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The Issues and Challenges of CLIL Implementation in Higher Education: Teachers' Beliefs in the Ukrainian Context

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ABSTRACT
The purpose of CLIL in higher education is to increase the level of students' both professional knowledge and foreign language competence. While implementing CLIL, it is important to take into account teachers' beliefs on a point, since they can either accelerate or inhibit the CLIL effectiveness. The purpose of the research is to study the Ukrainian teachers' beliefs, motivation and ideas concerning the implementation of the CLIL approach in the Ukrainian higher education. The theoretical and methodological basis of research was formed on comprehensive analysis of literature sources. The experimental work included: 1) obtaining the research data (a survey was conducted in which more than 160 teachers from different universities of Ukraine took part); 2) analyzing the obtained data statistically (conjugation tables, asymptotic approximation method, and Pearson's statistical criterion $\chi 2$ were used); 3) identifying influential factors in the CLIL implementation (factor analysis was used). The analysis shows there is relationship between the teachers' subject background and their beliefs on the CLIL appropriateness. The study disproves the influence of the teachers' pedagogical experience on their views on the CLIL implementation. These findings are confirmed by a factor analysis indicating the importance of appropriate learning materials for CLIL, teachers' specialty, their professional preferences, the importance of flexibility in choosing the CLIL strategy, depending on students' content knowledge and language skills. The study indicates challenges for the efficient CLIL implementation, and the directions for the change of teachers' motivation regarding the importance of CLIL for modern Ukrainian students.

Keywords: CLIL implementation, teachers' beliefs, factor analysis, conjugation tables.

INTRODUCTION

To be successful and competitive in the 21st century, the future professionals need to be involved in lifelong learning, should have thorough professional knowledge, master socio-psychological skills, and the ability to communicate effectively in native and foreign languages (21st Century Competencies: Foundation Document for Discussion. Phase 1: Towards Defining 21st Century Competencies for Ontario, 2016). These requirements are associated with the processes of globalization and integration (Ruiz de Zarobe & Ceno, 2015), which are increasingly deepening in modern society. One of the ways to ensure the quality of both professional and foreign language training is Content-Based Instruction / Content and Language Integrated Learning (CBI/CLIL) (Ruiz de Zarobe, & Ceno, 2015; Darn, 2006). This path was chosen, in particular, by the countries of the European Community (Darn, 2006; Coyle, 2007). The reason for this is many minority language students, immigrants, the second or additional languages at schools (Cenoz, & Ruiz de Zarobe, 2015). CLIL and CBI are often considered (Cenoz, 2015, p. 6) as two labels for the same reality. CLIL is the most popular term in Europe, and CBI in the USA and Canada (Cenoz, 2015). CBI/CLIL in different countries is used at different levels of education (Gardella, & Tong, 1999), at different initiatives (Laborde, 1990), and studied in different directions (Dalton-Puffer, & Smit, 2013) as part of a joint project or a separate experimental implementation option (Thai, Phan, Nguyen, & Le, 2020).

CLIL at the level of higher education has its own features (Taillefer, 2013), namely: 1) active involvement of students in education with an emphasis on interactive teaching methods; 2) application of problem-based and project-based learning; 3) didactically balanced combination of methods to teach professional content and a foreign language; 4) persistent cooperation of subject teachers and foreign language teachers at all stages of the didactic cycle (definition, formulation and acquaintance of students with the expected learning outcomes in the context of professional and foreign language training, conducting their own learning, evaluating its results in professional and foreign language component).

Ukrainian researchers join the study of the essence and importance of CLIL (Voitkevych, 2012; Mirkovych, 2014; Korotiayeva, 2018), the peculiarities of the implementation of this approach in higher education (Efendiyeva, 2016; Mirkovych, 2014), while analyzing European and world experience in implementing CLIL (Efendiyeva, 2016), outlining the levels of integration of this process, choosing the strategy and tactics of teaching at different stages of higher education (Korotiayeva, 2018), focusing on the problems of prerequisites and preparatory stages of implementing CLIL (Tarasenkova, Akulenko, Kulish, & Nekoz, 2020). Ukrainian scientists also implement this approach, participate in joint projects, investigate the preconditions, favourable and inhibitory factors, positive results and reservations of CLIL (similar to results obtained by Meyer, Coyle, Halbach, Schuck, & Ting, 2015).

