

INTEGRATING INTERCULTURAL COMMUNICATIVE COMPETENCE INTO TERTIARY EDUCATION FOR SUSTAINABLE DEVELOPMENT: A COIL PROJECT-BASED PERSPECTIVE

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Abstract. Current trends in tertiary education reflect the importance of Intercultural Communicative Competence (ICC) for the globalized job market. In this research, using a mixed-methods approach, we investigated the influence Intercultural Communicative Competence has on students' performance within a Collaborative Online International Learning (COIL) project. We also explored students' views on how participating in Collaborative Online International Learning (COIL) project helps them develop their Intercultural Communicative Competence. This study took place in an authentic educational setting of a COIL project with 44 student participants from Vasyl Stefanyk Carpathian National University (Ukraine) and the University of Applied Sciences Landshut (Germany). The research applied two complementary questionnaires to assess students' prior knowledge of ICC, identify specific aspects of their intercultural teamwork, and examine the challenges they faced during the project as well as the strategies employed to overcome them.

The findings revealed the benefits of using Content and Language Integrated Learning (CLIL) to enhance the process of students' Intercultural Communicative Competence development through COIL projects. Furthermore, a cognitive-pragmatic perspective allowed us to analyse how students' Intercultural Communicative Competence development fostered the acquisition of sustainable educational outcomes. The obtained results signified the objectification of students' skills essential for responsible global citizenship, as well as a range of transferable competencies, including critical thinking, cultural sensitivity, adaptability, and effective communication. Consequently, the scientific novelty of this research is the empirical confirmation of an interconnected model in which Collaborative Online International Learning, Content and Language Integrated Learning, and Intercultural Communicative Competence development dynamically interact to promote Education for Sustainable Development (ESD) applying the foundations of cognitive pragmatics.

Keywords: Intercultural Communicative Competence (ICC), Content and Language Integrated Learning (CLIL), Collaborative Online International Learning (COIL) project, tertiary education, Education for Sustainable Development (ESD).

1. INTRODUCTION

Globalization processes in the modern world, the focus on the United Nations' Sustainable Development Goals, availability of AI, and other dynamic evolutionary changes in all the professional spheres of human life lead us to the urgent need for new approaches in the system of tertiary education. As future professionals, students need to develop Intercultural Communicative Competence (ICC) to collaborate effectively in international teams, and to acquire the knowledge and skills necessary for sustainable development and lifelong learning in their respective fields.

Importance and effective methods of ICC development in the EFL classroom occupy one of the key

positions in the field of methodological studies and were investigated by Cetinavci (2012) and Huang (2021). Shiri (2015) explored the impact of intensive language programs in foreign countries on the development and maintenance of Intercultural Communicative Competence (ICC) among learners. De Hei et al. (2020) studied the impact of collaborative learning in international higher education on the development of intercultural competence. Liang & Scharfner (2020), using the Multicultural Personality Questionnaire, investigated students' ICC development in culturally mixed group work. The development of Intercultural Communicative Competence through Content and Language Integrated Learning (CLIL) was investigated by Montaña-Acosta (2025).

In the era of technology, students have an opportunity to interact with international partners through Collaborative Online International Learning (COIL) projects. They are an excellent innovative tool for ICC development which was studied by Blumthal, et al. (2022), Hackett, et al. (2023), Erez, et al. (2013), Naicker, et al. (2021), Vahed & Rodriguez (2020) and others.

Nevertheless, the full range of possibilities provided by the use of COIL projects for the sustainable development of students' Intercultural Communicative Competence has not been investigated, as well as the sustainable role students' ICC plays in their performance within COIL projects. In this article we investigate the influence of students' ICC on their work in international projects. We postulated the two major interdependent and complementary hypotheses: 'Students' ICC predetermines the effectiveness of their performance in COIL projects' and 'Students' participation in international projects promotes the conscious development of their ICC for sustainable outcomes'. The research questions of this study are as follows: 1. What is the influence of Intercultural Communicative Competence (ICC) on students' work in Collaborative Online International Learning (COIL) projects and what is students' perspective on the benefits of COIL project work in their progress through ICC acquisition? 2. How can Content and Language Integrated Learning (CLIL) be used to enhance the process of tertiary students' Intercultural Communicative Competence development in COIL project work? 3. Can students' Intercultural Communicative Competence (ICC) development foster sustainability in education from the cognitive-pragmatic perspective?

2. THEORETICAL FRAMEWORK

2.1. Components of Intercultural Communicative Competence (ICC)

Intercultural Communicative Competence is widely understood through Byram's five-dimensional model: "knowledge (savoirs), skills (savoir comprendre, savoir apprendre/faire), attitudes (savoir être) and critical cultural awareness (savoir s'engager)" (Byram, 1997, p. 88). This model has been operationalized in empirical studies assessing intercultural gains from online collaboration, for instance, via the *Cultural Intelligence Scale* (CQ) and *Multicultural Personality Questionnaire* (MPQ) (Hackett et al., 2023)

Schelfhout et al. (2022) consider that ICC comprises three interdependent dimensions essential for effective cross-cultural engagement: Knowledge, Skills and Attitudes. The Knowledge dimension refers to the understanding of cultural norms, values, and practices. The Skills dimension is related to active listening and adaptive communication, conflict resolution in multicultural settings, and building cross-cultural relationships, while the Attitudes dimension is connected with openness to cultural differences, intellectual curiosity and respect for diversity. These components operate dynamically, where knowledge informs skills, and attitudes motivate behavioral adaptability.

2.2. ICC integration within Content and Language Integrated Learning (CLIL) methodology

Integration of Intercultural Communicative Competence into the learning process is high on the agenda within CLIL (Content and Language Integrated Learning) tertiary programs. The application of the CLIL framework, which integrates academic content and language learning (Yumnam, 2023), helps

to foster students' understanding and perception of diverse cultures, alongside subject matter learning and language skills acquisition.

CLIL theoretical framework comprises four basic components: content (subject or project theme), communication (language usage), cognition (language processing through higher order thinking skills) and culture (fostering intercultural understanding) (Coyle, 2005).

In tertiary education, CLIL enhances language proficiency and content retention by contextualizing learning within authentic academic scenarios (Dzulkurnain et al., 2024). For instance, Andriichuk et al. (2024) show that IT students engaging in English-mediated coding projects demonstrate improved technical terminology comprehension and collaborative problem-solving. According to Montaña-Acosta (2025), language and culture are closely interrelated, and CLIL aims to foster Intercultural Communicative Competence by using academic texts as cultural tools which help students comprehend and interact with the world.

2.3. Role of COIL Projects in ICC Development

Among the effective innovative methods characteristic of CLIL methodology approach can be considered COIL projects which create virtual intercultural ecosystems where students collaborate across borders on discipline-specific tasks. Its impact on ICC manifests through: *authentic CLIL integration* represented by discipline projects (e.g., joint engineering designs) that necessitate content-language synthesis, aligning with CLIL principles (Andriichuk et al., 2024); *pragmatic skill application* which comprises real-time negotiation of meaning that involves speech act adaptability and politeness strategies (Dzakula & Dzakula, 2022); and *cognitive flexibility* that integrates exposure to diverse conceptual metaphors which challenges ethnocentric thinking (Wang & Dai, 2024).

Moreover, empirical evidence indicates that structured COIL experiences – facilitated by trained educators and institutional support – significantly enhance ICC components. Students demonstrate improved cultural knowledge, reduced prejudice, and heightened empathy (Dzulkurnain et al., 2024; Schelfhout et al., 2022).

