The Role of Individual Differences in Content and Language Integrated Learning Success

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This book is dedicated to my Parents, particularly my Mother.

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INTRODUCTION

At the turn of the century, technological development and globalization strongly influenced all spheres of life to greatly change the way in which people work and study (see Cope and Kalantzis 2000; Coyle, Hood, and Marsh 2010; Hargreaves 2003; Jalkanen, Pitkänen-Huhta, and Taalas 2012; Jenkins 2006; Kalantzis and Cope 2008; Pennycook 2010). The exchange of information and knowledge facilitated by technology affects all activities (see Jalkanen et al. 2012; Mehisto, Marsh, and Frigols 2008). These changes have also had an impact on education, including foreign language teaching. Modern technology is used in different ways to improve the teaching processes. Apart from that, educators implement new methods that facilitate foreign language learning. Emphasis has recently been placed on those that can evoke learners' interest in learning both foreign languages and content subjects. In this context, *Content and Language Integrated Learning* (*CLIL*) gains momentum as "a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language" (Mehisto, Marsh, and Frigols 2008, 9).

The term Content and Language Integrated Learning was coined in Europe in 1994 by a group of experts from different backgrounds, including educational administrators and researchers (see Juan-Garau and Salazar-Noguera 2015; Coyle, Hood, and Marsh 2010; Dalton-Puffer 2007; Coyle 2002; Marsh 2002). However, CLIL is an idea with a historical background (Coyle, Hood, and Marsh 2010; Eurydice 2006; Hanesová 2015; Nawrot-Lis 2019). Several educational models that focused on teaching content subjects using a foreign language can be traced back in time (Coyle, Hood, and Marsh 2010). One was used by the Akkadians who wanted to learn Sumerian, the language used by inhabitants of the conquered area. To achieve this, Sumerian was used as a medium of instruction to teach content subjects, such as botany or zoology.

A pivotal role in supporting CLIL education, which is mirrored in the legal regulations introduced so far, has been played by the European Union. *The Resolution of the Council* of 1995 is one of the first legal documents relevant to CLIL development which supports the promotion of innovative methods and, particularly, the teaching of content subjects in a foreign language. Moreover, it states that the quality of training for language teachers should be improved by encouraging exchange between member states of the European Union. This includes higher education students

working as language assistants in schools, giving priority to foreign language teachers or those who are expected to teach CLIL (Eurydice 2006).

Another document relevant to the development of CLIL is *The Bologna Declaration*, signed in 1999. This document defines the fundamental objectives of European education; for instance, the establishment of a common system of credits to increase the mobility of students, the promotion of the mobility of students, teachers, researchers, and administrative staff, and the promotion of the European dimension in higher education by enabling the exchange of students and staff and curriculum development. This and other legal documents introduced by the European Union also emphasize and support the role of teaching foreign languages during content subjects. Thus, these documents among others also seem to exert a certain influence on CLIL education.

When it comes to Poland, according to *The Eurydice Report* (2006), the first CLIL provision was offered in regional and/or minority languages at the end of the 1940s or in the 1950s. This type of education employed one or more foreign languages in later periods. The dates for introducing CLIL-like programs in Poland vary (e.g. the 1950s, 1960s, 1980s or 1990s) according to different sources (Eurydice 2006). Yet, 1991 is the year when the first official regulation regarding CLIL in Poland was sanctioned, namely, *Law on the Educational System* (*Ustawa o systemie oświaty z 7 września 1991*).

The reason for the popularity of CLIL in Europe can be attributed to its success in teaching CLIL language and content subjects. Overall, the results of studies carried out abroad indicate that CLIL learners outperform non-CLIL learners both in terms of foreign language proficiency and content subjects (e.g. Ball, Kelly, and Clegg 2015; Bredenbröker 2000; Bulté, Surmont, and Martens 2022; Pérez-Cañado 2018; Catalán, Ruiz de Zarobe, and Iragui 2006; Kiziltan and Ersanli 2007; Lasagabaster 2008; Surmont, Struys, Noort, and Craen 2016; Navés and Victori 2010; Vraciu and Marsol 2023). Owing to this fact, the researchers are interested in finding factors that are responsible for the success of CLIL in teaching foreign languages and content subjects (e.g. Lasagabaster 2011; Pérez-Cañado 2018).

One of the factors considered when explaining the differences found in mastering an L2 between students is individual differences (cf. Dörnyei 2005; Skehan 1991). In the case of general foreign language education, the role of individual variables, such as motivation, autonomy and beliefs about foreign language learning among others, has been intensively researched. Although such studies are relatively few and far between in the CLIL setting, they indicate significant advantages in favor of CLIL (e.g. Arribas 2016; Lasagabaster 2011; Hu, Said, and Hashim 2022; Pérez-Cañado 2018; Seikkula-Leino 2007).

When the studies carried out in Poland (e.g. Papaja 2012; Możejko 2013; Czura and Kołodyńska 2015; Pitura and Chmielarz 2017; Czura and Anklewicz 2018) are juxtaposed with those conducted abroad, one under-researched area can be noticed. Namely, there are relatively few studies investigating language outcomes and individual variables together (e.g. Papaja 2010; Pitura and Chmielarz 2017). The studies carried out in Poland have mainly focused on the analysis of CLIL classes, the type of methodology deployed by CLIL teachers, teachers' roles, and teachers' and learners' expectations regarding this approach (e.g. Jurkowski and Możejko 2016; Papaja 2013). Certain studies have also analyzed language and content subject outcomes (e.g. Papaja 2014; Nawrot-Lis 2019). Other studies have examined motivation, attitudes or beliefs (e.g. Możejko 2013; Otwinowska 2013; Papaja 2012).

