



Implementation of a CLIL-module “Economics” for English Language Learners in Russia: Results and Challenges

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Introduction

The growth of competition in the labour market has greatly influenced education. Educational institutes are being asked to change the curriculum to meet the demands of employing companies. Incoming staff need to be more skilled, more intelligent, and be required to master several languages at a time. However, this aim is inconceivable when students waste a considerable amount of time on learning particularly general information of a language. Most learners have majors other than philology or linguistics; thus, there is a necessity for mastering language in the sphere of their specific studies (Math, Politics, Biology, etc.). This can be achieved through learning their major disciplines in the target language (English, German, etc.)

Content Language Integrated Learning (CLIL) is one of the most popular approaches in teaching various disciplines through the target language. As such, it has a focus on both content and language. CLIL is defined as an approach to develop Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency (CALP) (Coyle, Hood, & Marsh, 2010). These skills have evolved through the 4C-framework (Content, Communication, Cognition, Culture), which involves different techniques for improving corresponding competences. Curriculum studied in the target language promotes the advancement of cultural competence and understanding (Hughes, 1991; Trim, 1995; Viqueira, 1991) and communication (Paulston, 1992), and it encourages learners to master more foreign languages. Mastering several competences will make an employee more competitive on the market. Thus, CLIL is a key for education.

In Europe, CLIL has spread very rapidly. CLIL originates from the Canadian immersion method, which is one of the methods for teaching a discipline through a foreign language (e.g., Cummins, 1995, 2001; Swain & Johnson, 1997). However, these methods have been largely related to European cultural, linguistic, or social circumstances. The European ways of using a foreign language as a tool in teaching content vary to a great degree because of the multicultural and multilingual diversity in Europe (Hartiala, 2000).

The Russian CLIL experience is rather new. It started with bilingual programmes, which have existed for a long time with the purpose of teaching people their own regional language (such as Tatar, Mari,

Buryat, etc.). For instance, the Kazan Federal University, the Kazan State Architecture and Civil University, and the Kazan National University of Research and Technology developed bilingual Tatar-Russian programmes (Salekhova, Zaripova, & Tuktamyshov, 2014).

However, CLIL programmes for mastering European languages in Russia have not enjoyed much popularity. At the moment, only a few educational organizations are employing this approach. For example, CLIL was implemented in the Southern Federal University's School of Economics. At this institution, the university has a bilingual educational programme in the Department of Economics and Finance, and students get diplomas from the School of Economics and London University simultaneously.

In addition, the Kazan Federal University administers a Content and Language Integrated Learning Laboratory which helps schools and other institutes to design CLIL curriculum for some disciplines. The laboratory also conducts a programme for gifted children, providing a curriculum which includes learning subjects (Informatics, Mathematics) through English (Salekhova, 2016; Zaripova, Salekhova, & Tyukareva, 2015). Nevertheless, there are no programmes for teaching Economics through CLIL in Kazan due to a considerable scarcity of CLIL research in Russia because, as mentioned above, the studies on immersion and bilingual education are mostly from Europe (Baker, 1996; Bialystok, 1999; Bialystok & Majumder, 1998; Cummins, 2001; Mohan & Beckett, 2003). Therefore, our study is dedicated to the design and analysis of a CLIL module in economics with Russian students. The prominent concern of the research was to monitor how the module affects the English language proficiency and economic understanding of the learners.

Materials and Method

The study was carried out at the Kazan State Agricultural University of Kazan, in the Republic of Tatarstan, in a group of educational programmes called 'Translation for Specific Purposes.' The experiment was conducted to analyse the effect of the CLIL module on third-year students. There were seven participants, with ages ranging from 19 to 22. This group was taught Economics (basic level) using CLIL in English. Two students are bilingual from birth (Russian-Tatar), the others have English as a second language. Overall, the participants had been studying English from the fifth grade, with an average language proficiency of B1 (Intermediate) according to the Common European Framework. The experiment lasted one semester for a total of 72 academic hours that were split into four-hour class periods.

