STUDENTS’ AND TEACHERS’ PERCEPTIONS OF CLIL IMPLEMENTATION THROUGH ENGLISH AND A VLE

MA thesis

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ABSTRACT

Teaching and learning a subject through another language has been gaining its popularity around the world and has become one of the topics of current discussions of foreign language teaching (Masih 1999, Marsh et al 2001, Lyster 2007, Dulton-Puffer 2002, 2007, Lasagabaster 2008, Coyle et al 2010, Llinares et al 2012). Although there have been various forms of teaching subjects through another language, one methodological approach – Content and Language Integrated Learning (CLIL) has been acknowledged by the European Commission as the most effective (Eurydice, 2006: 8, EC 2003: 8). The current research is a case study of a course of Physical Education and Health designed by the author on the platform of Google site. The research provides an overview of the CLIL method and its implementation through English and via a Virtual Learning Environment (VLE) and the analysis of the opinions of teachers in Estonia.

Firstly, the thesis outlines the main principles of CLIL and VLE. Secondly, it describes the course and the implementation of CLIL elements. Third, the research explores the students’ perceptions of the course, examines the effectiveness of CLIL implementation via a VLE.

The research is divided into three chapters. Chapter 1 provides a theoretical background for using other languages for teaching subjects, main principles of CLIL methodology and requirements for a VLE design. Chapter 2 introduces the course designed by the author of the present thesis for Year 7 and 8 of Tallinn Central Russian Gymnasium and presents its main elements with the examples of tasks and layouts of pages. Chapter 3 introduces the procedure and the results of the research conducted in the study. A sample of 87 Year 7 and 8 students from Tallinn Central Russian Gymnasium participated in the survey administered in 2011-2012. The aim of the research was to study the attitudes of the students towards the course and its implementation via a VLE. The results of the questionnaire showed that students supported CLIL as the approach for learning a subject in another language as well as the presentation of the course on the basis of a virtual environment. The results of the teachers’ questionnaire outlined positive aspects of CLIL implementation such as the opportunity to learn the subject from different perspectives, the development of intercultural and interdisciplinary skills. The teachers presented their concerns about CLIL implementation: the lack of teacher training, the need to develop materials themselves and the necessity of administrative support.
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INTRODUCTION

In recent years, the interest towards foreign language learning has been increasing. European Union represents a diversity of nations, cultures, and languages. Intercultural communication is necessary for building multicultural society. Language learning contributes to the integration of people with different cultural backgrounds into the European society. In the early 2000\textsuperscript{th} European Commission developed several documents that highlight the importance of promoting language learning and linguistic diversity. Content and Language Integrated Learning (CLIL), in which students learn a subject through the medium of a foreign language, is considered by the European Commission as the approach that pursues the goals of language learning.

The topic of the present study stemmed from the author’s experience gained while developing a course of Physical Education and Health taught in English. The course was introduced for the first time in Tallinn Central Russian Gymnasium (TCRG) in 2011-2012. The author of the present study was suggested by the school administration to develop the course that includes theoretical concepts of physical education, sports, hygiene and health. Another important issue was that the language of instruction was English. In the initial stage of the course development it was important to identify the approach that could be beneficial for the students. The review of literature revealed the overview of practices of CLIL implementation around the world in recent years (Masih et al 1999, Marsh 2002, Lyster 2007, Dalton-Puffer 2008, Lasagabaster 2008, Coyle et al 2010, Llinares et al 2012). The introduction of CLIL contributes to the goals of Estonian education established in the new Estonian National Curriculum (ENC). The main idea of the Curriculum is to prepare young
people to be competitive in the modern society and foreign languages broaden people’s understanding of multi-cultural world, develop a variety of linguistic and non-linguistic means of thinking and self-expression. Another aspect that is important to take into account is the means of the course introduction. It is supposed that as the students of TCRG have experience in e-learning, and as the number of contact lessons was one per week, the introduction of the course via a Virtual Learning Environment (VLE) could reinforce the introduction of CLIL. As it will be further presented in the review of literature (Britain et al 1999, Rosell-Aguilar 2005, Hampel 2006, Craig 2007, Gerard 2007, Eldridge et al 2010) the structure of a VLE allows students to receive necessary language and content support.

The current study investigates students’ and teachers’ perceptions of the implementation of CLIL by means of virtual environment. In more detail, the aim is to analyse the attitudes of students of Tallinn Central Russian Gymnasium towards the course of Physical Education and Health taught in English via a VLE, to provide an overview of the main problematic issues in the area and to highlight the main positive aspects that students mention. The thesis aims to contribute to the practices of CLIL in the Estonian context, as there is lack of evidence of CLIL implementation in schools of Estonia. Therefore, it may be supposed that the present research will be practical to the EFL and CLIL teachers as it gives an overview of the relevant literature, reveals useful information on the construction of the course, the students’ and the teachers’ perceptions of the CLIL introduction.

The thesis is organised into three chapters. The first chapter deals with the theoretical overview of the two main concepts discussed in the research: Content and Language Integrated Learning (CLIL) and Virtual Learning Environment (VLE). The chapter represents the theoretical background for the concepts; provides an overview of the literature in the field;
main definitions, concepts and notions of the discussed issues; benefits and drawbacks of the implementation of CLIL and VLE.

The second chapter represents the course designed by the author of the present study. The course of Physical Education and Health was developed for the Year 7 and 8 students of Tallinn Central Russian Gymnasium. Firstly, the aims of the course are introduced. Then the description of the course design with the examples is provided. The third chapter represents the description of the sample, the method of the research, the results and the discussion of the collected data. The results show overall positive attitudes of the participants towards various aspects of the implementation of CLIL through the virtual environment. Several drawbacks are outlined and analysed by the author. Chapter 3 is followed by a conclusion where the most important ideas and findings are summarised.
CHAPTER 1. THEORETICAL BACKGROUND FOR CONTENT AND LANGUAGE INTEGRATED LEARNING AND VIRTUAL LEARNING ENVIRONMENT NOTIONS

As stated above, this chapter aims to explore a variety of issues connected to CLIL as a teaching methodology and VLE as a means of teaching and studying. The chapter is divided into four subchapters. First, the definitions of CLIL and VLE are given in subchapter 1.1. Secondly, as the definitions of the concepts are presented, Subchapter 1.2 deals with the overview of the literature discussing main goals, values and theoretical concepts of CLIL. The third subchapter provides the main notions of a VLE and presents the overview of the literature in the field. Chapter 1 concludes with the summary of the most prominent characteristics of CLIL as an approach to teaching content through English and a VLE as a platform for introducing CLIL.

In order to analyse the theoretical background of the stated problem, it is important to present clear definitions of the two main concepts being discussed in the research: Content and Language Integrated Learning (CLIL) and Virtual Learning Environment (VLE). Coyle et al (2010: 8) state that “the term ‘Content and Language Integrated Learning’ was adopted in 1994 within the European context to describe and further design good practice as achieved in different types of school environment where teaching and learning take place in an additional language”. The main idea here is that a foreign language is used as the language of instruction in different subjects. Much effort has been put so far to investigate the influence of the
implementation of a foreign language on students’ achievements in different countries around the world (Swain and Lapkin 1982, Dalton-Puffer 2002, Coyle et al 2010, Lasagabaster 2008). The evaluation of the results reveals numerous benefits to students’ content, cognitive and linguistic achievement, but, at the same time, brings out areas and issues for further investigation - the roles of language in CLIL interactions; student’s language development and assessment in CLIL; sustainability and teacher education (Coyle et al 2010, Llinares et al 2012).

The term Virtual Learning Environment (VLE) refers to a dynamic Internet environment created to respond to the needs of students and to provide them with supporting learning activity. A VLE is a flexible system for working with a large number of students; rapid processing and updating of teaching materials; time and place of study. The main requirements for a VLE, according to Britain and Liber (1999: 14-15) are: availability of discursive tools (that is, tools for maintaining communications); adaptability (how easy the content of the subject can be presented through the activities); interactivity (the possibility for students to get the material, edit and customize it); reflection (the possibility of providing feedback from teachers).

1.1 CLIL: outcomes and processes

Content and language integrated learning has been discussed among educators in recent years (Swain and Lapkin 1982, Masih 1999, Marsh et al 2001, Lyster 2007, Dulton-Puffer 2002, 2007). The world has been changing remarkably. Globalization and economic demands dictate the need for educational institutions to seek and apply those methodologies that meet the needs of learners in attaining competitive knowledge. As it was mentioned earlier, CLIL is an
approach that is an “innovative fusion” of subject and language education (Coyle et al 2010:1). About 450 million people from different ethnic, cultural and language backgrounds live in Europe. They need skills that are essential to communicate effectively with one another while living, working and trading together. Since 1990s CLIL is considered a powerful tool for achieving the goals of European Union policy in increasing intercultural competencies among European students (Resolution of the Council, 1995: 1-5, Eurydice, 2006: 8). Furthermore, school authorities seek to explore methods that increase students’ learning outcomes that allow them be more competitive.

The new Estonian National Curriculum also establishes the goals of Estonian education, which reflects European values and aims to prepare young people to be competitive in modern society. The programme for foreign languages states that foreign languages broaden people’s understanding of multi-cultural world, develop a variety of linguistic and non-linguistic means of thinking and self-expression. The subject area of foreign language learning is built on the basis of language proficiency described in the Common European Framework of Reference. The CEFR is a uniform document for a foreign language that describes achievements of foreign language learners at different levels. The principles of the European Language Portfolio allow students to achieve learning goals and provide objective feedback on the process. Modern communicative approach serves the needs of the learner on the basis of communication goals (ENC, 2011). The principles of CLIL methodology are based on active learning, a variety of teaching methods, scaffolding and authenticity. Therefore, it seems that implementing CLIL methodology in Estonian schools could serve these goals. However, as this study further reveals, only some schools have the experience of using foreign languages as an instructional language.
The benefits as well as drawbacks of CLIL implementation in various learning environments and conditions are examined in the following section. Various forms of foreign language provision were introduced around the world to meet the needs of the communities. One of the most well-known practices was French immersion programme that was described by Swain and Lapkin (1982). The authors presented the overview of research on immersion programmes in different Canadian provinces. As the authors put it, behind the introduction of the immersion programmes were two general reasons. On the one hand, the pressure and agitation by English-speaking parents in Quebec. On the other hand, bilingualisation of services of the Federal Government that led to the recognition of the value of French proficiency. The settings of the programmes were naturalistic, that is “the second language is acquired in much the same manner as children acquire their first language” (Swain and Lapkin 1982: 5). The focus of the research was on comparing the students’ progress from the experimental programmes to their peers in regular English programs. The authors evaluated the effects of implementing specific programmes on students’ academic outcomes, English language skills and socio-psychological adaptation. The variables of the programmes were: the early total French immersion programme in Carleton, Ottawa, where the entire day programme at the Kindergarten level was conducted in French; the early partial French immersion programme; the late French immersion programme. Swain and Lapkin (1982: 82) claim the success of all three French immersion programmes in advanced French language skills. The summary of the results from the Canadian experience contain several key points (Swain and Lapkin 1982: 82-84):

- the development of L1 does not suffer;
- target language proficiency is notably higher compared to non-immersion classes;
• subject matter does not reveal crucial lagging in terms of a long period;

• students’ cognitive development does not suffer;

• students transfer the principles of literacy to their LI

The setting for the abovementioned study was different from that in the present one. It is necessary to emphasise that the instructional language in French immersion programme was the second but not the foreign language. As Coyle et al (2010: 1) put it, there have been a range of educational practices that share some element with CLIL, such as immersion or bilingual education, but are not analogous to CLIL since it has some very fundamental differences: “CLIL is content-driven, and this is where it both extends the experience of learning a language, and where it becomes different to existing language teaching approaches”. The instructional language of the course evaluated in the present thesis is English, that is, foreign for the Estonian students.