Like other teaching approaches and methods, CBI/CLIL has its advantages and disadvantages. Czech researchers (Wossala, Laitochová, Nocar, & Janská, 2013) consider that one of the main disadvantages is the high level of requirements for implementing CLIL. Prerequisites for implementing the CLIL approach include (Wossala, Laitochová, Nocar, & Janská, 2013): language skills of subject teachers and subject skills of language teachers; additional design of educational materials; special teachers' training for the CLIL implementation. Another disadvantage is the risk of demotivation of students. Typically, if a student had problems with certain subjects taught in the native language, it is doubtful that the learning outcome will be more successful in the combination with a foreign language. If a student has some difficulty with English, he will find it too difficult to combine subjects and English. Karabassova (2020) suggests that teachers' insufficient English language proficiency and the lack of educational tools were major challenges for practicing CLIL. When teachers are not ready to this situation, they share their responsibilities with their students who have foreign language proficiency.

Experience proves that students' and teachers' beliefs on a point can either accelerate or inhibit CBI/CLIL. They should be monitored and responded to accordingly. The study (Villabona, & Cenoz, 2021) examines teachers' beliefs and practices regarding CLIL by comparing a teacher with a language background and a teacher with a subject background. Despite a profound conclusion that the dual-focus on content and language is challenging and hard to achieve, their research has a strong limitation. Researchers analyze only two teachers' beliefs. With such a small sample, their findings cannot be generalized (Villabona, & Cenoz, 2021). The study in Hong Kong (Lo, 2019) implemented a 6-month professional development programme for a group of content subject teachers in CLIL. With data gathered with questionnaires, interviews, lesson observations and post-lesson reflections, the researcher studied the trajectory of changes in content teachers' beliefs and language awareness that could be explained by the influence of such factors as school context, learning experience and subject itself. Finnish researchers (Pappa, Moate, Ruohotie-Lyhty, & Eteläpelto, 2019) focus on the resources and tensions that respectively support or limit the professional agency of CLIL teachers working in Finnish primary schools. Serbian researchers (Lazarević, 2019) explore subject teachers' views on teaching natural sciences in English, as well as how different teaching philosophies and school atmosphere may influence their work in bilingual science classes. Using an example from the Netherlands, Dale, Oostdam & Verspoor (2021) explore the beliefs and practices of language teachers in bilingual settings. Researchers from Vietnam (Pham, & Unaldi, 2021) investigate multiple aspects of cross-curricular collaboration in the Vietnamese CLIL program, including teachers' beliefs about pedagogic roles, professional support provided, and actual cross-curricular collaboration implemented. German experts (Siepmann, Rumlich, Matz, & Römhild, 2021) explore how teachers and students percept and view differentiation and diversity-sensitive CLIL classroom practices in North Rhine-Westphalia, Germany.

However, despite the multifaceted focus of scientific research on CLIL, the problem of analyzing the teachers' perceptions, beliefs and value-based attitude to the CLIL's implementation in higher education, was and remains relevant.

Context

In Ukrainian universities, one of the main problems of CLIL is the foreign language proficiency level of university applicants, since they pass through quite different educational programs of learning foreign language at school (including in-depth learning). The Ministry of Education and Science of Ukraine developed and approved the Concept of English Language Development in the Ukrainian Universities (2019). The document provides an incentive of the English medium instruction of professional disciplines in higher education and the organization of language courses to improve English proficiency. The purpose of these changes is to perfect

teaching/learning English at the Bachelor's degree level. To improve the situation, the concept stipulates that by 2023, English proficiency at B1 will be required when applying for a Bachelor's degree in Ukraine. The External examination in a foreign language applying for a Master's degree is mandatory nowadays. Based on this state-level document, a draft concept for the study of foreign languages is being developed at Bohdan Khmelnitsky National University of Cherkasy.

MATERIALS AND METHODS

Since the efficiency of the CLIL implementation in higher education depends on a number of facts involving specific content of subjects, English proficiency, teachers' beliefs, practices, motivation, etc., the purpose of the research is to study the Ukrainian teachers' beliefs, motivation and ideas concerning the implementation of the CLIL approach in the higher education of Ukraine. The research questions were: 1) whether the views of subject teachers on CLIL differ significantly; 2) what are the influential factors in the CLIL implementation.

The theoretical and methodological basis of research was formed on comprehensive analysis of literature sources on the research theme. The experimental work included: 1) obtaining the research data (a survey was conducted in which more than 160 teachers from different universities of Ukraine took part); 2) analyzing the obtained data statistically using SPSS 23.0 (conjugation tables, asymptotic approximation method, and Pearson's statistical criterion $\chi 2$ were used); 3) identifying influential factors in the CLIL implementation (factor analysis was used).