The CLIL module consisted of 15 units and a case study. The topics were as follows:

- 1) Unit 1 – Introduction to Economics
- 2) Unit 2 – Economic Systems
- 3) Unit 3 – Supply and Demand
- 4) Unit 4 – Factors of Production
- 5) Unit 5 – Market Equilibrium
- 6) Unit 6 – Entrepreneurship
- 7) Unit 7 – Types of Business Organizations
- 8) Unit 8 – Functions of the Government
- 9) Unit 9 – Fiscal and Monetary Policy
- 10) Unit 10 – Economic Indicators
- 11) Unit 11 – International Trade
- 12) Unit 12 – International Organizations and the World Economy
- 13) Case study – "BREXIT"

This study presents results from a pre-test and a post-test with the participants. The pre-tests were

carried out on October 12, 2016. The post-tests occurred on January 6, 2017.

Met (1998) differentiates between two types of CLIL: (1) content-driven, which focuses on content throughout the learning process; and (2) language-driven, which focuses on language instruction. According to Met (1997), our economics module is defined as a subject course with additional language instruction so that the students are equally involved in learning language and content. Consequently, measurements were taken to analyse the change of language and content competences. To infer the results of the experiment, three types of tests were administered:

- 1) A test on the aptitude for learning language (memory and cognition) (Ryzhov, & Grishaev, 2009);
- 2) A language proficiency test (Lancaster University, n.d.);
- 3) A practice test for economics (Practice Test of Economics, 2012).

Analyses of the Tests

The first analysis is focused on the level of learner’s language aptitude, measuring their memory and cognitive state, and their capacity for mastering language fast and effectively. This test was analysed through 3 parts: a test on memory skills (memorizing words of an unknown language), a test on native language structural knowledge (Russian grammar structures), and a test on language forecasting (translation from Russian to Esperanto with a glossary). The average was calculated as the sum of the three test indices. The maximum index score is 5, and the average index scores of the group was 4.02. The indices of each student are presented in Figure 1 below.

The first subtest of this test gauged the speed of the operating short-term memory, which helps students to comprehend the semantic meaning of information. The second and the third tests measured the cognitive skills for the linguistic and structural generalization of a language. Linguistic generalization is treated as the ability to deduce lexical patterns of a language, and structural generalization refers to the ability to infer grammatical rules.

On the aggregate, these three tests showed that the experimental group has relatively high levels of language aptitude based on the memory and cognition indicators.

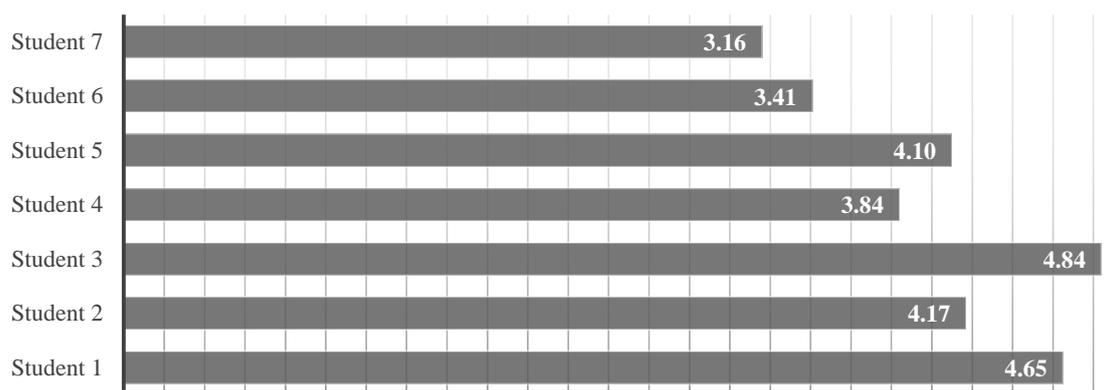


Figure 1. Diagnostics of aptitude for languages

The second analysis represents the development of the learners’ language proficiency. The students took DIALANG tests in the beginning and at the end of the experiment. The indices of the tests are represented as the levels of the Common European Framework of Language Proficiency. There are 5 sections in the test: Listening, Writing, Reading, Structure, and Vocabulary. Each section includes 30

questions with no time limit. The average time for the test administration was two hours. The results of all the sections are displayed in Table 1 below.