To bridge the gap in the domain of CLIL learners' language outcomes and selected individual variables in the Polish educational context, we decided to carry out a research study on CLIL over one term in two secondary schools in Poland, namely, Tadeusz Kościuszko Second High School in Kalisz [PL *II Liceum Ogólnokształcące im. Tadeusza Kościuszki w Kaliszu*] and Tadeusz Kościuszko First High School in Konin [PL *I Liceum Ogólnokształcące im. Tadeusza Kościuszki w Koninie*]. Two groups of participants were involved in the study, namely, CLIL and non-CLIL learners. It should be noted that whenever the phrase *traditional teaching or traditional classes* is used, it refers to the classes in which all subjects, except for foreign language classes, are taught in the mother tongue. Our experience in preparing the high schools to implement CLIL courses and the literature review on CLIL helped us to identify areas which should be researched.

This study scrutinizes three research hypotheses. The first research hypothesis addresses the correlation between motivation, autonomy, use of learning strategies, beliefs about foreign language learning, attitude towards CLIL and language proficiency characterizing a group of CLIL learners. The second focuses on the level of the aforementioned variables comparing CLIL and non-CLIL learners. The results are juxtaposed with the attainment in learning English as a foreign language. The third research hypothesis addresses the changes in motivation and autonomy over one school term. To test these hypotheses several research instruments were used; for instance, questionnaires on motivation, autonomy, learning strategies and beliefs about foreign language learning, whose results are coupled with statistical analyses of significance.

This book *Content and Language Integrated Learning* [PL *nauczanie dwujęzyczne*] describes a course in which teachers and learners use a foreign language for the learning and teaching of both content subjects and English

(cf. Mehisto, Marsh, and Frigols 2008). In practical terms, CLIL learners in such classes receive additional hours of English (in high schools which last 3 years: 6 hours every year and in high schools which last 4 years: 6 hours during the first three years and 5 hours during the final year) and are also exposed to this language during selected content subjects.

In Poland, a CLIL course typically comprises at least two content subjects taught in the CLIL language. It should be noted that students who finish high schools are supposed to take a final exam [PL *egzamin maturalny*], which involves Polish, a selected foreign language, and a content subject. It must be emphasized that the content subject must be passed in Polish. Thus, the CLIL methodology used by CLIL teachers is, in many cases, content-led, which as a result influences the extent of the CLIL language used during such classes.

The majority of primary schools introduce English as the first foreign language (Pawlak 2015). As a result, numerous learners who start high schools are characterized by the A2+/B1 proficiency level in that language. Generally, the most frequently chosen foreign language for the final exam is also English. Thus, schools with CLIL classes typically choose English for CLIL subjects. The focus in this volume is placed on *English as a foreign language (EFL)*. However, it should be noted that in CLIL classes, learners are expected to obtain knowledge concerning both *Basic Interpersonal Communicative Skills* (BICS) and *Cognitive Academic Language Proficiency* (CALP) (Cummins 1979). The former pertains to language used in everyday life, whereas the latter is used to understand and discuss academic topics (cf. Lin 2016).

In this work the *success* of CLIL as an approach to English as a foreign language (EFL) learning is equated with a higher level of achievement in English when CLIL and non-CLIL learners' achievements are compared. To understand the uniqueness of CLIL in terms of language gains, the goal of the research presented in this work was to obtain some insights into motivation, learning strategies, autonomy, attitude towards CLIL programs, and beliefs about foreign language learning among CLIL learners. These are referred to in this book as *individual variables, individual factors* or *individual differences* (cf. Dörnyei 2005; Griffiths and Soruç 2020).

The book consists of five chapters, a conclusion, and a bibliography. The first three chapters constitute the theoretical part. They review the academic literature relevant to the study. The last two chapters constitute the empirical part and they are devoted to empirical research. The study presented in this work focuses on the outcomes obtained in a CLIL setting.

Therefore, Chapter One explains the concept of content and language integrated learning in the first place. It provides several definitions. Then,

the discussion shifts to the history of CLIL implementation in Europe with an emphasis on Poland and its CLIL implementations. To understand the success of this approach, the rationale for CLIL is also discussed.

Chapter Two analyzes the true nature of CLIL on a practical level. It explores details related to the methodology used in a CLIL setting. An effort is also made to present several CLIL variants. Chapter Three presents an overview of the literature on individual variables such as motivation, autonomy, beliefs about foreign language learning, attitudes towards learning, and learning strategies.

Chapter Four provides detailed descriptions of empirical research on the success of CLIL as an approach to learning English as a foreign language, focusing on selected variables; namely, motivation, the learner's autonomy, learning strategies, beliefs about foreign language learning, and attitudes towards CLIL programs.

Chapter Five elaborates on the findings reported in the previous chapter. The discussion is ordered according to the main research questions and hypotheses. The conclusion outlines the key findings of the research. It discusses the limitations of the study, the directions of further research in the area of content and language integrated learning, and provides certain recommendations for CLIL education. A comprehensive bibliography has been compiled following the latest iteration of citation guidelines proposed by the American Psychological Association (APA 2019).

This work constitutes an attempt to capture the intricate relationship between individual learner variables and attainment in learning English as a foreign language in a CLIL setting. This topic may be of interest to theorists and researchers representing such diverse branches of applied linguistics as psycholinguistics, sociolinguistics, pragmatics or language teaching methodology. Moreover, this study should also be of interest to CLIL teachers working at different educational levels. It is also intended to encourage teachers to implement CLIL into classes and their schools despite the initial obstacles that CLIL teachers, headmasters, and learners may face.

This book aims to dispel some of the myths surrounding CLIL. There are many unresolved matters when it comes to this type of education. This volume only explores selected issues in relation to CLIL with the hope that the data presented in this work will encourage teachers to begin their adventure with CLIL on a regular basis. There is a great need to conduct other studies in CLIL settings, particularly in Poland. Thus, we hope that the outcomes of this study will stimulate further discussion and empirical research in the field.