RESULTS

Teachers of various disciplines, particularly, social sciences and humanities (SSH Teachers) (61), physics and mathematics (PM Teachers) (40), natural sciences (NS Teachers) (10) and foreign languages (FL Teachers) (49), joined the survey. The survey participants have different pedagogical experience (Fig. 1).

The results of the survey show, that more than half of teachers (63.6%) consider CLIL to be appropriate in higher education. At the same time, 12.3% of teachers do not think so, and 24.1% of respondents have doubts on a point.

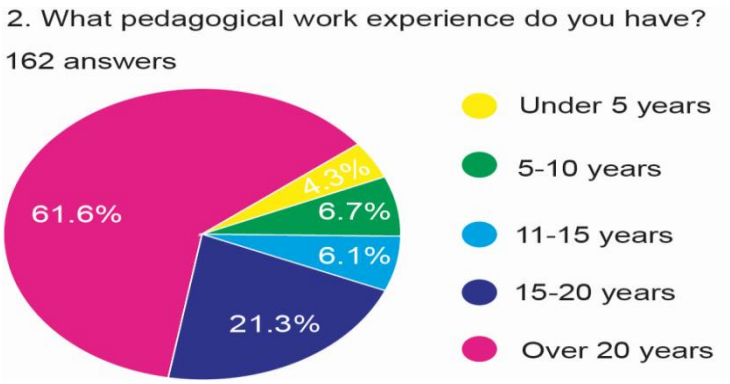

Fig.1: Pedagogical work experience

One third of teachers (32.1%) believe that CLIL in higher education should be implemented in teaching of several disciplines. 25.2% of teachers believe that it should be used only to study a separate topic of a subject, and 23.9% - one subject. Only 15.7% of respondents consider it appropriate to apply this approach to the study of a separate module of a subject.

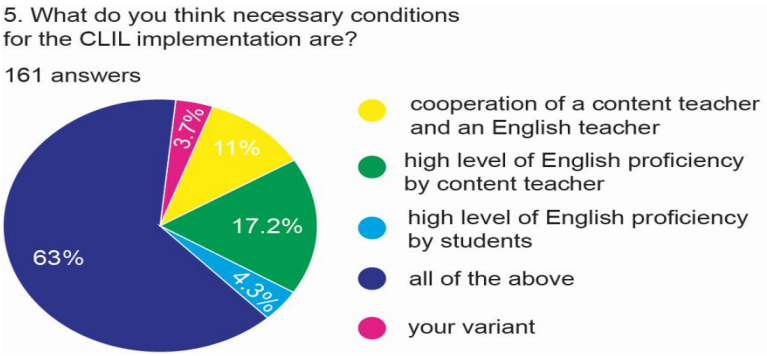

Fig.2: Necessary conditions for the CLIL implementation

More than half of teachers (63.4%) consider the cooperation of a content driven teacher and a foreign language driven teacher to be necessary for CLIL (Fig. 2).
A small percentage of teachers stand for mandatory status of the CLIL discipline, the rest of the teachers believe that the subject should be either elective (42.5%) or any option is possible (46.3%).
Opinions of teachers vary on the appropriate academic year of learning the CLIL discipline at the university. In particular, more teachers (31.1%) tend to implement it in the 3rd year of the Bachelor's degree level and at the Master's level of higher education (29.2%) (Fig. 3).

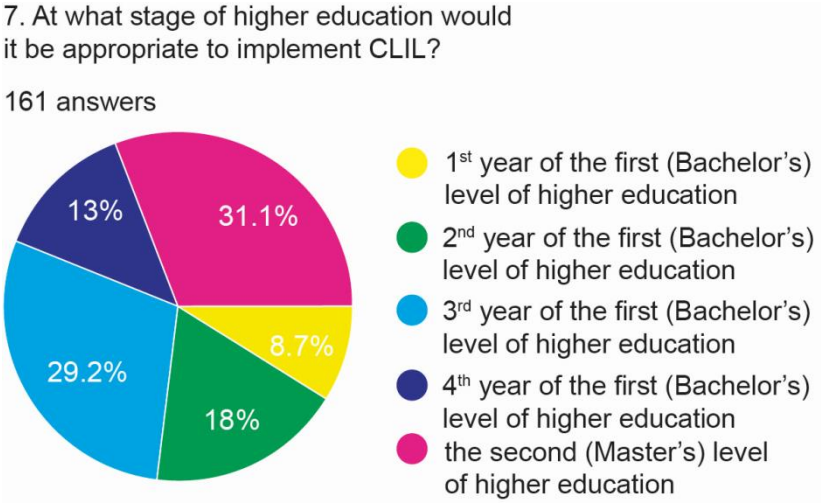

Fig.3: The appropriate stage of higher education to implement CLIL

Although teachers' opinions vary on their competence in developing a syllabus/programme of the CLIL course, most teachers believe that they could do it in cooperation with a foreign language teacher (33.8%), independently (21.3%), in cooperation with a teacher of professional discipline (16.9%). It should be noted that 11.3% of teachers do not consider it possible to design a syllabus/programme of a course, and 16.9% of respondents cannot decide on the answer.
Opinions of teachers vary on the learning materials design. Almost the same percentage of teachers answer negatively and uncertainly, but half of the teachers believe that they could design learning materials in collaboration with colleagues (Fig. 4).

