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**CHALLENGES AND INNOVATION THROUGH CONTENT AND
LANGUAGE INTEGRATED LEARNING**

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Abstract

Content and Language Integrated Learning – with the acronym CLIL – is an innovative methodology, summarized by the formula two in one, specific to action teaching which promotes integrated approaches. It is the combined learning of a non-linguistic school subject and a secondary language enrolled in the school curriculum. This article is based on a research project of the Institute for Educational Sciences that investigated CLIL experiences in Romania. Most CLIL-projects were developed on local or on regional level by teachers or by school-communities, which is a sign of decentralization of the school-system. Good results were reported by the participants involved in these projects (children, teachers, head-teachers). Although the projects involved different subjects, different secondary languages and they were developed in different areas of Romania, common challenges have been identified. Among the challenges were the extension of the time-budget needed for the preparation of the classes, the preparation of the human resource and the cooperation between teachers of different subjects, the need for a richer learning environment for children. Teachers and head-teachers have also identified some solutions to overcome difficult situations that occurred during the CLIL-projects and to promote innovation in learning. The cultural centers in Romania have supported some of the projects on regional level and also the policy of the Romanian Ministry of Education to develop foreign language learning on national level.

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1. Introduction

Content and Language Integrated Learning (CLIL) is an innovative methodology developed in Europe mainly after 1990. From the historical point of view, its roots are in the bilingual education and in multilingualism that has gained in value with the fast changes in our modern and postmodern society. This methodology refers to the combined learning of a non-linguistic school subject and a secondary language – foreign language, regional language, minority language, language other than the official one – enrolled in the school curriculum.

In the literature of the last decade, CLIL is equally defined as a cognitive and cultural learning and communication space that favors collaborative learning with an impact on learning to learn. This methodology promotes participative methods, which have been monitored and validated in certain contexts. The learning environment is exciting and the new technologies are frequently used. Teachers involved in such programs are motivated, open to innovation and collaboration, to professional and personal development. They often use task-based teaching (Ellis, 2003), involving students in activities which require them to use language with an emphasis on meaning, to attain an objective.

The CLIL's meta-language has undergone an accentuated formalization process over the past ten years, due to multilateral projects. Conceptual maps, reference frameworks, curricular design standards have been established, calibrated descriptors for assessing language skills have been selected and disseminated according to the Common European Framework of Reference for Languages. This growing complexity explains why in many European schools, including in Romania, the learning environment of CLIL appears to be attractive, but it is accompanied by many challenges that make it difficult for teachers to engage in the assimilation and implementation of this methodology. Specialists admit that conventional evaluation tools are not suitable in this case and must be adapted to the CLIL methodology (Quartapelle, 2012).

2. Problem Statement

There is an increasing interest of the society (employers, parents and their children) for the use of foreign languages. The increasing demand leads to the diversification of the courses offered, sometimes to interdisciplinary approaches, to the decreasing age of the students who follow language courses (it is moving more and more towards younger students) (Pegulescu, 2014).

The educational policies in Romania regarding teaching/ learning foreign language took these aspects into consideration. In the new curricula for primary and secondary education foreign languages have a privileged position. Classes for the first foreign language became compulsory since 2013: one class/ week for the first three school-years (children aged 6 to 8), two classes/ week for the next two years of the primary and for the secondary level. Extensions are possible as optional courses, on both levels. The intensive study of the first foreign language refers to the supplementation of the program with 1-2 classes/ week during the secondary education. Bilingual classes can be organized in the upper secondary level: students have four language classes and one class of history/ geography/ culture and civilisation of the foreign country/ week taught in the first foreign language.

The study of the second foreign language starts in the lower secondary school (children aged 11) with one class/ week and continues with two classes/ week in the upper secondary school (core curriculum). Extensions are possible in different ways, as optional courses or at school decision.

Teaching/ learning foreign languages is also supported by cultural centers and embassies of the respective countries, often through agreements with the Ministry of Education. They stipulate concrete measures to strengthen these activities: support of teacher training programs, competitions and events, development of international projects etc.

This article is based on a research project of the Institute for Educational Sciences that has investigated CLIL experiences in Romania in order to see how these experiences have enriched education in the country. Although there is a broad consensus regarding the concomitant approach of the linguistic and the cognitive dimensions while using CLIL, it becomes obvious that there is no single model, no exclusive normative pattern, but rather a consonant variety of experiences, based on common principles, requirements and criteria (Cuciureanu, 2017).

3. Research Questions

The main research question refer to the following issues: What makes CLIL attractive for teachers and students? Do CLIL experiences in Romania facilitate authentic learning situations? Are communication and collaboration stimulated by CLIL, both at the level of the students and of the teachers involved in such projects? Which are the main challenges of CLIL projects?

4. Purpose of the Study

In order to answer those questions it was necessary to identify and analyze CLIL experiences in the Romanian education system and to describe the main advantages and challenges that have arisen in some of the CLIL projects carried out in Romania. Data was gathered and analyzed, the potential of various schools to develop CLIL programs was explored and some recommendations were elaborated.

