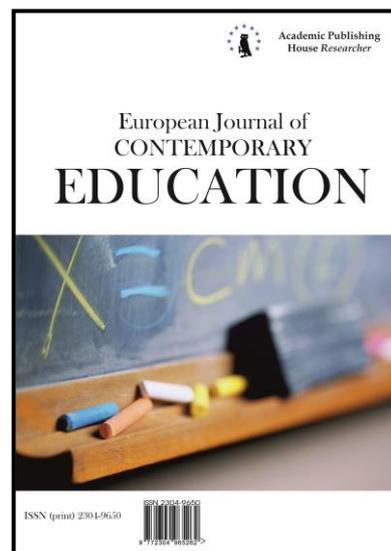




Copyright © 2019 by Academic Publishing  
House Researcher s.r.o.  
All rights reserved.  
Published in the Slovak Republic  
European Journal of Contemporary Education  
E-ISSN 2305-6746  
2019, 8(2): 280-293  
DOI: 10.13187/ejced.2019.2.280  
[www.ejournal1.com](http://www.ejournal1.com)

**WARNING!** Article copyright. Copying, reproduction, distribution, republication (in whole or in part), or otherwise commercial use of the violation of the author(s) rights will be pursued on the basis of international legislation. Using the hyperlinks to the article is not considered a violation of copyright.



## Approaching CLIL from the Periphery: Integration of Content and Language in Russian Higher Education Institution

Natalia S. Godzhaeva <sup>a</sup>, Timur A. Logunov <sup>a,\*</sup>, Marina S. Lokteva <sup>a</sup>, Svetlana A. Zolotareva <sup>b</sup>

<sup>a</sup>Institute of History and International Relations, Kemerovo State University, Kemerovo, Russian Federation

<sup>b</sup>Kemerovo State Institute of Culture, Kemerovo, Russian Federation

### Abstract

One of the reasons for failure of education system to form developed FL skills in its graduates consists in the lack of L2 immersion and low motivation of learners. Integration of Content and Language (CLIL) in teaching content subjects is believed to be an efficient way of improving the situation. However, introducing CLIL techniques and approaches can by itself pose a new great challenge for a university. Our study shows a stable interest in both students and teachers coupled with a high degree of doubts and lack of preparedness when it comes to the actual prospect of their involvement in CLIL courses. In addition, the introduction of CLIL requires systematic changes in academic and administrative policies of Russian universities. The authors suggest that in such environment, the optimal solution would be a gradual introduction of CLIL elements focusing elaborated preparatory techniques. The paper presents the design of pilot project of step-by-step introduction of CLIL format studies in a Russian university and summarizes the results of pre- and post-experimental surveys among university students and teachers revealing their expectations, causes for their uncertainty and showing the need for specific FL learning activities which form a support system provided by language teachers to boost learners' linguistic confidence. This introductory period calls for a special attention to the role of FL teachers and closer coordination of efforts between a content teacher and a language teacher.

**Keywords:** university training, CLIL, exposure, language skills development, preparedness.

### 1. Introduction

According to the Russian Federal governmental programme "Education Development for 2013–2020" one of the priorities in the field of vocational education is the internationalization of

---

\* Corresponding author

E-mail addresses: [tlogunov@mail.ru](mailto:tlogunov@mail.ru) (T. Logunov), [godjayeva@mail.ru](mailto:godjayeva@mail.ru) (N. Godzhaeva), [abrikol13@mail.ru](mailto:abrikol13@mail.ru) (M. Lokteva), [s.a.zolotareva@gmail.com](mailto:s.a.zolotareva@gmail.com) (S. Zolotareva)

higher education in Russia. In this context, teaching a foreign language for its own sake in a regular classroom environment is no longer the case. Mastery of foreign communicative competence becomes one of the necessary conditions for a successful career of university graduates, which is recognized by the academic community and by the students themselves. Being prepared for a career means a number of competences including skills and abilities to communicate successfully in various fields not only in one's native language (L1), but also in the second or a foreign language (L2, FL, for the purpose of this study – specifically English), which in turn requires that university students are both functionally prepared and academically literate for their interaction in English-speaking academic and professional environment, “that they are able to use English to access, understand, articulate and critically analyze conceptual relationships within, between and among a wide variety of content areas” (Kasper, 2000: 3).

However, it is not uncommon that learners willing to master an FL in academic environment suffer from the lack of actual language immersion, which has long been proved a necessary condition and means for achieving the progress in L2 skills development (Paradis, 2009). The efficiency of this immersion factor for adult L2 learners can be further increased through combining it with realized motivation for studies. Teaching English (as a FL) as a media for learning the content subjects of university curricula can become the engine that will move the progress in forming FL competences, as the students are most interested in content subjects of their specific academic field critical for developing their skills and competences and thus, preparing them for their future career. It combines both the motivation to apply the FL for solving professional tasks and the immersion in “real life” use of a language.

The most probable of the identified obstacles to increasing the level of FL skills among the country population is the lack of motivation to acquire and improve FL skills and the practical experience in applying them. These factors are closely connected as the need for studying a language (which almost always takes a great effort and time) is only justified by the realization of the necessity and understanding the prospective opportunities to use it (Dobrydina, 2010: 32). Needless to say, that it is the countries (regions) less involved in the process of global communications that have low proportion of confident FL speakers and level of FL literacy. The same is true of the countries whose population has fewer chances to be involved in cross-cultural communication or is influenced by special customs and traditions discouraging them from getting involved in this process.

In a straight response to these challenges many teachers in Russian universities are adapting methodologies to adjust their teaching practices in such a way that they motivate and engage students while reaching language standards. In this sense, Content and Language Integrated Learning (CLIL) has been applied in the Russian context as a way to teach content through English.