In the 1980s, subject content in language courses for immigrant students was introduced in the USA. Researchers tried to find ways to support immigrant students in order to provide them with equal possibilities in education. One example of these practices was the research conducted by Collier and Thomas from George Mason University, Virginia. They focused their investigation on the length of time necessary to reach sufficient proficiency in foreign language in an academic context and on major factors that influence this process. The two factors researched were the age on arrival in the US and the years of instruction in mother tongue before arrival. The research revealed that students who arrived at the age of eight to eleven were “the fastest achievers” (Collier and Thomas 1989: 28). However, those students, who started their learning at the age of four to seven, receiving the instruction in the second
language, revealed lower results in the standardized tests compared to arrivals at the age from eight to eleven. The authors claim that the number of years in native schooling is an important variable, influencing academic achievement in second language. As Collier and Thomas conclude, “secondary students, with few remaining years in school, cannot afford the loss of one to three years of cognitive-academic development in all subject areas while mastering sufficient basic skills in English to receive meaningful content-area instruction in a second language” (Collier and Thomas 1989: 34). Despite that fact that Collier and Thomas were focused on foreign language proficiency of immigrant students, some of the results of the abovementioned study are important for the research conducted by the author of the present thesis. Provided that the students participated in the present research learn English as a foreign language, the period of English language learning and the amount of lessons per week is an essential variable. Moreover, it can be said that the level of the students’ English language proficiency is essential in teaching a subject through English.

CLIL practice was further developed by John Masih (1999) in collaboration with 13 practitioners, who evaluated their experience at a range of levels of integration content and language in teaching. They present detailed outcomes of the programmes and give descriptions of challenges for the time of experiments and for the future. For example, one of the authors, Do Coyle (1999), outlines main principles that provide the basis for the effective teaching and learning in CLIL context. She evaluates the guiding principles of learning that are based on the interrelation of four “C”s - content, cognition, communication and culture (Coyle 1999: 53). She then emphasizes the importance of planning the teaching strategy and scaffolding (that is, support) as one of the main constituents. Planning scaffolding strategies are, in her opinion, inevitable in facilitating opportunities for learning in the four curriculum elements. Another issue that the author outlines is planning to develop learning strategies.
In 2003 the European Commission published an *Action Plan for Promoting Language Learning and Linguistic Diversity*. The document stated the need to acquire more than one foreign language to be competitive in the European economic society. CLIL was presented there as one of the major methods that may be used to achieve this goal:

Content and Language Integrated Learning (CLIL), in which pupils learn a subject through the medium of a foreign language, has a major contribution to make to the Union’s language learning goals. It can provide effective opportunities for pupils to use their new language skills now, rather than learn them now for use later. It opens doors on languages for a broader range of learners, nurturing self-confidence in young learners and those who have not responded well to formal language instruction in general education. It provides exposure to the language without requiring extra time in the curriculum, which can be of particular interest in vocational settings. The introduction of CLIL approaches into an institution can be facilitated by the presence of trained teachers who are native speakers of the vehicular language. (EC 2003: 8)

The principles of CLIL approach lay in the basis of the research conducted by David Lasagabaster (2008), who examined the implementation of CLIL in Basque Country with two official languages – Basque and Spanish. The research explored the influence of gender and social status on language competence, and the importance of the time of enrolling in the programme. The participants of the research were secondary students who started to learn English at the age of eight. The participants were divided into three groups: non-CLIL group where English was taught as a subject; group of students that received four CLIL hours per week for two years, apart from English as a subject (three hours per week); and students, that participated in the CLIL programme for the first year and received four CLIL lessons per week plus three hours of English as a subject. The results revealed significant outperformance in English proficiency of the CLIL groups over the non-CLIL groups in the case of both speaking and writing tests. The author concluded that “the CLIL approach has a clear impact on all the language skills and the grammar test analysed in this study when students enrolled in the same grade are compared” (Lasagabaster 2008: 38). Lasagabaster found that gender variable is not important in the CLIL programs. The tests showed the same differentiation between male and
female students in English competence in the CLIL and non-CLIL groups. Another hypothesis was aimed to evaluate the influence of the sociocultural status of students on their target language competence in CLIL groups. The author found that there were no significant differences of the three groups of students in respect to their sociocultural status. All in all, Lasagabaster claims the successfulness of the CLIL approach even in the situation where English is not largely represented in society.

*The goals and framework of CLIL*

CLIL approach has found its acknowledgment among educators as one of the most successful methods in providing content learning through another language (Masih et al 1999, Coyle 1999, Coyle 2010, Lasagabaster 2010). Carol Morgan proposes three broad categories of CLIL purpose: linguistic, vocational and intercultural (Morgan 1999: 34). Firstly, the purpose of any CLIL program is to improve learners’ foreign language competence. Secondly, the vocational purpose represents the usefulness of CLIL in preparing students for studying or working abroad. According to Morgan,

> two important consequences of a vocational perspective or purpose in a CLIL context are the relationship between the foreign language and the content, and the particularities of the language chosen. In a vocational context, it is not the content which is enhancing the foreign language, making it more real/.../ the foreign language directly serves the content, for purposes beyond the CLIL classroom. (Morgan 1999: 35)

Thirdly, Morgan states that the instruction in foreign language not only represents the structure of a language and the vocabulary, but also the norm-cultural aspect of using the language on the personal and social level. That is, the relationship between the content and the foreign language assumes “an awareness of the particular kind of rhetoric being used, both in terms of genre and of the particular cultural context” (Morgan, 1999: 36). The course evaluated in the present study deals with various topics connected to physical education and healthy lifestyles.
The authentic materials presented in the course provide the students with specific information that reveals cultural features of the studied topics. For example, while studying the autobiographies of famous athletes the students explore their ways to success, ways of lives and etc., listen to the authentic accents of the people from different countries.

A more detailed formulation of CLIL goals is presented in CLIL-Compendium project funded by the EU, which includes the intercultural aspects, as well as content and cognitive ones:

- Develop intercultural communication
- Prepare for internationalization
- Provide opportunities to study content through different perspectives
- Access subject-specific target language terminology
- Improve overall target language competence
- Develop oral communication skills
- Diversify methods and forms of classroom practice
- Increase learner motivation

The realization of the abovementioned aims requires a thorough analysis of the roles of content and language and their interrelations. In order to understand what CLIL is, Do Coyle et al (2010: 41) represent a conceptual map of CLIL which integrates four contextualized blocks: content (subject matter), cognition (learning and thinking process), communication (language learning and using) and culture (developing intercultural understanding). The authors suggest that the interrelation of these four variables leads to effective CLIL. That is, the development of content knowledge that is cognitively processed includes the communication in the context. Necessary language skills and intercultural awareness are
developed during the content acquisition and through communication with peers and a teacher (see Fig. 1).

![Fig. 1. The 4Cs Framework (Coyle 2010: 41)](image)

As Coyle et al (2010: 41) put it, the success of CLIL is achieved through the symbiosis of the abovementioned elements through:

- “progression in knowledge, skills and understanding of the content;”
- engagement in associated cognitive processing;
- interaction in the communicative context;
- development of appropriate language knowledge and skills;
- the acquisition of a depending intercultural awareness, which is in turn brought about by the positioning of self and ‘otherness’.”

The authors draw our attention to different areas that must be taken into consideration when developing programs for particular CLIL subjects. They claim that while acquiring the content of a subject, a learner constructs his own interpretation of knowledge. Doing this, a learner
develops his cognitive skills, as the content is analyzed from the linguistic perspective. As the operational language in CLIL is a foreign language, it involves intercultural awareness. The following section is essential to the study that will be described in the empirical part as it provides the overview of the main functions of language in CLIL. The roles of a language are multimodal. For the author of the present research it was important to understand the general principles of the use of a foreign language in the introduction of the material, what genres and registers can be applied in communication, how the students see their language progression.

**Language in CLIL**

As Coyle et al (2010: 1) put it, “CLIL is content-driven, and this is where /…/ it becomes different to existing language-teaching approaches”. Apart from content knowledge that students attain in CLIL classrooms, language proficiency is still stated as one of the main goals. It is crucially important to understand how language is used in CLIL classroom interactions and activities. Coyle et al further develop the role of a language in CLIL: “Students have to be able to use the vehicular (used in CLIL settings) language to learn content other than grammatical form otherwise this would not be CLIL” (Coyle et al 2010: 33). According to Dalton- Puffer (2007), in CLIL classrooms, unlike language classrooms, students use the target language naturally, as they use their mother tongue in everyday life.

The theoretical background for providing language input lies in Krashen’s (1982: 21) model of Input Hypothesis, which states that rich comprehensible input is the main factor when language acquisition occurs. In the immersion context learners are situated in an optimal learning environment for receiving the input, which exceeds their level of L2. One of the main issues that make Krashen’s theory important in CLIL settings is that the language is focused mostly on meaning. That is, as Llinares (2012: 198) puts it, in situations where content and
language are taught simultaneously, “students need to learn content through language and language through content rather than learn the language separately from the content”. In the context of the present research the rich comprehensible input is provided to the students through the variety of authentic materials, the speech of the teacher, and interaction with peers.

A controversial hypothesis was presented by Merrill Swain in the mid-eighties. She presented the Output Hypothesis (Swain, 1985), which was based on the idea that challenging spoken activities force language ability. The author identified output as the missing factor in successful L2 production. She later suggested (Swain, 2000: 97-114) that one possible reason for grammatical inaccuracy was the absence of a “push”. The learners were not “pushed” to deeply analyse the grammatical structures of a target language due to getting the meaning of content through the context. Swain also claims that in order to produce comprehensive output a learner should take a more active role than in listening and reading.

The theoretical background for language acquisition and production lies in the well-known communicative approach to language learning, which, in turn, focuses on meaning as well as on form. Llinares et al (2012: 215) state, that “a focus on form in CLIL classrooms should be specifically linked and integrated with focus on content/meaning. /…/ Specific language focus should then be integrated in genres and registers as lexico-grammar cannot be independent from meaning.” The authors analyse the roles of language in CLIL and suggest a framework for understanding and describing these roles. Firstly, the authors emphasize subject literacies, that is registers (lexical and grammatical resources) and genres (types of texts) of content through which the content is realized. The importance of this first notion, according to Llinares et al (2012: 14), is based on the fact that the language of instruction in CLIL is not students’ native language; therefore the language for CLIL should be developed more
explicitly. That is, teachers should understand registers and genres of the content in order to support students in accessing the knowledge. That enhances content learning and language development. Secondly, the authors focus their attention on classroom interaction and the way it is organised to be effective. Three main variables here are: 1) instructional - the language used by teachers and students to talk about ideas and concepts of the studied content (both technical and everyday) and regulative registers - when the language is used for managing social environment in classroom; 2) communication systems - that the teacher establishes to discuss the content; 3) and interaction patterns and scaffolding - the way the teacher carries out the classroom interactions and supports students. Thirdly, language development is presented as: expressing ideational meanings (key concepts and understanding); expressing interpersonal meanings (social relationships, attitudes); and expressing textual meanings (moving from more spoken to more written forms of language). Concluding the main concepts of understanding the role of language in CLIL environment, the authors emphasise the crucial role of assessment:

Assessment appears in every component and throughout the teaching process. In deciding how learners are going to be assessed in any subject or topic, CLIL teachers need to take into account the language and literacy practices through which students will demonstrate knowledge, skills and understanding. (Llinares et al 2012: 18)

The abovementioned frame for understanding the roles of language in CLIL is the basis for its practical implementation in the course developed by the author of the present study. This understanding allows to integrate the language and the content more effectively by realising the importance of thorough choice of text types, grammatical structures of the instructions and communication in the context, constant scaffolding. Coyle et al (2010: 35) support the idea that “in CLIL context it is not a question of whether focus on meaning or form but rather that it is fundamental to address both, the balance of which will be determined by different variables in specific CLIL settings.” The authors then emphasize the importance
of understanding the interrelationship between content and language objectives for strategic planning. She introduces the Language Triptych- a conceptual representation of the three interrelated perspectives: language of learning, language for learning and language through learning (See Fig.2).

