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INSIGHTS INTO TEACHERS' TRAINING AND PROFESSIONAL DEVELOPMENT: INTRODUCING ONLINE TECHNOLOGIES

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The article deals with the problem of professional development of teachers and lecturers in Ukraine in today's challenging conditions. The authors of the article are representatives of the development team of the online course "Content and Language Integrated Learning (CLIL) Methodology" for educators. It is a product of the collective creativity of the Foreign Language Teacher Training Capacity Development as a Way to Ukraine's Multilingual Education and European Integration (MultiEd) project team, co-working under the umbrella of the Erasmus+KA2 programme. The course is hosted on the Moodle platform of Zaporizhzhia National University; it is aimed at training specialists capable of adapting and implementing advanced teaching methods in the educational process of the New Ukrainian School. This course is designed for subject teachers, foreign language teachers in secondary and higher education, as well as educational institution leaders who understand the contemporary challenges of education in line with the demands of the job market and are interested in modernizing existing educational programs, improving teaching and learning methods, and implementing a culture of quality assurance in education. The course is developed in the Ukrainian and English languages; it is flexible in time and choosing subject themes to fill the gaps in knowledge. The article presents the stages of course development and implementation, description of its content and structural elements. The course was piloted in all UA universities, partnered with the MultiEd team, encompassing 583 participants, 466 of which successfully completed the course. This article focuses on the results of 194 participants' training on the Moodle platform of Zaporizhzhia National University (March–November 2023), their progress, evaluation and critical remarks, and highlights the prospects of its use in the system of professional teacher training

Keywords: CLIL methodology, e-course, Moodle platform, online technologies, teacher training

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1. Introduction

The EU's strategic guidelines in the field of education and training are relevant for Ukraine, which is moving towards integration into the European Education Space. However, according to English Proficiency Index, Ukraine has been fluctuating between 34 and 43rd position over the past decade (out of about 100 countries) [1]. Though the position does not seem that low, it is the 5–10th place from the bottom in Europe. This low ranking highlights the urgent need to reform the TFL curricula and empowering the TFL students and in-service language teachers with modern methodologies, pedagogical approaches, tools, techniques and skills. Enhanced language proficiency will gradually pave the way to multilingual education, student and academic mobility, internationalization of education and Ukraine's successful integration into the European educational space.

The issue has acquired even more importance after the Russian large-scale aggression of Ukraine in 2022 and the recognition of English as a language of international communication in Ukraine in 2023. Highly qualified teaching staff are needed to ensure a high level of

the educational process and improve foreign language proficiency. According to the advanced training procedure for pedagogical and scientific workers, approved by the Resolution of the Cabinet of Ministers of Ukraine of 21 August 2019 No. 800 [2], academic staff are obliged to constantly improve their qualifications: develop professional competencies, use information and communication and digital technologies in the educational process. For this purpose, various forms are provided: institutional (full-time (day, evening), part-time, distance, network), dual, on-the-job, in the workplace, at the production site, etc. At present, full-time education is nearly impossible in the frontline areas and given the movement of specialists across Ukraine and abroad. Due to the time and financial constraints, priority is given to high-quality courses that are free of charge, so the "CLIL Methodology" e-course offers a good choice, as it promotes professional growth and the development of digital skills.

2. Literature review

The literature review pertaining to the research's objectives revealed that the majority of articles on online

or remote learning emphasize several key advantages. These include the capacity to maintain employment while pursuing education, a diverse range of available classes, the flexibility to learn at one's own pace, alleviation of traditional classroom anxiety, seamless communication with instructors, and enhancement of time management and self-discipline skills – factors that can contribute to career advancement [3–5].

The authors also indicate that the online form of education has its own problems, connected with the peculiarities of distance education as well as with the peculiarities of the adult audience [6]. They mention such factors as lack of direct contact between student and lecturer or tutor, technical and technological support of online learning, and organizational support of the educational process.

As the course is aimed at individuals eager to boost their professional development, some features of adult students should be taken into consideration when organizing the studying process. Adult learners are characterized by a high level of motivation (the decision to continue their education is made consciously), a focus on learning, a practical approach to education, professional experience as well as knowledge, gained in previous stages of education, predisposition and readiness for independence and critical thinking, a wide range of responsibilities, and a lack of time, which are likely to affect the learning process [7, 8].

All the abovementioned peculiarities and factors were taken into consideration and applied during the working out of the on-line course “CLIL Methodology” in terms of content as well as the forms of tasks presentation.

The choice of the CLIL methodology for the content of the electronic course is determined by the interdisciplinary nature of this approach to education. Its main principles were considered in the works of D. Marsh and other researchers [9, 10]. It involves “subject-language integrated learning”, aimed at educational content obtained by integrating two or more disciplines. CLIL has a number of distinctive features.