In Russia, the research on CLIL is being conducted in various directions but one cannot say that it is extensive. There are papers reporting results of pedagogical experiments in teaching a subject in an FL, mostly English, alongside with teachers' comments and recommendations (see, for ex., Bryksina, 2007; Shirin, 2009; Vyushkina, 2017; Zaripova, 2015). Although the theory and prospects of implementing CLIL in the Russian educational system are the focus of these articles, the publications reflect the successful results of enthusiasts' attempts to implement CLIL into the higher education process. In the works of A.G. Shirin (2007), I.E. Bryksina (2009), CLIL education is considered in the context of the cultural dialogue. The pedagogical aspect of bilingualism is closely related to research psychology and motivational sphere of learners. The paper (Khudobina, 2007) summarizes the types of language barriers which students face in the CLIL framework and urges developing mechanisms and tools to overcome such obstacles. Available individual elements of methodological and theoretical foundations do not form a single systematic conceptual basis of integrative education in a foreign language in Russian universities.

The revealed gaps determine the relevance of this study approaching are the principles and organizational and pedagogical conditions of step-by-step introduction of integrated language learning with a focus on pre-training of learners to avoid shocking immersion. Thus, the proposed research attempts at answering the question whether there is a way to introduce/incorporate CLIL format in the existing framework of FL teaching/learning in Russian universities to minimize discouraging effects associated with it, to overcome teachers' and students' distrust and to boost learners' motivation and involvement.

## 2. Review

Most of the arguments in favour of CLIL show that CLIL creates favourable natural conditions for language learning and therefore provides a purpose for using language in the classroom.

The efficiency of CLIL courses, proved with a number of empirical studies, rests upon psychological principle underpinning the character of learning in such format, which is featured with learning new concepts together and simultaneously with new words (as if in acquisition of L1), not just learning new words for the familiar concepts. Such framework does not only boost mental performance in L2 acquisition, but also provides for better and more stable retention and reproduction of the skills obtained, and encourages thinking in L2. ([Madrid, Garcia Sanchez, 2001: 106, 120](#))

Lightbown and Spada (2006) claim that a second language is most successfully acquired when the conditions are similar to those present in first language acquisition that is, when “the focus of instruction is on meaning rather than on form, when the language input is at or just above the proficiency of the learner and when there is sufficient opportunity to engage in meaningful use of that language through exchanges with other students. The key to these exchanges is content area instruction in English” ([Almudena, 2009: 3](#)).

When integrating content and language, students have the opportunity to acquire both Basic Interpersonal Communications Skills and Cognitive Academic Language Proficiency with the former being all the social language skills and the latter the language skills to cope with academic requirements ([Cummins, 2000](#)). Being able to communicate academically and socially opens new borders and encourages students to explore and travel around the world ([Godzhaeva, Logunov, 2015: 2300](#)).

Yet another aspect in studying CLIL impact emphasizes that “teaching subject content in the foreign language makes the use of that language more contextualized, real and meaningful for students. As language is used to fulfill real purposes, its use is authentic and much more meaningful for the students; as a consequence, motivation is increased” ([Jaisson, 2012: 177-189](#)).

Thus, it is commonly accepted that CLIL has multiple benefits, moreover, the beneficial effects of CLIL were proved with astonishing results in L2 learning described, for example, in Ruiz de Zarobe (2008, 2010). At the same time, researchers realize certain limitations and difficulties in actual application of CLIL methods, namely, those concerning various abilities of learners, lack of L1 functional support in learning process and so on ([Harrop, 2012](#)). The degree of L1 presence and role in CLIL format classes has long been looked upon differently by scholars, the common call to minimize it was often challenged based on the variety of factors of actual learning environment including learners’ needs, skills, habits, etc (see [Lasagabaster, 2002](#)).

**CLIL studies in Russia.** The modernization in higher education conducted in Russia now is connected with the objective of improving students’ competence in the second language as a very useful means for their employability/mobility ([Dobrydina et al., 2015](#)).

Although CLIL has been long been applied in Europe or in the United States (labeled as Content Based Instruction (CBI)), in Russia it is a relatively new paradigm shift in the field of language teaching since it entails innovation in methods and approaches, while academic environment in Russia, specifically in the periphery context, is quite peculiar, for instance, in terms of students and teachers’ mobility.

Despite a considerable degree of skepticism ([Rubtsova, 2015](#)), there are some successful examples of CLIL implementation with developed CLIL courses. For example, the conception of the teaching Mathematics in a foreign language developed by L.L. Salekhova (2008) emerged the basis of the model building of CLIL. According to Salekhova, there are many ways in which an academic lecturing in a language other than L1 of most of his/her audience can help to make the content clearer: using discourse markers, repeating concepts, using examples, reformulating. Visual means can also help students understand the content of the subject, they afford the basis for students’ own statements and contribute to the verbalization of their thinking activity.

The process of the interdisciplinary relationships regarding CLIL is described in E.G. Krylov’s monograph in detail ([Krylov, 2015](#)). The grammar material used in integrated classes according to CLIL methodology is in agreement with the course of foreign language and the foreign language for business communication. According to Russian state higher educational standards students are supposed to acquire essential grammar in use for their specialty.

In Russian CLIL contexts much work has been done on ensuring that students are able to benefit from the experience of learning through an additional language. However, in the Russian discourse, the CLIL approach is often criticized from the perspective of non-language subject-teachers, who fear substantial negative influences on the learners' subject competences. It is true that CLIL in Russian higher education can not dominate in teaching special subjects, but it must be acknowledged, that CLIL education in a foreign language in Russian universities fills its niche, which is shaped by separate teachers, who know their subject as well as a foreign language.

**Methodology concerns.** Summarizing challenges of CLIL methodology for the existing long-established approaches it should be recommended that educators prefer gradual implementation of this innovation through such stages as the linguistic and methodological training of the teachers and 'adjustment' of students' communicative skills. Moreover, it is essential that the programme could be adapted to the available resources with regard to the methodological and linguistic preparation of the teachers.