CHAPTER ONE

HISTORICAL BACKGROUND AND THEORETICAL UNDERPINNINGS OF CONTENT AND LANGUAGE INTEGRATED LEARNING

The focal point of this chapter is defining the notion of *Content and Language Integrated Learning (CLIL)*. Several definitions are presented as a point of departure. Moreover, to provide some background for CLIL development, the history of its implementation in Europe is also the subject of one section. Apart from that, this chapter also elaborates on the current state of the establishment of CLIL in Poland, taking heed of the most relevant issues such as the core curriculum and selected acts of the educational system. To understand its success, the rationale for CLIL is also addressed. In practical terms, it is intended to paint a broad picture of the CLIL programs functioning in Poland and the extent to which they mirror CLIL programs functioning in other European countries.

1.1 Definition of Content and Language Integrated Learning

The notion of *Content and Language Integrated Learning (CLIL)* was coined in 1994 and employed formally in 1996. Marsh (2002) argues that it was created as the outcome of a four-year period of interdisciplinary and transnational expert dialogue. Nowadays, Content and Language Integrated Learning can be defined as "a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language" (Mehisto, Marsh, and Frigols 2008, 9). This additional language can be a learner's foreign language or a second language. It may also be a form of heritage or community language (Borowiak 2019a; Borowiak 2019b; Marsh and Martín 2012; Mehisto, Marsh, and Frigols 2008).

Generally, *CLIL* refers to the interwovenness of two elements, namely, a subject and a foreign language. It means that during a CLIL lesson, *a CLIL subject teacher* should intertwine the foreign language with the content subject while *a CLIL language teacher* should intertwine the content subject with the foreign language (Mehisto, Marsh, and Frigols 2008). In a similar vein, Marsh and Martín (2012) explain that "CLIL involves the use of language-supportive methodologies leading to authentic learning where attention is given to both the topic and the language of instruction" (Marsh and Martin 2012, 911).

CLIL can also be defined as "an umbrella term covering a dozen or more educational approaches (e.g. immersion, bilingual education, multilingual education, language showers and enriched language programs). Synthesis and provision of a flexible way of applying the knowledge learnt from the various approaches may be seen as a novelty of CLIL" (Mehisto, Marsh, and Frigols 2008, 12). Bentley (2009) also describes CLIL as "an umbrella term covering teaching contexts in which subject content is taught through another language" (9). In addition to this, Dalton-Puffer, Nikula, and Smit (2010) emphasize that CLIL bears some similarities with other teaching models, especially where classroom practices are concerned. They specify that "CLIL resembles other forms of bilingual education programs such as content-based instruction and immersion education as these exist in North American contexts" (Dalton-Puffer, Nikula, and Smit 2010, 1) (cf. Brinton, Snow, and Wesche 1989; Genesee 1987).

Dalton-Puffer, Nikula, and Smit (2010) explain that CLIL is "an educational approach where subjects such as Geography or Biology are taught through the medium of a foreign language, typically to students participating in some form of mainstream education at primary, secondary but also tertiary level" (1). In this case, the term "a foreign language" is used deliberately. It shows that "the language of instruction is one that students will mainly encounter at school since it is not regularly used in the wider society they live in" (Dalton-Puffer, Nikula, and Smit 2010, 1). Besides, Dalton-Puffer, Nikula, and Smit (2010) argue that, in most cases, CLIL teachers are not native speakers of the target language. They are usually content-experts. Moreover, the stage of schooling of enrolling learners in CLIL programs also differentiates this program from other bilingual models. "CLIL is usually implemented once learners have already acquired literacy skills in their mother tongue, that is students rarely learn to read and write through a foreign language but can transfer already existing literacy skills to the foreign language" (Dalton-Puffer, Nikula, and Smit 2010, 1).

Finally, Wolff (2007) claims that CLIL differs from other content-based approaches in that "classroom content is not so much taken from everyday

life or the general content of the target language culture but rather from content subjects, from academic/scientific disciplines or from the professions" (15–16). Dalton-Puffer, Nikula, and Smit (2010) corroborate this claim, emphasizing that CLIL lessons at schools are usually content lessons such as Biology taught using a foreign language. Nawrot-Lis (2019) also argues that in the case of CLIL, the word "content" is used in relation to non-linguistic subjects. There are several terms to describe the situation when content subjects and foreign languages are taught simultaneously. These remarks can help to distinguish CLIL from other bilingual models. CLIL is often used as a more inclusive approach in the field of bilingual education. This notion is used as the umbrella term and other approaches are treated as variants under this family of programs (cf. Lo 2020).

1.2 CLIL history

The term *Content and Language Integrated Learning* (CLIL) was coined by Marsh, who was a member of a team working in the area of multilingualism and bilingual education at the Finnish University of Jyväskylä in 1994 (Coyle 2002; Coyle, Hood, and Marsh 2010; Dalton-Puffer 2007; Hanesová 2015; Kovács 2014; Juan-Garau and Salazar-Noguera 2015; Marsh 2002; Marsh, Maljers, and Hartiala 2001). According to Hanesová (2015), the concept of CLIL was based on "the experience of Canadian immersion and British LAC programs. The original concept of CLIL was used to designate teaching subjects to students through a foreign language" (10). Marsh (2012) explains that the reasons for launching CLIL were both political and educational. The mobility of Europeans involved foreign language proficiency which triggered the process of adapting various approaches to the needs and expectations of society. Hanesová (2015) reports that in the 1990s the acronym CLIL became the most widely used term for integrated content and language education in Europe. In 2005, CLIL was described as "a general 'umbrella' term to refer to diverse methodologies which lead to dual focused education where attention is given to both topic and language of instruction" (Kovács 2014, 48–49).