2.4. Cognitive-pragmatic dimension of students' ICC actualization within COIL project

Recent developments in teaching methodology demonstrate the application of the achievements of cognitive pragmatics. For instance, among the researchers that investigated the integration of the developments of cognitive pragmatics into teaching methodology are Bi NZ (2021), Takimoto (2020), Mazzone (2018), Abidin (2024), and others. In relation to ICC, cognitive pragmatics integrates the accomplishments of cognitive linguistics which elucidates how language structures shape thought patterns during intercultural interactions, and pragmatics which examines language use in context. Key aspects include conceptual metaphors represented by cultural frameworks influencing reasoning (e.g., 'time is money' in Western contexts vs. cyclical time in Eastern philosophies); Frame semantics related to culture-specific interpretation of linguistic cues; speech acts theory connected with culturally variable interpretations of requests, apologies, or refusals; and Politeness Strategies related to face-saving mechanisms differing across cultures (Dzakula & Dzakula, 2022).

In COIL environments, these elements enable learners to decode implicit cultural meanings, negotiate misunderstandings, and co-construct shared understanding on the bases of previous experience and knowledge.

Recent contributions from cognitive pragmatics illuminate the mental processes underpinning intercultural interaction in multilingual settings. A pragmatic competence lens emphasizes understanding not only lexical meaning but also implicatures, speech acts, politeness, and sociocultural norms. In CLIL or online international projects, students must infer unstated meanings, manage face-threatening acts, and align their communication with context specific norms (Kecskes, 2022).

When students engage in academic reasoning across languages, they co-construct and transform meaning through shared cognitive resources – supportive of intercultural growth (Kecskes, 2022).

Cognitive pragmatic perspective incorporated with ICC can support the Education for Sustainable Development (ESD) in the preparation of learners as responsible citizens for the diverse environmental, social, and economic challenges of the modern world (Bell, 2026).

3. METHODOLOGY

3.1. Procedure and participants

The study is based on the results of the online intercultural collaboration project, which was conducted over a period of five weeks in April and May 2024. A total of 44 students participated: 20 students from Vasyl Stefanyk Precarpathian National University (at present Vasyl Stefanyk Carpathian National University) (Ukraine) and 24 students from the University of Applied Sciences Landshut (Germany). While most participants either had Ukrainian or German national culture backgrounds, some students had Polish, Brazilian or British roots. Students were assigned to mixed-nationality teams of four to five members and tasked with collaboratively researching an intercultural topic. The project aimed to develop students' intercultural competence (ICC) and ability to work effectively in multicultural teams.

The collaborative task was introduced during a joint online kick-off session in week one. Students were presented with a list of predefined topics focused on cultural comparisons between Ukraine and Germany, including areas such as student life, cultural values, traditional food, media consumption, and family relationships. Teams were required to meet online at least once per week, communicate asynchronously between meetings, and present their findings in the form of either a three-minute video or an Instagram account.

Three synchronous online meetings were held: a project kick-off in week one, a check-in meeting in week four, and a final wrap-up session in week six. The asynchronous communication and weekly team meetings were conducted via platforms chosen by the students.

3.2. Questionnaires

To evaluate the impact of the project on students' ICC for sustainable outcomes, two online questionnaires (see Appendices 1, 2) were administered. The first was distributed after three weeks, aiming to investigate students' activated background knowledge concerning ICC and draw their attention to some specific aspects of their teamwork and ICC. It was created to help them improve their collaboration, detect problems and provide clues to solve them. The second questionnaire, conducted during the final session, was designed to determine whether students had achieved the desired results and to obtain data on a possible change in their attitude towards group and team work within COIL projects, as well as understanding of the role of ICC in their progress, etc. Furthermore, the questionnaires explored students' perceptions of their intercultural awareness, understanding of cultural differences and similarities, and their ability to collaborate across cultures. They complemented each other and were employed to maximize the collection of comprehensive and relevant information from the students. Consequently, the project was explicitly designed to provide participants with an opportunity to enhance their intercultural communication skills, apply English in an international context, and engage meaningfully with peers from a different cultural background.

In fact, when designing the questionnaires, we aimed at investigating the role of students' ICC in their work in COIL projects, students' perspective on the benefits of COIL projects for their progress through the ICC acquisition, their understanding of the concept of ICC, detecting challenges students face in COIL projects, strategies they apply to cope with them, etc.

The participation in this study was entirely voluntary, and the decision to participate or not did not have any consequences for the students. The questionnaire was designed to be completely anonymous. No personal details were collected or stored, ensuring the privacy of the responses. There is no connection between the responses and individual participants. The goal of this research is to enhance the

educational process, specifically focusing on students' ICC levels to identify problematic areas and improve the educational process in terms of ICC development within CLIL programmes. By filling in and sending the Google Form, participants provided the research team with permission to use their answers in the described research and published article.

Taking into account the voluntary character of the questionnaire we received 29 (first questionnaire) and 22 (second questionnaire) student responses to the provided questionnaires (see Appendices 1, 2) from the 44 student participants. Students' answers disclose some broad perspectives on the research questions of the article which will be analyzed in the result section.

4. RESULTS AND DISCUSSION

4.1. Results

4.1.1. Investigating students' background knowledge

Investigating students' experience in working online in international teams we have found out that the majority of project participants (seventeen students/58.9 %) had previous experience of working in international teams; eleven students (37.9 %) had no such experience; and one participant (3.2 %) selected the option 'another answer' (see Appendix 3.a.).

Project participants' collaboration with teammates from different cultural backgrounds outside of this project is not very frequent: (five students (17.2%) – several times a week; four students (13.8%) – several times a month; nine students (31%) – several times a year; eleven students (38%) – 'another answer' (see Appendix 3.b.).

Project participants (eighteen students/62.1 %) mostly evaluate their level of ICC as intermediate, admitting that they are able to identify cultural similarities and differences, understand basic cultural norms and practices of different cultures, but have only basic knowledge of cultural values, beliefs, and communication styles. Six students (20.7%) consider that their level of intercultural competence is advanced and they can effectively navigate cultural differences, adapting communication styles and strategies to diverse cultural contexts. They are aware of the nonverbal cues and cultural specifics in communication and are able to manage conflicts arising from cultural misunderstandings. Four students (13.8%) rate their level as basic, stating that they are able to recognize cultural differences, understand that communication can be influenced by cultural factors, and are aware of one's own cultural biases and assumptions. One student (3.4 %) rates his/her level of Intercultural Communicative Competence as an Expert Proficiency Level, admitting high level of fluency in ICC, mastery of cultural empathy and perspective-taking, ability to facilitate effective communication and collaboration in diverse teams, and possession of skills in mediating cultural conflicts and promoting intercultural understanding. (see Appendix 3.c.)

The comparative analyses of the individual questionnaire answers showed that students' evaluation of their ICC levels did not exclusively depend on their experience before this COIL project, but was also influenced by this particular one as some students with no previous experience in working in international teams rated their ICC levels as intermediate or advanced. It can as well lead to the conclusion that students' ICC can be developed not only through intercultural cooperation but by also using some other means and tools.

4.1.2. Students' interpretation of the notion of Intercultural Communicative Competence (ICC)

Defining the notion Intercultural Communicative Competence students activate the relevant concept 'INTERCULTURAL COMMUNICATIVE COMPETENCE'. It shows their level of awareness of the notion based on their previous experience and background knowledge. Below there are some examples of students' definitions of ICC:

'The ability to effectively communicate with people from other cultures and the knowledge of different

communicative styles in different societies.'

'Communicating across different cultures in an effective and respectful way.'

'Being able to find common language despite national and cultural differences, finding compromise, avoiding unnecessary conflicts.'

Overall, students' responses are very alike to those provided by researchers in this field (Zhou & Griffiths, 2011) and provide a broad and nuanced understanding of 'INTERCULTURAL COMMUNICATIVE COMPETENCE' concept, encompassing not only knowledge, skills and attitudes like open-mindedness, respect, and the ability to adapt to and solve communication challenges in diverse cultural contexts, but also personal experiences and interactions with people from other cultures shaping their understanding of intercultural communication.