![Language Triptych](image)

**Fig. 2. The Language Triptych (Coyle et al, 2010: 36)**

Language of learning is the language that is needed to understand basic concepts and skills that are related to the subject or the topic. Using various grammatical structures and vocabulary to explain the notions of the topic, the teacher naturally provides necessary linguistic input for students. Therefore, the choice of structures and the vocabulary should be dependent on the aims of the lesson and serve as scaffolding. According to Coyle et al (2010: 37), “for the subject teacher it requires greater explicit awareness of the linguistic demands of the subject or content to take account of literacy and oracy in the vehicular language.”

Language for learning is presented by the authors as the operating tool to provide cooperation with the teacher and classmates in discussions, group-work, asking questions etc. “Developing a repertoire of speech acts which relate to the content, such as describing, evaluating and drawing conclusions, is essential for tasks to be carried out effectively” (Coyle et al 2010: 37).

Language through learning, according to the authors, is the language that is developing during
the CLIL classroom activities that require students' articulations of their understanding of the content. This process involves a deeper level of thinking in order to acquire the new content through the new language: “learners need language to support and advance their thinking process whilst acquiring new knowledge, as well as to progress their language learning” (Coyle et al 2010: 38).

As it can be seen, the roles of language in CLIL environment are varied and linguistic competences cannot be isolated from skills and knowledge of the content (Llinares 2012: 14). The role of teachers is to emphasize for students the functional lexis and grammar of the studied content through reading, writing, discussions and instructional exchanges. One of the most significant analyses in the discourse in CLIL was made by Christiane Dalton-Puffer. She explored language functioning in various environments and from various perspectives (the functions of academic language, the roles of the participants in classroom conversations, the role of error corrections and CLIL classroom as a language learning environment). One of the author’s main recommendations is the need to reconsider the value of teacher’s monologue “both in the interest of presenting coherent conceptual networks of topic content and in the interest of providing sustained, syntactically complex oral input” (Dalton-Puffer, 2007: 269). On the part of the students, Dalton-Puffer emphasizes more considerable students’ output that can be reached by specific types of questions (required explanations, reasons and opinions), as well as by producing writing and oral presentations.

To conclude, the role of the language in CLIL lessons is multimodal. The content goals may be achieved only when participants interact in suitable circumstances. Students’ progress in language skills depends on various factors, such as the value and quality of teacher’s input;
the designed tasks, which include authentic materials; the volume and quality of student’s output.

**Content in CLIL**

The notion of content in a CLIL context is different from content of traditional subjects. As Coyle et al (2010) put it, the content in CLIL context depends on different variables: teacher availability, language support, age of students, school demands; the content may be drawn from the curriculum or represent cross-curricular and interdisciplinary issues. The authors state that “CLIL offers opportunities both within and beyond the regular curriculum to initiate and enrich learning, skill acquisition and development” (Coyle et al 2010: 28). The objectives of the course presented in the current study were to develop students’ awareness in the area of healthy lifestyle, sports, history of sports and Olympic Games; to increase interdisciplinary and cross-cultural awareness; to develop students’ cognitive skills - lower-order thinking (remembering, understanding and applying) as well as higher-order thinking (analyzing, evaluating and creating). The content of the subject was compiled considering the level of students in English (elementary - pre-intermediate), the objectives of the course, the learning environment (one face-to-face lesson per week with access to the virtual electronic environment). As the present study further reveals in the empirical part, students present various positive aspects of learning a subject through the medium of the English language (such as the possibility to express their ideas on the subject without being interrupted and corrected; the forms and ways of material presentation and evaluation; increasing their vocabulary in the subject area as well as in the area of social interactions). Marsh and Hartiala (2001) developing five dimensions of CLIL (content, language, culture, environment, and learning), presented the key features of content in CLIL: “Accessing content information
through different languages can provide added value to the subject matter itself; particularly suitable for certain topics within subjects; helps broaden horizons through providing opportunities for critical thinking” (Marsh and Hartiala, 2001:43). As the main objective of CLIL lessons is to provide the knowledge of the subject and the crucial component of these lessons is a foreign language, critical thinking of students is inevitable for constructing their knowledge. Coyle et al (2010) support the abovementioned statement of Marsh and Hartiala and state that

Effective content learning has to take account not only of the defined knowledge and skills within the curriculum or thematic plan, but also how to apply these through creative thinking, problem solving, and cognitive challenge. Young people not only need a knowledge base which is continually growing and changing, they also need to know how to use it throughout life. They need to know how to think, to reason, to make informed choices and to respond creatively to challenges and opportunities. (Coyle et al 2010: 29-30)

Therefore, to develop these thinking skills, students need to be actively involved into the learning process, into social interaction with peers and teachers. It is often feared that since the medium of instruction in CLIL lessons is a foreign language, the acquisition of the subject’s content may suffer. However, most observations (Masih 1999, Dalton-Puffer 2007, Lasagabaster 2008) show that CLIL learners acquire the knowledge of the subjects as successfully as those who study in L1 and, according to Lasagabaster (2010), even outperform students in controlled groups in developing language and cognitive skills.

It is, however, important to mention some disadvantages of learning through a foreign language. One of the drawbacks was found by Ursula Stohler (2006) from the University of Bern in Switzerland. The author investigated the interrelationships of language and the development of conceptual knowledge. She also examined the compensatory factors (like the structure the of the lesson, use of visuals, number and quality of talks on meaning). The results showed the equal level in knowledge acquisition, presented by CLIL and non-CLIL students.
However, the demonstration of the acquired knowledge was possible when pupils were allowed to use L1 as well. Moreover, the study revealed the need for additional explanations in CLIL classes in order to provide students with comprehensible input. Another disadvantageous aspect of learning in another language, mentioned by Dalton-Puffer (2002), is the intentional use of some conceptual simplifications intentionally made by teachers to acquire comprehension of the content and by students when producing the output.

As it can be seen from the abovementioned studies, CLIL environment provides necessary subject content and motivates students to use L2 in the context of the lesson. The main objective of CLIL lessons is to provide the opportunity for students to construct their knowledge through an L2. Provided that an L2 is the means of the learning process, foreign language acquisition occurs naturally in the CLIL context. That is, in order to attain the knowledge of the subject learners are involved into the communication about the context. To achieve sufficient content acquisition, the teacher needs to provide comprehensible input and support, including code-switching.

1.2 Virtual Learning Environment (VLE)

CLIL methodology comprises a wide variety of approaches and activities. Fast development of technology and its integration into the teaching-learning environment provide great opportunities to design learning environments for CLIL programmes. Using ICT provides learners with a large number of benefits, such as increasing motivation, constant access to learning materials via the Internet, interactivity and visualisation of learning materials, individual time management. Teachers obtain convenient tools for managing and evaluating the learning process. Parents are also engaged in the learning process and may track their children’s academic performance. As Eldridge et al (2010) state, the instruments of Web 2.0
allow CLIL practitioners to develop flexible platforms where learners can take an active role in their studying and acquire content from different perspectives. It is important to mention that an educational VLE should be thoroughly designed in order to meet the needs of the course and be user-friendly. As it was mentioned earlier, the present study investigates the perceptions of the participants in blended learning, i.e. combination of traditional (face-to-face) and online learning. Some theoretical background of VLE, the requirements for its design and practical applications are presented in this section.

Requirements for VLE design

There is a large volume of published studies describing the requirements for a VLE (Rosell-Aguilar 2005, Hampel 2006, Cong 2007, Gerard 2007, and Vlachos 2009). Many researchers describe the development of Web 2.0 tools as such, but for practitioners it is important to analyse these instruments from the perspectives of implementation into the learning process. Research conducted by Cong et al (2007), reveal main requirements and principles of a VLE organization. Gerard (2007) explored key issues related to pedagogical, practical and strategic use of a VLE for disabled students. From the pedagogical perspective, the author advocates the importance of blended learning where students are involved in on-line and face-to-face studying. The inclusion of students into the active studying was based on the availability of on-line materials, which they could print out to make notes during face-to face discussion boards. From a practical perspective, a VLE requires user-friendly operational tools, clear organization of the course and suitable appearance. From a strategic perspective, all teaching modules should be presented and an experienced e-learning coordinator should provide necessary workshops (Gerard, 2007: 202-205). Craig (2007) pays attention to the impact of changing technology on managed learning environment, and integration technology into the
teaching-learning environment. The author claims that educators need to take into account learners’ experience in social networking and create flexible user-centered VLEs, based on Web 2.0.

Task design in a VLE

Representing an essential part of a VLE, a task should have clear settings, instructions for the procedure, criteria of assessment and dates of submission. Learners have to be familiar with the tools of a VLE to fulfil the task. Another important issue is the possibility of communication between peers and the instructor. The theories of task-based language learning and socio-cultural theories of language acquisition are the basis for task design. The following research overview represents some important aspects of task design.

Task types in a VLE are examined by Hampel (2006). Her study, which evaluated various kinds of appropriate tasks, was set up at the Open University of Cambridge in 2003. The author explored the design and implementation of tutorial tasks in a synchronous audio- graphic environment (the combination of technologies used for real-time communication) called Lyceum. Hampel suggests a three-level approach to designing and implementing online tasks. Under the term “approach” the author means theories about language learning. The term “design” stands for how tasks are embedded into the courses, the types of tasks, and their role in the courses. The term “procedure” includes teacher’s recourses, strategies and interaction between the participants. Hampel has found the realisation of the pedagogical principles about the nature of language teaching in the designed tasks. Firstly, the peer and student-tutor negotiation on meaning fostered communication, needed in language acquisition. Secondly, the input provided by the structured material, tutor support and collaborative work between the tutor and students encouraged students to construct their knowledge through active
participation and engagement. Moreover, the tasks implementation allowed teachers to shift control over the learning process to students. Other findings that Hampel discusses are the effects of multimodal learning environment on learning. The Lyceum computer-mediated environment provides access to various tools that activate the material of the tasks, such as the whiteboard that makes it possible to combine the texts and images, concept maps and documents. The author states that the tools in the computer mediated environment are designed to be used flexibly, depending on the needs and particular technological specifications. Provided that in the Lyceum environment video conferencing is unavailable, communication cannot rely on the help of body language. So, the interaction between students and tutors are set differently and tutors have to take into account that the absence of the immediate student’s respond may be caused by technical problems or by the poor technical skills of a student. (Hampel, 2006:118) The structure of the Lyceum environment and the pedagogical principles of language teaching underlying the environment implementation are relevant for the course presented in the current thesis. Firstly, the course designed by the author of the present research is based on the virtual platform that has clear structure and provides access to various tools. Secondly, the theories of language teaching have found their realisation in the presentation of the material, types of the tasks, the communication between the teacher and student. In more detail, preparing the materials for the course, the author of the present thesis implemented the principles of communicative approach in language learning; designed the tasks to provide the students with rich comprehensible input.

