

THE CORRELATION AND INTEGRATION OF CLIL INTO PE AND THE REFLECTION ON TEACHER TRAINING PROGRAMS

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Abstract

Our starting point in this paper is based on the evidence that physical education (PE) correlates with CLIL and the level of EFL knowledge is significantly increased when classes of English and PE are combined in education. This opinion refers to primary, secondary and higher education. The findings obtained through multiple experiments which were carried out with students from 11 to 25 years of age were justified in the tests and observation charts which come as a result of psycholinguistic, neurolinguistic, pedagogical and medical scientific research.

CLIL – Content Language Integrated Learning is a foreign language teaching model that triggers the imagination, boosts brain, and works on making students interested in receiving and giving information based on the language content. More energy for getting involved in reasoning about problem-solving and prolonged motivation for tasks requiring brainwashing is major components of the method. A bilingual approach to teaching PE and learning a foreign language requires good initial teacher preparation.

The aim of the paper is to put stress on the advantages of a bilingual approach to teaching foreign languages and PE in correlation and to give guidelines for the additional pedagogic preparation of teachers.

Key words: CLIL, PE, correlation, bilingual approach

Introduction

Successful society develops if their members are healthy, and health, among other things, fosters physical activity, which is good for the body as well as for the spirit of man. "In a healthy body, a healthy spirit is inhabited". It is the statement that leads the way toward a healthy nation with a good perspective for the development of society as a whole.

The relationship between physical activity and cognitive function (Etnier et al., 1997; Crabbe and Dishman 2004; Chang et al., 2012; Cox et al., 2016) in young students, teenagers and young adults shows positive correlation and responds to teaching demands for a successful, appropriate and expected knowledge of the foreign language. Based on the research executed by Helen O'Connor, there is evidence that physical activity (PA) positively affects cognitive function (CF), Helen O'Connor (2016). The study included a younger and slightly older population of 18 to 50 years of age. Modern society depends on the young population. They are the leaders and promoters of new, fresh ideas, views for success, reasoning that claims for better solutions to world problems, and self-conscious individuals who firmly defend their attitudes because they are self-confident and trustworthy.

Physical education (PE) in schools fosters physical activity which affects cognition and brain function becomes boosted by impulses that body in action sends in order to activate not just body but brain and spirit altogether. This paper has the goal to appoint to PE as an important factor in motivating the whole body to send feedback to cognitive processes of the students to inspire their desire to learn a foreign language with better interest and purpose.

Our intention is to advocate for teacher preparatory courses in the direction to develop teaching skills that will provide them to integrate CLIL into teaching PE. We strongly believe that teachers of foreign languages would gain better prospects in the organization of teaching classes if they take PE as the motivating tool that triggers brain and helps students learn and get successful knowledge.

This paper underlines the learning of English as a foreign and global language in the New Era.

Principals of integration of CLIL teaching model in PE

There is an increasing interest in investigating the effects that physical activity produces on brain activity which is realized through cognitive function and knowledge of the subject matter. Cox, et al. (2016) investigated the relationship between physical activity and cognitive function in healthy young people. The result was that physical activity positively affects cognitive function. This positive correlation can be used to more adequately acquire knowledge of a foreign English language while at the same time the student is actively engaged in sports or in physical education classes in schools. Paterson and Warburton (2010), as well as Ryan et al. (2017), justified the hypothesis that regular physical activity supports the positive impact on the brain and cognitive function. "Effects of bodily activity on cognition have been studied for several decades and are meanwhile widely accepted (Colcombe & Kramer, 2003; Cox et al. 2015; Esteban-Cornejo, Tejero-Gonzalez, Sallis, & Veiga, 2015; Etner et al., 1997). However, the influence on the specific brain activation patterns is barely examined" (Alexandra Pantzar et al., 2018). Christopher Bergland (2014) in his article *Physical Activity Improves Cognitive Function* concludes that regular physical activity improves brain function throughout a lifespan. In Lyons Dylan's (2017) article we can read that learning a foreign language while at the same time a person is involved in physical exercise or activity, allows faster and more accurate and long-lasting knowledge of the foreign language. The experiment was executed with two groups of students. They were asked to learn and develop the English vocabulary. The first group was learning new English words while riding a stationary exercise bike, whereas the second group was staying still and learning vocabulary. It was proved that the first group of students, those who were riding a stationary exercise bike, learned the English words more precisely than the second group. When the experiment was repeated the same way after a period of time with the same two groups of students, it was proved that the active group retained the learned knowledge of English words while the other group was not successful in the same way.