Analysing the definitions of ICC which students provided in the questionnaire responses, we distinguish the central and peripheral components of the relevant concept of 'INTERCULTURAL COMMUNICATIVE COMPETENCE' on the basis of the frequency of their actualization. The central ones include **COMMUNICATIVE ABILITIES AND SKILLS** (incorporating relevant soft skills and problem-solving skills) (actualized 39 times), **INTERCULTURAL COMMUNICATION PARTICIPANTS** (actualized 23 times), and **CULTURAL AWARENESS** (actualized 16 times). The peripheral components comprise **Experience** (actualized once) and **Attitudes** (open-mindedness, respect, etc.) (actualized 4 times) based on previous experience. The conceptual structure of the investigated concept is graphically represented in Figure 1. All of its components are interconnected and interdependent as the qualitative change in any of them leads to a change in others.

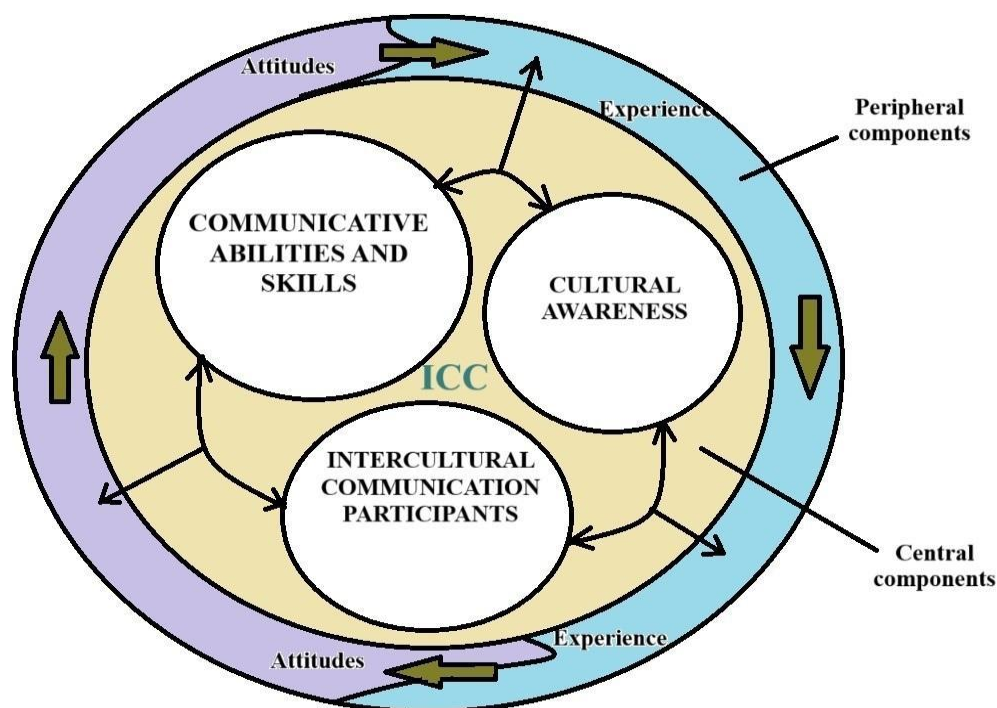


Fig. 1. Graphic representation of the conceptual structure 'INTERCULTURAL COMMUNICATIVE COMPETENCE' based on the students' definitions provided in the questionnaires

Source: author's development

These concept components correlate with the cognitive aspect of the notion of Intercultural Communicative Competence which is represented by students' knowledge and understanding of the concept and is based on their experience in dealing with it; and the pragmatic aspect which reflects how students use this knowledge and experience in the process of intercultural communication as well as dealing with its challenges.

4.1.3. Challenges students face within the project

Among the challenges that students consider they face while working in intercultural teams respondents mention language proficiency, project team management challenges (e.g. deadlines, time differences, remote conversations, punctuality, organization of the working process), personal circumstances and attitudes (e.g. lack of trust, lack of tolerance/respect), personality traits (e.g. shyness, emotional barriers in communication with new people), cultural misunderstandings based on cultural differences, different mentality or values. Here are some examples of the students' answers:

'Communicating the tasks/goals/expectations in a clear and friendly manner, giving honest feedback without hurting team members' feelings';

'It's difficult to speak English without any obstacles in my head, I'm too stressful and worried';

'Sometimes people are very shy so they don't want to share ideas'.

Some students have not noticed any challenges or difficulties:

'No, it was quite enjoyable';

'No, we functioned as a team really well'.

Among the most recurring aspects that caused challenges are the time differences, language proficiency, cultural differences, organization of the working process, and emotional barriers in communication with new people.

4.1.4. Skills and strategies to build successful collaboration

Describing skills students believe are essential for effective intercultural communication were mentioned such as basic IT skills, team-work skills, English proficiency, creative thinking skills, time-management skills, communication skills, adaptability, conflict resolution skills, soft skills and problem-solving skills.

Students also mention strategies that are related to **style and quality of communication** (e.g. 'transmit empathy', 'apply mutual understanding', 'employ clarity and brevity', 'use active listening techniques', 'employ clear and structured communication', 'transmit sincerity', 'transmit openness and friendliness', 'communicate calmly one's opinion and adequately perceive others', 'show that you are interested in the conversation', 'strive for international intelligibility', 'avoid assumptions by asking clarifying questions and seeking understanding'); **cultural awareness, respect and inclusivity** (e.g. 'reinforce and apply cultural awareness and sensitivity', 'acknowledge and remain aware of cultural and individual differences', 'promote open-mindedness', 'cultivate curiosity about different cultures', 'apply tolerance and respect for differences', 'maintain respectfulness', 'avoid sensitive topics', 'continuously question and reflect on your own assumptions and biases'); **problem-solving and conflict resolution** (e.g. 'facilitate discussions about problems and previous mistakes', 'solve problems instantly', 'encourage honest and open meta-discussions', 'demonstrate patience when navigating misunderstandings or delays', 'exercise flexibility in expectations and responses', 'speak calmly one's opinion and adequately perceive others'); **collaboration and teamwork** (e.g. 'pursue common goals', 'foster intrinsic motivation', 'divide the work taking into account personal strengths', 'make sure everyone is able to give their input', 'draw on relevant background knowledge', 'encourage regular feedback', 'practice active discussion of every aspect of the project with the teammates', 'administer confidence', 'apply effective technical support of communication'); **trust building environment** (e.g. 'administer respectful and open-minded dialogue', 'show openness to discussion', 'use supportive communication', 'schedule regular meetings for discussion', 'use icebreaking techniques to begin and then try to give everyone a feeling of comfort and belonging to build trust'). Here are some examples of students' answers:

'Open-mindedness, politeness. You have to be aware of different communicative styles. You have to be respectful to others and other cultures and values. You have to accept the fact that all people are different.';

'Dialogue is very important, because simple talk can solve many misunderstandings and issues that might come across.'

In order to adapt their communication style when working with teammates from diverse cultures

COIL project participants give preference to Active Listening (93.1%), Respect and Open-Mindedness (93.1%), Flexibility (89.7%), Cultural Awareness and Sensitivity (75.9%), Use of Common Language (62.1%), Building Relationships (62.1%), Feedback and Adaptation (62.1%), Clarification and Confirmation (55.2%) and Cross-Cultural Training (6.9%) (see Figure 2).