Another consideration to bear in mind pertains to the professional training teachers receive. CLIL requires subject teachers with foreign language skills and vice versa, unfortunately, this requirement cannot be met by the majority of the educators due to the fact that many content teachers are not even basically prepared in a foreign language. One option to tackle this issue would be co-teaching by having language teachers reading some modules of certain subjects in the curricula (Godzhaeva et al., 2018).

The use of innovative materials and methods can be an engaging factor for students and teachers. By using materials that address topics that students are familiar with and, if possible, that they have recently studied in their mother tongue, students are able to learn more as they will already know a lot of the content and context (Jaisson, 2012: 184). In terms of language, content and environment, materials need to be chosen according to social contexts and students' level and interests.

Thus, in implementing CLIL in class educators need to be trained on how to address different topics, to plan lessons for diversity or multilevel skills. Step-by-step guidelines in CLIL lesson planning prevent experiences of frustration and help overcome language barriers. Besides, teachers need guidance in the ways to assess students when the focus is content but the means is language.

### **3. Hypothesis**

We hold the view that it is preferable that the process of introducing CLIL to content class should be gradual and well-guided through collaboration of all the participants of teaching-learning process in each particular institution of higher education. Only this way it is possible to overcome the aforementioned negative tradition in learning foreign languages (mostly, ESP) in Russia and to cope with a very specific learning environment, including such factors as curriculum, initial learners' and teachers' skills and others. It supposes giving L1 an essential role in preparing students for exposure to content concepts in L2 and going through a number of phases before actual implementation of CLIL techniques as such. Obviously, it makes collaboration and coordination between content and language teachers a vital factor, as it aimed at overcoming major obstacles and responding to major challenges of this activity.

It is admitted that students' background in Kemerovo State University (KemSU) influences the learning context and teachers' educational background affects teaching approach. It is difficult to imagine language teachers delivering highly specific contents at university level unless, of course, backed up by the subjects' teachers. Such implementation of CLIL programme would require both subject and language teachers working hand in hand in order to complement each other in the same class.

Bearing this situation in mind, in our study we presume that gradually implemented CLIL format with a number of preparatory stages should a) improve teachers' and learners' attitudes and level down their negative concerns with regard to CLIL introduction, b) increase learners' motivation and preparedness to get involved in CLIL format, and c) bring positive effect on the training results. This makes the hypothesis to be tested through a variety of instruments before and after pilot project described in the following section. Absence of positive effects (zero or negative results) would approve the null hypothesis.

#### 4. Methodology

In this paper we discuss the results of pilot project of teaching a non-linguistic discipline in a foreign language to the Bachelor students of the Institute of History and International Relations of KemSU. Following our assumption, on the initial stage CLIL elements were introduced during 2 senior years before the completion of the university course, once learners have had the chance to improve or “fix” their FL skills. It will not only be a precondition for a more successful and less stressful mastering the course/module, but will also improve learners’ attitudes to this format of studies.

The outcomes were analyzed not only in terms of measuring the levels of students’ FL skills, abilities and knowledge, but also in the form of assessing changing teachers’ attitudes, doubts and hopes (summarized in the SWOT analysis format) connected with challenges and prospects of teaching content in FL. Thus, the discussed research is focused primarily on analyzing the effects of the gradual introduction of CLIL format studies on learners’ proficiency in the first foreign language (English) and the associated challenges and possible faults and weaknesses.

Thus, the research is based on a pedagogical experiment, since it is the only way to measure effectiveness of a teaching method/techniques or any other element of education processes, and to prove causal consequences of one pedagogical phenomenon on another.

**Participants.** The project participants included a group of International Relationships (IR) students in their third academic year. The pilot CLIL-associated academic module was taught for three consecutive academic years.

127 senior students and 102 freshmen of IR and Regional Studies (RS), whose professional sphere of interest is directly connected with cross-cultural communication, took part in the pre-experimental pilot surveys in September 2016, October 2017 and September 2018. Students’ answers are discussed in detail in the following sections.

To get the feed-back necessary for evaluating the results of the pedagogical experiment after its completion we used the method of survey among the students and obtained the teachers’ expert opinion. The respondents included three experimental groups, total of 67 senior students with the level of proficiency on B1-B2 according to the CEFR. Their response was later analyzed on the background of that of 60 senior students not involved in the pilot CLIL project and their own answers to the pre-experimental survey questionnaire. Besides, 12 teachers of KemSU involved in training IR and RS students were interviewed and their expert opinions were summarized afterwards applying SWOT analysis techniques (see the following section).

**Instruments.** In the international CLIL research context, analysis of CLIL learners and teachers’ attitudes is one of the valuable sources for better understanding of what actually happens in CLIL classrooms. Therefore, determining students’ opinions and attitudes towards the implementation of CLIL in their courses was one of the research aims.

The first tool for studying the effectiveness of CLIL in Teaching Foreign Language was aimed at proving “applicability” of CLIL at the Institute of History and International Relations of KemSU (starting from the third year of academic curricula). It was based on measuring and comparing the pilot survey response of reference and experimental groups (35 and 41 senior students in 2017 plus 25 and 26 senior students in 2018 correspondingly).

The outcomes were analyzed not only in terms of measuring the levels of students’ FL skills, abilities and knowledge, but also in the form of assessing changing teachers’ attitudes, doubts and hopes (summarized in the SWOT analysis format) connected with challenges and prospects of teaching content in FL. Thus, the discussed research is focused primarily on analyzing the effects of the gradual introduction of CLIL format studies on learners’ proficiency in the first foreign language (English) and the associated challenges and possible faults and weaknesses.

