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IMPLEMENTATION OF THE CLIL METHOD BASED ON INNOVATIVE PEDAGOGICAL TECHNOLOGIES (ON THE EXAMPLE OF TEACHING COMPUTER SCIENCE)

P.A. Kudabayeva,

PhD, Associate Professor, M.Kh. Dulaty Taraz Regional University, (Taraz, Kazakhstan),
perizat_2003@mail.ru

G.B. Issabekova,

PhD, Associate Professor, M.Kh. Dulaty Taraz Regional University, (Taraz, Kazakhstan),
gulnur_taraz@mail.ru

Abstract. *This article discusses the conceptual aspects related to the implementation of training. Methods using innovative pedagogical technologies in teaching computer science include calculated.*

The paper presents an overview of the scientific and pedagogical literature on the study of the CLIL method. In addition, the authors present an analysis of an experiment conducted with teachers, students and undergraduates of the Department of Physics and IT, a sample lesson plan using CLIL technology is presented, conducted for 1st year students of the educational program 6B01503 - "Training of computer science teachers" and 1st year undergraduates of the educational program 7M01503 - "Teacher training computer Science" at Dulaty University in Kazakhstan.

Key words: *CLIL method, innovative pedagogical technologies, language integrated learning, personality, computer science*

Introduction

It is known that CLIL is taught academic subjects abroad as "Language" (teaching content in a foreign language) and "Teaching foreign languages" the subject itself (teaching a foreign language with content). The CLIL accepts two versions of the topic: content and language learning. The method of gluing in Europe in the 90s as multilingual development policy.

The role of innovative pedagogical technologies: it is constantly growing. Learning English contributes to the formation of core competencies. It is performed using the CLIL method (Content Language Integrated Learning). The peculiarity of this method of teaching in different learning conditions the lesson is conducted in two languages. This method is very popular in schools in some countries and students' interest in learning languages is significantly expanding. Learning foreign languages in the classroom.

The term Content Language Integrated Learning (CLIL) was first proposed in 1994 by D. Marsh. According to Marsh, the concept of "Content Language Integrated

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Learning" (CLIL) can be used when it comes to subjects or specific subjects that are taught in a foreign language, and also pursue two goals: the study of the content of this discipline. Discipline and learning a foreign language at the same time [1].

It should be noted that this concept is widely interpreted, and only in the European scientific and methodological literature there are more than 40 definitions of integrated meaningful language learning (CLIL).

J. Graddol believes that the use of CLIL will significantly increase the level of foreign language proficiency of students. According to J. Graddol, a high level of foreign language proficiency is not a prerequisite for mastering the discipline being studied. However, this approach to the interpretation of CLIL has been sharply criticized.

Graddol also considers a foreign language, especially English, as a core skill that allows high level students to develop their communication skills. Such CLIL are of fundamental importance in connection with the rapid development of Internet technologies and the process of globalization, taking into account the changes taking place in the field of education and in society as a whole [2].

The main aim of our study is to substantiate theoretical aspects of implementing CLIL method based on innovative pedagogical technologies and to prove its effectiveness in practice.

Kazakhstani researchers and linguodidactics are actively working to study the results of the introduction of CLIL technology in teaching natural disciplines and the formation of an appropriate level of professional preparedness of teaching staff.

The main purpose of the CLIL method is to reduce the teacher's conversation and, conversely, to improve the ability of students to communicate with each other.

Content – knowledge, business, skills in the field of education, business, science, etc., which make up information competence, skills of independent search, analysis, selection, processing and presentation of necessary information [3];

Communication is a language learning that offers the additional use of learning a foreign language instead of learning a foreign language in the classroom so that students can learn to use a foreign language while studying. This aspect forms communicative competence, which includes the ability to listen, ask questions and answer them clearly, listen carefully and actively discuss the topics under study, as well as understand and critically evaluate the opinion of your partner. Personal language improves communication skills;

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Cognition develops cognitive and thinking skills and contributes to the formation of educational competencies that allow students to study better in one or more areas [4].

Culture is an aspect of the development of general cultural competence through knowledge of the world, presenting oneself as part of culture, understanding and perceiving alternative culture and ensuring the assimilation of the language of culture. Thus, learning English using the CLIL method provides meta-subject connections and allows you to achieve practical results. It is participated in the development of the principles of a new educational standard, in particular cultural awareness, internationalization, language proficiency, not only preparation for education, but also the application of new knowledge in life and, consequently, increasing motivation for life, achieving success and, ultimately, new educational standards, which, in turn, contributed to the formation of professional competencies of future graduates, increasing their mobility and adaptation to rapidly changing life situations led to his mastery [5].