"We are not suggesting that schools or teachers buy lots of bicycles," Gretchen Reynolds says. "A simpler take-home message may be that instruction should be flanked by physical activity. Sitting for hours and hours without moving is not the best way to learn", published in the Public Library of Science Journal (PLOSJ, 2017).

The conclusion reached by this research shows that physical activity attracts and strengthens one's mind, and cognitive function is stimulated. As a result, the student acquires, develops and establishes the knowledge of a foreign, English, language.

What kinds of neurological processes occur during the physical exercise and simultaneous teaching and learning English, is unknown, but neurologists and medical scientists think that physical activity changes the biology of the brain, or, it is about brain plasticity. This refers to a brain that becomes more "willing" to accept learning and ground knowledge of English. "Many past studies have shown that exercise prompts the release of multiple neurochemicals in the brain that help increase the number of new brain cells and the connections between neurons". These effects "improve the brain's plasticity and augment the ability to learn" (Reynolds, 2017).

The process of teaching a foreign language is based on a certain theory within which the methods and approaches are applied in active work with students. All three relevant parts – theory, method, approach - of the teaching process are dependent on the global teaching aim and the goal of education. However, all are subject to change.

The goals of education depend on the needs of the modern era and the guidelines for the educational development of the individual and the need for expanding knowledge, understanding the problems on a global scale and opening the perspective and ability of a man to make good solutions according to the circumstances in which they arise. It has long been rejected the idea of developing foreign language learning through repetition and deduction. Gathering information from different sources, of which the teacher is only one possible source, thinking about the issue leads to reasoning and making conclusions. Therefore, the cognitive theory becomes the leading one in planning and organizing the teaching process.

In a constant search for a foreign language teaching model, English as a global one, we come to the method for facilitating learning a foreign language in the last two decades under the name of CLIL: Content Language Integrated Learning. This model of teaching English is based on globally relevant contents and integrates one more subject matter apart from only English learning: PE. It is about physical education and sports that is integrated with English language learning class (Tomprowski et al., 2008:9). CLIL is a dual-focused educational approach in which an additional language is used for the learning and teaching of content and language with the objective of promoting both content and language mastery to predefined levels (Maljers, Marsh, Wolff, Genesee, Frigols Martín, Mehisto, 2010).

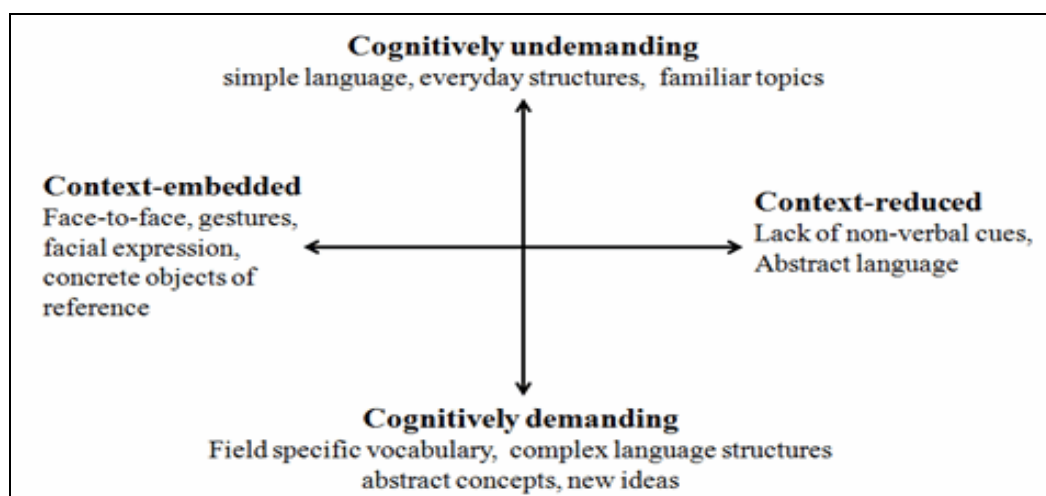


Fig. no. 1. The range of contextual support and degree of cognitive involvement in communicative activities (after Cummins & Swain, 1996)