5. Research Methods

This exploratory research has used as research methods: the analysis of documents (studies, reports on CLIL projects, relevant school documents); an online survey – to identify CLIL experiences in Romania; individual interviews with education experts (head-teachers, inspectors, representatives of educational organizations/ cultural centers) – to identify CLIL good practices and their impact at local level; individual/ group interviews with teachers and group interviews with students involved in CLIL projects – to identify opportunities and challenges of CLIL projects.

The research was conducted during 2016-2018 and envisaged projects from the past five years.

Through the online-survey sent to all school-inspectorates in Romania a wide range of projects have been identified, with respect to the location and timeframe, the envisaged type and level of education, the involved subjects, the form of organization, the financing of the project, the number of people/ students involved etc. A selection of these projects was made and a qualitative research was conducted in 20 Romanian schools and in four cultural centers promoting CLIL projects and foreign language teaching.

6. Findings

Most CLIL-projects were developed on local level, only few on regional level. Those developed on regional level have usually had the support of cultural centers (Goethe Institut, Instituto Cervantes etc.) and the approval of the local administration, while those developed locally are initiatives of individuals or teams of teachers within a school, sometimes in the frame of multilateral projects and with financial support of European programs (Erasmus+, Comenius, Leonardo da Vinci etc.). It is a sign of decentralization of the school-system that they were not promoted by the central administration, but they were rather initiatives of teachers and of school-communities. Generally speaking, the results of these projects were very good.

As children learn best from authentic situations, many teachers have changed their teaching approach. They brought real questions into discussion, led children to solve problems they encountered in every-day-life, used more experiments in class. The participative methods involved children actively in the learning process, helped them find answers and new questions, enhanced communication and collaboration.

CLIL also involves communication and cooperation between teachers of different subjects, each of them bringing the own expertise and enriching the learning environment. Some of them experienced tandem teaching, peer learning and blended learning during the projects.

Due to the restrictive space of this article, a selection of the CLIL projects was made and two relevant projects will be briefly presented.

6.1. The project "A Laboratory for Physics / Chemistry and Language"

6.1.1. Context description:

In the timeframe 2012-2016, the project "A Laboratory for Physics/ Chemistry and Language" was conducted in eight schools in Romania under the direction of the Goethe Institute Bucharest. The project was approved by the Romanian Ministry of Education and financed by the Foreign Office of the Federal Republic of Germany. The schools involved were in Brăila, Constanța, Dolj, Galați, Giurgiu, Mehedinți and Prahova counties. The project promoted an experimental, task- and action-oriented teaching of natural sciences (physics and chemistry) in German, using the innovative CLIL methodology and task-oriented learning (Cuciureanu, 2017).

6.1.2. The profile of the selected schools:

The eight schools that participated in the project had some common features which lead to an "optimal profile" of the funded schools. They were offering lower and upper secondary education and were defined by: excellence of the schools, very good performances of the students (visible through their results at the National Evaluation and the Baccalaureate); existence of science rooms and the willingness of subject teachers to work with students hands-on in those rooms; willingness of the school community to support foreign languages and the interest of students for foreign languages; the existence of German classes in school; an active, innovative team of teachers, willing to work together, to experiment, to receive training in the CLIL methodology and in German language, to develop the new methodology, to network; efficient school management and its willingness to support the project.

They were selected by public tender and a national contest. Two schools entered the project in 2012, five of them in 2013 and one school in 2014. The gradual entrance in the project enabled the mutual learning within the team of teachers involved, on one hand, and the progressive adjustment of the support to the local needs and realities, on the other hand (eg. the extension of the project for chemistry).

6.1.3. Supporting measures:

The schools had the support of the Goethe Institute and of the Ministry of Education through the following measures: elaboration of a legal framework for this project and concluding institutional partnerships; training in German language of subject teachers through language courses offered by the Goethe Institute (from A1 up to C2); training in the CLIL methodology and in teamwork of subject teachers and German teachers, through joint courses and through a study trip to educational institutions in Germany; specific measures like equipping the laboratories with experimental kits for practical work and with literature; developing of teaching materials; organizing of the competition "Experiments - Differently", during the week "School differently"; organizing of scientific exhibitions; guidance in the field of didactics of sciences and of the German language during seminars, conferences, courses and joint workshops; supporting cooperation and networking; promoting the CLIL methodology (natural sciences and German language) and popularizing the project among decision-makers, school communities and the public; ensuring of objectivity and transparency of the progress through regular reports.

6.1.4. Results of the project:

The results refer to the activity of the students, as well as of the involved teachers. The subject teachers followed language courses and attained certificates for the levels A1.2 to C2.1, depending on the year they entered the project and on their personal involvement in the courses. Among the difficulties mentioned by them were the specific vocabulary in German and the logistics of the courses. Both subject and language teachers were counseled by experts in CLIL and they collaborated in the development of planning and teaching materials. The main difficulty concerning this aspect was that more time was needed for the elaboration of the materials, for cooperation and networking.