The European Union appears to be profoundly interested in foreign language teaching. This interest is visible in numerous actions undertaken by the European Commission. Dalton-Puffer, Nikula, and Smit (2010) point out that since 1995 the European Commission has supported the principle that European citizens should have ample opportunities for completing initial training so that they will be proficient in two foreign languages which belong to the group of official languages of European Union member states. It has also been suggested that secondary school students should study

certain subjects in their mother tongue (European Commission 1995). Thus, *The Council Resolution of 31 March 1995* is believed to be the first important document regarding CLIL. This Resolution encouraged the development of various educational practices to enable learners to develop proficiency in at least three European languages. As a result, between 2000 and 2006, the *Socrates* and *Comenius programs* were implemented (Czura 2009; Nawrot-Lis 2019). *The European Year of Languages*, which was celebrated in 2001, drew attention to different innovative teaching approaches, such as CLIL, which contributed to the development of linguistic diversity.

Another document supporting foreign language education is the *White Paper on Teaching and Learning: Towards the Learning Society (1995)* which assumes that every EU citizen after their completion of secondary school should be able to use three community languages. Moreover, community language learning should be developed as early as possible. Language and intercultural learning should be improved and a more balanced language ecology should be promoted. Finally, increasing language competence should, in turn, increase mobility and provide better possibilities for seeking jobs in different EU member states.

The 2002 Barcelona Proposal also emphasizes the importance of learning at least two further languages in addition to the mother tongue. "Concurrently, CLIL also figures prominently among the activities of the Council of Europe's language policy unit, the European Centre for Modern Languages" (Dalton-Puffer, Nikula, and Smit 2010, 5). Czura (2009) and Nawrot-Lis (2019) emphasize the role of *The European Center for Modern Languages* (ECML) in promoting CLIL by aiming for the establishment of a good CLIL education of teaching and assessing students' achievements, implementing CLIL in teaching young learners, developing CLIL curricula (CLIL-CD), and promoting the use of other CLIL languages than English. Many organizations supporting the expansion of CLIL in Europe have been created to increase the quality of CLIL teaching, for instance, the European EuroCLIL Network, a research network under the auspices of AILA, the CLIL consortium, and the CCN Cascade Network (Czura 2009; Nawrot-Lis 2019).

Overall, it seems that the European Commission (EC) has shown great interest in supporting foreign language education (Hanesová 2015; Nawrot-Lis 2019). The aforementioned documents brought about an awareness of language and content integration. As a result, it became more mainstream, for instance, "state-funded, schools in Europe began to teach some subjects in a foreign language. Even before the formation of European schools in EU countries, some schools, especially in capital cities, had begun the practice of immersion into target foreign languages" (Hanesová 2015, 9). CLIL

programs seem to be very popular in European countries, as a result of the support given by the European Union and the many researchers who show great interest in CLIL education. CLIL's popularity is also visible in the Polish educational setting.

1.3 CLIL in Poland

According to Eurydice (2006), Poland offered the first CLIL-like programs in regional and/or minority languages at the end of the 1940s or in the 1950s. Zielonka (2007) claims that programs like CLIL were introduced in Poland in the 1970s. The first school that introduced a program of this kind was probably The Third Secondary School in Gdynia. As time went by, other schools in Polish urban centers, for instance, Cracow and Warsaw, introduced CLIL-type programs. Przybylska-Gmyrek (1995) states that the implementation of CLIL courses in cities such as Warsaw, Katowice, and Poznań was supported by the National Centre for Teacher Training [PL *Centralny Ośrodek Doskonalenia Nauczycieli*], diplomatic agents or other institutions interested in CLIL. Still, at that time there were only a few schools offering this type of education. Therefore, schools with CLIL programs were considered elitist (see Gajo et al. 2005; Pawlak 2010; Wolff and Otwinowska-Kasztelanic 2010).

A review of the literature regarding the history of CLIL in Poland, selected Regulations of the Minister of National Education, and the Core Curricula, shows that the term Content and Language Integrated Learning has been translated into Polish in several ways ([PL *zintegrowane kształcenie przedmiotowo-językowe*] (EURYDICE 2006), [PL *zintegrowane uczenie treści przedmiotowych i językowych*] (Profile Report 2008), and [PL *integracja międzyprzedmiotowa* and *nauczanie dwujęzyczne/bilingwalne*] (Dzięgielewska 2008; Roda 2007)). *Nauczanie dwujęzyczne* [EN *Content and Language Integrated Learning*] is the term used in the Core Curriculum and other legal documents related to the Polish educational system.

Poland is a linguistically homogenous country. Polish is the official language used to communicate in all spheres of public and social life. Historical evidence shows that for a long time Poland was politically and economically isolated (Davies 2001, 2014). In the second half of the 20th century, Poland underwent serious political changes which influenced all aspects of life, including education (Łach 1998). "Due to the political changes occurring in Poland after 1989 and the integration with the European Union in 2004, the country geared its language teaching to the uniform policy prevailing all over the EU states" (Romanowski 2018, 593). According to Iluk (2002), Multańska (2002), and Nawrot-Lis (2019), the

implementation of CLIL courses in Poland was possible in 1991 due to the National Act of Education (*Ustawa o systemie oświaty z 7 września 1991*). English was used as the CLIL language in the vast majority of cases (Czura 2009; Multańska 2002; Romanowski 2018). At that time, two types of schools were distinguished: (1) primary school [PL *szkoła podstawowa*] (learners aged between 6 and 15 years old) and high school [PL *liceum/technikum*] (learners aged between 15 and 19 years old).

In 1999 the first substantial *Educational Reform* relevant to CLIL was introduced. In connection with this, three types of schools were created: (1) primary school [PL *szkoła podstawowa*] (learners aged between 6 and 13 years), (2) lower secondary school [PL *gimnazjum*] (learners aged between 13 and 16 years), and (3) high school [PL *liceum/technikum*] (learners aged between 16 and 19 years). According to the Core Curriculum, language education should lead to increased competence in a foreign language. It proclaimed that foreign language education should be introduced at the beginning of primary education, and second foreign language courses should be introduced in the first class of lower secondary school.