The first of them is the integration of a foreign language and professional disciplines. In CLIL, these two elements are intertwined and have the same value, although the emphasis may vary depending on the specific case and model of CLIL [11]. The aim is to develop the knowledge of both elements by teaching content through a foreign language. The second distinguishing feature is the flexibility of CLIL. CLIL models range from thematic language modules to cross-curricular approaches, in which all subject content is taught in a foreign language. CLIL methodology is based on the 5C model – a holistic approach that integrates Content, Communication, Cognition, Community and Competences. CLIL provides learners with a richer natural environment that facilitates effective language learning. Finally, CLIL also stimulates deeper intercultural understanding and better prepares students for internationalization in society.

3. The aim and objectives of the research

The aim of this research is to present the product of the collaboration within the MultiEd project, which

implies the “CLIL Methodology” course implementation within the Ukrainian educational framework, taking into consideration the unique societal needs of the region.

To achieve the goal, the following tasks were set:

1. Describe the stages of development and implementation of “CLIL Methodology” e-course, its content and structural elements.

2. Analyse the results of the participants' testing and evaluation of “CLIL Methodology” e-course based on feedback.

3. Formulate future prospects for the use of the “CLIL Methodology” e-course in teacher training.

4. Materials and methods

The Incremental Model was adopted for developing the “CLIL Methodology” course, involving the division of the project into independent increments. Each increment was separately developed and tested by team members on the Moodle platform. Various technological features available on the platform, such as videos, presentations, open and closed assignments, and the H5P service, were utilized to create interactive learning content. An array of technical resources facilitated the creation of interactive videos with bookmarks, graphics, text, and diverse test formats including matching, sequencing, multiple choice, missing words, and drag-and-drop exercises, along with tasks necessitating detailed written responses.

Information about the “CLIL Methodology” course was shared with educational institutions across Ukraine through the university website, Facebook, and with support from the Ministry of Education and Science of Ukraine. Prospective participants were invited to complete a Google form, providing personal details, such as name, institution, and contact information. Additional information beyond these details was deemed irrelevant, as the course aimed to attract a broad audience interested in CLIL concepts. Applicants (teachers from general secondary education institutions and university professors) were informed about upcoming activities and asked to consent to the use of their personal information for enrollment purposes on the Moodle platform of Zaporizhzhia National University and for research purposes. Hence, applicants willingly granted consent for their abovementioned personal data to be processed, ensuring their rights were respected without infringement.

Those who agreed received a personal letter containing their login details and were granted access to the course using passwords. The e-course was conducted twice: 98 participants were enrolled from March 20 to April 30, 2023, and 96 participants from October 16 to November 6, 2023. Participants experiencing technical difficulties could contact tutors via email during the pre-enrollment period. Once enrolled, participants could communicate with tutors through Moodle, where tutors monitored the learning process and its effectiveness. The Moodle tools were used to conduct qualitative and quantitative analysis in order to calculate the progress and the score of the participants. Course assessment questionnaires were provided on the course page, and anonymous submission was a requirement for course completion.

5. Research results and discussion

Ukrainian and Western European scholars and teachers worked on the creation and implementation of the CLIL Methodology course programme: The Ministry of Education and Science of Ukraine and the Association of English Language Teachers TISOL-Ukraine, members of a consortium of eight Ukrainian universities and three higher education institutions from Estonia, Germany and the UK, throughout 2022 and the early part of 2023. The developers met via Zoom conferences to discuss, test, and adjust the course modules. They also met in person at Narva College of the University of Tartu. The work was supervised by representatives of European universities including Elizabeth Wilander from Aston University, UK, Oleksandra Holovko from Narva College, University of Tartu, Stefanie Witzigmann from Heidelberg University of Education, Susan Garton from Aston University, Anna Golubeva from Narva College, University of Tartu, and Hans-Werner Huneke from Humboldt University of Berlin. The course is primarily presented in Ukrainian to reach a broader audience. However, some materials, such as articles and video presentations, are provided in English, supplemented by an English-Ukrainian glossary.

The CLIL methodology course aims to adapt and implement advanced methods of teaching foreign languages in the educational process in Ukraine. These methods include integrated subject and language teaching, interactive methods, student-centered learning, and communicative language acquisition. The main tasks of the online course are aligned with six practical modules. Each module facilitates immersion in the CLIL methodology and the application of acquired knowledge and advice in the educational process.