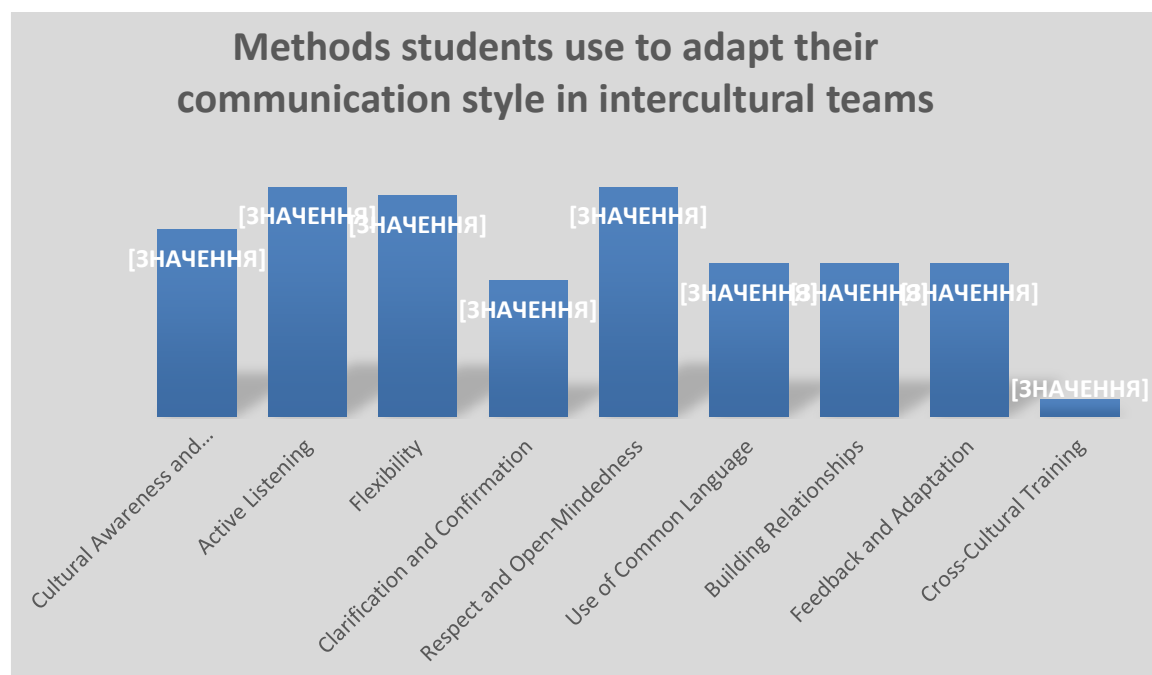


Fig. 2. Methods students use to adapt their communication style when working with teammates from diverse cultures

Source: author's development

The most applicable methods are Active Listening which focuses on the interlocutor trying to understand, respond, and remember what is being mentioned by him; Respect and Open-Mindedness that reflect the creation of positive attitude to alternative ways of thinking and behaving, diverse opinions, perspectives, and ideas; Flexibility which represents the affords to adapt the communication style to fit the communicative context; and Cultural Awareness and Sensitivity related to building understanding and respect of cultural differences, while adjusting behavior to fit the cultural context. Use of Common Language, Building Relationships, Feedback and Adaptation, and Clarification and Confirmation get average application. The least applicable methods turned out to be Cross-Cultural Training. These results show that students prefer ICC acquisition and are focused on prevention of any negative communication issues rather than dealing with the consequences, but they pay less attention to the purposeful training of ICC.

Furthermore, the comparative analyses of the individual questionnaire answers showed that students with previous experience in working in international teams applied a broader range of methods to adapt their communication style when working with teammates from diverse cultures. This can indicate their deeper understanding of the specifics of intercultural communication as the result of prior experience.

Answering the questions related to the cultural misunderstandings and differences, or conflicts arising from them within their teams, as well as ways students addressed or resolved them, twelve students did not detect any; three students mentioned misunderstandings and terminology difficulties because of English language proficiency which was solved through discussions and rephrasing; one student considered that differences were found interesting to compare and were used in the project; one student recollected time differences as a problem which was solved at once; two students mentioned non purposeful but still unpleasant associations of Russian symbols and language in relation to Ukraine

which were solved through additional explanations of Ukrainian students. Other students decided not to answer this question. Here are some examples of the students' answers:

'We encountered some misunderstandings and worked them out by discussing something again';

'There were no misunderstandings';

'There were some differences between us that we found and it was interesting to compare them and use them in the project'.

Trying to handle these problems students used problem-solving strategies in an effort to find a compromise, strategies of apologizing and acknowledging mistakes, open-mindedness and acceptance, communication, discussion, and clarification tools. It reflects the focus on practical solutions like finding a compromise, rephrasing, or asking for clarification; on preventing conflicts through accepting various opinions, clarifying misunderstandings, and maintaining a proactive and positive attitude toward differences; as well as on acknowledging and apologizing when dealing with misunderstanding and conflicts, focusing on responsibility, clear explanations and openness to criticism to improve the situation. The fact that some students mentioned that they had no conflicts, suggests a balanced and compatible team dynamic due to good communication and respect. Below there are some examples of the students' answers:

'We try to discuss everything at once, we treat each other with understanding.';

'Just listen to every single opinion and come up with the best proposal that speaks to everyone.'

'Apologising and trying to find a different topic to discuss';

'Ask more questions for clarification';

'I try to clarify and understand the problem and solve it but also be able to take in criticism and reflect on my own. Not just relying on my own opinion. Open-mindedness and respect are key'.

Analysing the role of cultural background in project work, fourteen students have not encountered situations where their cultural background was an advantage in team collaboration (e.g. *'No, I haven't encountered such situations'*), eight students have encountered situations where their cultural background was an advantage in team collaboration (e.g. *'That we are on time.'; 'I think in this project my cultural background and my experiences were useful for the topic of our project because I had an opportunity to contribute to the project.'; 'I could give authentic information about my culture and my country'*), and other students did not answer this question. Students consider that their cultural background is an advantage as they can contribute authentic information or perspectives that help enhance the project results. They also think that specific cultural traits – such as punctuality, planning, communication styles, or mindset – can influence work processes, communication, or problem-solving.

One of the effective tools to deal with and prevent problematic situations is feedback. In the Feedback and Improvement section of the questionnaire students answered the question *'How does your team provide feedback on intercultural communication and collaboration?'* The provided answers reflect students' focus on the **means of feedback provision** represented by the different online communication platforms (e.g., Zoom, WhatsApp, Telegram, Discord), which provide the informal, virtual settings such as group chats and regular video meetings for feedback sharing (e.g. *'We are actively communicating in our chat on Telegram.'; 'Most of the time we're chatting or meeting via the Zoom platform.'*). Students mention the **frequency of meetings** (e.g. *'We communicate once a week via Zoom and chat in WhatsApp.'; 'Talking after each meeting about it.'*), **quality and context of communication**, for instance the importance of maintaining contact and ongoing communication, which might serve as a foundation for sustainability of relationship in the future (e.g. *'We encourage open communication and create a safe space for team members to discuss their experiences and challenges related to intercultural communication and collaboration. We emphasize the importance of cultural sensitivity and respect in all communications and interactions.'; 'Sharing contacts in social media and e-mails for always keeping in touch.'*). One of the answers reflects the opinion that feedback is needed only when some problems in communication occur (e.g. *'We haven't had any problems yet, so there was no need for such feedback'*). These answers show that teams place an emphasis on collaborative and inclusive approach to intercultural communication and feedback, though not realizing the power of

regular feedback provision in preventing conflict situations to the full extent.

4.1.5. Lessons learned and areas for improvement

During team project work the key lessons students have learned are related to the importance of 1) **well-developed communicative and adaptability skills** (e.g. *'Learning to adapt your communication style to suit the preferences of team members from diverse backgrounds is important for clarity and mutual understanding.'*; *'Communication with different people gives you the experience that you will never find somewhere else.'*; *'Importance of avoiding misunderstanding in intercultural communication'*), 2) **mutual support, respect and team work** (e.g. *'The importance of mutual support to achieve success'*; *'Be respectful, take into account thoughts and advice of your teammate'*; *'I learned to be flexible in organizing work, because everyone has a different environment with different needs and responsibilities.'*), 3) **cultural awareness and respect for differences** (e.g. *'Understanding and respecting cultural differences is crucial. Different cultures have different communication styles.'*; *'Never judge a person by the national background.'*; *'There are always new interesting things to learn about other countries.'*), 4) **embracing diversity and inclusion** (e.g. *'Embracing diversity as a strength rather than a challenge is crucial. Diverse perspectives bring creativity, innovation, and a broader range of ideas to the table.'*), 5) **personal growth and confidence** (e.g. *'The fear of talking to strangers disappears when it is necessary, it does not bring any benefit to one's life'*), 6) **project management and collaboration skills** (e.g. *'Time management, project management'*; *'International projects can be fun'*; *'We can find communication with everybody'*).