**Materials and Procedure.** To obtain the picture of students’ attitudes before the start of experiment they were offered a questionnaire asking for:

- their opinion on the need for more subjects taught in FL (the options included the degrees of the necessity: we need it “very much”/”rather need it”/”do not need at all”),
- their evaluation of the time it will take to make it possible for the introduction of teaching major subjects in FL (“immediately”/”in 3-5 years”/”in distant future”/”never”),
- the preferable format of classes (“lectures”/”seminars”),

- the preferable type of lecturers (“FL teachers”/“content teachers”/“FL and content teachers jointly”/“invited Russian professionals”/“invited foreign professionals”),
- the compliance of their personal FL level and the average FL level of the Institute students to the requirement of integrated learning (“enough”/“quite enough”/“rather not”/“completely not”), and
- the prospects and possible challenges to introducing such courses.

The post-experimental questionnaire was aimed at assessing the project’s impact on students’ motivation, attitudes and involvement. It was offered to the senior students only and contained the same questions as the pre-experimental one supplemented with a few based on their newly acquired experience. For example, the students involved in the pilot project were asked about the possibility of introduction CLIL courses, the obstacles hindering this introduction, their own and teachers’ preparedness for such courses in terms of FL skills, etc. In addition, new questions concerned their skills involved in CLIL classes and required for them (the use of vocabulary and structures, presentation and public speaking, listening and reading comprehension). The questionnaire suggested rather broad self-assessment of changes in the level of these skills by students (with such generally formulated options as “improved”/“remained the same”/“decreased”).

Moreover, we directly asked the students involved whether their participation resulted in changing their attitude to CLIL format of university studies, which together with the previously mentioned question demanded some degree of self-reflection over the project. Finally, some open question were added to this version of questionnaire for students making it similar to the teachers’ questionnaire and allowing for a kind of SWOT analysis as seen by the students. They were asked to identify the challenges they faced while preparing for and taking part in CLIL classes, benefits and weaknesses of this format. Comparing the response to both questionnaires for the students we could observe the subjective component of their attitude to CLIL and some changes in it and their self-reflection resulting from their immediate involvement in the process of implementing integrated learning in their particular learning environment.

The data were analyzed by using Student’s t-tests for comparing two independent proportions.

Finally, as part of the experiment, 12 participating teachers were asked for their opinions (through a questionnaire) regarding their personal *evaluation of the CLIL method applicability, possible impact and effectiveness* under the conditions discussed above. The questionnaire consisted of 11 questions, including both open and multiple choice questions. Open-ended questions suggested that respondents should name themselves the positive and negative aspects, strong and weak points of CLIL courses; while multiple choice questions were aimed at obtaining the teachers’ evaluation of particular features, namely, students’ activity and involvement in discussing debatable issues in content/language classes, amount of literature and sources used in preparation for content classes, range of points of view and solutions proposed by students and others. Some questions were designed only for FL teachers, such as the amount of non-linguistic (background) knowledge shown by the experimental group students in FL classes, the amount of extra material (mass media, online resources, etc) used to get prepared for FL classes, the changes in proportion of various activities in FL class (i.e., free discussion/prepared presentation) and others.

**Pilot project design.** The methodology underlying the pedagogical experiment on the implementation of CLIL requires careful analysis of existing methods/techniques and appropriate adaptation. In this regard, the particular attention should be given to careful planning, meaningful learning, gradation of content complexity and assessment according to students’ background and educational needs. In CLIL all these factors play a pivotal role at some point or another.

The example discussed further is the result of collaboration between a language and a content teacher. Together, a class plan was designed for the academic module “International, Ethnic and Religious Conflicts”. After consulting relevant intermediate level resources in English and with the help of the content teacher as a content resource person, a list of key issues and topics was generated.

The intervention period lasted for approximately 6 weeks. The strategy adopted for planning the unit took into account various approaches that explicitly included both content and language

goals. Specifically, a triple focus on content goals, language goals, and learning skills/cognitive goals (Coyle, 2010; Mehisto et al., 2008) was accepted as a guideline within framework of content-based instruction.

The content focus directed the progression of the unit, which was broken down into three main phases:

**Phase 1** consisted of an introduction to conflicts issues first in the mother tongue and then in the foreign language. Sample activities included content, comprehension questions with visual aids with vocabulary activities. Students also completed content-based homework assignments online.

**Phase 2** involved expert group projects in which students researched a chosen issue in more depth, using an array of research books in English. They then shared their topic with other classmates and the teachers by using ICT tools.

**Phase 3** was devoted to proposing solutions to Georgian-Ossetian Conflict in 2008 and culminated in conducting the Round Table discussion classes. Each student represented one of the experts' positions. The main question they were expected to answer is "Who would you name as the main actors/protagonists who have played or continue to play a decisive or important role in the conflict, in the process of negotiations and in the post-conflict development?" This activity is one of the effective ways to demonstrate the knowledge of context and language by students. For example, students could analyze causes of this conflict, different opinions of the main actors in it, and suggest possible ways of solution. During this phase, there was collaboration between all students and language and content teachers, which involved sharing of their opinions on this conflict.

Throughout the three phases, this classroom format was integrated as much as possible, with some modifications to maintain the English content focus goal of the study. As a result, the content teacher played an active role in the intervention by explaining content-specific concepts and acted as a content expert. New vocabulary was introduced on a need-to-know basis so that language was used as tool for grasping the content rather than an end itself (Cloud et al., 2000). Vocabulary guide was created for students and collaboration with them based on the content included in the module with most topical terms that would be discussed within the module. The vocabulary was listed in English, with understandable definitions/explanations in English as well as possible synonyms or an example sentence using the term. The class plan was composed of tasks with a primary focus on content and a secondary focus on language.

## **5. Results and Discussion**

The targeted achievements of implementing CLIL courses/modules should be that students acquire a meaningful and rich learning experience, which would encourage students to work collaboratively and engage in forms of using language, thus providing for an opportunity to develop language awareness throughout learning experiences.

Prior to discussing the findings of the experiment, the authors of the present paper admit realizing some significant limitations, including sample size, which was strictly limited to the number of students in the specified departments of Kemsu, and the chosen tools for obtaining the results. The latter was based mainly on questionnaires which, to some extent, lack objectively measurable scales unlike tests; however, this choice was determined by the research objectives.