Module 1: INTRODUCTION TO CLIL, consists of three parts: Innovative approaches in education; Theoretical background of CLIL; Principles of CLIL. It aims to acquaint the participants with the methodology of integrated teaching of subject and language - CLIL, the main models, European experience.

Module 2. CLIL IN DIFFERENT CONTEXTS, is divided into four parts: CLIL models; Implementation of CLIL methodology at different stages of education; Comparison of models of teaching subjects in a foreign language (ESP vs CLIL vs EMI); Experience of using the CLIL methodology in Estonia. Module 3. MATERIAL DEVELOPMENT, is comprised of two parts: Adaptation of authentic materials and Principles of material development. Module 4. PRACTICAL APPLICATION OF CLIL, comprises five parts: Collaboration in CLIL lessons; Language; Learning with the use of methodological support tools; Structure of a CLIL lesson; Organisation of classroom work. They guide participants to consciously choose and create their own materials in accordance with CLIL requirements. Additionally, they develop the ability to apply ideas, techniques, and tasks in CLIL contexts to achieve specific goals, and teach the application of CLIL methodology in organizing classroom work.

Module 5, ASSESSMENT AND FACILITATION, is divided into two parts: Types of Assessment and Assessment Strategy. It introduces participants to the main types, strategies, and tools of assessment, along with their functions, advantages, and disadvantages.

Additionally, it teaches them to develop and apply a certain type of assessment depending on a particular learning situation.

The final module, Module 6: PLANNING CLIL LESSONS, consists of five parts: Curricula and programmes, Principles of planning CLIL lessons, Stages of planning CLIL lessons, Difficulties in planning CLIL lessons, and Critical reflection in CLIL. It introduces the basic concepts of planning, requirements for curricula, curriculum structure, and the system of presentation of educational material. Furthermore, it teaches participants to use key strategies and principles at different stages of planning CLIL lessons, as well as to find ways to overcome the difficulties of maintaining a balance between content and language.

The authors of the course used all possible technology options available on the platform, including videos and presentations, created by the course developers, open and closed assignments that have been available on the Moodle platform for some time, and the H5P service, which is a relatively new tool for creating interactive learning content. A wide range of technical resources made it possible to create interactive videos with bookmarks, graphics, text, and interactive elements. Additionally, various test questions, such as matching, sequencing, multiple choice, missing words, and drag and drop, were included, as well as tasks that require a detailed written answer.

The e-course was launched twice. The first group (98 participants) was engaged in the e-course from 20 March to 30 April 2023, and the second group (96 participants) from 16 October to 06 November 2023. Pre-enrollment for the course was based on the results of the application, with 145 participants from the first group and 186 from the second group. However, a certain number of participants encountered problems and did not attend the course or did not complete most of the tasks due to obstacles, created by Russian aggression in Ukraine, frequent air alarms, and unstable Internet connectivity. The conditions for generating a certificate stipulated the completion of all tasks (reading materials, completing open and closed forms), achieving 75 % correct answers (participants had several attempts and were not limited in time), and filling in an anonymous course evaluation questionnaire (feedback). Ultimately, 194 participants successfully completed the course program and received certificates of advanced training (30 hours – 1 ECTS credit), including teachers from general secondary education institutions and university professors mainly from Zaporizhzhia and the surrounding region.

An analysis of the course tasks revealed that participants performed better on closed-form tasks, particularly interactive tests, embedded in videos and drag-and-drops. Slightly lower results were observed in matching, sequencing, filling in the blanks in the text, and choosing answers from a set. Participants who completed the task 100 % correctly were categorized as 'excellent,' those scoring 75–100 % were classified as 'good,' and those with 50–74 % were labeled as 'satisfactory.' None of the task types were completed by participants with less than 50%.

Open-ended tasks, including forum commenting and essay writing, had their own specific assessment crite-

ria. The course functioned autonomously. Participants had the opportunity to view responses of other participants on the forums and had to provide their own comments, which was a requirement for completing the task. Essays were automatically assessed based on criteria including the use of keywords and meeting a minimum length requirement. The results were automatically assessed, and some answers were either too stereotypical or overly specific and lacking in information. This aspect can be considered a weakness, as it posed challenges for the course authors to control the course process. However, such creative tasks are nevertheless necessary for skill development and were chosen as integral elements in the system for participants to successfully complete the course.

Upon completing all requirements and tasks, participants filled out an anonymous course evaluation questionnaire (feedback), enabling the course authors to understand its strengths and weaknesses. The questionnaire included four closed-ended ranking questions:

How satisfied are you with the course in general? (1 – completely dissatisfied, 5 – the course met absolutely all expectations);

How logical is the course? (1 – absolutely illogical, 5 – absolutely logical);

Please rate from 1 to 5, to what extent do you believe the course materials will help you better understand modern teaching methods?