The students were continuously monitored and evaluated, both in subject and in language matters using portfolios, projects, competitions, exhibitions, self- and peer-evaluation. The results were mainly the final products they made and presented. The well being in class, the enhanced cooperation and communication between children, as well as their increased level of knowledge were regarded by the students as positive results of the participation in this project.

6.1.5. Impact of the project:

The impact of the project was positive for all concerned. The students appreciated: the practical, experimental, dynamic and interactive learning of physics in German; the relaxed, sometimes even playful, less formal character of physics/ chemistry classes; the development of team spirit and cooperation, influencing the relationships between students; the achieved communication skills, transferable to other contexts (inside and outside the school), the participants' personal development.

From teachers' point of view, the project's greatest merit was the new methodological paradigm, quite different from what is common in Romanian didactics: the action-oriented, experimental, integrated, interdisciplinary teaching methodology. The acquired language skills and cooperation in the teaching team were very important for them, too.

From the point of view of the head-teachers, the biggest merit of the project was the visibility of their school in the region, the increasing interest of parents and students for the German language, the modernization of the equipment in the laboratories and their more intensive use.

6.2. The project "Math Around Us"

6.2.1. Context description:

The project "Math Around Us" was coordinated by the Technical College Ana Aslan in Cluj-Napoca (Math Around Us, 2015-2017) and co-funded by the European Commission through the Erasmus + program. It involved seven other schools from Greece, Poland, Italy, Portugal, Lithuania, Denmark and Hungary. The target group consisted of about 4000 students aged 14 to 18 from the eight partner countries, a quarter of them with socially and economically disadvantaged backgrounds. The project aimed to improve students' mathematics skills and competences, to increase their motivation to learn math, to extend the professional development of teachers through participation to workshops on peer-learning, CLIL and blended learning, to enable them to create innovative teaching materials, to improve ICT skills and communication in English.

6.2.2. Profile of the school:

This school used to have primary, lower and upper secondary education, but starting with 2009 it was reorganized and gradually lost the primary and lower secondary levels. It is a technical college (with about 440 pupils and 34 teachers), where students get specialized in environment protection and industrial chemistry. Moreover it offers vocational classes and post secondary education. About half of the students come from the rural area and have social and economical disadvantages. The management of the school was stable for many years. The head-teacher and most teachers of this school are very interested in developing the school through projects.

6.2.3. Support:

The financial support granted by the Erasmus+ program covered short-term exchanges for students and teachers, as well as the final products of this project.

6.2.4. Results of the project:

The final products of this project were: the project's website, located on the e-Twinning Learning Platform, where lessons can be downloaded for free; a digital book containing eight chapters, one for each topic studied (Mathematics in Sciences / in Arts/ in the Environment/ in Music/ in Astronomy/ in Informatics/ in Archeology/ in Geography); a new curriculum for optional mathematics classes; a mobile/tablet application game, available for free on App Store and Google Play, starting with the school year 2016-2017.

6.2.5. Impact of the project:

The impact of the project was positive for the involved teachers and students. The students' motivation to learn has increased, the absenteeism in school went down, the students became more actively involved in mathematics and English classes, they developed better skills in English communication and in ICT; the teachers collaborated intensively, tandem teaching was experimented, subject teachers improved their skills in English communication and international collaboration.

Some of the challenges that occurred were related to the rules of the Romanian school system: in technical colleges optional courses may be offered only for technical subjects (not for language courses). Yet it was possible to offer it as an interdisciplinary course due to the good cooperation between the subject and the English teachers. Not all activities could be remunerated (in tandem teaching only one of the two teachers could be paid for those classes). Other challenges like the difficult technical vocabulary, a larger time budget or some supplementary expenses were overcome due to the high motivation of teachers and students to succeed and to their joy to participate in this project.

7. Conclusion

CLIL is attractive for teachers and students because it enhances communication skills in foreign languages and cooperation between participants with different backgrounds and interests. It enables students to learn in authentic situations, actively, to experiment. Their motivation for learning increases. As optional courses it has more stability and continuity than as a club activity. Teachers can be remunerated only if the course is organized as an optional course, as club activity it is on voluntary basis. CLIL projects prepare students for an interdisciplinary approach, for teamwork, for problem solving. However, participation in such projects should remain voluntary for both teachers and students, it should be in accordance with their interests. This ensures a high level of intrinsic motivation, which can lead to the success of these projects.

Common challenges that have been identified are: an extension of the time-budget needed for the preparation of the classes and of the materials, the training of the human resource and the cooperation between teachers of different subjects, a richer learning environment for children, often related to a supplementary budget of the schools involved in CLIL projects.

Teachers and head-teachers have identified some solutions to overcome difficult situations that occurred. Through different (international) funding, they have purchased supplies for the school-laboratories, teachers have joined training courses for the CLIL-methodology, they have elaborated new didactic materials for CLIL-activities. The cultural centers and embassies in Romania have supported some projects on regional level and the policy of the Romanian Ministry of Education to develop foreign language learning on national level. Initial and continuous teacher training should provide on a larger scale the necessary qualifications for the CLIL methodology.

The cooperation and networking were named as important merits of CLIL projects. Functional teachers' networks could facilitate the access of other schools and teachers to the gained experiences.

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