Task design for a VLE was also researched by Rosell-Aguilar (2005). He describes the challenges in designing online tutorial materials for a beginners’ Spanish course for distance language learners using an online audiographic conferencing VLE for synchronous oral interaction. According to Rosell-Aguilar,
task design usually reflects the theories of learning that are current at the time of development in the context where they will be used. In this context, we are aiming for a constructivist approach with communications a main goal, and for this we will use theories from second language acquisition field (SLA), reinforced by theory on distance language learning and computer assisted language learning. (Rosell-Aguilar, 2005:4)

The author developed a set of materials, which include Whiteboard, Conceptmap, Document and Chat-type tasks. Rosell-Aguilar (2005) concludes that via VLE the target language is practiced synchronously in a meaningful framework.

Vlachos (2009) examined how different Educational Technology applications can be implemented in CLIL lessons. The author proposed the framework for blended learning, presenting key principles of a lesson structure (Vlachos, 2009: 193-194):

- “Planning (face-to-face learning)
- Implementation (on-line and face-to-face learning)
- Creation of the product (face-to-face learning)
- Evaluation (face-to-face learning)
- Follow-up activities (face-to-face and on-line learning)”

There are two types of technologies for Computer Mediated Communication (CMC), that are used in CLIL: synchronous (Internet browsers, messengers) and asynchronous (emails, forums). The variation of these platforms, according to Vlachos, provides CLIL students with possibilities of creative collaborative work. The VLE presented in the empirical part of the present thesis uses both of the abovementioned types. That is, the tasks intended for the group-work activities are designed on the Google platform that allows the students to send instant comments on the process of their work. Moreover, the TCRG students and teachers use Google mail services that provide them with the opportunity of communication.

As we can see from the reviewed studies, theories of second language acquisition, socio-cultural theories of language acquisition and theories in distance learning underlay the
principles of designing a learning task in a VLE. Computer-mediated communication requires consideration of methods of task-based language learning as well as features of available software. Further detailed research is needed on implementation of tasks in a VLE to language learning.

As mentioned earlier, CLIL environment combines different types of language input: language of learning, language for learning and language through learning (Coyle et al, 2010). Morgan (1999) emphasises the language of the teacher and the language of the authentic materials. The Web is a great source for authentic materials, which can be used online via VLEs. There are several of the platforms that can be used to organise computer-based part of a learning process. One of them (Lyceum), was mentioned in the research conducted by Hampel (2006) and Rosell-Aguilar (2005). Other environments, which are widely used by teachers and university staff, are Moodle and Google sites. These platforms perfectly meet the requirements for a VLE, i.e. provide constant access to information and resources, contain necessary operational tools, and maintain communication.

Reviewing the recent studies, we may outline basic requirements for designing an appropriate VLE. Firstly, a learning environment should promote structured construction of knowledge with clear course outlines (structure, dates, assignments, assessment) and learning outcomes. Secondly, a VLE should have an easy-to-use management system, providing constant access (anywhere, anytime). Another important issue is assessment (automatic grading, on-line submission, range of tasks). Finally, a VLE should be designed on a platform, which allows the access of great number of users. The present study investigates issues connected to teaching physical education through English via designed learning environment on the platform of Google sites as this learning environment is the platform required by the school.
The CLIL approach, as it was revealed from the studies reviewed in this chapter, combining integrated learning of languages and curriculum content, is the approach that found its recognition by practitioners, school authorities and governments not only in Europe, but around the world. The interest in CLIL lies in its benefits for students. The recent documents of European organisations consolidated basic principles of modern education in the light of multiculture and multilingualism, and recognized CLIL as the main method to achieve the goals of education (European Commission 2003, Eurydice (2006)). National educational authorities take a great interest in CLIL and understand the need for further research in the field. A great number of studies confirm success of CLIL programs in different countries (Masih 1999, Dalton-Puffer 2007, Lasagabaster 2008, Coyle et al 2010, Llinares et al 2012). The research revealed main features of the method, paying much attention to the language and content issues, methodology and teacher training. One of the advantages that can be emphasized is a wide range of resources, presented through virtual environment, which can be used at CLIL lessons.

Several authors have tried to determine main principles of a VLE organisation (Rosell-Aguilar 2005, Hampel 2006, Gerard 2007, and Vlachos 2009). The approach to the VLE design is based on theories of second language acquisition and task-based language learning. A well-designed VLE meets the needs of students and teachers, considering different learning styles and objectives of the course. However, there is still a need for further research into the attitudes of teachers and students towards the implementation of VLEs in schools. The present study is a contribution to the theme and aims to analyse the similarities and differences in CLIL perceptions of Estonian teachers and students in order to present an overview of the situation for further development of CLIL approach.
CHAPTER 2. THE STRUCTURE OF THE COURSE PHYSICAL EDUCATION AND HEALTH

This chapter presents the course designed by the author of the present research. The chapter outlines the aims of the course, the building of the course; the process of teaching and results along with the comments of the author. The name of the course is *The Theory of Physical Education and Health*. The course was designed and taught for Year 7 and 8 students of Tallinn Central Russian Gymnasium in 2011 - 2012. The aims of the course were to provide students with knowledge of the theory of healthy lifestyle (nutrition, hygiene, and sports) as well as a historical overview of the most important events of the Olympics; to develop intercultural and interdisciplinary skills; to improve overall language competence and language skills; to develop students’ cognitive skills; to increase students’ learner confidence.

The course was taught in English. There were several factors that prompted the decision to base the course on the CLIL approach and present it through a VLE: firstly, the interest of the school administration in students’ English language development. As it was presented in the theoretical part of the present work (Masih 1999, Marsh et al 2001, Lyster 2007, Dulton-Puffer 2002, 2007, Lasagabaster 2008, Coyle et al 2010, Lliñares et al 2012), CLIL approach is recognized as one of the most effective methods of subject learning through another language. Secondly, the level of students’ computer literacy allowed learning via a virtual environment. That is, students were prepared to work via Internet applications because they had been taught to use them in the Computer Technology lessons. Moreover, the teacher was also experienced in using computer-mediated environment for teaching other subjects (designing sites for the course of British Literature).
The general aim of the author in the beginning of the process was to set up a successful course in order to provide students with the opportunity of acquiring new subject knowledge using the new methodological approach. The review of the literature provided the theoretical basis for the course design. Research (Coyle et al 2010, Lasagabaster 2010, Dalton- Puffer 2011, Llinares 2012) has revealed the successfulness of CLIL programmes in different parts of the world. Therefore, the author designed the course understanding the notion of CLIL as the interrelation of the four Cs (content, communication, cognition, and culture), developed by Coyle et al (2010). It was assumed that the successfulness of the course depends on how the students progress in their knowledge of the content; develop their language skills; and communicate within the content. The next stage in the process of course design was the definition of the content to be taught. On the one hand, it was important to decide on the material that would be educational and motivating, and on the other hand, that would develop students’ foreign language skills. As the amount of face-to-face lessons was limited (35 lessons), it was important to organise the material so that students could receive the necessary support in classroom interactions and practice the received knowledge independently. To support face-to-face lessons and to create a learning environment the author developed the course on the platform of Google sites. The principles of a VLE design were described in the theoretical chapter (Rosell-Aguilar 2005, Hampel 2006, Gerard 2007, Vlachos 2009) and formed the basis for the site development. The teacher designed the site using the prescribed tools; however, the elements of the site and the appearance were of the teacher’s choice. The use of the site allows organising the study materials and supporting students’ learning. For example, to serve the needs of students with different learning styles, the course contains a variety of visual and audio materials; the tasks are designed to practice functional reading
(reading for specific information); thorough instructions introduce the tasks; and additional Internet resources are presented to expand students’ knowledge.

Considering that fact that the course was taught for the first time, constant reviewing and improvement was taking place. The author’s observations revealed the need for adapting the reading texts. Firstly, functional reading appeared problematic. That is, the lack of students’ attention in reading the instructions to the tasks forced the teacher to formulate the instructions more thoroughly. In order to overcome this situation the author of the present study implemented video or Google presentations to introduce the topics. According to the author’s general observations, the interest to the topics varied depending on the gender of the students. For instance, girls revealed greater interest to the themes connected to healthy eating, hygiene and planning daily activities (that is, more practical issues). Boys were more active in the lessons about extreme sports and Olympic Games. The results of the final test showed the high level of content acquisition.

The course is built on the platform of Google sites and developed by the author of this thesis. Google sites platform is the choice of the school administration. The school has designed the entire educational and work environment on the abovementioned platform as it provides numerous benefits for teachers and students in optimizing the teaching process: unlimited storage of content, identification of the participants (that is very convenient to track students’ work), time management and communication. Moreover, the teachers and the students receive support (training on technology for teachers and technology lessons for students) from the school educational technologist who is Certified Google Teacher. The content of the course is available to the students who study the course, to the school
administration and the teachers. The students get access to the site and are identified as the participants of the course. This allows the teacher to monitor students’ activity in the process.

*Layout of the site*

The layout of the site is represented in Pic.1. The homepage represents the main topics along with the instructions for students. The left menu contains the links to the pages of downloadable assignments, resources and evaluation criteria. The course consists of six main sections: Daily Routine, Hygiene, Healthy Eating Habits, Winter Olympic Sports, Extreme Sports, and London 2012. Every section introduces the material (see Pic.2), contains practice materials and the assignments (see Pic. 3).

![Pic.1 The layout of the homepage](image-url)
Introduction of the topic

Pic.2 Introduction of the topic

Pic.2 represents an example of a topic introduction. It is designed in the form of a presentation where every element appears after a short class discussion. That is, students construct their knowledge by active participation. The 4Cs Framework (Coyle et al, 2010) is the basis for the construction of the material. The presented example provides students with the content (the main components of the course) that is acquired through the language of learning (the basic concepts of the topic), language for learning (the operational language in the classroom) and language through learning (language acquired by students in the process of learning). That is, interacting about the context students practice the vocabulary of the topic, think how to construct utterances, and, therefore, develop their language and cognitive skills. Cultural aspect is also included in the material presentation (for instance, the topic about Olympics or famous athletes).
Assignment presentation

Pic. 3 The layout of the assignment page

Pic. 3 represents the layout of the assignment page. Students find the page in the left menu of the main page. The assignment contains the name of the topic and the link to the worksheet. Students copy the worksheets and give access to the teacher for further evaluation. The students are familiar with the design of the site as several different subjects are taught either entirely or partially in the virtual environment. The topics of the lessons are introduced in 35 face-to-face lessons.

Examples of tasks

The topics are further developed in various tasks that include pair and group-work activities, discussions, listening and writing tasks (see Pic. 5, 6, 7). The task design for CLIL lessons is discussed by several authors (Rosell-Aguilar 2005, Hampel 2006, Gerard 2007, and Vlachos 2009). The aim of the author of the present thesis was to meet the requirements of tasks developed by the abovementioned authors: tasks should have clear settings, instructions for
the procedure, dates of submission, familiar operational tools and the possibility of communication between peers and the teacher. It should be mentioned that apart from the tasks designed by the author a variety of authentic tasks were implemented from the Internet.

Pic.5 An example of a listening task.

Pic.5 represents an example of a gap-fill listening activity based on listening to people discussing extreme sports. The source is provided on the worksheet and available for students for further practice. Students can visit the webpage and practice either the same activity or others in order to improve their listening skills. This is optional for students but gives the opportunity for the less confident ones to develop their listening skills.

Pic.6 represents an example of a matching pair-work activity for the topic “Extreme Sports”. The activity is designed for vocabulary practice. The worksheet is interactive, that is, the pictures and the names of the sports are movable. This activity is a part of the lesson that follows a video representing various extreme sports. The use of this kind of activity provides students with scaffolding and better progression in their content knowledge.
An example of a matching activity.