On a scale of 1 to 5, how likely are you to recommend this course to your friends and colleagues?

The fifth open-ended question asked the participants to write their impressions of the course. The majority of respondents expressed the opinion that the course was an interesting, informative, and useful professional development course that they would use in the future in their professional activities. They noted that it contributed to updating their knowledge, improving skills, and stimulating professional growth. Additionally, they also mentioned that while it was somewhat difficult to complete practical tasks while working with the subject material, the course provided an opportunity to experience the challenges of implementing the CLIL methodology and served as an incentive for self-improvement and self-realization. Subject teachers positively evaluated the various examples of CLIL implementation and recognized the need to improve their foreign language skills to effectively implement the methodology in the classroom. Furthermore, the teachers expressed gratitude to the course developers for the interactive exercises, the opportunity to deepen their knowledge of the topic, and the flexibility to take the course at their own pace.

Among the disadvantages, it was noted that it took much longer than the 30 hours to complete the course materials. Additionally, the course covers a wide range of material, and some tasks require additional information outside the course, while others are designed for specialists. Respondents also mentioned the difficulty for teachers with insufficient technical skills and English proficiency to navigate tasks, listen to English-language videos, and answer questions. They suggested that clear instructions are needed, and simply providing a glossary and translation is not sufficient. However, participants positively assessed the opportunity to improve their professional skills. They suggested organizing combined in-

service training courses, integrating the course for independent work.

Practical Relevance. This research delves into the implementation outcomes of the e-course "CLIL Methodology," designed to cultivate practical teaching skills. The course modules are meticulously structured to furnish educators with a foundational theoretical understanding, equipping them with a repertoire of methods and techniques necessary for imparting appropriate skills to their students. The integration of subject-specific knowledge and language proficiency is a key focus, ensuring a comprehensive approach to practical pedagogy.

Research limitations. While the e-course "CLIL Methodology" was developed by a multinational team, this research primarily focuses on the Ukrainian teaching community, considering their unique needs and educational requirements. Consequently, the findings may be perceived as subjective, as they rely on feedback from a specific sample of respondents within this context.

The impact of martial law conditions. During the outbreak of full-scale war, the MultiEd team faced significant challenges. The project initially required face-to-face meetings of the consortium for the creation and testing of the course. However, the presence of occupied territories, constant danger, air alerts, and the displacement of scientific and pedagogical staff greatly disrupted these plans. As a result, the majority of the work was conducted online under force majeure conditions. The team only convened in person to finalize the product, while testing and improvement were carried out remotely.

Prospects for further research. The CLIL Methodology course appears to effectively address contemporary needs, fostering professional advancement and digital skill development. Evaluation of participant outcomes and feedback suggests that integrating the course into a blended learning framework could amplify its efficacy. Establishing direct channels of communication with course creators promises to address technical challenges and deepen methodological understanding among participants. Moreover, there is potential for creating tailored materials for subject instructors utilizing CLIL Methodology, with a focus on leveraging advanced technologies and bolstering English language proficiency among both educators and learners.

6. Conclusions

The research highlights that the collaborative effort within the MultiEd project has resulted in the creation of the online course "CLIL Methodology," which addresses the needs of Ukrainian society by providing opportunities for teachers' professional development while enhancing foreign language proficiency and digital skills. Thus, we can come to the following conclusions:

1. The developmental stages and implementation process of the "CLIL Methodology" e-course, including its content and structural components, described in the article, were successful and rewarding. The Incremental Model, used in the development, ensured compatibility among course increments and flexibility in the final product.

2. The study was conducted at Zaporizhzhia National University, with 194 participants – subject teachers

from secondary schools – taking part in the experiment. Despite the challenging backdrop of war conditions, 331 participants demonstrated remarkable commitment by enrolling in and 194 successfully completing the course achieving 75 % correct answers.

Their valuable feedback highlights the course's strengths and offers constructive criticism for addressing any shortcomings and further enhancing its quality. The study underscores the pressing demand for such courses, which cater to the needs of Ukrainian educational communities and play a pivotal role in Ukraine's European integration.

3. The outlined future prospects for utilizing the "CLIL Methodology" e-course in teacher training offer practical ideas for implementation and the extension of results into professional settings, promoting integrated content and language learning.

Conflict of interest

The authors declare that they have no conflict of interest in relation to this research, whether financial, personal, authorship or otherwise, that could affect the research and its results, presented in this paper.

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Data availability

Manuscript has no associated data

Use of artificial intelligence

The authors confirm that they did not use artificial intelligence technologies when creating the current work.

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