The results of the pilot survey are summarized in Tables 1–3. Students' answers clearly demonstrate their realization of the need for more subjects taught in English for upgrading quality and prestige of their degree (see Table 1). Moreover, it should be noted that senior students are more enthusiastic about it, their answers being prompted by their experience. Totally, 58.5 % of respondents were sure that courses taught in FL are necessary in their curriculum. Strictly negative responses to this question were given only by a small minority (10.9 %).

**Table 1.** The results of surveying students' attitudes before the experiment (number of respondents with percentage of responses in brackets)

Selected questions (reformulated for the purpose of the research analysis)		Senior students (n = 127)	1 <sup>st</sup> year students (n = 102)	Total for pre-pilot survey (n = 229)
1. The need for teaching major subjects in FL	very necessary	71 (55.9)	63 (61.8)	134 (58.5)
	quite necessary	21 (16.5)	18 (17.6)	39 (17.0)
	rather not	19 (15.0)	12 (11.8)	31 (13.5)
	definitely no	16 (12.6)	9 (8.8)	25 (10.9)
2. When the implementation of CLIL courses is possible in your University:	immediately	29 (22.8)	18 (17.6)	47 (20.5)
	in 3-5 years	71 (55.9)	47 (46.1)	118 (51.5)
	in distant future	19 (15.0)	20 (19.6)	39 (17.0)
	never	8 (6.3)	17 (16.7)	25 (10.9)
3. CLIL courses are to be taught by (multiple options were possible):	FL teachers	40 (31.5)	9 (8.8)	49 (21.4)
	content teachers	22 (17.3)	11 (10.8)	33 (14.4)
	jointly	59 (46.4)	27 (26.5)	86 (34.2)
	invited foreign professionals	94 (74.0)	68 (67.6)	162 (70.7)
4. Compliance of the respondents' FL level to the requirements of CLIL class, self-assessed	invited Russian professionals	71 (55.9)	9 (8.8)	80 (34.9)
	definitely yes	14 (11.0)	13 (12.7)	27 (11.8)
	rather yes	73 (57.5)	31 (30.4)	105 (45.8)
	rather not	25 (18.9)	27 (26.5)	52 (22.3)
5. Compliance of the average students' FL level to the requirements of CLIL class, self-assessed	definitely no	15 (12.6)	30 (29.4)	45 (20.1)
	definitely yes	21 (16.5)	0 (0.0)	21 (9.2)
	rather yes	19 (15.0)	16 (15.7)	35 (15.3)
	rather not	26 (22.1)	26 (25.5)	52 (23.6)
	definitely no	61 (46.4)	60 (58.8)	121 (51.9)

**Table 2.** Comparison the students' response to surveys conducted before and after the pilot project (number of respondents with percentage of responses in brackets)

Selected questions (reformulated for the purpose of the research analysis)		Pre-experimental survey (n = 127)	Post-experimental survey		Significance value (p)
			Experimental group (n = 67)	Reference group (n = 60)	
1. The need for teaching major subjects in FL	very necessary	71 (55.9)	52 (77.6)	29 (48.3)	< 0.01
	quite necessary	21 (16.5)	8 (12.0)	20 (33.3)	< 0.01
	rather not	19 (15.0)	7 (10.4)	7 (11.7)	-
	definitely no	16 (12.6)	0 (0.0)	4 (6.7)	-
2. When the implementation of CLIL courses is possible in your University:	immediately	29 (22.8)	20 (29.9)	13 (21.7)	-
	in 3-5 years	71 (55.9)	29 (43.2)	30 (50.0)	-
	in distant future	19 (15.0)	13 (19.4)	12 (20.0)	-
	never	8 (6.3)	5 (7.5)	5 (8.3)	-
3. CLIL courses are to be taught by (multiple options were possible):	FL teachers	40 (31.5)	14 (20.9)	9 (15.0)	-
	content teachers	22 (17.3)	15 (22.3)	14 (23.3)	-
	jointly	59 (46.4)	38 (56.7)	29 (48.3)	-
	invited foreign professionals	94 (74.0)	37 (55.2)	43 (71.6)	-

	invited Russian professionals	71 (55.9)	14 (20.9)	26 (43.3)	-
4. Compliance of the respondents' FL level to the requirements of CLIL class, self-assessed	definitely yes	14 (11.0)	10 (14.9)	6 (10.0)	< 0.05
	rather yes	73 (57.5)	40 (59.7)	34 (56.7)	-
	rather not	25 (18.9)	6 (9.0)	13 (21.7)	< 0.01
	definitely no	15 (12.6)	11 (16.4)	7 (11.7)	< 0.05
5. Compliance of the average students' FL level to the requirements of CLIL class, self-assessed	definitely yes	21 (16.5)	15 (22.3)	10 (16.7)	-
	rather yes	19 (15.0)	12 (17.9)	8 (13.3)	-
	rather not	26 (22.1)	11 (16.4)	13 (21.7)	-
	definitely no	61 (46.4)	29 (43.2)	29 (48.3)	-

The distribution of responses in reference and experimental groups showed no significant difference in pre-pilot survey. In analyzing the response of the two groups in post-experimental survey we compared frequency of choosing each option by respondents in the two groups. No significant difference was found in the distribution of responses to questions 2, 3 and 5. However, the results regarding changes in learners' attitudes to CLIL format of studies clearly show the notable increase in the acceptance percentage after the end of the experiment (77.6 % in the experimental group against 55.9 % of respondents in pre-experimental survey) and decrease in rejection (with  $p \leq 0.05$ ).

It can be considered an encouraging sign that the responses of 1st year students generally do not differ much from those of the seniors. Given the evident gap in the amount of experience between the 1st and the 4th year students, which could not but manifested in their answers, the overall similarity of their attitudes to the proposed development demonstrate the positive trend and suggest the possibility to take steps in expanding the role of FL in studying content subjects based on the students' interest and willingness.