Answering the question concerning the areas for improvement to enhance effectiveness in international teams, students mention **communication skills**, particularly language proficiency, speaking, and negotiating skills (e.g. *'Perhaps, speaking and negotiating skills.'*; *'I think the best thing you can do is improve your language skills for better communication.'*); **social and emotional aspects of communication** highlighting the importance of building stronger interpersonal relationships and improving social engagement within the team for smoother and more effective collaboration (e.g. *'Building stronger connections'*; *'It could be more engaging if we were more involved in discussion, got to know each other better.'*); **means and modes of communication** (e.g. *'Meeting in real life (better audio quality)'*); and **personality traits** which influence the process of communication (e.g. *'I wish to enhance my confidence so that it's easier for me to communicate.'*; *'Don't be shy.'*). Students also mention **cultural awareness** (e.g. *'Awareness of biases.'*; *'Being open to other cultures, no matter how different they are. Understanding cultural challenges and history.'*); **flexibility and adaptability** to become more flexible, adaptable, and engaged in intercultural settings (e.g. *'I could improve such areas as: 1. Flexibility and Adaptability. 2. Awareness of Unconscious Bias.'*), and **problem-solving skills** (e.g. *'Perhaps I need to improve my problem-solving skills and boost my confidence.'*). Moreover, students emphasize the importance of **gaining more experience and practice by working in international teams** to make their contribution and collaboration more effective (e.g. *'I think that the best way to improve this is to work more often in international teams.'*). One answer suggests that **no improvement** is needed (e.g. *'I think our communication is pretty effective!'*).

Concerning resources or support students believe would be beneficial for working in intercultural teams, from their answers we can single out **availability of technical resources** like online platforms and tools for communication (e.g. *'Platforms for conducting video conferences like Zoom, Teams, Webex, Meet, cloud-based Google applications.'*; *'Good technical devices.'*); **practical resources and support** (e.g. *'Access to the original/authentic sources.'*; *'Teachers and other people who share their experience are the best resource for finding out about another culture. On the other hand, there are numerous internet resources that might be useful (articles, videos).'*; *'Maybe some lectures about cultural awareness discussions or even some articles to read to learn something new.'*); **cross-cultural training and education** (e.g. *'Maybe a short overview of the most common mistakes to make in each of the two cultures: what is rude? What shouldn't be discussed? etc.'*; *'Cultural Competence Workshops.'*; *'Workshops on how to organize the coworking.'*); **research activities** (e.g. *'Doing research on cultural differences.'*); and **more time to be able to work effectively**, which leads to the importance of development of time management skills (e.g. *'More time.'*).

Therefore, the provided responses reflect the combination of educational resources, practical experiences, research, communication tools, and time management skills needed to improve the effectiveness of intercultural collaboration and competence.

In order to help students or professionals who will be working in international teams in the future, project participants provided pieces of advice related to 1) **building connection through communication** (e.g. 'establish a connection', 'stay in touch', 'simplify'), 2) **providing supportive teamwork** (e.g. 'support team members', 'build trust', 'be respectful', 'be open', 'be emphatic'); 3) **responsible teamwork planning** (e.g. 'plan your work from the beginning', 'be responsible', 'manage your time', 'don't miss important events'), 4) **combining adaptability and growth mindset** (e.g. 'adapt', 'no fear', 'be creative', 'use the opportunity'). Below you can find some examples of the students' answers:

'Don't be afraid! Be creative, be open to crazy ideas and support your team members!';

'Try to establish a connection in your teams and don't worry too much.';

'Do not neglect communication with the team: a good relationship promotes engagement. Make a plan for your work from the beginning. Be responsible, manage your time.';

'Be flexible to circumstances and be able to solve problems immediately.';

'Use the opportunity'.

Actively looking for the opportunities to learn about other cultures and improve their intercultural competence, students apply **participation in intercultural projects** (e.g. 'Yes, I take part in different courses and gain practice by participating in various programs.'; 'Yes, I try to get every possibility I can to join different projects with different nationalities.');

real-world interactions with foreigners (e.g. 'Making friends from different cultures.'; 'I often ask questions, make clarifications and encourage conversations as much as possible. Moreover, most people find it enjoyable talking about their culture.');

media consumption (e.g. videos, articles, YouTube, blogs, etc.) (e.g. 'Yes, I watch videos on YouTube about different cultures to learn more about them. I also read articles about cultural differences.'; 'I try to follow different foreign bloggers or influencers.');

traveling and experiencing different cultures (e.g. 'Yes, by travelling.'; 'When in another country, I try not to go to tourist hotspots, but meet with foreigners and listen to their culture.');

and **passive learning, casual knowledge acquisition, reflection and self-study** (e.g. 'I've actually acquired most of the things that I know about different cultures. I didn't specifically learn, but I just came up with some interesting info and I just learned it casually.').

Some students actively look for specific opportunities to learn about other cultures and improve their intercultural competence (e.g. 'Yes, I try to take every opportunity, for instance, today in English class with Colombian fellow students.'), some do not (e.g. 'Sadly not really.'; 'No.'), and some consider that such opportunities find them (e.g. 'Those opportunities find me, just like this project.').

Thus, students prefer to be engaged in hands-on activities, informal and social learning through direct interactions with people from diverse cultural backgrounds, whether through friendships, traveling, or informal conversations. It provides a more relaxed or passive approach with an immersive learning experience in which individuals acquire knowledge naturally through everyday interactions or experiences rather than actively seeking out learning opportunities.

4.1.6. Evaluating Project Experience

Rating their overall experience working in a team within a COIL project, students recognize it as fair (13.6 %), good (13.6 %) and very good (72.8 %) (see Appendix 3.d.). It shows that most students consider that their experience was highly enjoyable and successful, with significant benefits and positive outcomes.

Describing their experience of communicating and collaborating with teammates from diverse cultural backgrounds, students use a range of adjectives which emphasize the positive attitude to the obtained experience: eleven times – (super) *interesting*; each item three times – *enjoyable*, *exciting*; each item twice – *valuable*, *gripping*, (utterly) *fascinating*, *cool*, (overall very) *cool*; each item a single time – *pleasant* (experience), *fun*, *compelling*, *useful*, *informative*, *enlightening*, (sometimes a bit) *challenging*, *awesome*, *new and different*, (very) *good* (see Figure 3).



Fig. 3. Word cloud visualizing the frequency of the students' usage of particular adjectives which describe their experience of communication and collaboration within the COIL project

Source: author's development

Here are some examples of students' answers:

'It was sometimes a bit challenging but overall, very cool';

'This experience was valuable because it showed all sides of international communication';

'I find it utterly fascinating and gripping. I look forward to more such experiences.'

Among the most enjoyable aspects of collaborating with teammates from different countries and cultures, students acknowledge 1) learning something new about other cultures; 2) communicating with different people; 3) making new friends; 4) English practice; 5) going through the project task procedure; 6) creating ideas for the project; 7) project management; 8) teamwork; and 9) finding something in common. The fact that some of the most enjoyable aspects resonate with the major students' challenges within the project (*language proficiency, project team management, personal circumstances and attitudes, personality traits, cultural misunderstandings based on cultural differences, and different mentality or values*) shows that students are open to new experiences and perceive them positively. Here are some examples of students' answers:

'I was able to learn a lot of new things, especially about the differences between 2 cultures, which I might not have even thought about. I enjoyed communicating with different people, getting to know their views on things, and making new friends.';

'Talking to students from another country. We practiced speaking English while getting to know each other.';

'Cooperation, creating an Instagram page together, coming up with a name for it, choosing a picture, making plans for our content and so on.';

'Communication and teamwork!'