Pic.7 represents group-work activity on the topic of “Food Groups”. This task is designed to revise the content of the lesson and the used vocabulary. The students are allowed to use their notebooks and online dictionaries. It is a class activity. Students copy the teacher’s document, share it among the members of their group and give access to the teacher. Each group member is responsible for the particular food group and has to check another student’s work in order to receive a good mark for the group work. The teacher can follow the work virtually during the activity. This kind of activity plays an important role in the development of students’ language for learning as the content related repertoire such as debating, evaluating, making conclusions is involved (students discuss in groups how to deal with the task and provide their options).
Assessment

The students are assessed for their in-class activities as well as for their home assignments (worksheets, presentations). It should be mentioned that the main focus of the assessment is on task completion (that is, the acquisition of the lesson content). The language of the students is not assessed separately. However, error correction takes place during discussions or oral presentations through the simultaneous feedback from the teacher. The evaluation of the interactive activities takes place in the virtual environment. The worksheets and presentations, designed mostly using Google-doc application, are stored and assessed using the tools of the application. Here, language mistakes are explained by the teacher. This form of assessment allows the teacher to comment on students’ work and students to comment on their own or peer works.
Pic.8 An example of the assessed student’s worksheet.

Pic.8 represents a way of assessing students’ worksheets. A student is the owner of the document. The teacher has access with the right of editing. The example demonstrates the way of content integration with the cultural issues (the global history). Students produce the content of the unit by speculating on the historical account using the studied vocabulary. Despite that fact that the general focus of the assignments is on the content information, language of the tasks is an inseparable aspect that constitutes the overall grades. However, as Llianares et al put it (2012: 284), higher language proficiency may be gained by students outside the CLIL programme. Therefore, overall grades should be based on how students show understanding of the content.

A more detailed overview of students’ attitudes to this experience (teaching and learning a subject through English) will be presented in the following chapter.
CHAPTER 3. THE RESULTS

In order to receive the feedback from the students and to evaluate the effectiveness of the course, the author designed the questionnaire that was distributed among the students involved in the course of Physical Education and Health. Another questionnaire was designed for teachers in order to receive the opinions of the Estonian teachers about teaching other subjects through English. It was supposed that the teachers’ opinions may provide valuable data on CLIL implementation practices, and, therefore, can be compared to the results of the students’ questionnaire; and to outline the major problematic areas for future research. The students’ questionnaire aimed to gather information on students’ attitudes towards various aspects of teaching the subject through another language and via virtual environment. The basis for the questionnaire design was the reviewed literature in the area of CLIL (Marsh et al 2001, Lyster 2007, Dalton-Puffer 2008) and VLE (Rosell-Aguilar 2005, Hampel 2006, Gerard 2007, Vlachos 2009) and the author’s personal observation of the teaching and learning of the course.

The main research question that the empirical research aimed to answer was:

- What are the students' and teachers' attitudes towards the implementation of CLIL by means of virtual environment?

In more detail, it was essential to analyse:

1. What positive and negative aspects of CLIL implementation can be shown?

2. What positive and negative aspects of the course introduction via a VLE can be shown?
**The method**

This study used both quantitative and qualitative research methods. Qualitative research methodology (here, the case study) was used to analyse the opinions of students towards the course design and implementation; and the opinions of the teachers towards the implementation of CLIL and a VLE. Quantitative research method was used to analyse the graphs and diagrams generated from the collected data. Questionnaire 1 (see Appendix 1) was administered to students in the middle of their course of PE. The questionnaire consists of three general parts:

1. Questionnaire on using English for teaching other subjects (CLIL)

2. Questionnaire on experience in ICT

3. Questionnaire on using virtual environment for learning PE in English.

The questionnaire contains 16 questions; most of them are multiple-choice questions. The questionnaire begins with short demographical questions to collect statistical data about the participants: their gender, grade, age, years of studying in this school and years of learning English. The data is important for the further analysis to identify the interrelation between the years of studying in the TCRG and the students’ approximate level of language. The second section of the questionnaire is designed to collect the data on teaching and learning the subject other than English, in English. The students are asked to give their opinions about various aspects of language skills development and content knowledge acquisition. The section of the questionnaire is based on the students’ experience in ICT. This data is necessary to get the overview of the students’ perceptions of their computer literacy. It was important to identify whether the level of computer skills was sufficient to process the course via virtual environment. The third group of questions is designed to receive data on the students’ opinions about using the VLA (Google-site) for teaching and learning the abovementioned course. In
order to receive additional information on the theme of the research, the author assumed that teachers’ perceptions of the CLIL implementation would contribute to the study and provide valuable data for the analysis. Therefore, Questionnaire 2 (see Appendix 2) was distributed among the Estonian teachers. The questionnaire consists of three parts:

1. Demographic Information Questionnaire

2. Questionnaire on CLIL (Content and Language Integrated Learning. Teaching a subject through a foreign language)

3. Questionnaire on using ICT

The questionnaire contains 32 questions. The teachers’ questionnaire also begins with short demographical questions to collect statistical data about the participants: their gender, age, years of experience types of school and grades they teach. The second section of the questionnaire is designed to collect the data on teaching the subject other than English, in English. The teachers are asked to present their opinions about various aspects of the implementation of CLIL methodology. The third section of the questionnaire enquires the teachers’ opinions on the use of ICT. This data is necessary to get the overview of the teachers’ evaluations of their computer skills, the software that the teachers use and their attitudes towards using technology in teaching through another language.

The procedure

Data elicitation began in the beginning of January 2012. Firstly, the main problematic areas that were identified by the author as a practitioner were outlined. That is, the problems connected to the content comprehension, teacher-student and student-student interaction, the operation with the tools of the virtual platform. Secondly, the questionnaires for students and teachers were designed and delivered. During the delivery of the teacher’s questionnaires the author faced the predictable situation of teacher’s reluctance to answer them. Therefore,
various ways were exploited to receive the data: via work emails, the lists of Association of English teachers of Estonia, the lists of MA students of Tartu University. The data from the teachers’ questionnaires was elicited from the middle of January till the beginning of March 2012. The data from the students’ questionnaires was elicited from the end of February till the beginning of March 2012. 137 questionnaires were collected: 87 students' questionnaire and 50 teachers’ questionnaires. The answers were automatically generated into tables. The analysis was done by evaluating the data in graphs.

The students were organised according to their forms (whole class) to receive the abovementioned course of PE. They had been learning the subject for five months by that moment. Apart from the PE course all of the participants had four English lessons per week with the same teacher in some of the groups. The majority of teachers are women (46%). Most of the teachers are from towns (40% are from Tallinn and 16% from Tartu). They represent big schools where the number of students is more than 600. The work experience is of 1-5 years (22%), of 6-10 (22%) and of 16-29 (22%) years.

The results

The first part of the Students’ questionnaire elicited demographical information. According to the students, 54% of girls and 46 % boys aged from 12 to 15 took part in the research. Most of them (75%) had been studying in the Tallinn Central Russian Gymnasium for more than six years. These results show that a vast majority of students had been learning English for more than 5 years (66%) and for more than 8 years (20%).

In the following part of the questionnaire the students were asked to provide their opinions on using English for teaching PE. Item 6 was designed as multiple-choice questions and contained nine statements. It is worth highlighting that the majority of students approve the
idea of using English for studying another subject. In the first statement students were asked about learning PE through English as a good opportunity for vocabulary increase. Most of them (59%) agreed and strongly agreed (20%) with the statement. 7% disagreed and 2% strongly disagreed with the statement (Graph 1).

Graph 1. The students’ opinions on vocabulary improvement in PE lessons.

The following item enquired students’ opinions on the practicality of information received in the PE lessons. 22% strongly agreed and 47% agreed that PE lessons in English give them useful information about physical activity and health. 22% could not formulate their point of view and 5% disagreed or strongly disagreed with the statement.

Graph 2. The students’ opinions on the usefulness of the PE content.
The vast majority of the respondents agreed in Statements (3 and 4) that PE lessons develop different skills in English (listening; reading; speaking and writing) and give the opportunity to practice the skills at the PE lessons (see Graph 3, 4). The figures were approximately similar: strongly agree with Statement 3 - 30% and 30% with Statement 4. 45% and 46% correspondingly agreed with the statements. According to Statement 3, 12% disagreed or strongly disagreed that PE lessons develop their speaking; and, according to Statement 4, 9% disagree or strongly disagree that at PE lessons students can practice different language skills. There were students who had no opinion on the abovementioned statements (13% and 15%).

Graph 3. The students’ opinions on the development of their speaking skills in PE lessons.

Graph 4. The students’ opinions on possibility for language production in PE lessons.
In terms of the confidence that students experienced in the lessons (see Graph 5), the answers were the following: 53% strongly agreed or agreed, 12% disagreed, and 34% had no opinion. The same percentage of hesitant respondents revealed Statement 6 (Graph 6). Students were asked whether they try to focus on new information rather than on language at the lessons, ‘No opinion’ had 31%. However, almost half of the students strongly agreed (5%) and agreed (40%) that they focused mostly on the new information. 14% disagreed and 10% strongly disagreed with the statement.

Graph 5. The students’ opinions on the growth of confidence.

Graph 6. The students’ opinions on their focus in the lessons (content and language).

The following statement enquired the information on students’ interest in the subject. 63% strongly agreed and agreed that PE lessons are interesting. 22% had no opinion and 15% disagreed. In terms of evaluating the need for the correction of their grammar mistakes (Graph
more than half of the respondents (59%) feel the need for grammar mistakes correction and explanation. 22% did not present their opinions and 18% of the respondents disagreed that grammar mistakes should be explained in PE lessons.

Graph 8. The students’ opinions on their interest in the subject.

The open-ended questions (7-10) were designed to elicit the benefits and drawbacks of the course, and some suggestions on how to improve the programme (Extracts 1, 2, 3). Despite the number of the received questionnaires (87), the students were reluctant to formulate their opinions. Therefore, considering 15 responds, most issues that were outlined as favourable, were connected to the content of the course, the variety of activities and using technology. 23 opinions were received on the drawbacks of the course. However, most of them appeared positive, the main concerns that students outlined were tests, difficulties in comprehension and obligatory homework.

7. What do you like most about studying PE and Health in English?

… We do different exercises and watch different presentations… I like talking about sports… I like to make presentations about famous sportsmen… I can do different tasks and I get new information… I like talking about winter sports. It is very interesting… It is interesting and useful for us… To do exercises in groups… I like that I can practice English… When I study PE and Health in English I like to write about all kinds of sports that I don’t know well… [Students’ spelling, punctuation and grammar preserved].

Extract 1. Some examples of the students’ answers about the benefits of PE lessons.
8. What do you not like about studying PE and Health in English?
… Annoying discussions… I like all things… I like PE lessons. I like all, what we do there… I do not like tests… Sometimes it’s difficult to understand… I don’t like talking about fast food… I like all… I have no idea… I do not like that some of the words are not explained to us at the lesson, so we have to search for them at home… No opinion… I am happy with everything… Homework… Nothing… [Students’ spelling, punctuation and grammar preserved].

Extract 2. Some examples of the students’ answers about the drawbacks of PE lessons.

9. What would you change?
… Nothing… More videos… Nothing… I wish we do more exercises during the lesson, so there would be less homework to do at home… Very big information… Do homework more easy… more useful and new information… I don’t know. I like all material that gives me my teacher… less grammar, more speaking… I wouldn’t change anything … [Students’ spelling, punctuation and grammar preserved].

Extract 3. Some examples of the students’ suggestions for the course improvement.