Surprisingly, there was an obvious contradiction in students' responses assessing their own level of language skills and identifying prospective obstacles and challenges impeding introduction of content subjects taught in FL. The vast majority of senior students (68.5 %) and over a half of 1st year students (53.1 %) self-assessed their language skills as definitely/rather enough to take content courses in English. While, insufficient level of language was named by far the most important problem (75.5 %) preventing from teaching content subjects in FL (as seen by both the senior and the 1st year students) (See [Table 1](#), pp. 4 and 5). This very notable fact demonstrates lack of students' confidence and explains their doubts as to the possibility of immediate introduction of such courses, the most popular response was "possible in 3-5 years' time" (51.5 % of senior and 1st year students taken together). It can be interpreted as a conflict between interest in the desirable result and lack of means to achieve it. At the same time, this obvious trend prompts us the main direction of applying our efforts and developing activities to overcome the obstacles keeping us from expanding the number of courses taught in FL.

Speculating on the type of lecturers who will be able to deal with such courses and the format of classes the students did not demonstrate any clear preference: although the majority believes that the courses should be taught by invited specialists (preferably foreign ones – 70.7 % of responses), some proportion of respondents supposes that FL teachers are also a good choice to handle the task (21.4 %). However, a large number of students are sure that teaching courses in FL can be organized jointly by FL and content teachers (34.2 % before the experiment and 48.3 % – after it), which seems logical and realistic and suggests a sound common sense and a good understanding of the ways to overcome the possible difficulties (See [Tables 1](#) and [2](#), p. 3). As to the format (lectures/seminars) the respondents showed no clear preference.

Finally, students' enthusiasm and reasonable attitude to the problem discussed was proved by their choice of subjects to be taught in a FL (it was an open question with the possibility for the respondents to suggest any courses they think suitable): the clear majority (78.2 %) included in their lists the subjects related to international relations, history of foreign countries and regions and the like.

The results of post-project survey reflect quite a noticeable increase in students' positive attitude and their evaluation of the possibility of introducing integrated learning. Moreover, the responses of the students involved in the experiment differ as being more positive to CLIL.

Compared to the “non-CLIL” courses the students of experimental group evaluated CLIL classes (organized as project work) as more interesting and they felt more involved. They appreciated the extension of their vocabulary (both general and academic) through the direct learning of new words while working on their own projects and through listening to other students' presentations (86.6 % of respondents of the post-experimental survey). In addition, students appreciated the fact that they needed to go through many references, deal with extra texts in order to understand all the vocabulary, as well as to eventually learn it for the act of performance (56.7 %). They also mentioned a more balanced development of all communication skills in English (43.3 %). Despite the initial discomfort before presenting in English, they appreciated the chance to present orally in a foreign language, which afterwards allowed them to feel more confident not only in presenting their talks in English but also in their general presentation skills. They evaluated CLIL lessons as more demanding than “traditional” courses (91 %).

We find it a crucial and a very encouraging point to stress that 52.2 % (more than a half) of students involved in the pilot project changed their attitude to the prospect of introducing CLIL in our university after they completed their participation. This was manifested through their evaluating the possibility of immediate introduction of CLIL courses (29.9 % against 22.8 % before the project, see [Table 2](#)), full compliance of their skills with the requirements of such a course (14.9 % against 11 % before) as well as their direct admitting changing their attitude. Thus, there is some positive difference between the results obtained in pre- and post-experiment surveys.

The SWOT analysis was completed based on the results of the survey, teachers' observations and shared experience (this is summarized in [Table 3](#)).

**Table 3.** SWOT analysis results after experimental group session

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>- more interesting, encouraging method;</li> <li>- increasing motivation for studying both language and content courses ;</li> <li>- more balanced development of all communication skills;</li> <li>- developing general presentation skills (both for speaking in students' native language and a FL).</li> </ul>	<ul style="list-style-type: none"> <li>- stress and discomfort when presenting;</li> <li>- work overload (for both teachers and students. It should be noted that teachers expressed this fear nearly unanimously 93 %, while students are not worried that much – 27.5 %)</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>- professional vocabulary extension (noted by the vast majority of teachers-respondents);</li> <li>- better preparation for taking international IELTS- or TOEFL-like exams;</li> <li>- better preparedness for applying an taking part in international training and research projects.</li> </ul>	<ul style="list-style-type: none"> <li>- extending the period of studying one module (expressed by over 70 % of responding teachers);</li> <li>- possible decrease in the content subject learning outcomes (due to language barriers and inevitable simplification of content presented in FL) – over 55 % of responding teachers</li> </ul>

**Table 4.** Areas positively and negatively affected by CLIL (as identified by the teachers involved in CLIL implementation experiment)

POSITIVES	%	NEGATIVES	%
Students' motivation to learn FL, learn and practice FL in real context	72	Demanding preparation for teachers	100
Easier learning of FL for learners, students' better communication skills in FL	93	Absence or lack of teaching resources, books	27
Active, interesting learning for students	72	Lower confidence	72
		-students are overloaded with FL; -need for more time allocation for the subjects taught in CLIL format; - no unification of the CLIL curriculum.	

Summarizing teachers' attitudes toward CLIL, the following conclusions may be offered. General teachers' attitudes range from rather positive and very positive (81 %) with only 2 rather negative responses; none of the respondents in any of the analyzed researches expressed a univocally negative attitude. However the majority of CLIL teachers mentioned they felt unprepared and lacked the necessary information. While looking for information, teachers relied on their own experience and on continual self-learning.

Teachers generally consider CLIL both professionally challenging and personally satisfying. FL teachers perceive the CLIL method as an unequivocally effective means of developing learners' foreign language proficiency (93 %).

While evaluating CLIL strengths, teachers named appreciable traits or benefits of CLIL: "natural" learning of a foreign language, as well as learning connected to 'real life'. They find learners in CLIL lessons to be more active and communicative.