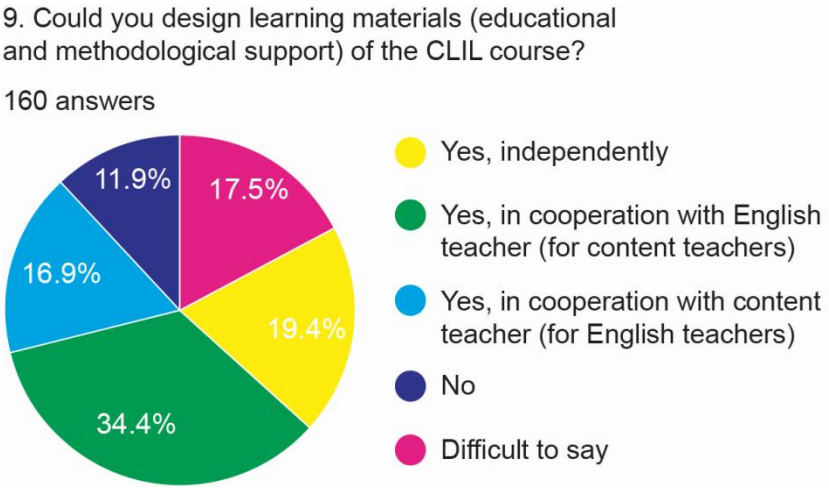

Fig.4: Possibility of learning material design of the CLIL course

The study of teachers' opinion on the form of the CLIL class organization shows that more than half of teachers consider different organizational forms to be possible (56.6%), and a third of teachers consider practical classes to be appropriate (Fig. 5).

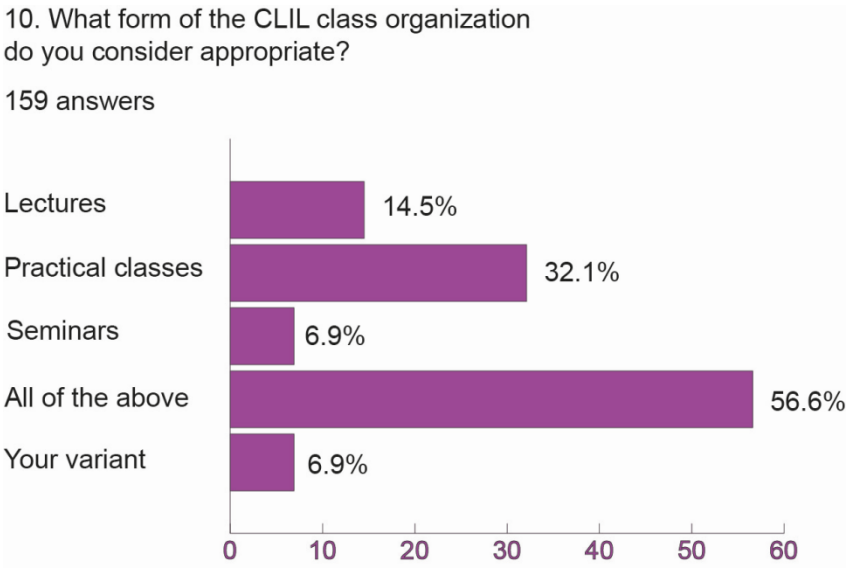

Fig.5:Appropriate form of the CLIL class organization

Thus, despite the small percentage of teachers who do not consider it appropriate to implement CLIL or cannot decide on the answer, most teachers are interested in this approach, consider it appropriate and ready to apply it either independently or in collaboration with colleagues.

For a more detailed analysis of the survey results, several statistical methods of data processing were used. Since the variables take on nominal values, conjugation tables were used for identification the connections between them. Pearson's criterion $\chi 2$ was used to analyze the relationships, since the values of the frequencies of the input variables exceeded 5.