4.1.7. Benefits, Learning Outcomes and Future Perspectives

Answering the questions concerning the benefits they have gained from working in international project teams and in what way this experience has contributed to their personal and professional growth, students mentioned both personal and professional benefits. Within the professional sphere students *obtained* new interesting experience and knowledge, additional public speaking practice, and experience in working with people in a project; *improved* insight on diverse perspectives, English-speaking skills and communicative skills, project management experience and skills, teamwork skills, and soft skills; *developed* networking, problem solving and time management skills; *overcame* the language barriers; *challenged* critical thinking skills; and *learned* to think outside the box. Among the personal benefits students mention: making new friends; developing confidence in their ability to

communicate in English; enjoying great communication; developing understanding of another culture; having fun; overcoming anxiety and shyness; realizing some of their strengths and weaknesses; developing wider perspective on such projects. Below there are some examples of the students' answers:

'Because of the fact that it was my first time in such a project, the biggest benefit is that now I have such an experience and it may be easier for me in the future if a similar opportunity appears';

'I got to know some facts about Germany: its culture, traditions, etc. We discussed some stereotypes about Ukraine and proved them wrong or right to our colleagues as well as they did with theirs.';

'I got to know how to communicate with people from different backgrounds, and realized that communication is always a key part of every team development and work.'

Sharing their thoughts related to the specific skills or knowledge areas that they have improved upon as a result of the project, students enumerate **communication skills** (e.g. 'communication skills', 'English language proficiency', 'public speaking', 'presentation and cross-cultural communication skills'); **teamwork and collaboration** (e.g. 'teamwork skills', 'work sharing', 'group work', 'collaboration', 'problem-solving', 'team management skills'); **project and time management** (e.g. 'project managing skills', 'planning', 'time management', 'flexibility'); **creativity and critical thinking** (e.g. 'creativity', 'patience', 'generating ideas', 'critical thinking'); **cultural awareness** (e.g. 'knowledge and understanding of cultural differences', 'knowledge about German culture'); **decision-making and problem solving** (e.g. 'decision-making', 'problem-solving'); **research skills** (e.g. 'doing research skills', 'effective information processing skills'); and **digital skills**.

Furthermore, all students (100%) would recommend this experience of participation in the COIL project to other students or colleagues. Here are some examples of the reasons for such an answer:

'Thanks to this project, you can enrich your knowledge, discover new things about another culture, communicate with other people, give an opportunity to learn more about our country, talk about our current realities, and make new friends.';

'This project is a safe place to improve your skills and gain experience that would be much more difficult to obtain without the support of the organizers.';

'It is a good opportunity to gain experience for your future profession.'

4.2. Interpretation and Discussion

The findings of the study provide empirical support for the initial hypotheses, demonstrating that students' ICC significantly influences their performance in COIL projects. Simultaneously, participation in such projects serves as a powerful catalyst for the conscious development of ICC, thus fostering sustainable educational outcomes.

The study provides clear evidence that COIL projects serve as an effective pedagogical approach for enhancing students' ICC. The project setting, characterized by authentic intercultural interactions and real-time communication challenges, created fertile ground for the development of key ICC components: knowledge, skills, and attitudes. This finding aligns with previous studies (Hackett et al., 2023; Schelfhout et al., 2022), which highlight the role of COIL in fostering intercultural sensitivity, empathy, and communication strategies among students.

The data indicate that students with high pre-existing levels of ICC are successful in managing intercultural communication within their project teams. They demonstrate strong abilities in resolving conflicts, negotiating meaning, and adapting to culturally diverse perspectives. Conversely, students with lower initial ICC experience more challenges, including language anxiety, misunderstanding of cultural cues, and team coordination difficulties. Nevertheless, all students exhibited notable overall improvement by the end of the project, suggesting that COIL participation offers significant developmental potential regardless of students' initial ICC level.

The findings underscore the important role of CLIL in supporting ICC development within COIL projects. By embedding academic content learning within a foreign language medium, CLIL facilitated both cognitive engagement and language development. Students were required to process and produce

subject-specific discourse in English, navigate discipline-related terminology, and engage in problem-solving tasks in culturally diverse groups.

This dual focus on content and language not only enhanced linguistic proficiency but also stimulated higher-order thinking skills, reflective practices, and pragmatic awareness. The outcomes are consistent with theoretical perspectives from Yumnam (2023) and Dzulkurnain et al. (2024), confirming that CLIL acts as an effective pedagogical scaffold for ICC development in international online learning settings.

An essential contribution of this study is the empirical validation of the interconnected model where COIL, CLIL, and ICC development dynamically interact. COIL projects provide the authentic, sustained intercultural environment necessary for competence development. CLIL, in turn, provides the pedagogical scaffolding of academic content learning in a target language, while cognitive-pragmatic insights explain the mental navigation of meaning.

In such integrated educational settings:

- CLIL ensures cognitive engagement with subject matter in the L2, exposing learners to discipline-specific discourse, promoting pragmatic awareness.
- COIL situates students in global peer networks, demanding real-time negotiation of cultural and linguistic differences and thus operationalizing Byram's ICC dimensions (Hackett et al., 2023).
- Cognitive linguistics and pragmatics frame how learners mentally represent, interpret, and produce context-sensitive language, vital for intercultural 'facework' and strategic communication (Kecskes, 2022).

Through this combination, pedagogical practice can align with theoretical underpinnings to optimize the development of intercultural competence in university students – even without physical mobility.

The findings also substantiate the role of ICC development in advancing Education for Sustainable Development (ESD). Students' reflective feedback indicated increased readiness for lifelong learning, enhanced cultural empathy, and improved collaborative problem-solving – skills essential for responsible global citizenship.

By participating in COIL projects, students develop a range of transferable competencies, including critical thinking, cultural sensitivity, adaptability, and effective communication. This multifaceted competence profile contributes directly to the cognitive-pragmatic foundations of sustainability in education.

One of the strengths of this research lies in its use of authentic educational settings, enhancing ecological validity. The mixed-methods approach, combining quantitative survey data with qualitative student reflections, allowed for a comprehensive examination of ICC development processes.

However, certain limitations must be acknowledged. The relatively small sample size (51 submitted responses to the two questionnaire forms from 44 student participants) – as not all the students were willing to participate in the questionnaire stage – may restrict the generalizability of the findings. Additionally, reliance on self-reported measures of ICC introduces the possibility of response bias. Future research could benefit from larger, more diverse samples due to comparative analyses of several COIL projects research data and the inclusion of observational and performance-based assessments of ICC. It would be also valuable to extend the duration of the study to the after-COIL project period to examine long-term changes in the behavior of the project participants.

Nevertheless, due to the thoughtful and detailed answers provided by the students to the multiple open-ended questions in the questionnaire forms, the study yielded rich qualitative data and, consequently, deeper insights into the participants' perspectives, which significantly contributed to the analysis. The findings of the study offer valuable implications for educational practice. Firstly, they highlight the need for systematic integration of COIL and CLIL methodologies into university curricula to enhance students' ICC. Secondly, the results suggest the importance of providing targeted intercultural training and ongoing reflective activities to support students with lower initial ICC levels.

Future research should explore longitudinal effects of COIL participation on ICC retention and

transferability to real-world professional contexts. Moreover, expanding the scope of participant demographics and project themes could provide further insights into the scalability of the proposed COIL-CLIL-ICC model.

5. CONCLUSIONS

Tertiary students' Intercultural Communicative Competence (ICC) level plays one of the key roles in ensuring their efficient performance within the multicultural environment of the COIL project. At the same time, the latter creates favorable conditions for the purposeful development of ICC, ensuring the obtaining of awareness and understanding of intercultural communication specifics, as well as practical application and refinement of skills/abilities of effective intercultural communication management.