Due to the *Educational Reform* introduced in 1999, CLIL programs were also introduced in lower secondary schools. According to the National Act of Education and the Core Curriculum, CLIL education was not applied to the entire range of school subjects but was restricted to selected classes. In both lower secondary school and high school, two subjects had to be taught in the CLIL language. One subject had to be chosen from the following list: *Biology*, *Chemistry*, *Physics*, *Geography*, or *History*. The Core Curriculum did not provide any information regarding the learning outcomes of CLIL courses. It only indicated that it was possible to introduce CLIL courses in lower secondary school. One of the educational acts stated that 190 additional hours could be used for teaching the CLIL language (*Rozporządzenie Ministra Edukacji Narodowej z dnia 7 lutego 2012 r. w sprawie ramowych planów nauczania w szkołach publicznych*). At the end of lower secondary school there was a final exam [Pl *egzamin gimnazjalny*]. However, a learner did not have to take a content subject in the CLIL language. This may be the reason why the Core Curriculum did not include any objectives pertaining to CLIL. After a few years, CLIL streams started to emerge in some schools and three years of this schooling was regarded as good preparation for helping learners to participate in CLIL courses at a higher level in high schools.

The second *Educational Reform* relevant to CLIL was introduced in 2017 (*Ustawa z dnia 7 września 1991 r. o systemie oświaty*). The outcome of this reform was the creation of two types of schools: (1) primary school [PL *szkoła podstawowa*] (learners aged between 6 and 15 years), and (2)

high school [*liceum/technikum*] (learners aged between 15 and 19 years). According to one of the educational laws (*Rozporządzenie Ministra Edukacji Narodowej z dnia 28 marca 2017 r. w sprawie ramowych planów nauczania dla publicznych szkół*), foreign language education starts in the first grade of primary school. The second foreign language is introduced in the seventh grade of primary school. CLIL courses can be implemented in the seventh grade of primary school. This time, the Core Curriculum indicates that CLIL learners should master the CLIL language in respect of the vocabulary and grammar necessary for the CLIL content subjects, but still, no CLIL exam is set at the end of primary school.

According to the Core Curriculum introduced in 2017, a second foreign language can also be used as the medium of instruction in CLIL programs. The first foreign language in the majority of cases is English. Nevertheless, other languages can also be used to conduct CLIL courses. Since a second foreign language is introduced later, the objective of CLIL programs of this kind is to teach new vocabulary and grammatical structures via CLIL subjects, hinging mainly on understanding. In both cases, two extra hours for teaching languages are available for CLIL classes. Before entering such programs, students are supposed to take an aptitude test.

According to the *Educational Reform* introduced in 2017, when it comes to high schools, CLIL programs can be introduced in the first grade. CLIL students are provided with six hours of CLIL language learning per week, except for the fourth year, when there are only five hours available. CLIL can also be introduced in vocational schools [PL *technikum*], which lasts for five years. During each year, CLIL learners have two additional lessons of the CLIL language, that is, four hours during the first, second and third grades and five hours of the CLIL language during the fourth and fifth grades. A second foreign language can also be used as a CLIL language. CLIL education in high schools and vocational schools can also be preceded by an additional year, that is, the *zero class* [PL *klasa zerowa*]. During this year learners undergo an intensive course aimed at developing their CLIL language skills. Moreover, all learners who wish to be enrolled in CLIL courses have to pass a diagnostic test. The Core Curriculum indicates that CLIL students are supposed to reach the C1/C2 level of proficiency. Reference is also made to CLIL language skills and CLIL subjects. At the end of their education, they may take a final exam [PL *egzamin maturalny z języka obcego nowożytnego*] in the content subjects in the CLIL language. From 2023, students enrolled on the CLIL classes in high schools have had to take the CLIL exam in the CLIL language with the CEFR level: C1/C2. The procedure of implementing CLIL programs parallels the Educational Reform in 1999. In primary school and high school, two subjects are taught

in the CLIL language. One subject must be chosen from the following list: *Biology*, *Chemistry*, *Physics*, *Geography*, or *History*.

In 2019 lower secondary schools disappeared from the Polish education system. Thus, there is no up-to-date data on the number of CLIL schools/classes in Poland. At the moment, the reports prepared by Pawlak (2015) and a study conducted by Romanowski (2018) are the only available reports of this kind. The *Eurydice* Report (2019) refers to the Educational Reform in 2017; however, it provides no data on CLIL courses. On the basis of Pawlak's report (2015) and the study carried out by Romanowski (2018), it may be concluded that CLIL courses have been relatively popular in Poland. The changes introduced in the recent Core Curriculum may encourage other schools to introduce such courses.

1.4 Rationale for CLIL

Over the years, the number of CLIL programs has increased (Maljers et al. 2007). One of the foundations of CLIL was the desire to improve language-learning in Europe. Nevertheless, there are other reasons which play a pivotal role in the rise of CLIL. Globalization is one such factor. It influences all areas of our lives. Its influence can be especially noticed in the case of new technologies which facilitate the exchange of information and knowledge. Waliński (2016) also claims that, as a result of this development, "contacts between people from different cultures will intensify in the years to come" (239). Hence, it comes as no surprise that the influence of globalization is also visible in the educational sector. "Taking into consideration the increasing contact between people from a combination of linguistic, cultural, and technological skills, different linguistic and cultural backgrounds through international migration and collaborations, workers need to develop adequate linguistic and intercultural skills to act successfully in the global market" (Waliński 2012, 3–4). Moreover, "communication among people from different linguistic and cultural backgrounds involves both a combination of independent linguistic and cultural inputs from the native and non-native systems and a development of new cognitive categories, which represent a third quality, emerging at the points of contact" (Lewandowska-Tomaszczyk 2014, 226). Thus, greater linguistic demands are placed on mainstream education, from the primary level to institutions of higher education (Borowiak 2019b; Mehisto, Marsh, and Frigols 2008). All those needs and expectations seem to have an impact on how teachers teach and what they teach.