In the theory and practice of teaching foreign languages, a fund of various methods, approaches, techniques and technologies has been created, which are actively introduced into the educational process.

Currently, modern linguodidactics presents a large array of research on the topic of subject-language integration in education, where emphasis is placed on content analysis.

Our study involved students and undergraduates of educational programs 6B01503 – "Training of computer science teachers", 7M01503 – "Training of computer science teachers (pedagogues)" and teachers of computer science at M.Kh. Dulaty Taraz Regional University.

The purpose of the study is to determine the level of use of innovative pedagogical technologies for teaching computer science at a university.

The new content of education imposes new requirements to the modern teacher to perform their professional functions. One of the main competencies that educators and teachers should have is competence in the field of innovative pedagogical technologies.

1. Analysis of the results of the teachers' survey.

Therefore, a study was conducted to determine:

- the level of knowledge of the methodology of organizing the educational process using CLIL technology among teachers;

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- the level of formation of innovative pedagogical technologies competence among computer science teachers with the use of CLIL method;
- determination of the level of use of innovative pedagogical technologies for teaching a computer science based on CLIL method at the university.

The analysis of the responses of teachers working with the use of CLIL method showed a wide range of opinions on determining the level of knowledge according to the methodology of the organization of the educational process.

The survey of 12 teachers and educators demonstrated, on the one hand, 41.7 % of respondents believe that the vast majority do not possess the didactic basics and skills of using CLIL method and modern educational technologies in the educational process; on the other hand, 25 % expressed their willingness to acquire knowledge in the field of innovative pedagogical technologies and electronic training (for example, through Internet technologies, Web 2.0 technologies.).

The survey results showed that 33.3% of respondents are aware of CLIL method, as they believe that CLIL technology requires knowledge of the foreign language as well as subject learning.



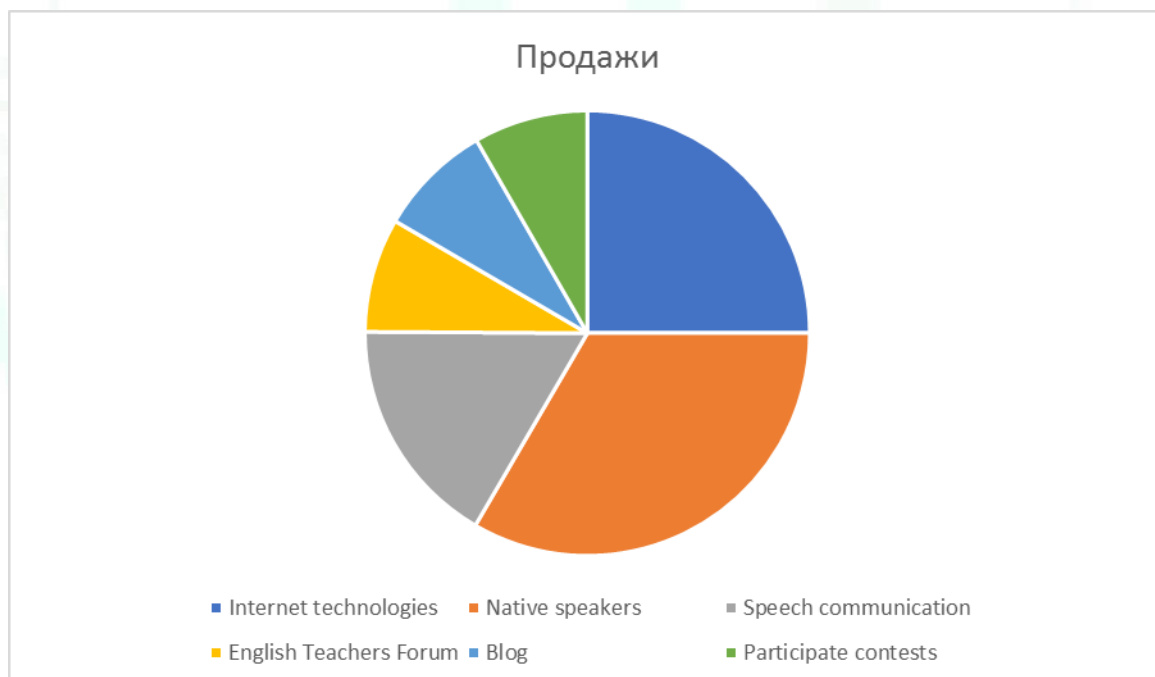
At the same time, 35 % of teachers indicate that they have the skills to work using CLIL technology; 32 % of teachers have knowledge of modern types of innovative pedagogical technologies; 33 % have information about other modern technologies.