A Content and Language Integrated Learning (CLIL) approach, incorporating the content, cognition, communication and culture dimensions in an academic context, provides a perfect frame for the harmonious and dynamic improvement of students' ICC using COIL project as an effective supporting tool.

From a cognitive-pragmatic perspective, this study revealed the significant potential of COIL projects to enhance tertiary students' Intercultural Communicative Competence through gained experience, while also fostering a broader perspective on the importance of the continuous, conscious, and purposeful development of ICC for sustainable outcomes.

Consequently, this study contributes to the growing body of research on intercultural education by demonstrating that COIL projects, supported by CLIL methodologies and cognitive-pragmatic awareness, effectively promote ICC development and sustainable educational outcomes. This integrated pedagogical model offers a viable pathway for higher education institutions to prepare students for intercultural collaboration in an increasingly globalized world.

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Сабадаш Діана, Ріглер Сілке, Куравська Наталія. Впровадження міжкультурної комунікативної компетентності у вищу освіту для сталого розвитку: погляд крізь призму проекту спільного міжнародного онлайн-навчання. *Журнал Прикарпатського університету імені Василя Стефаника*, 12 (3) (2025), 186-206.

Сучасні тенденції у вищій освіті відображають важливість міжкультурної комунікативної компетентності (ICC) для глобалізованого ринку праці. У цьому дослідженні, використовуючи інтегрований методологічний підхід, ми вивчали вплив розвитку міжкультурної комунікативної компетентності на успішність студентів у проекті спільного міжнародного онлайн-навчання (COIL). Представлено погляди студентів на те, як згадані проекти сприяють формуванню цієї компетентності. Дослідження ґрунтується на автентичному освітньому середовищі проекту спільного міжнародного онлайн-навчання (COIL) із залученням студентів Карпатського національного університету імені Василя Стефаника та Університету прикладних наук м. Ландсгут. Проведені у межах дослідження опитування дозволили оцінити попередні знання здобувачів вищої освіти щодо міжкультурної комунікативної компетентності, визначити особливості їхньої командної роботи, а також виявити виклики, з якими вони стикалися під час участі в проекті, та стратегії їх подолання. Отримані результати засвідчили переваги використання предметно-мовного інтегрованого навчання у розвитку міжкультурної комунікативної компетентності студентів у межах проектів спільного міжнародного онлайн-навчання. Крім того, застосування когнітивно-прагматичного підходу дало змогу проаналізувати, як розвиток цієї компетентності сприяв формуванню сталих освітніх результатів. Дане дослідження підтвердило практичне оволодіння студентами навичками, необхідними для

відповідального глобального громадянства, а також спектром універсальних компетентностей, зокрема критичним мисленням, культурною обізнаністю, адаптивністю та ефективною комунікацією. Науковою новизною дослідження є емпіричне підтвердження взаємопов'язаної моделі, у межах якої спільне міжнародне онлайн-навчання, предметно-мовне інтегроване навчання і розвиток міжкультурної комунікативної компетентності динамічно взаємодіють, сприяючи реалізації освіти для сталого розвитку (ESD) із урахуванням досягнень когнітивної прагматики.

Ключові слова: міжкультурна комунікативна компетентність (ICC), предметно-мовне інтегроване навчання (CLIL), проєкт спільного міжнародного онлайн-навчання (COIL), вища освіта, освіта для сталого розвитку (ESD).

APPENDICES

Appendix 1. *Students Questionnaire Form 1*

Personal Background

1. What is your cultural background or nationality?

2. Have you had previous experience working in international teams?

- Yes
- No
- It is difficult to say
- Another answer

3. How would you rate your level of intercultural communicative competence?

• Basic Awareness Level: Recognition of cultural differences. Understanding that communication can be influenced by cultural factors. Awareness of one's own cultural biases and assumptions.

• Intermediate Understanding Level: Ability to identify cultural similarities and differences. Understanding basic cultural norms and practices of different cultures. Basic knowledge of cultural values, beliefs, and communication styles.

• Advanced Competence Level: Ability to navigate cultural differences effectively. Skills in adapting communication styles and strategies to diverse cultural contexts. Awareness of nonverbal cues and cultural nuances in communication. Ability to manage conflicts arising from cultural misunderstandings.

Expert Proficiency Level: High level of fluency in intercultural communication. Mastery of cultural empathy and perspective-taking. Ability to facilitate effective communication and collaboration in diverse teams. Skills in mediating cultural conflicts and promoting intercultural understanding.

Intercultural Teamwork Experience

4. How often do you collaborate with teammates from different cultural backgrounds outside of this project?

- Several times a week
- Several times a month
- Several times a year
- Another answer

5. What are the main challenges you face when working in intercultural teams?

6. Can you share a specific experience where cultural differences affected team dynamics or outcomes?

Intercultural Communicative Competence

7. How do you define intercultural communicative competence?

8. What skills or strategies do you believe are essential for effective intercultural communication?

9. What methods do you use to adapt your communication style when working with teammates from diverse cultures? Select all that are relevant.

- Cultural Awareness and Sensitivity
- Active Listening
- Flexibility
- Clarification and Confirmation
- Respect and Open-Mindedness
- Use of Common Language
- Building Relationships
- Feedback and Adaptation

- Cross-Cultural Training
- Other

Coping Strategies

10. How do you handle misunderstandings or conflicts arising from cultural differences within your team?
11. Do you actively seek opportunities to learn about other cultures and improve your intercultural competence? If yes, how?
12. Have you encountered situations where your cultural background was an advantage in team collaboration? Please explain.

Feedback and Improvement

13. How does your team provide feedback on intercultural communication and collaboration?
14. What areas do you think you could improve upon to enhance your effectiveness in intercultural teams?
15. What resources or support do you believe would be beneficial for students working in intercultural teams?

Appendix 2. Students Questionnaire Form 2

Personal Background

1. What is your cultural background or nationality?
2. Have you had previous experience working in international teams?
 - Yes
 - No
 - It is difficult to say
 - Another answer

Overall Project Experience

3. How would you rate your overall experience working in a team within the Intercultural Communication Project?
 - 1 - Very Poor: The experience was extremely unsatisfactory, with significant challenges and little to no positive aspects.
 - 2 - Poor: The experience had notable difficulties and shortcomings, with limited positive outcomes.
 - 3 - Fair: The experience had both positive and negative aspects, with room for improvement.
 - 4 - Good: The experience was generally positive, with more benefits than drawbacks.
 - 5 - Very Good: The experience was highly enjoyable and successful, with significant benefits and positive outcomes.
4. What were the most enjoyable aspects of collaborating with teammates from different countries and cultures?
5. Were there any challenges or difficulties you encountered during the project? If yes, please describe.

Benefits and Learning Outcomes

6. What benefits did you gain from working in an international project team?
7. In what ways has this experience contributed to your personal and professional growth?
8. Can you share specific skills or knowledge areas that you have improved upon as a result of this project?

Intercultural Communication

9. How did you find the experience of communicating and collaborating with teammates from diverse cultural backgrounds?
10. Did you encounter any cultural misunderstandings or differences? If yes, how were they addressed or resolved?
11. What strategies did you find most effective for fostering effective intercultural communication within your team?

Lessons Learned and Areas for Improvement

12. What were the key lessons you learned from working in an international project team?
13. Are there any areas or skills you feel you need to continue working on or improving in future projects?
14. What advice would you give to students or professionals who will be working in international teams in the future?

Project Feedback and Suggestions

15. How would you rate the overall success of the project in achieving its objectives?
 - 1 - Not Successful: The project did not achieve its objectives and had significant shortcomings or failures.

- 2 - Somewhat Successful: The project partially achieved its objectives but encountered notable challenges or limitations.

- 3 - Moderately Successful: The project achieved most of its objectives with some minor issues or areas for improvement.

- 4 - Successful: The project successfully met its objectives with few or minor issues, demonstrating overall effectiveness.