The analysis shows there is a moderate relationship between teaches' subject background and the following indicators: 1) whether he/she considers it appropriate to implement CLIL (coefficient of conjugation 0.402 at the level of significance $p \leq 0.01$, Pearson's criterion $\chi 2$ value 30.998^a at the level of Asympotic 2-sided significance $p \leq 0.01$); 2) how he/she sees the most appropriate form of CLIL (coefficient of conjugation 0.349 at the level of significance $p \leq 0.05$, Pearson's criterion $\chi 2$ value 22.344^a at the level of Asympotic 2-sided significance $p \leq 0.034$). The greatest interest was expressed by FL and PM Teachers (23.6% and 21.7%); the least – NS Teachers (4.3%). Among SSH Teachers, most did not decide on the issue (14.9%).

The conclusion about the relationship between teaches' subject background and necessary conditions for the CLIL implementation (conjugation coefficient of 0.310 at the level of significance $p = 0.15 \geq 0.1$) is statistically insignificant. This conclusion can be drawn with a probability of 85%.

The analysis shows there is a more pronounced statistically significant relationship between the discipline in which the educator teaches, and the educator's ideas about: 1) when it is advisable to organize CLIL (coefficient of conjugation 0.437 at the level of significance $p \leq 0.01$, Pearson's criterion $\chi 2$ value 37.755^a at the level of Asympotic 2-sided significance $p \leq 0.01$); 2) how he/she assesses his/her ability to develop a syllabus/programme of the CLIL course(coefficient of conjugation 0.580 at the level of significance $p \leq 0.01$, Pearson's criterion $\chi 2$ value 81.193^a at the level of Asympotic 2-sided significance $p \leq 0.01$); 3) how he/she assesses his/her ability to design learning materials for CLIL (coefficient of conjugation 0.559 at the level of significance $p \leq 0.01$, Pearson's criterion $\chi 2$ value 72.589^a at the level of Asympotic 2-sided significance $p \leq 0.01$). Approximately the same number (in%) of FL and PM teachers believe that the best time to implement CLIL is the 3d year of undergraduate courses, SSH and NS Teachers prefer a Master's degree course. SSH Teachers (8.1%) were the most confident in their ability to develop a syllabus of integrated discipline even without outside help, but among SSH Teachers, there was the largest percentage of those who showed despair in this ability (6.9%). Teachers in other disciplines showed more restraint in assessing their ability hoping for help from colleagues. Approximately all teachers evaluated their ability to develop learning materials evenly relying on the help of colleagues.

An additional focus of the study is the question: whether teachers' self-assessment of their ability to create learning materials for CLIL depends on their teaching experience. The assumption that the teacher's pedagogical experience is an important factor in his/her self-assessment of his/her own ability to design learning materials for the CLIL course was not confirmed (coefficient of conjugation 0.336 at the level of significance $p = 0.199 \geq 0.01$, Pearson's criterion $\chi 2$ value 20.489^a at the level of Asympotic 2-sided significance $p = 0.199 \geq 0.01$).

Nevertheless, 70.3% of teachers indicate their ability to design learning materials to provide CLIL

independently or in collaboration with colleagues; therefore, the problem of providing didactically balanced and scientifically sound recommendations for them is relevant. Researchers (Nikula, Dafouz, Moore, & Smit, 2016) have similar ideas emphasizing three intersecting perspectives concerning curriculum and pedagogical planning, participant perceptions and classroom practices.

Factor analysis

In order to identify the structure of the relationships of variables obtained during the survey (Table 1), we calculated the correlations (r-Spearman) for each pair of variables, and presented them in the form of a correlation matrix (Table 1-2).

Table 1:Designation of variables

Variable	The content of the variable
v_1	Subject teaching experience
v_2	Teaching experience period
v_3	CLIL appropriateness
v_4	Appropriate CLIL variant (CLIL module, CLIL course)
v_5	Necessary conditions for the CLIL use
v_6	The CLIL discipline status
v_7	Optimal semester for the CLIL course
v_8	Teacher's ability to develop a syllabus (programme) of the CLIL course
v_9	Teacher's ability to design learning materials for the CLIL course
v_{10}	Appropriate forms of organizing classes for the CLIL course

Table 2: Correlation Matrix

		v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1	v_1
Correlation	v_1	1.000	.021	–.034	.018	–.077	.112	.143	–.057	–.020	.218
	v_2	.021	1.000	–.130	.119	–.097	.007	.101	.045	–.010	.018
	v_3	–.034	–.130	1.000	–.267	–.046	–.153	.245	.041	.097	–.144
	v_4	.018	.119	–.267	1.000	.090	.101	–.141	.021	.070	.095
	v_5	–.077	–.097	–.046	.090	1.000	.028	–.040	.041	.051	–.078
	v_6	.112	.007	–.153	.101	.028	1.000	–.039	.073	.116	.050
	v_7	.143	.101	.245	–.141	–.040	–.039	1.000	.021	.003	–.017
	v_8	–.057	.045	.041	.021	.041	.073	.021	1.000	.807	–.040
	v_9	–.020	–.010	.097	.070	.051	.116	.003	.807	1.000	.047
	v_{10}	.218	.018	.144	.095	–.078	.050	–.017	–.040	.047	1.000

Factor analysis was performed to identify explicit and implicit links between the influencing factors that accompany CLIL.