They believe CLIL also develops content subject knowledge, but their evaluation of the method effectiveness is not completely unambiguous in this regard (doubts were mostly explained by certain time stress in CLIL classes caused by using a foreign language as a medium of communication – 63 % of respondents, and decrease in the learning outcomes as a result of insufficient entrance level of FL competences – 38 %).

At the same time, teachers (both FL and content) frequently mentioned drawbacks, such as work overload (the most common response), demanding preparation, extended time to master the content, lack of students' FL confidence and increase in truancy as a result.

Identifying challenging and problematic aspects of CLIL, teachers usually named the following issues: a) higher demands for teachers performance in a foreign language; b) lack of CLIL materials c) higher requirements for learners and even unsuitability of CLIL for some groups of learners (due to different level of students' knowledge of a FL, which was noted by 27 % of respondents); d) problems with planning CLIL lessons, namely, the struggle to find a balance between language and content objectives so that the content was not "neglected" and ensuring that learners did not, in fact, learn less, and finally, e) managing CLIL lessons for mixed ability classes with weak learners or learners with special educational needs.

Among the most valuable empirical acquisitions and outcomes of the pilot project there is teachers' (both FL and content) realization for the necessity of developing specialized study guides and methodological support and extensive preparatory work in terms of mastering and practicing specialized terminological vocabulary of content subjects in FL classes.

One of the matters, repeatedly appearing in all researches, was the teachers call for further training (every four of five of the content teachers regretted about insufficient level of their FL skills, which is further aggravated with nearly half (48.7 %) of students-respondents suggesting low

FL skills of their content teachers' as a major factor impeding successful CLIL introduction), which should be a strong motivating impulse for the universities providing teacher training programmes and other institutions involved in either initial or lifelong teacher training.

From our perspective, the main aim of CLIL is functional, that is, to develop proficiency in a foreign language alongside knowledge of a non-language subject area. Taking authentic material as a starting point, it leads to a task-based use of language that is organized around the understanding of subject-related topics.

In developing the course on teaching of academic content through a foreign language, there are several problems to overcome. The first problem is connected with difficulties in the assimilation of the complex academic content through an additional language that students might not have mastered yet. Therefore, it is very important to implement the programme gradually. However, we believe that such problems as an inability to perform task in the second language should be solved by additional measures such as linguistic support by language teachers in the form of language courses for the students in the specific area of study and gradual introduction of the foreign language in the classroom.

Secondly, the university teachers might have difficulties with the language proficiency. In this sense, it is very essential for teachers to improve their language competence and be able to teach and explain some points in the classroom.

The third difficulty is connected with the training in methodology of the teachers involved: under the challenging conditions, knowledge of specific strategies, techniques and activities to transmit academic content through a second language is of paramount importance.

## 6. Conclusion

It clearly follows from the discussion above that there are several unresolved issues regarding the implementation of CLIL in the Russian higher education. A few teachers are offered the opportunity to teach a non-linguistic course in a FL and the opportunity itself is not always possible to create. Other challenges include insufficient starting level of skills of all the participants in the learning process requiring more preparatory training and lack of readiness of its staff and learners to adjust and enhance their methodology. In some cases academic policy and tradition is not "CLIL-friendly", thus substantial restructuring and other painstaking efforts are necessary to create any opportunities for innovation.

Russian experience, however limited it might be, demonstrates the need for rethinking the approach to integration of content and language with a view to accommodate it to specific conditions of academic environment, traditions of teaching practices and so on. Evidently, in such case the implementation period of the new methodology will be somewhat lengthier with a focus on preliminary training (both for teachers and learners), but only in this case learners and teachers will take it positively and appreciate its benefits. The roles and proportions of L1 and L2 in this preparation period will have to be considered thoroughly and techniques of transition to CLIL in classroom will have to be carefully elaborated (presumably, those techniques will have to vary in specific conditions). English (FL) teachers have to work closely with subject teachers to ensure that language development is appropriately catered to, in other words, to guarantee that content and languages are truly integrated.

This article is an invitation to reflect about what is still needed to implement those relatively unfamiliar instructional approaches both smoothly and effectively, minimizing possible "shocking effect" and carefully managing the growing "brain load", so that students and teachers both succeed and benefit by being engaged in academic performance, critical thinking, collaboration, and multiculturalism through different interactions in the classroom.

## References

Almudena, 2009 – Almudena, F.F. (2009). Spanish CLIL: Research and Official Actions, pp. 3-22.

Bryksina, 2009 – Bryksina, I.E. (2009). Kontseptsiya bilingvalnogo/bikulturnogo yazykovogo obrazovaniya v vysshey shkole (neyazykovye spetsialnosti): dis. ... doktora pedagogicheskikh nauk [The concept of bilingual/bicultural language education in higher education (non-linguistic specialties): Doctoral thesis in pedagogical sciences]. Tambov. [in Russian]

Cloud et al., 2000 – Cloud, N., Genesee, F., Hamayan, E. (2000). Dual language instruction: A handbook for enriched education. Boston, MA: Heinle & Heinle.

Coyle et al., 2010 – Coyle, D., Hood, P., Marsh, D. (2010) CLIL: Content and language integrated learning. Cambridge, UK: Cambridge University Press.

Cummins, 2000 – Cummins, J. (2000). Language, Power and Pedagogy: Bilingual Children in the Crossfire. Clevedon: Multilingual Matters.

