire (4th grade)
- Exit Student questionnaire (4th and 5th grade)
- Entry and exit test of Italian (4th and 5th grade)
- Exit test of English (4th and 5th grade)
- Student Journal (4th and 5th grade)
- Teacher Journal (4th and 5th grade)
- (Possible) Exit questionnaire for teachers (4th and 5th grade)
5. Conclusions
It is not possible to report the sequence of events that took place during the experimental research because it is still ongoing. For this reason, the procedure section would yield only partial results. Nor is it possible to present the data obtained in the experimental research and the analysis that has been performed up to this point. However, it is possible to state that various statistical methods have been adopted to analyze the data which have already been collected, identifying some points that need to be observed from a wider perspective.

Another important aspect to highlight is the high level of collaboration with the participant teachers with whom some instruments have been designed. In particular, the test of English, administered to both experimental and control classes at the end of the 4th grade, has been constructed collaboratively. Taking into account the Italian ministerial primary school syllabus, the Common European Framework of Reference for Languages (Council of Europe, 2001) and a reference document designed ad hoc for this research, the below-A1 level test was designed collectively. This was made possible through the use of both face to face and online meetings. Indeed, sharing ideas and suggestions is always possible through the Sapienza e-learning platform at the University of Rome (http://elearning.uniroma1.it/course/category.php?id=44) where all the research instruments and documents have been uploaded.

Keeping a journal is another tool used in the research. This instrument provides subsidiary information, extremely useful for explaining results and to show teachers’ attitudes towards the CLIL approach. The journal is structured with a series of entries to foster reflection. However, it is possible for teachers to add anything considered useful, which can be done freely and in a narrative format.

Face to face meetings, the virtual environment, and the journal, are valuable tools for building up a realistic academic and school research project. CLIL seems to represent an effective training opportunity for reflection and share of opinions by the teachers and researchers involved. However, it will be possible to have a wider and more precise idea about the effects of CLIL on teaching at the end of this experimental research.

In 2009, at the end of this PhD research project, it will be possible to discuss the interpretation of results and to present future research perspectives.

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