Results indicated that five out of seven students improved their level of vocabulary and structures, while six out of seven students improved their reading level. Four students improved in writing, and three students improved in listening. However, there was one student who regressed in writing. On the whole, the average level of the group progressed from B1 to B2.

TABLE 1
The Results of DIALANG

	Vocabulary		Structures		Reading		Writing		Listening	
	pre-test	post-test	pre-test	post-test	pre-test	post-test	pre-test	post-test	pre-test	post-test
Student 1	B2	B2	B2	C1	B1	B2	B2	B2	B2	B2
Student 2	B2	C1	B1	B2	A2	A2	B1	B2	A1	B2
Student 3	B2	B2	B2	B2	B1	B2	B1	B1	A2	B1
Student 4	B1	B2	B1	B1	A1	A2	A2	B1	A1	A1
Student 5	B2	C2	B1	C2	B2	C2	C1	C2	B2	C2
Student 6	B1	B2	A2	B1	A1	A1	B1	A2	A2	A2
Student 7	B1	B2	A2	B2	B1	A2	B1	B2	A1	A1

Note. Pre-test date is October 12, 2016; post-test date is January 6, 2017

The third analysis was designed to trace the gain of economic knowledge throughout the experiment. To conduct this analysis, the Practice Test of Economics was administered. This test includes 27 questions, with 1 point was allotted for each correct answer. The maximum score is 27. The results are shown in Figure 2 below.

The results revealed that three students out of seven improved their content knowledge, but the others remained at the same level on the pre- and post-test.

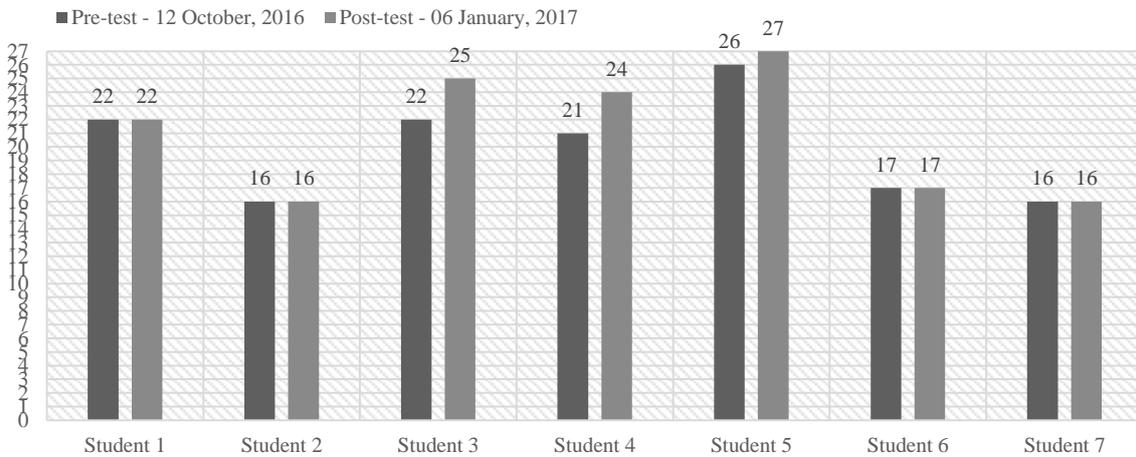


Figure 2. Practice Test of Economics results

Results

The aim of the study was to decipher if implementing a CLIL module was effective. The hypothesis presumes that the experimental exposure of a CLIL module in economics is effective for enhancing students' language proficiency and knowledge of economics. To test the hypothesis, the results of the experiment were analysed by means of Student's t-test. T-values of two tests were calculated: the language proficiency test (DIALANG) and the Practice Test of Economics. The data of a test is assumed to be significant at a p-value of 0.05 (5%). So if $p < 0.05$ we can say that the hypothesis is true in 95 % of cases.