Language learning is based on particular contents. We will appoint to four content fields within which learning activities with students are developed:

1. The first place goes to *tasks* through which students practice their language skills and abilities, think about received information and ideas, and solve tasks the way they know, based on experience.
2. *Target culture* makes a very important content to develop interesting themes and topics in order to introduce elements of the culture of the language students learn. The themes are introduced in language teaching at the intercultural level.
3. *Free conversation* classes when students improvise and get involved in various communication activities. This type of activity is very productive and gives freedom to students to apply the language and knowledge they learned and acquired through teaching classes.
4. *Everyday language* (common language) is the medium of conversation.

Jacobs Heidi (2013) in her book, *Mastering Global Literacy, Contemporary Perspective on Literacy*, distinguishes three major perspectives for getting knowledge: "learning, thinking and innovation skills". She says that *thinking* should be creative and use "systems thinking", whereas *skills* should be "associated with life and careers, such as designing, evaluating, and managing one's own work for ongoing improvement and adapting to change". Students improve their cognitive abilities which are manifested in problem-solving, decision-making, producing and performing the language, English as a foreign language, and strengthening memory.

The goal of this paper is to confirm our standpoint that learning English as a foreign language is much more naturally developed and the knowledge of English is successfully acquired when the language learning takes place in a relaxed atmosphere, under less stressed teaching conditions. Physical and language learning activity correlate positively and affect the success of English language learning. The correlation and integration

of the two subject matters – PE and EFL through CLIL model of teaching, have become popular and started spreading around world countries like Spain, Poland, Italy, China, in recent years.

The third element, which plays an important role in the integration of English language education into physical education, is the pedagogical education of English language and PE teachers.

Further pedagogic preparatory teacher courses

Prior to starting PE teaching through the CLIL program or before teaching English as a foreign language integrated into PE teaching, a detailed teacher training plan should be made for both school subjects. The cooperation between teachers of PE and English as a foreign language is inevitable and significant. An English teacher would be involved in planning the content that would be included at the time of the PE, while a PE teacher would develop a plan of activities and physical exercises that could contribute to better student productivity in learning a foreign language.

Preparation of teachers for PE teaching time with the acquisition of English language skills is an important link in the realization of CLIL teaching. The impression is that PE teachers receive greater responsibility for organizing PE time and that English language teachers have the task of helping school students and higher education students achieve the learning goals of a given language in a relaxed, physically active atmosphere. The teaching time that is designed in this way will help students to think about the problem and make conclusions on the spot. Students will gain benefits from the contribution that PE can make on the student's personal development in both activities: physical and mental. It is important to emphasize that through integrated teaching, CLIL in PE, the following goals are achieved: linguistic, cultural, cognitive and motor.

The preparatory course for English language teachers who participate in the CLIL program integrated into the PE must include the following elements: teaching theories with emphasis on cognitive functions, methods, and approaches, techniques of work with pupils that allow applicability and the realization of teaching methods within a certain theory. For the teachers of PE and sports, it will be important to appoint to various physical activities and sports and their reflection on the cognitive abilities and functions that develop as they are stimulated by physical activity through the chosen sport.

"The World English Project" (Graddol, 2006) is about integrating CLIL in different school subjects, as is the matter of teaching PE and English as a foreign language during the same teaching time. The project is concerned with the idea that teachers of any subject should develop English language skill and the teaching class would be bilingually based. The idea of teaching school subjects by integration of CLIL and cooperation with English and PE teacher is part of globalization which is spreading across the planet Earth. "If this project succeeds, it could generate over two billion new speakers of English within a decade"(Graddol, 2006:96-97). "For a start", Graddol suggests, that "global English may mean the end of 'English as a Foreign Language' and that the language will shift over to becoming a basic skill" (Hillyard, 2011: 2). In primary and secondary schools some or most of the subjects will be taught in English. This phase is seen as the approach to the bilingual nation: the language of origin combined in teaching classes with English knowledge to use it fluently in various English proficient situations. Students at universities should enroll with excellent knowledge of English or at least such knowledge that will allow them to use English literature for the purpose of studies and future profession and career.