The following main tasks of factor analysis are formulated: 1) to investigate the structures of relationships of existing variables; 2) identification of factors; 3) calculation of factor values as new, integral variables. The

obtained numerical value (0.496) of the Kaiser-Meyer-Olkin sample adequacy measure (0.496) demonstrates sufficient compliance of the sample data for factor analysis. Bartlett's sphericity criterion indicates a statistically significant result, since the correlations between the variables differ significantly from 0.
Table 3 shows the names of variables and the results of grouping (community).

Table 3: Communities

	Names of variables	incoming	obtained
v_1	Subject teaching experience	1.000	0.626
v_2	Teaching experience period	1.000	0.791
v_3	CLIL appropriateness	1.000	0.601
v_4	Appropriate CLIL variant (CLIL module. CLIL course)	1.000	0.470
v_5	Necessary conditions for the CLIL use	1.000	0.303
v_6	The CLIL discipline status	1.000	0.300
v_7	Optimal semester for the CLIL course	1.000	0.501
v_8	Teacher's ability to develop a syllabus (programme) of the CLIL course	1.000	0.885
v_9	Teacher's ability to design learning materials for the CLIL course	1.000	0.898
v_{10}	Appropriate forms of organizing classes for the CLIL course	1.000	0.474
	Factors extraction method. The method of principal components.		

Table 4 shows the characteristics of the selected factors: the serial number, the sum of the squares of the loads, the percentage of the total variance due to the factor, the corresponding cumulative percentage before and after rotation.

Table 4. Total Variance Explained

Variables	Initial Eigenvalues			Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
v_1	1.848	18.480	18.480	1.848	18.480	18.480	1.845	18.453	18.453
v_2	1.586	15.857	34.337	1.586	15.857	34.337	1.531	15.314	33.768
v_3	1.333	13.326	47.663	1.333	13.326	47.663	1.303	13.032	46.799
v_4	1.084	10.837	58.499	1.084	10.837	58.499	1.170	11.700	58.499
v_5	0.986	9.855	68.354						
v_6	0.914	9.138	77.492						
v_7	0.741	7.412	84.905						
v_8	0.708	7.078	91.983						
v_9	0.623	6.229	98.212						
v_{10}	0.179	1.788	100.000						

Fig. 6 presents a graph of eigenvalues illustrating the selected factors before rotation. Table 5 shows the matrix of factor loads after rotation. Principal component analysis and rotation method (Varimax with Kaiser normalization) were used.

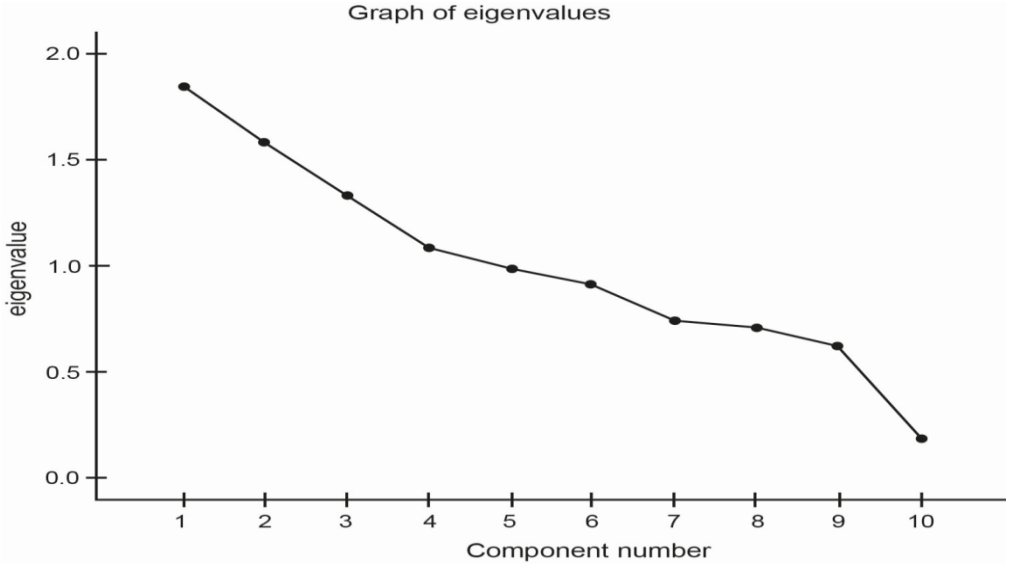

Fig.6:Graph of eigenvalues of components (variables).