Coyle, Hood, and Marsh (2010) give two main factors that are viewed as the driving forces behind CLIL, namely *reactive* and *proactive* reasons.

The first category comprises reasons for CLIL development which are related to a response to society's expectations regarding language education. In other words, there are certain countries, such as those in sub-Saharan Africa, which have more than one first language. Such a situation may cast doubt on how students manage during their school years when the language of instruction differs from their mother tongue or the language of the society that they live in. The solution can be CLIL education (Coyle, Hood, and Marsh 2010). *Proactive reasons* are related mainly to identifying solutions by which language learning, different aspects of educational, social, or personal development can be enhanced. They refer mainly to the existence of other bilingual programs or the historical background.

There are other common reasons for introducing CLIL. These can be divided into five categories, namely, *context*, *content*, *language*, *learning*, and *culture* (Coyle, Hood, and Marsh 2010). *Context* covers the issues related to schools, for instance, accessing international certification. *Content* refers to preparing students for future studies, gaining skills for their working life, and accessing subject-specific knowledge in a foreign language. CLIL supports the process of learning a foreign *language*. This can be observed in all skills, particularly in the development of oral communication skills. CLIL helps to raise awareness of the L1 and L2. As a result, self-confidence is also developed. Moreover, CLIL teachers diversify the methods and approaches to classroom practice by taking into account students' needs. CLIL learners are taught different learning strategies so that they can develop their individual sets of learning strategies. As a result, CLIL education can increase learners' motivation. All these may improve CLIL learners' *learning*. Finally, CLIL education helps to build intercultural knowledge, understanding, and tolerance. CLIL learners develop intercultural communication skills, learn about specific neighboring countries, and gain knowledge regarding a wider cultural context (Coyle, Hood, and Marsh 2010, 17).

The success of CLIL can also be explained on the basis of theories of second language learning (cf. Dalton-Puffer 2008; Harrop 2012). "CLIL classrooms are an environment for naturalistic language learning, implying that the best kind of language learning proceeds painlessly, without formal instruction" (Dalton-Puffer 2011, 193). This description is in line with the key assumptions of Krashen's *Monitor Model* (1985), which comprises five hypotheses: (1) *the Acquisition-Learning Hypothesis*, (2) *the Monitor Hypothesis*, (3) *the Natural Order Hypothesis*, (4) *the Input Hypothesis*, and (5) *the Affective Filter Hypothesis.* According to *the Acquisition-Learning Hypothesis,* the acquired and learned systems can never interact (Krashen 1985). However, Anderson's (1993) *Skill Learning theory* indicates that

declarative knowledge can become *automatized knowledge*. The latter is in regard to skills that are performed quickly and accurately with little or no attention and with few errors. To gain automatized knowledge, students should be involved in many practical activities, also referred to as *procedural knowledge*. This emerges from doing the task (cf. Anderson 1993; DeKeyser 2014). CLIL methodology puts an emphasis on giving learners ample opportunities to be active during their lessons. They should communicate more than CLIL teachers (Mehisto, Marsh, and Frigols 2008). CLIL learners are also supposed to practice writing skills which require them to focus on grammatical correctness to some extent. CLIL students also have traditional lessons of the foreign language during which they can practice grammar and vocabulary. This, in turn, may help to monitor the correctness of the language they produce during the CLIL lessons. This is mirrored in *the Monitor Hypothesis* (Krashen 1985).

According to the *Natural Order Hypothesis* (Krashen 1985), there is a fixed order of acquiring grammatical structures. Pienemann (1998) claims that the instruction received during lessons at school can be beneficial if it targets the next stage of a developmental sequence. According to CLIL methodology, teachers should prepare their lessons in such a way that, apart from learners' needs and expectations, the current proficiency level is taken into account (Coyle, Hood, and Marsh 2010; Mehisto, Marsh, and Frigols 2008). Thus, it also seems that in this case CLIL can support learners in their learning processes.

The Input Hypothesis posits that exposure to abundant input is the requirement for the acquisition of a second language (Krashen 1985). With reference to this hypothesis, what the student needs is to be exposed to *comprehensible input* at a level slightly superior to their own (i+1). *Comprehensible input* should be understood as information received by the learner (Nawrot-Lis 2019). *The Input Hypothesis* posits that if the language that the student is exposed to is comprehensible input, acquisition will occur. Muñoz (2007) argues that comprehensible input alone does not guarantee language acquisition. "It has to be authentic, to guarantee that it can be used to a communicative end, and it also has to be varied, to guarantee that it can be used in different contexts and accomplish all the functions for which language is required" (Muñoz 2007, 18). CLIL methodology supports the use of authentic materials (Mehisto, Marsh, and Frigols 2008). The second facet is the processing of meaning. The presence of comprehensible input at the correct moment plays the role of a necessary catalyst through which language is processed. CLIL strongly values the process of conveying understandable messages relating to a particular school subject. Following Krashen's point of view, we might expect that a

focus on content matter may lead to the process of language "acquisition", rather than "learning" (Nawrot-Lis 2019, 5). In this manner, changes in learners' linguistic system can occur. In the processing of form, attention plays a fundamental role.

The positive effect of comprehensible input can be enhanced if the learning situation is characterized by positive emotions. In this manner, *the Affective Filter Hypothesis* comes to the fore, which takes "the proposition of the Input Hypothesis a step forward because now acquisition is seen as a naturalized process put in track by comprehensible input (i+1) and the screening by high/low affective filter" (Zafar 2009, 140). It just goes to show that there are several affective variables playing a facilitative role in second language acquisition (Nawrot-Lis 2019). According to Krashen (1982, 1980), these variables include: motivation, self-confidence, and anxiety. They influence the part of the internal processing system that subconsciously screens incoming language.