The results of the DIALANG test showed the difference between the pre-test and post-test ($t = -3.1248$, $df = 12$, $p < 0.01$), showing that the results of the post-test were significantly higher than those of the pre-test. These results support the hypothesis that a CLIL module is effective for improving language proficiency.

As for the Practice Test of Economics, the results measured displayed little difference between the pre- and post-test sessions ($t = -1.8708$, $df = 12$, $p < 0.1$). Consequently, the exposure of CLIL was not found to be statistically significant for improving the seven participants' knowledge of economics overall. This was the case despite three students showing positive results on the post-test.

Discussion and Conclusion

The results obtained from the analysis of the data revealed that the CLIL approach encouraged the improvement of language proficiency. It met the needs of the learners, who were involved in the educational process more actively because the tasks were designed for mastering a specific language and that they were related to acute problems in the sphere of economics.

It is likely that some learners' prior knowledge of economics provided scaffolding for the students, which helped them to deal with the information much easier. According to constructivist theory, prior knowledge is vital in order to learn anything because it provides "anchors" to which the new knowledge is connected (Biser, 1984). Learners studied the content and lexis more so than the grammar and structures of English so that they could improve their vocabulary, comprehension, and speaking skills. Nevertheless, grammar skills were being developed through the translation of some excerpts for the students to understand both structure and meaning. In the module, CLIL tasks made the students think beyond their own conceptual framework, using high-order thinking skills in addition to low-order thinking skills. In other words, besides improving language proficiency (and content knowledge for some), the students activated and fostered their cognitive skills. That means the learners were put in the Zone of Proximal Development, which is defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers" (Vygotsky, 1978). The students had to overcome difficulties of understanding authentic complicated texts and tasks, thus building several competences at a time.

The objective of this study was to trace the development of students in linguistic competence and in economic content knowledge through CLIL and to analyse the impact of the CLIL approach on the learning process.

According to the analyses of the experiment, a designed CLIL module has proven to be successful, at least for the limited number of participants in this study. The students coped with the tasks and improved their language skills during the semester. Consequently, based on this small sample size, we can infer that CLIL can work in tertiary education in Russia.

However, there are obviously questions to consider in designing future CLIL modules. First, despite positive test results, it is necessary to reveal that students did not take a test on speaking for this study, which was one of the key skills in assessment. Secondly, the results of the pre- and and post-test measurements regarding content were not significantly different, likely because 72 hours is not enough

for learning content in the target language. It would be preferable to study disciplines and language through CLIL for at least one academic year. Thirdly, CLIL tasks are cognitively difficult for learners, so it would be an advantage to have peer assistance from students whose higher-order thinking skills are better developed.

In addition, one of the biggest challenges in designing CLIL lessons is finding material and adapting it to the learners' needs. If texts or tasks are too challenging, students start to lose interest in the topic because they think that they are unable to complete them. To avoid psychological problems, teachers should take into account students' abilities and update the materials to the appropriate level for the students. Also, scaffolding should be provided during the process of learning, especially in the beginning of a CLIL module. In this experiment, translation and code-switching to the mother tongue were employed as major scaffolding techniques.

As such, the demanding character of a CLIL lesson is sure to be challenging for students. However, after several classes, students get used to the style and start to comprehend the information and broaden their skills. The main conclusion of the study is that CLIL enriches language proficiency while studying the content of a discipline. Nevertheless, there is still a lot to discover in the implementation of CLIL modules. The small sample size in this study necessitates further investigation on this topic. There is still a need to design new CLIL modules and to test them with larger groups of students in order to foster teachers' understandings of CLIL methodology and to improve the students' language skills and content knowledge.

Acknowledgements

This paper is based on our dissertations (T. Yakaeva 2017, L. Salekhova 2008). The research was supported by the Department of Educational Technology and Information Systems in Philology and the CLIL Laboratory of the Kazan Federal University, Russia.

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