Table 5. Rotated Component Matrix[a]

variables	The content of the variable	Components			
		1	2	3	4
v_1	Subject teaching experience (SSH Teacher. PM Teacher. NS Teacher. FL Teacher)			.765	
v_2	Teaching experience duration				.819
v_3	CLIL appropriateness		–.752		
v_4	Appropriate CLIL variant (CLIL module. CLIL course)		.673		
v_5	Necessary conditions for the CLIL use				–.500
v_6	The CLIL discipline status			.417	
v_7	Optimal semester for the CLIL course (discipline)		–.534		.438
v_8	Teacher's ability to develop a syllabus (programme) of the CLIL course	.940			
v_9	Teacher's ability to design learning materials for the CLIL course	.944			
v_{10}	Appropriate forms of organizing classes for the CLIL course			.670	

DISCUSSION

The factor analysis allows us to identify 4 influential factors in the CLIL implementation.

Factor 1 combines the variables v_8 "Teacher's ability to develop a syllabus/programme of the CLIL course" and v_9 "Teacher's ability to design learning materials for the CLIL course". The load factors of the variables in the factor (0.940 and 0.944 respectively) indicate the extreme importance of learning materials for educational and methodological support of CLIL. These results are consistent with the position of Mehisto (2012). Training materials traditionally "reinforce" each stage of the didactic cycle. Certain components of learning materials are purely structurally invariant for both learning professional content and a foreign language. They usually contain components designed for students and a teacher (lecturer). However, some components of educational materials are typical only for teaching foreign languages (audio files for listening to texts, video materials in a foreign language, etc.). Learning materials for the study of professional disciplines do not contain them. However, they

should be involved for CLIL as they provide listening training activities. Lexical and grammatical materials are of particular importance; they provide the formation of students' speech skills. However, we should not limit ourselves the materials that provide only linguistic training of students, since researchers confirm the participation of foreign languages, native language and professional content in the CLIL approach (Mehisto, 2012). We think, factor 3 indicates this.

Factor 2 is quite unexpected, and reveals a deep trend, namely, the contradiction between the public order for the integration of students' professional knowledge and foreign language skills, and the internal teachers' attitude to the inexpediency of CLIL. Public and personal appear in conflict. Teachers, not seeing the expediency in the CLIL implementation, not perceiving its value, having a negative attitude (load factor of the variable v_3 "CLIL appropriateness" shows the value – 0.752), are "forced" to choose a certain option for its implementation (load factor of the variable v_4 "Appropriate CLIL variant (CLIL module. CLIL course)" has a value of 0.673). Therefore, it does not matter to them at which stage of higher education, with which contingent of students it is better to implement CLIL (load factor of the variable v_7 "Optimal semester for the CLIL course" is – 0.534). This factor indicates the inhibitory factors of CLIL, as well as the potential of additional work with teachers to change their values regarding the importance of CLIL for modern students. This work should be comprehensive, motivate, create preconditions for external motivation leading to transformations in the teachers' internal motivation. Our opinion agrees with the opinion of researchers (Wossala, Laitochová, Nocar, Janská, 2013), that such problems can be solved by creating positive motivation and changing stereotypes in teachers' beliefs.

Factor 3 combines the variables v_1 "Subject teaching experience", (load factor of the variable on the factor is 0.765), v_6. "The CLIL discipline status" (the load factor of the variable on the factor is 0.417) and v_{10} "Appropriate forms of organizing classes for the CLIL course" (load factor of the variable on the factor is 0.670). This factor indicates the need to take into account the teachers' subject background, their professional preferences, professional specialty orientation in CLIL. Consequently, the educational process itself on the basis of CLIL acquires a professional orientation for students. Forms of its organization should take into account more acceptable and familiar ones to applicants for a particular profession.