Overall, it can be concluded that if learners feel comfortable with their learning and have positive attitudes toward foreign language learning, the filter is low. As a result, learners have access to comprehensible input (Krashen 1982). "Learners with high self-confidence, motivation, a good self-image, and a low level of anxiety are better equipped for success in second language acquisition" (Nawrot-Lis 2019, 5). This means that language acquisition may be impeded when the affective filter is up (Krashen 1988). A CLIL program seems to be a perfect solution for this issue. The core features of CLIL methodology (Mehisto, Marsh, and Frigols 2008) comprise six principles. A safe and enriching learning environment is one of them. According to this principle, CLIL teachers should apply methods of creating a friendly and encouraging atmosphere in a CLIL class. To achieve this goal, while planning activities and conducting CLIL lessons, a CLIL teacher should use a variety of techniques which enable them to lower the affective filter (Nawrot-Lis 2019). From a theoretical standpoint, a CLIL classroom seems to be a learner-friendly environment.

Muñoz (2007) describes two models which have been especially influential in the last decade; that is, *input processing* (VanPatten 1996) and Schmidt's *noticing* (1990, 2001). According to the model of *input processing*, learners process input for meaning before they process it for form. In other words, students process content words, such as, nouns, verbs, or adjectives, before grammar words, such as the plural suffix. When it comes to *noticing*, it can be understood "as awareness and attention" (although, not necessarily intention) (Lewandowska-Tomaszczyk 2014, 225). This in turn "seems conducive to the acquisition of more advanced L2 proficiency, particularly with adult learners" (Lewandowska-Tomaszczyk 2014, 225). The term

noticing indicates that students, when processing form (that is, non-meaningful form, for instance, verb endings), have to first process the informational content or meaning at no or little cost to the attentional resources (Muñoz 2007). CLIL learners are encouraged to use the CLIL language as often as possible for communicative purposes and they are also provided with a rich input which can help to focus on selected aspects of the foreign language.

CLIL programs help in enacting the implications of the *Output Hypothesis*. Swain (1995) and Swain and Lapkin (1995) explain the Output Hypothesis in contrast to Krashen's Input Hypothesis (1985). According to this theory, "only the self-regulated production of utterances that encode learners' intended meanings forces them to actively process morphosyntactic aspects of the foreign language. Therefore, expanding their active linguistic repertoire and achieving deeper entrenchment of what they already know" (Dalton-Puffer 2011, 194). Dalton-Puffer (2011), Lantolf (2002), Lantolf and Thorne (2006), and Swain (2000) claim that the language itself should also be conceived as a process that is socially constructed. "Human beings learn through interacting with other social beings, whereby language acts as a particularly powerful semiotic means for participating and performing in the activities and encounters of the social world" (Dalton-Puffer 2011, 195).

Following this discussion, it should be noted that CLIL provides learners with an environment that is not only richer and more naturalistic but that also reinforces language acquisition and learning (Harrop 2012; Krashen 1985; Lightbown and Spada 2006; Lyster 2007). Muñoz (2007) and Rodgers and Richards (2001) maintain that CLIL presents the most enriching characteristics of the communicative approach regarding the use of the language in an appropriate context, the exchange of important information, or student involvement in cognitive processes which are relevant for acquisition. As a result, it leads to greater proficiency in learners of all abilities.

Another theory relevant to CLIL is *constructivism*, which stems from cognitivist psychology and draws on *the sociocultural theory of learning* developed by Vygotsky (1978, 1986). This theory holds that learning is the outcome of the process whereby individuals construct new ideas or concepts, building on prior knowledge and/or experience. According to this theory, learning is not only most efficient but also effective when it takes place within the context of realistic educational settings which are real or contrived (Brown, Collins, and Duguid 1989). "The aim of constructivist learning is not to predetermine what the learners will do but provide opportunities that shape the learners' own learning through rich teaching materials which make the knowledge meaningful and useful" (Erdem and

Demirel 2002, 81). The main principles of constructivist learning are aligned with the core features of CLIL methodology (Mehisto, Marsh, and Frigols 2008). Content subjects provide the cognitive schemata through which language makes sense (Zuengler and Brinton 1997). CLIL is also almost exclusively meaning-oriented. Moreover, according to *the sociolinguistic theory of second language acquisition*, message delivery triggers language use in natural settings. Attention to form is related to power relations that are always present in language (Kramsch 2002). This means that a CLIL program empowers students to use an L2, face L2 difficulties, and cope with them through meaning negotiation. Content and Language Integrated Learning offers an authenticity of purpose unlike that of any communicative classroom (Graddol 2006; Grenfell 2002).

Harrop (2012), Coyle, Hood, and Marsh (2010), Dalton-Puffer (2008), Lyster (2007), and Gajo (2007) emphasize that CLIL supports content teaching in two ways. Firstly, it fosters cognitive development and flexibility in the students through its constructivist approach. Secondly, it recognizes language as an essential tool in learning. Finally, one of the assumptions of CLIL pertains to the fact that it leads to greater intercultural understanding and prepares pupils for internationalization (Coyle, Holmes, and King 2009). In the light of this discussion, Content and Language Integrated Learning seems to be a convenient platform for teaching foreign languages. Thus, CLIL can achieve greater attainment in the language used as the medium of instruction.

CHAPTER TWO

SELECTED ISSUES IN CLIL METHODOLOGY

This chapter is an attempt to shed some light on Content and Language Integrated Learning with respect to methodological considerations. CLIL education is implemented in various countries, which differ not only in terms of how their education systems are organized but also in regard to their socio-cultural backgrounds. This may influence the way CLIL courses are taught. Thus, the first part of the present chapter elaborates on CLIL variants. Then, the discussion shifts to the description of the methodology recommended for CLIL classes. Great emphasis is placed on the issues related to a CLIL language.