When conducting a survey to determine the level of proficiency in organizing and conducting classes using telecommunications technologies, the following results were obtained:

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- 25 % believe that they have the skills to organize educational work through Internet technologies (3 teachers);
- 33.4 % have information and links to websites of international projects that help to implement communication in a foreign language with peers of foreign countries and native speakers (4 teachers);
- 16.7 % use the capabilities of voice communication sites in order to increase the volume of speech communication in a foreign language (2 teachers);
- 8.3 % attend the English Teachers Forum (Google meet, Google classroom, Google sites (link of classes), www.englishteachers.ru – professional network community (1 teacher);
- 8.3 % are able to create their own electronic educational resources (1 teacher), organize video conferences or a blog - as a platform;
- 8.3 % participate in various contests using innovative pedagogical technologies (1 teacher).



When contacting teachers using innovative pedagogical technologies for teaching a computer science based on CLIL method at a university, their preference for using ICT was determined:

- classes with teachers through the Zoom video service are conducted by 8 teachers (66.6 %);
- video tutorials on the YouTube channel 6 teachers (50 %);

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- Google meet, Google classroom, Google sites (link classes) – 7 teachers (58.3 %);
- Moodle - 5 teachers (41.6 %);
- lessons on Onlinemektep – 2 teachers (16.6 %);
- WhatsApp-interaction – 11 teachers (91.6%);
- Skype – 5 teachers (41.6 %);

According to this survey, it should be said that some teachers chose one and the same variant of answer, for example, the teachers that indicate the WhatsApp interaction chose the Zoom video service also.

Analysis of the results of the survey of students.

Monitoring the results of the survey on the question "What is your attitude to innovative pedagogical technologies in use in your future profession?" 40 students and 8 undergraduates allows you to note:

- 37.5 % believe (18 students) that innovative pedagogical technology is important in the modern world, therefore it is necessary to increase self-education within the "digital world";
- 16.7 % note (8 students) that they are trying to learn more about innovative pedagogical technologies, including courses on the Coursera platform - <https://www.coursera.org>;
- 45.8 % understand (22 students) the prospects of the innovative pedagogical technologies, but they will master them when they start directly to professional activity.

The effectiveness of the use of innovative pedagogical technology during self-isolation was monitored, the first results were announced, problems and prospects were identified. The current level of development of society requires the teacher to actively develop his digital competence, since the use of innovative pedagogical technologies contributes to the increase of interest and the formation of positive motivation among students, conditions are created for maximum consideration of individual educational opportunities and needs of students.

29.1% of respondents consider it a priority to have a professional qualification in a certain subject area, and 20.9% of respondents indicate a linguistic qualification. In our opinion, the existence of such contradictory opinions reflects the reality that has formed in the country. When implementing the Policy of Trilingual Education in the Republic of Kazakhstan and CLIL technology, there is a lack of the necessary number of subject teachers who speak a foreign language. It is no coincidence that 50% of respondents expressed the opinion that when implementing the CLIL

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methodology, it is possible to use a tandem of two teachers: a teacher with a specialized education and a teacher with a linguistic qualification. However, with all this, there are large financial costs.

Today, in connection with the reform of education, the issue of introducing technologies into the process of teaching computer science has become especially relevant. To solve this problem, it is necessary to create an information competence.

The analysis and determination of the level of competence formation of computer science teachers in the field of innovative pedagogical technologies working on educational programs 6B01503 - "Training of computer science teachers", 7M01503 - "Training of computer science teachers (teaching staff)" indicates the insufficiency of forms and methods of teaching computer science. Evaluate various types of student activities using natural sciences, methods, forms and criteria.

Considering everything that has been collected in this study, it seems that there is a general positive approach to teaching and learning computer science in English. Both teachers and students understand that these subjects are based on English, and recognize the benefits of continuing education in its original form. Both sides evaluate the benefits of the program mainly based on previous studies of the benefits of CLIL.

Coming to the conclusion, we would like to give some recommendations to teachers of English language and Computer science teachers as well:

- it is necessary to carry out work on the preparation of the teaching staff for the educational and methodological organization of the educational process.;
- maximum use of innovative pedagogical technologies in special courses or electives of lectures and seminars on computer science and methods of teaching foreign languages.

In addition, international distance projects offered by a teacher-tutor, the change of their ideological positions in professional activities, the desire to master innovative pedagogical technologies indicate the availability of technological means for the full realization of their professional ambitions at a level that meets modern requirements.

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