Factor 4 makes it possible to record deep, non-obvious, hidden characteristic of teachers' value-based attitudes towards CLIL, namely, the importance of flexibility in choosing an integrated learning strategy, primarily depending on the students contingent (the load factor of the variable v_7 "Optimal semester for the CLIL course" by a factor is 0.438). At the same time, it points out that the teacher builds an appropriate CLIL strategy regardless of cooperation with content teachers (for foreign language teachers) or foreign language teachers (for content teachers), or students having a high level of foreign language proficiency, the content teacher speaking a foreign language fluently (load factor of the variable v_5 "Necessary conditions for the CLIL use" by a factor is – 0.500). And these characteristics of the value-based attitude of teachers depend on the experience of their work (the load factor of the variable v_2 "Teaching experience period" by a factor is 0.819).

CONCLUSIONS

Our research proves that the teachers' beliefs on CLIL can either accelerate or inhibit its implementation. They should be monitored and responded to accordingly. The findings of researchers (Villabona & Cenoz, 2021) also argue that "the integration of language and content can be influenced by the specific content subjects, teachers' beliefs, practices and awareness, and also by the teachers' and students' level of English".

Summarizing the results of the study, we note there is a moderate relationship between what discipline the educator teaches and whether he / she considers it appropriate to implement CLIL. FL teachers, PM teachers, NS teachers show the greatest confidence in the expediency of the CLIL implementation, SSH teachers have the lowest indicator of confidence. Almost a third of teachers do not have a formed view on the CLIL issues. This result, in our opinion, is consistent with the results of research (Wossala, Laitochová, Nocar, & Janská, 2013; Karabassova, 2020). However, those teachers who have decided on their attitude to CLIL, consider it to be appropriate in higher education. The hypothesis of the influence of the teaching experience duration on the teachers' value-based attitude to the CLIL implementation has not found statistically significant confirmation.

Generally, most teachers are interested in CLIL; consider it appropriate and demonstrate readiness to apply it either independently or in collaboration with colleagues. This opinion of teachers confirms the ideas of researchers (Surmont, Struys, Noort, & Craen, 2016) on the positive impact of CLIL on improving the level of both content and language competence.

Our study also finds there is a moderate relationship between teachers' content background and how he/she sees the most appropriate form of the CLIL implementation. Most FL teachers and PM teachers consider the most acceptable option to study one or more disciplines on the basis of CLIL. While NS teachers and SSH teachers set existing limitations for CLIL and prefer to study either one topic or one content module within one discipline using the CLIL approach. Teachers' ideas concerning the CLIL course status vary from mandatory discipline to elective one.

Our research shows there is a more pronounced statistically significant relationship between teachers' subject background, and the educator's ideas about the stage of higher education when it is advisable to organize CLIL. FL teachers, PM teachers indicate the feasibility of the CLIL implementation in the 3rd or 4th year of Bachelor's degree. In general, most teachers consider the appropriate academic year for the CLIL implementation to be the 3rd year of the Bachelor's degree level and the Master's level of higher education. It is worth noting that the views of FL teachers and PM teachers on the above aspects of CLIL are often similar.

The most unanimous are the views of all subject teachers on the problem of interpersonal interaction and cooperation in the CLIL implementation. Most teachers consider the cooperation with a subject/language teacher to be a necessary condition for the CLIL implementation. In this case, our research results coincide with the researchers' (Graaff, Koopman, Anikina, & Westhoff, 2007) opinion, that the main reason for this is the lack of professional background in content pedagogy for language teachers and language pedagogy for content teachers.

Nevertheless, there is a more pronounced statistically significant relationship between the teachers' content background, and the educator's ideas about how he/she assesses his/her ability to develop a syllabus/programme or learning materials for CLIL. Most teachers of all disciplines indicate their ability to design learning materials in order to provide CLIL and believe they could design a syllabus and other learning materials for the CLIL course independently or in collaboration with colleagues. Researchers (Nikula, Dafouz, Moore, Smit, 2016) have similar ideas emphasizing three intersecting perspectives concerning curriculum and pedagogical planning, participant perceptions and classroom practices. Therefore, the problem of providing didactically balanced and scientifically sound recommendations for them is relevant.

These findings are confirmed by a factor analysis based on the results of the survey. It indicates the extreme importance of learning materials for educational and methodological support of CLIL, the need to take into account the specialty of teachers, their professional preferences, specialty orientation in CLIL, the value of flexibility in choosing an integrated learning strategy, primarily depending on the contingent of students covered by it. Factor analysis also indicates that in the context of Ukrainian realities, teachers, not seeing the expediency in the CLIL implementation, not perceiving its value, having a negative attitude, are "forced" to choose a certain option for its implementation. This indicates the potential of additional motivation of teachers to change their values regarding the importance of CLIL for modern students. This work, in our opinion, should be comprehensive, motivate, create preconditions for external motivation leading to transformations in the internal motivation of teachers.

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