The following two questions (items 11-12) investigated students’ confidence in using ICT. The vast majority of the respondents positioned themselves as experienced and advanced users (37% and 41% correspondingly), 10% evaluated their skills as professionals and 11% reported to be beginners. The most common software that the respondents mentioned were Google products (emails, sites, document manager etc.) (93%), and Microsoft Office (77%).

The vast number of students (29%) reported the use of Adobe Photoshop.

The following section of the Students’ questionnaire (item 13) showed the attitudes of students to the use of the virtual learning environment (the Google site) for learning PE (Graph 8). 30% of students strongly agreed and 52% agreed that using the VLE is convenient for teaching and learning the subject. 3% disagreed and 7% strongly disagreed with the statement. Approximately similar responds were received on the statement that the VLA is an interesting way for organising and presenting the content: 30% of students strongly agreed, 45% agreed, 1% disagreed, 6% strongly disagreed, and 18% had no opinion.
The results showed that more than half of the respondents strongly agreed (26%) or agreed (44%) that the variety of tasks available on the site helps students to learn in their own style. However, 23% were hesitant to present their opinions, and 7% disagreed or strongly disagreed with the statement. A total of 74% of the respondents found that visual support on the site provides better understanding of the material. 10% disagreed with this statement.

The following three items (14-16) provided data on the most favourable issues on using a VLE: a variety of activities; the way of getting information; time management (instant Internet connection allows finding requested information, an unknown word or expression); spell-check of writing tasks; the variety of software that can be used to create students’ works (Extracts 4, 5, 6). As to the drawbacks mentioned, the main concern was the time necessary to
do homework on computer. Students also mentioned that the spellchecker does not correct grammar mistakes, and it may cause problems with homework evaluation. All in all, students accepted the VLE as the tool of teaching and did not suggest any improvements to the use of a VLE for studying.

14. What do you like most about using virtual environment for learning PE in English?
…Different exercises… I like doing presentations… Many options to create and publish my presentations… In the Internet there are a lot of information… To do presentations… I like that we do many exercises… I learn something new and interesting from a computer…When I use V.E. for learning PE in English I like:1. It doesn’t take me too long to do my tasks. 2. I can open a dictionary and search for the meaning of the word, rather than searching for it in a book. 3. When I make mistakes in the writing, the Computer underlines it and I can correct it… [Students’ spelling, punctuation and grammar preserved].

Extract 4. Some examples of the students’ opinions on the benefits of the implementation of a VLE.

15. What do you not like about using virtual environment for learning PE in English?
…All is OK… I like all things… Nothing… To do documents… When I use V.E. for learning PE in English I don’t like: 1. When I do my home tasks on the computer too long, I get really tired. 2. When I use the computer for too long (even for 45 minutes a day), I have a headache or my eyes are very tired. 3. When we make mistakes in words the computer will underline them but doesn’t underline the grammar… [Students’ spelling, punctuation and grammar preserved].

Extract 5. Some examples of the students’ opinions on the drawbacks of the implementation of a VLE.

16. What would you change?
…Internet program… Nothing… Unlock some of the sites… It is very convenient to use V.E for learning PE in English but I think that we must write some kind of dictations or texts ourselves more often… I wouldn't change this… I think it’s all right… [Students’ spelling, punctuation and grammar preserved].

Extract 6. Some examples of the students’ opinions on the improvements of the VLE.

The results of the teachers’ data analysis revealed several important issues. It was found that CLIL approach is used by 19 teachers (out of 50 received answers). Most of the teachers that give subjects in English are teachers of English (17 people) and only two are teachers of other subjects. The rest of the respondents do not teach subjects in English. However, they presented their opinions on various aspects of CLIL implementation. Therefore, further analysis will be presented considering the entire sample. The main subjects that are taught in English are British and American Literature (8 answers) and Geography (5 answers). Some
schools teach History, Physical Education and Mathematics (Graph.10).

Graph 10. The subjects taught in English.

The CLIL implementation takes place mostly in the gymnasium level. The following item enquired teachers’ opinions on various aspects of CLIL implementation. The majority of the respondents (76%) agree that CLIL lessons develop intercultural and interdisciplinary skills of students. 18% could not present their point of view on the topic and 4% disagreed with the statement (Graph.11)

Graph 11. The teachers’ opinions on the development of students’ interdisciplinary and intercultural skills.

The next question (Graph.12) enquired whether CLIL lessons provide opportunity for students to study the content from different perspectives. The majority of the respondents
(70%) strongly agreed or agreed with the statement. 20% could not provide their opinions and 8% disagreed with the statement.

Graph 12. The teachers’ opinions on the students’ opportunity to study content from different perspectives.

The following questionnaire item enquired the teachers’ opinions on the improvement of students’ language proficiency (Graph.13). 83% of the respondents strongly agree or agree with the statement. 12% were hesitant to answer and 2% disagreed with the statement.

Graph 13. The teachers’ opinions on the improvement of students’ language competence.

In terms of agreeing or disagreeing with the statements about the interrelations of content and language, it is worth highlighting that the teachers were less confident. For example, in the statement that CLIL lessons equally include content and language, 12%
strongly agreed, 54% agreed and 28% were hesitant to answer. Almost similar scores revealed another item of the question where the predominance of content over language outcomes in CLIL lessons was discussed. 8% of the respondents agreed that content outcomes are prevalent, 28% agreed with the statement, 48% of the sample group had no opinion on the issue and 14% disagreed (Graph 14).

Graph 14. The teachers’ opinions on content and language outcomes.

Regarding various aspects of learners’ cognitive development, the following items showed that more than half of the teachers (64%) agreed with the statement that the methods used in CLIL subjects increase learners’ confidence and motivation (62%). However, it should be mentioned that there were 30% of the respondents who were hesitant to present their opinions about learners’ confidence and 32% about motivation. 4% disagreed with both statements (Graphs 15, 16).

Graph 15. The teachers’ opinions on learners’ confidence in CLIL.
Graph 16. The teachers’ opinions on learners’ motivation in CLIL.

The open-ended items asked the participants to comment on the benefits and the drawbacks of CLIL provision from their practices. It should be mentioned that all of the respondents stated that no research had been conducted in their schools, and that their evaluations were from their personal observation as teachers. However, several issues can be mentioned. The most common aspects found as beneficial were better results of students on the exams, increasing students’ confidence in speaking. Some teachers stated that learning History through CLIL allowed students to work as guides in Tallinn. Other benefits that the teachers outlined were the students’ realisation of various approaches to learning a subject, the improvements of students’ communication skills.

As to the drawbacks of CLIL implementation, the teachers emphasise several problematic areas. One of them is the need for teacher training in order to deeper understand and practice CLIL approach. In addition, the teachers outline the lack of resources and the need to design materials themselves. Moreover, teachers need support from school administration (training, finance, facilities).

In terms of using ICT in teaching 46 teachers (out of 50) use various software. Half of the participants (29 people) can use ICT every lesson. The open-ended items revealed that the
most popular software used by the participants was Microsoft Office. Several participants named various Internet resources that they use for lesson preparation. Despite the variety of virtual platforms used by the respondents in teaching (Google sites, blogs, Moodle, wikis, Quizlet etc.), only eight teachers implement them in their CLIL lessons.

The following multiple choice question contained items on various aspects of using ICT in teaching. The majority of the respondents strongly agreed (20%) or agreed (62%) that using ICT in classroom environment enhances student’s learning and meets educational goals. 28% had no opinion and 6% disagreed with the statement (Graph 17).

Graph 17. The teachers ‘opinions on the role of ICT in enhancing students’ learning.

In terms of the statement that computer-based learning enables teachers to manage learning environment, meets the needs of an individual learner and allows students to control their own progress, 60% strongly agreed or agreed with the statement, 22% had no opinion and 16% disagreed (Graph 18).
The open-ended questions elicited the teachers’ opinions on the benefits and drawbacks of ICT implementation. As to the benefits, the teachers outlined that the use of ICT, according to their observations, meets the expectations of students from lessons and motivate them. Another issue is the availability of Internet resources. The next positive aspect of using ICT mentioned by the teachers is visual and audio scaffolding. However, several opinions on the drawbacks of ICT use were mentioned. Firstly, they outlined the necessity to structure the lessons thoroughly to avoid the misuse of computers by students. Secondly, the respondents see tasks preparation as time consuming. Another teachers’ concern is technical unreliability and the availability of computer labs. Finally, more than half of the teachers (64%) expressed the need for training in ICT implementation.

**Discussion**

The current study examined what positive and negative aspects can students outline about teaching a subject in English (that is, what positive and negative aspects can be identified during the process of implementing CLIL approach). Another important question that the author examined was the students’ attitudes towards teaching and learning the subject via a virtual environment. Another aim of the research was to analyse teachers’ perceptions of
teaching subjects through English in order to reveal common aspects outlined in students’ and teachers’ responds, and to receive valuable data from teachers’ perspectives that could reveal the suggestions for further research.

The first part of the questionnaire was connected to CLIL and examined students’ perceptions regarding various aspects of using a foreign language for teaching and learning a subject. The questions enquired information on several main aspects: the development of learners’ foreign language skills, content acquisition, and overall attitudes of the students towards studying in a foreign language. The first item of the questionnaire that enquired students’ opinions about the implementation of CLIL was about the content vocabulary acquisition. As the content acquisition of the subject is prevalent in CLIL (Coyle et al, 2010), but focus of the lessons is also on language and cognition, it was necessary to know how the students evaluate their progress in vocabulary acquisition. The results revealed that the majority of students support the idea that teaching and learning a subject in a foreign language is a good opportunity for students’ foreign language progression. As Coyle et al (2010) state, the language in CLIL functions in three variables: language of learning, language for learning, and language through learning. That is, language progression appears when the students acquire basic concepts and notions of the course; develop their repertoire of speech connected to the content and acquire strategies to use the language for debating, drawing conclusions, evaluating; and develop their thinking process in order to acquire new knowledge. The findings suggest that the majority of the respondents see their vocabulary progression. This statement may be supported by the teacher’s observations. During the course, the students acquired terminology of the topics (subject literacies), which they demonstrated in practice tasks, oral and written presentations. The instructional and regulative registers developed in
classroom interactions, when they learned how to ask questions, define the notions of the lesson, and interact with other students in the group-work activities.

The next item required the students’ opinions on their language skills development (listening, reading, speaking, and writing). The majority of the respondents comment that the PE lessons develop their speaking skills. The reasons for such evaluation can be seen in the way of teaching the current course. Firstly, as the main focus in the lesson is on the content, the students are instructed not to concentrate on the language they use from the grammatical perspective deeply. The general aim is to produce the utterances and vocabulary of the content. Therefore, students feel more freedom and express their ideas. Secondly, as suggested by Llinares et al (2012: 15), students acquire the language for expressing ideational meanings (key concepts and understanding); expressing interpersonal meanings (social relationships and attitudes) and textual meanings (that motivate them to move from spoken to written forms of language). However, it should be mentioned that only 45% of the respondents agreed that they are mostly focused on the content of the course rather than on grammar. More than half of the respondents (59%) feel the need of grammar support and corrective feedback. There might be several reasons for the need of the correction – students are used to the corrective feedback from their English lessons where almost every activity is evaluated by a teacher. Moreover, some less confident students need confirmation and support from the teacher that their output is correct. Therefore, it may be suggested for the future CLIL courses to focus on scaffolding strategies that support students’ understanding at different stages of the lesson. As Llinares et al (2010: 92) state, assistance for students in CLIL contexts may be provided during classroom interactions and task completion through various types of questions (referential and factual), giving clues, reformulations, key words and phrases repetition and peer scaffolding.