Dobrydina et al., 2015 – Dobrydina, T.I., Usvyat, N.D., Kersh, N. (2015). K voprosu o roli kafedr inostrannykh yazykov v formirovaniy professionalnoy kompetentnosti kadrov dlya turistskoy industrii v vysshikh uchebnykh zavedeniyakh [The role of foreign languages departments in developing professional competency of tourism graduates in higher educational institutions]. *Bulletin of Kemerovo State University*, no. 7(2): 68-71. [in Russian]

Dobrydina, 2010 – Dobrydina, T.I. (2010). Formirovaniye professionalnykh kompetentsiy budushchikh pedagogov v protsesse obucheniya inostrannomu yazyku [The formation of future teachers' professional competences in the process of foreign language teaching]. *Bulletin of Tomsk State Pedagogical University*, No. 1, 32-35. [in Russian]

Godzhaeva et al., 2018 – Godzhaeva, N., Logunov, T., Lokteva, M., Tochilina, Yu. (2018). Challenges and Prospects of CLIL for Training Mining Engineers. *E3S Web of Conferences* 41, 04052 3<sup>rd</sup> International Innovative Mining Symposium. [Electronic resource]. URL: [https://www.e3s-conferences.org/articles/e3sconf/pdf/2018/16/e3sconf\\_iims2018\\_04052.pdf](https://www.e3s-conferences.org/articles/e3sconf/pdf/2018/16/e3sconf_iims2018_04052.pdf)

Godzhaeva, Logunov, 2015 – Godzhaeva, N.S., Logunov, T.A. (2015). Developing Language Competency of University Teachers to Implement Content and Language Integrated Learning (CLIL) in a Regional University: Challenges and Prospects. *Journal of Siberian Federal University. Humanities & Social Sciences*, 8, No. 11: 2299-2306.

Harrop, 2012 – Harrop, E. (2012) Content and Language Integrated Learning (CLIL): Limitations and possibilities [Electronic resource]. URL: <http://w.encuentrojourn.org/textos/7.%20Harrop.pdf>

Jaisson, 2012 – Jaisson, R.B. (2012). Content and Language Integrated Learning (CLIL): Considerations in the Colombian Context. *Gist Education and Learning Research Journal*. No. 6, November, 177-189.

Kasper, 2000 – Kasper, L.F. (2000). Content-based ESL instruction: Theoretical foundations and pedagogical implications. In L. F. Kasper (Ed.). *Content-based college ESL instruction*. Mahwah, NJ: Lawrence Erlbaum. 3-25.

Khudobina, 2007 – Khudobina, O.F. (2007). Pedagogicheskiye usloviya preodoleniya psikhologicheskikh baryerov u studentov v protsesse bilingvalnogo obucheniya v vuze: dis. ... doktora pedagogicheskikh nauk [Pedagogical conditions for overcoming psychological barriers for students in the process of bilingual education in higher school: Doctoral thesis in pedagogical sciences]. Volgograd. [in Russian]

Krylov, 2015 – Krylov, E.G. (2015). Bilingvalnoye obucheniye inzhenernym distsiplinam i inostrannomu yazyku v vuze [Bilingual education in engineering and foreign languages in higher school]. Moscow, Izhevsk: Computer Research Institute. [in Russian]

Lasagabaster, 2002 – Lasagabaster, D. (2002). The role of instrumental and integrative attitudes in a multilingual context. In II Simposio Internacional del Bilinguismo.

Lightbown, Spada, 2006 – Lightbown, P.M., Spada, N. (2006). How Languages are learned. Oxford: Oxford University Press.

Madrid, Garcia Sanchez, 2001 – Madrid, D., Garcia Sanchez, E. (2001) Content-based Second Language Teaching: Present and Future Trends in TEFL. Universidad de Almería, pp. 101-134. [Electronic resource]. URL: <http://www.ugr.es/~dmadrid/Publicaciones/Content%20Based%20L2%20teaching-CLIL.pdf>

Mehisto et al., 2008 – Mehisto, P. D., Frigols, M.-J., Marsh, D. (2008). Uncovering CLIL: Content and language integrated learning in bilingual and multilingual education. Oxford, UK: Macmillan.

Paradis, 2009 – Paradis, M. (2009). Declarative and procedural determination of second languages. John Benjamins B.V, Amsterdam.

Rubtsova, 2015 – Rubtsova, A.V. (2015). Sotsiokulturnaya osnova vysshego inoyazychnogo obrazovaniya na sovremennom etape [Socio-cultural basis of higher foreign language education at the present stage]. *Perspektivy razvitiya nauki v oblasti pedagogiki i psikhologii. Sbornik*

*nauchnykh trudov po itogam mezhdunarodnoy nauchno-prakticheskoy konferentsii*. 21–23. [in Russian]

[Ruiz de Zarobe, 2008](#) – Ruiz de Zarobe, Y. (2008). CLIL and foreign language learning: A longitudinal study in the Basque country. *International CLIL Research Journal*, 1. 60-73.

[Ruiz de Zarobe, 2010](#) – Ruiz de Zarobe, Y. (2010). Written production and CLIL: An empirical study. Language use and language learning in CLIL classrooms. Amsterdam, the Netherlands: John Benjamins. 191-212.

[Salekhova, 2008](#) – Salekhova, L.L. (2008). Didakticheskaya model bilingvalnogo obucheniya matematike v vysshey pedagogicheskoy shkole: diss. ... doktora pedagogicheskikh nauk [Didactic model of bilingual education in mathematics in the higher pedagogical school: Doctoral thesis in pedagogical sciences]. Kazan. [in Russian]

[Shirin, 2007](#) – Shirin, A.G. (2007). Bilingvalnoe obrazovanie v otechestvennoy i zarubezhnoy pedagogike: avtoref. dis. ... doktora pedagogicheskikh nauk [Bilingual education in Russian and foreign pedagogic: the author's abstract of a doctoral thesis in pedagogical sciences]. Novgorod. [in Russian]

[Vyushkina, 2017](#) – Vyushkina, E.G. (2017). CLIL Approach to Legal English Courses: Analysis of Practice and Experience. *Sustainable Multilingualism*, 10 DOI: <http://dx.doi.org/10.1515/sm-2017-0007>

[Zaripova, 2015](#) – Zaripova, R.R. (2015). Integrated subject-linguistic approach as the basis of subject teaching modelling using a foreign language at high school. *Journal of Language and Literature*, 6(3), 175-180.