- 5 - Very Successful: The project exceeded its objectives, demonstrating exceptional effectiveness and achieving outstanding results.

16. What feedback or suggestions do you have for improving the organization and management of future international projects?

17. Would you recommend this experience to other students or colleagues?

- Yes
- No

18. Why/why not would you recommend this experience to other students or colleagues?

Appendix 3. Diagrams visualizing the questionnaire results

Appendix 3.a. Diagram visualizing the questionnaire results related to the students' previous experience in international teams

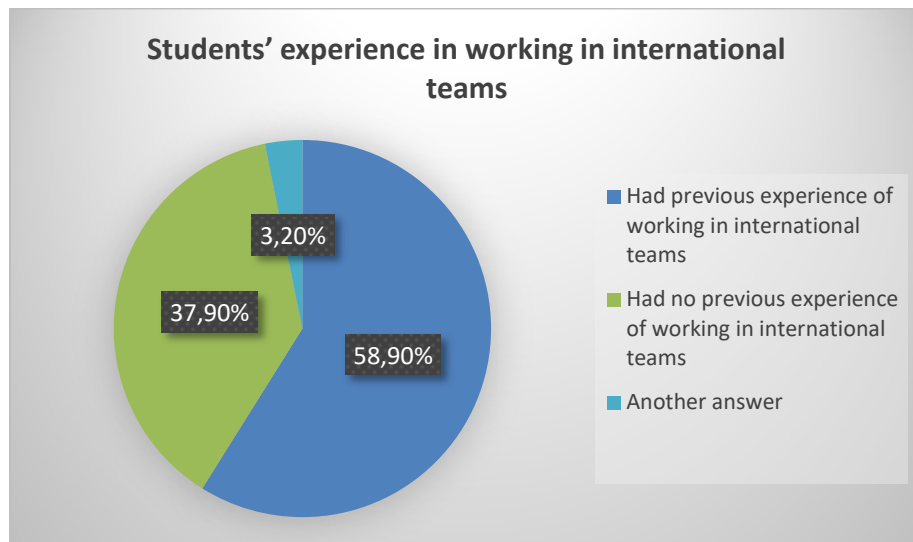


Fig. A. Students' previous experience in international teams

Source: author's development

Appendix 3.b. Diagram visualizing the questionnaire results related to the students' intercultural collaboration outside of the project

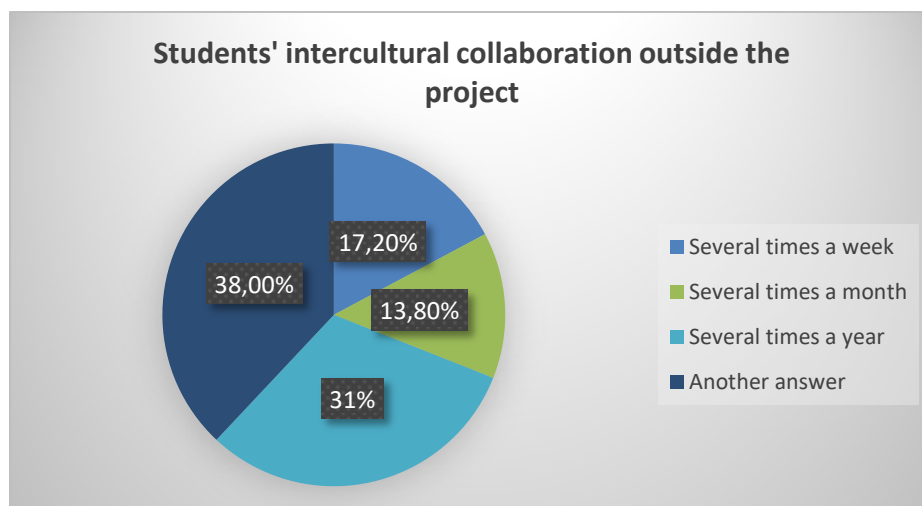


Fig. B. Students' intercultural collaboration outside of the project

Source: author's development

Appendix 3.c. Diagram visualizing the questionnaire results related to the students' personal perspective on their level of ICC

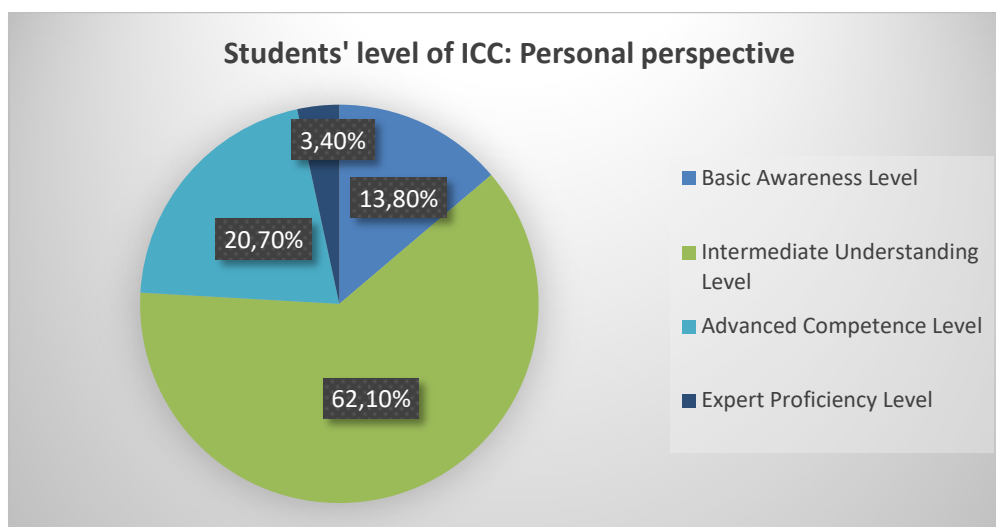


Fig. C. Students' personal perspective on their level of ICC

Source: author's development

Appendix 3.d. Diagram visualizing the questionnaire results related to the students' experience working in a team within a COIL project

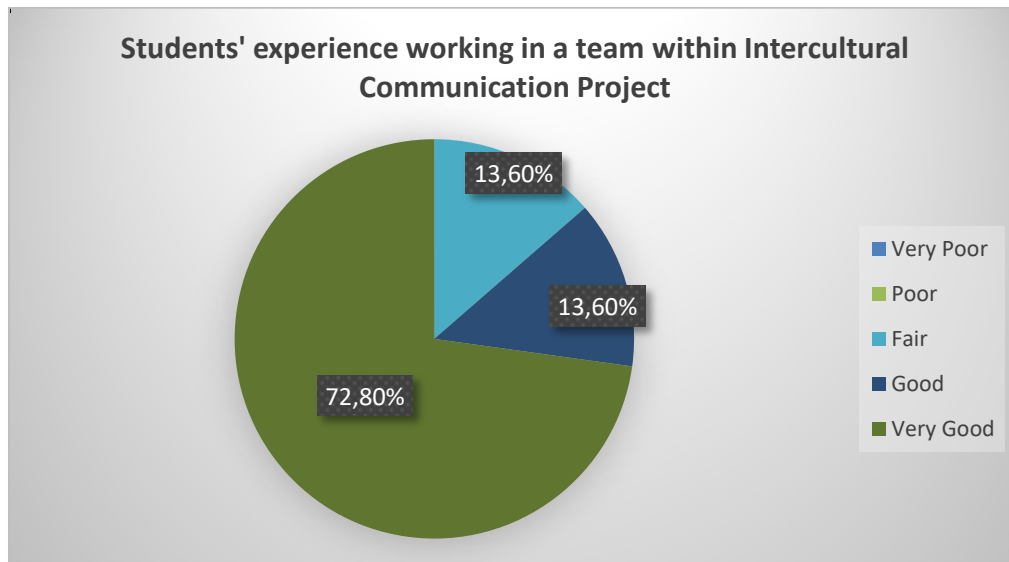


Fig. D. Students' experience working in a team within a COIL project

Source: author's development