The following item of the questionnaire was focused on the students’ opinions about the
content of the course. They were asked whether the presented topics are interesting or not. The results revealed that approximately half of the respondents (52%) find the topics interesting. However, 22% of students could not present their opinions. It may be supposed that the reason for this is in students’ view about lesson forms (that the teacher is the source of knowledge and the role of students is to receive information and learn the basic notions). In case of CLIL lesson management, the student plays an active role in knowledge acquisition, constructs his own content knowledge interacting with other students in the group-work activities. It should be mentioned that 15% of the students found the PE lessons not interesting. There may be several possible factors. Firstly, as the author’s observations show not every student was ready to accept the methodological techniques implemented in the course. There were students who refused to take an active role during the lesson (did not take the role of the speaker or manager in the group-work activities, were reluctant to participate in the discussions or presentations). Secondly, as the course was introduced for the first time, and occupied additional lesson during the week, some of the students claimed that it should not be obligatory and they dislike spending more time in school and at home doing additional homework. The third factor can be the content of several topics (according to the author’s observations, there were differences in preferences between boys and girls: the boys approved the topics about sports and history of sports, the girls preferred topics about healthy eating and hygiene).

The open-ended questionnaire items intended to elicit students’ perceptions of benefits and drawbacks of the course as well as their suggestions for improvement. It should be mentioned that only 15 students provided their opinions. However, considering the previous responds, it can be concluded that students positively evaluate their experience in the course. The majority of the respondents see the material as interesting and useful. They approve the possibility for the development of their productive skills (speaking and writing). Another issue
that was mentioned as positive is the variety of tasks and opportunity to create materials themselves to be presented in class. Some students like group-work activities. Therefore, it may be concluded that the course serves the needs of students with different learning styles.

The section of the questionnaire on the drawbacks of the course revealed the situation that students found it difficult to formulate their concerns. The majority of the comments were positive. However, it should be mentioned that some of the students express the need for additional language support (they experienced problems with comprehension). Llinares et al (2012) emphasise the need of CLIL teachers to understand the structures of language in their subjects in order to help students understand the context and use the language orally and in writing. The authors state that

The aim, then, is both to improve CLIL students’ comprehension of academic tests by translating the discourse of the disciplines into commonsense language that students will understand, and to help them produce academic texts themselves by learning how to rework their language into the uncommonsense discourse of disciplinary knowledge. (Llinares et al, 2012: 180)

It may be concluded that thorough language scaffolding should be provided to learners throughout the lesson. Some of the students disapprove the tests as the way to evaluate their progress. Again, as the author’s observations reveal, there were several students who expressed reluctance to actively participate in the face-to-face lessons as well as to do the tasks on the site. As to the improvements to the course that were enquired from the students, no comments were made (none of the received answers contained suggestions).

The results of the section on the VLE implementation revealed the following. Firstly, the vast majority of students (78%) evaluate themselves as experienced ICT users that are able to use a variety of software. The reasons for that are several. Firstly, the students study Computer Technology as a separate subject where they learn a variety of modern software. Secondly, the students are familiar with the structure and operational tools of virtual environments as they
have several other subjects that implement virtual platforms as parts of their courses. Therefore, teaching and learning the subject based on the virtual environment is not influenced negatively by the level of students ICT proficiency. The vast majority of the respondents (76%) appreciate the use of the platform and evaluate the process as interesting.

As it was stated in the theoretical part of the present study (Coyle et al 2010, Craig 2007), the design of tasks for CLIL should serve the needs of learners with different learning styles. 70% of the students agreed with the statement that the variety of tasks presented on the site helps them to learn. It may be concluded that one of the foremost aspects of task design in CLIL as Coyle et al (2010: 99) put it, (activity that engages and stimulates the learner’s thinking process and provides the opportunity to receive specific support from teachers or peers), was successful in terms of students perceptions. However, it should be pointed out that 23% of the students could not formulate their opinions. The possible reason for this can be explained by the fact that the students could not identify their learning styles.

The following item of the questionnaire elicited the students’ opinions on the effect of visual support on understanding the material. The majority of the respondents (74%) agreed with the statement that the visual support allows them to understand better the material of the course. The results confirm the importance of scaffolding presented in the literature.

The research revealed mostly positive responds to the open-ended questions about the implementation of the site. According to the students, the opportunity to take an active part in their learning by doing presentations in front of the class, the employment of the tools of the virtual environment is appreciated by them. It can be explained by the overall positive attitudes of the young people towards fast developing computer technologies and their computer skills. It can be argued that the majority of students approve the VLE as the platform for teaching and learning the subject. They state that the designed site is convenient,
motivating and serves the needs of students with different learning styles. However, it should be mentioned that some students express negative attitudes towards the amount of time necessary to do all the computer-mediated assignments since there are several other subjects that involve electronic tasks. The findings of the research suggest that the application of CLIL approach was successful and did not influence negatively the acquisition of the content. In addition, the presentation of the material through the virtual environment provided numerous benefits to students in terms of availability, interactivity, and flexibility of the material.

Another questionnaire investigated teachers’ perceptions of CLIL implementation as well as their attitudes towards using ICT in the lessons. It is a small-scale survey, therefore, the findings cannot be generalised. As it was revealed in the results section of the present thesis, the majority of the respondents are experienced teachers from five to twenty years of teaching. Out of 50 respondents only 19 use English to teach subjects other than English. Therefore, it may be concluded that CLIL practice in Estonia is not widespread. It should be mentioned that the vast majority of the teachers (17 responds) are teachers of English and only two of them are subject teachers. This situation may influence the methods that language teachers use for teaching CLIL subjects. As it was found in the literature (Dalton-Puffer 2002, Coyle 2010), the principles of foreign language acquisition form the basis for the linguistic variable of CLIL approach. Therefore, it may be concluded that teachers of English feel linguistic confidence and take part in such programmes. However, it should be mentioned that the choice of subjects, according to the survey, is closely related to teaching English. For example, 35% of the respondents teach British and American Literature.

Another questionnaire item investigated the teachers’ opinions on different aspects of CLIL implementation. The teachers support the statement that CLIL lessons develop intercultural and interdisciplinary skills and prepare students for internationalisation. It can be
concluded that the respondents understand one of the main CLIL objectives – to develop learners’ understanding of the linguistic and cultural diversity in the modern society. Another CLIL objective is to provide students with the opportunity to acquire the content of the subject from different perspectives. 70% of the respondents support that statement. The improvement of students’ language proficiency was observed by 84% of teachers, despite the fact that the teachers based their arguments on personal observations. Therefore, the teachers believe that the implementation of CLIL approach leads to the development of students’ overall language proficiency. In terms of methodological aspects of CLIL (the interrelation of the content and the language, development of students’ autonomy and learner skills, motivation and social skills, assessment of the students’ progression), the respondents revealed uncertainty in their answers. Almost half of the teachers could not give their accounts for the enquired aspects. The reason for that can be explained by the lack of teacher in-service training and deep understanding of the methodology (40% of the respondents expressed the need for training in CLIL).

The opinions of the teachers presented in the open-ended questions reveal useful information that can be used for further research. Firstly, the teachers outline several positive aspects of CLIL implementation which they observed in their practice. One of the issues is the increasing motivation of students, and, therefore, active students’ involvement into the process of knowledge acquisition. All in all, it may be concluded that the teachers see the implementation of CLIL methodology as beneficial. However, it should be pointed out that the teachers are concerned about the need to design materials in order to suit the lesson strategies. Another drawback that was mentioned by the teachers as well as by the students is the need for additional language support to provide better material comprehension.
The following section of the teachers’ questionnaire enquired their opinions on using technology for teaching CLIL subjects. Fast development of technology provides excellent opportunities to design learning environments for CLIL programmes. As it was revealed in the theoretical part of the present study (Hampel 2006, Gerard 2007, Vlachos 2009, Eldridge et al 2010) using ICT provides learners with a large number of benefits, such as increasing motivation, constant access to learning materials via the Internet, interactivity and visualisation of learning materials, individual time management. The results of the teachers’ questionnaires revealed that the vast majority of the respondents (92%) use ICT in their teaching practice and implement different software. However, according to the teachers’ survey, it can be concluded that Estonian schools are not well-equipped with the ICT resources as the teachers cannot use computer labs for their lessons as often as they require. Another questionnaire item investigated whether the teachers use virtual platforms. The variety of the platforms presented by the teachers allows us to conclude that the participants are experienced and creative ICT users. However, it is surprising to discover that only 6 out of 26 teachers use the virtual environment for teaching CLIL subjects. It can be supposed that the availability of computer labs in schools is limited, or the teachers do not see how the course may be implemented in the virtual environment. Other reasons can be revealed form the following section of the questionnaire. The following item investigated the teachers’ opinions on the influence of ICT on students’ academic progress. Despite that fact that teachers support the statement that using ICT enhances student learning and meets educational goals (82%), the respondents were hesitant to answer whether computer-based learning enables the teacher to manage the learning environment and meet the needs of an individual student. Here, the teachers’ opinions contradict the students’ . As it was mentioned earlier, students support the idea that implementing ICT in the learning process motivates them, and the variety of tasks
available in the environment serves the needs of students with different level of language and confidence. All in all, it may be concluded that teachers agree that using ICT in teaching is beneficial for students and meets the needs of the modern society. However, they outline the need for additional training on using ICT.

To conclude, the collected data represents students’ evaluation of the course that they have studied. It provides the author of the course with valuable material for further analysis that may be the basis for designing other CLIL subjects. The data received from the teachers’ survey contributes to understanding the processes connected to CLIL implementation in Estonia and confirm the author’s assumption that Estonian teachers need greater support in their initiatives.
CONCLUSION

The present thesis set out to investigate the issues connected to teaching a subject by means of another language. It was designed to determine the effects of the implementation of another language to teaching a subject via a virtual environment. The topic stemmed from the author’s need to design a course of Physical Education and Health to be taught in English. In the new global economy and peoples’ migration language learning has become one of the central issues of discussions. Content and Language Integrated Learning (CLIL), in which students learn a subject through the medium of a foreign language, is considered by the European Commission a powerful tool for achieving the goals of European Union policy in increasing intercultural competencies among European students (Resolution of the Council, 1995: 1-5, Eurydice, 2006: 8). The present study summarises the ideas found in literature and presents the results of the primary study about students’ perceptions of the abovementioned course and the attitudes of Estonian teachers towards teaching a subject through another language.

The first chapter of the thesis gives an overview of the main notions of CLIL and VLE as they are essential for understanding the framework for the course design. According to Coyle et al (2010: ix), CLIL is not a new methodological approach, but “a fusion of subject didactics, leading to an innovation which has emerged as education for modern times”. CLIL is a dual-focused approach in which subject content and language learning are interrelated. The main principles of CLIL that provide the basis for the effective learning are the interrelation between four “C”s - content, cognition, communication and culture (Coyle 1999: 53). That means that while acquiring the content of the subject the learner involves thinking processes of higher order, and, therefore, develops cognitive skills. Communication during
CLIL lessons take place between teachers and learners and between learners. Here, it is necessary to underline the three interrelated perspectives of language suggested by Coyle et al (2010: 35) that can be seen in the CLIL settings. Firstly, the content of the subject is represented through basic concepts and notions that have to be acquired by the learner. Here, we can talk about language of learning. Secondly, learners need language tools to operate in content. Therefore, language for learning can be identified as a repertoire of related to the content speech that learners can use to function in the lesson (discuss, get into groups, work individually). The third language function – language through learning can be seen as language that learners develop to support their thinking and understanding the content (Coyle et al 2010, Llinares et al 2012). Every student captures the language of the content, uses previous knowledge to construct the new one. Therefore, language through learning develops individually, and the results of this development cannot be predicted. The cultural variable in the 4Cs framework can be represented in two levels: the micro level, when learners and teachers interact in CLIL context through another language, and macro level when students require skills to interact with people of other cultural background (Coyle et al 2010: 40). In summary, the most prominent notions of CLIL are dual focus (content and language) to the lesson structure, the roles of the language, the 4Cs Framework.