Serbia is one among the countries in Europe that have introduced CLIL into the primary and secondary school curriculum. Some school subjects have teaching programs where CLIL is integrated with mathematics, geography, history or there is another chosen subject by the School Board of teachers. This type of teaching could be classified as a monolingual model of CLIL. Learners are non-English speakers who are educated in their native country, and few subjects are teaching-based on CLIL model. At Serbian universities, some departments have developed a CLIL integrated model of teaching throughout four years of studying program. This type of special program with integrated CLIL in all courses can be referred to as bilingual. Our conclusion with regard to "The World English Project" takes into account the global urge to make world citizens bilingual with English as one of the world languages. Whether such an effort is justified or not, is another issue that will not be discussed in this article.

The CLIL model of integrated teaching of English as a foreign language and some other subject in the education curriculum poses a different role to an English language teacher in the process of teaching. This

different role of English language teachers is reflected, in the first place, in the fact that English becomes a means of teaching rather than the subject of teaching as it was in the EFL or ESL teaching model in earlier decades. The teacher of PE with CLIL integrated program of teaching English, regard the language as a tool in teaching a PE class. Another important element is the cooperation of English and PE teacher. Without mutual cooperation, the teaching of physical education and English language teaching cannot be successfully realized.

The complexity of the role of English language teachers inevitably leads to changes in the subject and the organization of methodological education of teachers for teaching in the CLIL model. Hillyard (2011:5) states that teachers involved in the CLIL model of teaching need three different abilities to develop: "target language ability, content knowledge, and CLIL methodology".

Target language ability is understood as the knowledge of "common" English language with authentic phrases and language manipulations used in "free" conversation and in discussions in which students show abilities and skills to produce language functions in real-life situations. The language should be appropriate to the language content.

Content knowledge refers to syllable contents and skills developed on the cognitive level. *CLIL methodology* has the goal to teach students to respond to the content of the teaching class, their output which shows their thinking skills. It is about thinking and doing.

Teacher training course for teaching through CLIL model requires certain language skills and abilities, professional education as regards a commitment to cognitive, social and affective personal development that will be acquired during the teaching program. It is expected that teachers of CLIL develop and expand abilities to explore, define and articulate their pedagogical and content competencies. They must be informed about the developmental needs according to CEFR (Common European Framework of Reference). They must know principals of teaching and learning techniques and must be able to take and manage multiple teaching roles and be capable of helping students receive knowledge according to the teaching content. CLIL teachers develop, model and implement strategies to support language learning in content classes.

Conclusion

The concept of CLIL integration into PE and ELT requires knowledge, skills, and abilities for the assessment of the program into classroom teaching. The steps that teachers who are involved in the teaching must pass are multiple and demanding. Detailed design of the initial preparatory course for teachers of English and PE has grounds in:

1. Globalization as the general world process and the role of English as the global language.
2. The second field to cover is CLIL: the meaning, the application, the development, and the expectancies from the model of teaching in real-life language learning situations.
3. Comparative studies of ELT models of teaching have the importance of planning and organizing the teaching of English as a foreign language.

Besides the core areas to study during the preparatory teacher course, minor but equally important issues to study are

1. developing the ability to cooperate with co-teachers and teachers of English as a foreign language;
2. learning to become active in social life and inspire students to get involved in social activities;
3. working on self-improvement and how to develop self-criticism to one's work and mutual support in working with students;
4. making good professional relationships with colleagues and students which they develop and improve through time;
5. networking programs and administer them through a training course.

We believe that the objectives of world achievements through globalization that was forced upon us determine the basis for the adoption of a program of global education and future demands of world society in possession of knowledge that will help in the realization of global tasks and CLIL as a part of a global program. Physical activity stimulates cognitive function and thus opens the way for better results in learning English. Therefore, we think it is excellent and adequately fits the concept of integrating CLIL into PE teaching. We

believe that there should be more research as regards the methodological approach of learning English as a global language through CLIL model of teaching English and PE. At universities in Serbia, this kind of bilingual instruction would give, we believe, good results and enable the greater presence of Serbian ideas around the world.

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