2.1 CLIL variants

CLIL has been introduced in different countries. This means that the way CLIL courses are organized in various cultural settings will be influenced by, not only a school type, but also a specific educational system and other country-specific factors. Wolff (2009) claims that CLIL variants can be divided into: *typologically induced variants* and *environmentally induced variants*. *Typologically induced variants* are related to the educational level at which CLIL is implemented, that is, the primary, secondary, or tertiary level (Wolff 2009). This influences the choice of subjects taught in a foreign language and the language used for teaching non-linguistic subjects. The choice of CLIL language is a country specific feature (Wolff 2009). When it comes to CLIL in high schools, one or more content subjects are taught in a foreign language. In general, they are chosen from the Humanities and Social Sciences, for instance, History, Geography or Social Sciences (Wolff 2009).

When it comes to the *environmentally induced variants*, Wolff (2009) enumerates five parameters which are responsible for the development of different forms of CLIL in different countries: (1) *interpretation of the concept*, (2) *choice of subjects*, (3) *exposure time*, (4) *curricular integration*, and (5) *linguistic situation*. The interpretation of CLIL is related to the way CLIL is defined (Wolff 2009). As a result, one CLIL teacher may focus on

pure foreign language teaching while a second CLIL teacher may go for content teaching. In the second case the focus on language may be almost non-existent. Wolff (2009) argues that the differences in the way CLIL educators understand CLIL may result in two interpretations: a language-learning and a content-learning interpretation. Each interpretation is connected to different types of methodology employed by CLIL teachers. The former may enhance the development of the foreign language competence of CLIL learners. Thus, this CLIL variant is influenced by foreign language teaching methodology. This interpretation is often used in Poland, Estonia, Italy, Latvia, and Lithuania (Wolff and Otwinowska-Kasztelanic 2010). A content-learning interpretation, on the other hand, assumes that learners inductively pick up the foreign language while working with the content subjects. As a result, teachers may use content-oriented methodology. Lessons in this variant are strongly influenced by mother-tongue content subject teaching. One example of a country that implements this variant is Hungary (Wolff and Otwinowska-Kasztelanic 2010).

In the same vein, Cenoz (2017) and Ball (2016) distinguish CLIL programs as content or language driven. Cenoz (2017) argues that CLIL programs can be labeled as *weak* or *strong*. The former indicates that content is used as a part of language classes and the objective is linguistic. The latter deals with such programs whose aim is to teach both language and content. A foreign language is used as the medium of instruction. Ball (2016) suggests a similar distinction, namely, *hard* or *soft* CLIL, where *soft CLIL* is described as language-led (Met 1989) and *hard CLIL* or *a strong version*, is described as content-led. Therefore, a different methodology can be used, depending on where the emphasis is placed, on a foreign language or content subject. In the content-led CLIL programs, the methodology typical for content subjects plays a pivotal role. In the language-led CLIL programs, the methodology of language teaching is of paramount importance. Overall, the methodology type used in such programs is influenced by the way that CLIL is interpreted by scholars and practitioners.

The second environmental parameter that can be responsible for the development of different forms of CLIL in different countries is *a choice of subjects*. Subjects belonging to the Humanities may be more suitable for CLIL programs as they can help to promote interculturality (Wolff 2009). The third environmental parameter is *exposure time*, which relates to the decision as to the amount of time a learner will be exposed to content-subject learning within a CLIL program. Accordingly, the difference can be found in terms of the number of subjects taught in the CLIL language and the amount of time that students learn in such a program.

The fourth parameter is *curricular integration*. Wolff (2009) explains that CLIL programs can be influenced by deciding whether to implement this approach into the curricular and evaluative structure of an educational system. CLIL programs can take an arbitrary character in countries where no curriculum for CLIL exists. The last environmental parameter is a *linguistic situation*. This one refers to a foreign language used in CLIL classes. Wolff (2009) states that "in some cases it is the language which is the other official or officially recognized language which determines the choice of the CLIL language. In other cases, the language of the neighboring country is chosen as the CLIL language" (551–552). Overall, this discussion indicates that certain factors can influence the final shape of CLIL programs including the methodology used by CLIL teachers.

2.2 CLIL methodology

This section provides a holistic view of CLIL, taking into account CLIL methodology and the *4Cs Framework*. The aim of CLIL is not to teach content, but to teach in order to understand, retain, and use it (Vázquez and Rubio 2010, 52). Therefore, CLIL teachers, apart from being able to teach content subjects via a CLIL language should also have knowledge of CLIL methodology. Vázquez and Rubio (2010) explicate that those teachers who possess organizational skills, including sequencing the curriculum, and CLIL methodology are likely to succeed in CLIL teaching. Mehisto, Marsh, and Frigols (2008) enumerate five core features of CLIL methodology which support a successful delivery of CLIL lessons, namely, (1) *multiple focus*, (2) *safe and enriching learning environment*, (3) *authenticity*, (4) *active learning*, (5) *scaffolding*, and (6) *cooperation*. Each of these features is a complex issue.

Active learning involves the use of a wide variety of strategies. Mehisto, Marsh, and Frigols (2008) state that CLIL students should communicate more than the teacher. Learners should be actively engaged in setting the content, language, and learning skills outcomes (cf. Marenzi and Zerr 2012; Mehisto, Marsh, and Frigols 2008; Nawrot-Lis 2019). In this manner, CLIL learners should also be given the possibility of evaluating progress in achieving the learning outcomes. By the same token, CLIL teachers should use peer cooperative work and negotiate the meaning of language and content with the students (Mehisto et al. 2008; Nawrot-Lis 2019).

Since Content and Language Integrated Learning is a dual educational approach focusing on content subjects and a foreign language used as a tool (Coyle, Hood, and Marsh 2010), the methodology used in such courses should also focus on the two aspects. There are also at least three other