The main requirements and principles for a VLE design developed by researchers (Rosell-Aguilar 2005, Hampel 2006, Gerard 2007, and Vlachos 2009) include several main points. Firstly, a learning environment should promote structured construction of knowledge with clear course outlines (structure, dates, assignments, assessment) and learning outcomes. Secondly, a VLE should have an easy-to-use management system, providing constant access (anywhere, anytime). Another important issue is assessment (automatic grading, on-line
submission, range of tasks). Finally, a VLE should be designed on a platform, which allows access of a vast number of users.

The second chapter describes the design of the course made by the author of the present thesis. The course of Physical Education and Health in English was presented to Year 7 and 8 students of Tallinn Central Russian Gymnasium in 2011-2012. The design of the course was based on the research findings described in the theoretical part of the thesis. Firstly, it was stated that lessons in CLIL are content-driven (Coyle et al, 2010). Therefore, the general aim of the course was to provide students with knowledge of the theory of a healthy lifestyle, a historical overview of the most significant events of the Olympics. Secondly, the role of language in CLIL was another important issue to consider during the course design. Llinares et al (2012) provided a theoretical basis for developing language in an interactional context, as well as genres and registers that enhance students’ acquisition of the content. Another aim of the course was to implement the principles of the 4Cs framework developed by Coyle (2010: 41). That is the general frame of the course is the content of the subject that comprises students’ engagement in the cognitive process in order to acquire new knowledge. Content acquisition takes place through communication between a teacher and students. Therefore, it was important to develop content-related instructional repertoire to provide students with the essential language support. The course contains authentic materials that develop students’ acquisition of intercultural awareness.

The secondary sources observed in the theoretical chapter of the thesis provided the basis for the design of the VLE that is the platform for the course. Several authors (Rosell-Aguilar 2005, Hampel 2006, Craig 2007, Gerard 2007) developed the requirements for virtual environments. The author has considered the most important issues of a VLE design (clear structure, easy-to-use managing tools, requirements for task design and assessment) in the
platform development. It should be mentioned that constant improvements to the course design were made during the process of teaching as the employment of the platform revealed several practical issues. The second chapter describes the structure of the course; the layout of the pages, the process of material presentation and assessment; gives example of tasks and overall impression of teaching the course.

Chapter 3 deals with the small scale research conducted by the author in order to investigate the students’ perceptions of the course implementation via a virtual environment. Another aim of the research was to discover the attitudes of Estonian teachers towards teaching subjects through another language and using ICT for this purpose. The main questions that the research investigated were what positive and negative aspects of CLIL implementation can be found, and what positive and negative aspects of teaching the subject via a VLE can be identified. In order to collect additional data on using CLIL, the questionnaires for teachers were designed. 87 students and 50 teachers participated in the research. The findings suggest that the majority of the participants support the idea of teaching and learning a subject through another language. Students confirm that implementation of CLIL provides opportunities for the development of their language skills, acquiring the content of the subject without loss in comprehension and increasing learner confidence and autonomy. The second part of the research has also received positive comments on using a VLE as a platform for teaching and learning the subject. The students outline the convenience of the site and various possibilities for material presentation, practice and evaluation. However, it should be mentioned that several participants stated the need for additional language support. It could be concluded that thorough preparation and repertoire development are significantly relevant in CLIL approach.
The results of the teachers’ survey revealed important issues that should be taken into account in further investigations in the field. Firstly, it can be concluded that CLIL where the language of instruction is English is not widespread in Estonia and in the Estonian context the implementation of CLIL represents bottom-up initiatives (Coyle et al. 2010). One of the possible reasons for that may be explained by the demands of Estonian language proficiency in Russian-medium schools. The top-town initiatives promote implementation of CLIL through the Estonian language for Russian-speaking learners only, while little support is given to the promotion of CLIL through the English language (curriculum demands, teacher training, and administrative support). For that reason, it can be hoped that the current research may contribute to teachers’ awareness of the approach and encourage further investigations. Secondly, the research revealed that the teachers are aware of CLIL and can provide their opinions on various aspects of the approach. In general, the majority of the respondents support the application of CLIL. However, teacher training, administrative support, materials availability were stated as the drawbacks of CLIL in Estonia.

It is obvious that the small scale research cannot provide reliable data to prove the successfulness of CLIL as an approach. Nevertheless, the thesis has provided some evidence of CLIL benefits as well as drawbacks perceived by the students and teachers and enhances understanding of CLIL and VLE notions. Therefore, it can be useful for teachers of foreign language, subject teachers, as well as teacher students who intend to implement the approach. The teachers could use the information presented in the thesis in order to design their own CLIL courses. Further investigation in the field could be focused on developing the materials and the repertoire for subject content.
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APPENDIX 1. STUDENTS’ QUESTIONNAIRE

Studying PE through English via a VLE (Virtual Learning Environment)

The questionnaire is anonymous and your answers will be only used for the research in MA thesis ‘Students’ perceptions of CLIL implementation via a VLE’. The CLIL sections of the questionnaire have been compiled on the basis of ‘Profiling European CLIL Classrooms’ by D.Marsh, A. Maljers, A. K. Hartiala (2001).

This questionnaire consists of three parts:

1. Questionnaire on using English for teaching other subjects (CLIL)
2. Questionnaire on experience in ICT
3. Questionnaire on using virtual environment for learning PE in English

I. Questionnaire on using English for teaching another subjects (CLIL)

6. What do you think about teaching and learning PE and Health in English? Choose the most suitable answer (Strongly disagree/ Disagree/ No opinion/ Agree/ Strongly agree) for the following statements:

- I think that teaching and learning PE in English is a good opportunity to increase my vocabulary
- I think that PE lessons in English give me useful additional information about physical activity and health
- I think that PE lessons in English help me develop my speaking
- At PE lessons in English I can practice different language skills in English(listening; reading; speaking and writing)
- I feel that I become more confident when expressing my ideas at these lessons
- I try to focus on new information rather than on language
- PE lessons in English are interesting for me
- I can do different tasks in different ways
- I think that grammar mistakes should be explained in PE lessons

7. What do you like most about studying PE and Health in English?
8. What do you not like about studying PE and Health in English?
9. What would you change?
10. Other comments.

II. Questionnaire on experience in ICT

11. What kind of ICT user do you think you are: Beginner / Experienced / Advanced / Professional
12. What computer programs do you use? Microsoft Office (Word, Excel, Power Point) / Paint / Google Tools (sites, documents, email, other) / Adobe Photoshop
Other (name)
III. Questionnaire on using virtual environment for learning PE in English

13. What do you think about using electronic environment (Google site) for learning PE in English? Choose the most suitable answer (Strongly disagree/ Disagree/ No opinion/ Agree/ Strongly agree) for the following statements:

- I think that using Google site for teaching this subject is convenient
- I think that using virtual environment is an interesting way of presenting and organising information
- I think that using virtual environment is interesting
- The variety of tasks allows me learn in my own style
- A lot of visual support allows me to better understand the material

14. What do you like most about using virtual environment for learning PE in English?
15. What do you not like about using virtual environment for learning PE in English?
16. What would you change?
APPENDIX 2. TEACHERS’ QUESTIONNAIRE

Learning other subjects through English via a VLE

The questionnaire is anonymous and your answers will be only used for the research in the MA thesis ‘Students’ perceptions of CLIL implementation via a VLE’. The CLIL sections of the questionnaire have been compiled on the basis of Profiling European CLIL Classrooms' by D. Marsh, A. Maljers, A. K. Hartiala (2001).

This questionnaire contains 32 questions and consists of three parts:

1. Demographic Information Questionnaire

2. Questionnaire on CLIL (Content and Language Integrated Learning, Teaching a subject through a foreign language)

3. Questionnaire on using ICT

I. Demographic information questionnaire

1. Place
2. Age
3. Gender
4. Work experience (years of teaching)
5. The type of school you teach in
6. Forms were you work

II. Questionnaire on CLIL

7. Do you use the English language to teach subjects other than English? (If yes – name the subjects)
8. Do other teachers from your school teach other subjects in English?
9. If YES- Are they a subject teachers or teachers of English?
10. How long have you been using CLIL (or its elements) in your school?
11. In which forms do you use CLIL?
12. To which extend do you agree or disagree with the following statements about CLIL
   (Strongly disagree Disagree No opinion Agree Strongly Agree)
   - CLIL lessons develop intercultural and interdisciplinary skills and prepare for internationalisation
   - CLIL lessons provide opportunity to study content from different perspectives
   - CLIL lessons improve overall language competence
   - CLIL lessons equally include content and language
   - Content outcomes predominate language outcomes
   - CLIL lessons focus on content rather than on language
   - CLIL increases learner confidence
   - CLIL classroom increase learner motivation
13. Do you design content materials yourself?
14. Have you collected any data about using CLIL in your school? (Please, comment)-open question
15. Have you received any other evidence of beneficial implementation of CLIL? (Please, comment)-open question
16. Have you noticed students’ progress in general English classes after implementing CLIL? (Please, comment)-open question
17. What do you like about CLIL?
18. What you don’t like?
19. Would you recommend CLIL to your colleagues?
20. Do you require training on CLIL?

III. Questionnaire on using ICT

21. Do you use ICT in your teaching practice?
22. What kind of ICT recourses is available in your school?
   - Computer lab
   - Personal teacher’s computer
   - Laptop
   - Projector
   - Interactive White Board
23. Can you use them every lesson?
24. What kind of software do you use?
25. Do you use any virtual environments for teaching? (Name)
26. Do you use virtual environment for teaching other subjects? (Please, name)
27. Do you use virtual environment for CLIL lessons? (Please, name)
28. To which extend do you agree or disagree with the following statements about using ICT in teaching and learning
   - using technology in classroom environment enhances student learning and educational goals
   - Computer-based learning enables the teacher to manage learning environment and meet the needs of an individual student as well as suit children’s desire to control their own learning
   - Computer-based lessons distract student’s attention from the content of the lesson
29. Have you received any feedback from your students about using ICT in teaching and learning? (If yes, please comment)
30. Do you like using ICT in your teaching practice?
31. What are, in your opinion, the main disadvantages of using ICT in teaching and learning?
32. Do you require more training on using ICT?
RESÜMEE

TARTU ÜLIKOOL
INGLISE FILOLOOGIA OSAKOND

Elena Gerontidi
STUDENTS’ PERCEPTIONS OF CLIL IMPLEMENTATION THROUGH A VLE
(Õpilaste arusaamad LAK-õppe rakendamises VÖKK-i kaudu)
Magistritöö
2013
Lehekülgede arv: 80
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Märksõnad:
LAK-õppe; Virtuaal Õppekeskkond; didaktika; inglise keele õpetamine; aine õpetamine
Lihtlitsents lõputöö reprodutseerimiseks ja lõputöö üldsusele kättesaadavaks tegemiseks

Mina, Elena Gerontidi

(4.02.1971)

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STUDENTS’ PERCEPTIONS OF CLIL IMPLEMENTATION THROUGH ENGLISH AND A VLE
(Õpilaste arusaamad LAK-õppe rakendamises VÕKK-i kaudu),
mille juhendaja on Pille Põiklik

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Tallinnas, 1.05.2013