

INTERNATIONALISATION AND WORK LIFE SKILLS ACROSS THE BALTIC SEA: KUT–SAVONIA COLLABO- RATIVE ONLINE INTERNATIONAL LANGUAGE LEARN- ING PROJECT

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Abstract

This article examines the Collaborative Online International Learning (COIL) pilot project between Koszalin University of Technology (Poland) and Savonia University of Applied Sciences (Finland) within the EU4Dual alliance, reflecting on 28 students' experiences of international communication and problem-solving projects within regular English language classes. The project highlights the importance of experiential learning and self-reflection for developing language confidence and communication skills in an international virtual teamwork environment. The findings indicate self-reported increases in students' linguistic confidence and perceived work-life skills for future careers.

1 Introduction

The Collaborative Online International Learning (COIL) pilot project was conducted between two higher education institutions allied in EU4Dual and aimed to implement project-based elements into an English curriculum to familiarise students with practical problem-solving skills through virtual international teamwork during their English classes. We explore whether teacher-led, bottom-up COIL integration is feasible and beneficial within the EU4Dual incentivizing framework which creates a basis for ongoing, long-term cooperation. The article explores participants' perceptions, emphasising the significance of experiential learning for developing language and work-life skills, as well as enhancing internationalisation in higher education, even at home and by virtual means. The study also considers the personal and professional benefits of the COIL approach via a descriptive and thematic analysis (Dixon & Tahmaz, 2020; Heirweg et al., 2021; Baranowski & Jabkowski, 2023).

The article is structured into 5 sections. The introduction consists of an overview of the EU4Dual alliance which creates the framework for the collaboration and describes how the COIL project may contribute to training for the labour market (1.1). It also provides a review of the terminology regarding virtual exchange in the selected literature (1.2), the theoretical concepts which our work draws upon i.e. Kolb's Experiential Learning theory as well as Lewin's Model of Action Research and Laboratory Training (1.3). Then, in the method section (2), we turn to the COIL project procedures and to data collection; in the results section (3) we analyse students' responses. The discussion section (4) gives answers to the research questions, and the final conclusion section (5) presents relevant concerns.

We aim to obtain the information necessary to answer the following research questions:

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- RQ 1. What is the impact of the COIL virtual collaboration on increasing students' linguistic confidence and communication skills in an international virtual teamwork?
- RQ 2. How do learners experience internationalisation at home and develop work-life skills for future careers during the COIL virtual collaboration?
- RQ 3. What is the impact of COIL virtual collaboration on mobility readiness?

We aim to explore these questions related to the teaching experiment, placing emphasis on qualitative methods and gathering information through a student survey. Teacher observations of classroom activities and interactions between students in their natural setting play an important role but are neither documented nor treated as research data as such. They will be used for reflection in Section 4. As the teaching experiment was short-term and only a small part of the total course work, we excluded the assessment of language and communication skills from this research. The overall objective of the research on this teaching experiment is to find evidence on whether COIL-based teaching could be a meaningful addition to language classrooms in EU4Dual universities. The research also aims to address the suitability of the chosen practical COIL design and provide actionable recommendations for language teachers in the field of Language for Specific Purposes (LSP). The research interests do not lie within methodological, contextual or theoretical questions.

Many studies have emphasised the benefits of collaborative online international learning (COIL) in higher education (Laal & Ghodsi, 2012; Helm, 2015; Chun, 2015; Rubin, 2017; Poulková et al., 2019; O'Dowd, 2018; Hackett et al., 2023), but far fewer have investigated them empirically in the context of dual and practical higher education (Dixon & Tahmaz, 2020; Rubin & Guth, 2023; Nowak & Rażewska, 2024). Moreover, empirical research on the benefits of COIL for increasing students' language confidence and communication skills is sparse within individual research areas, e.g., pre-service teacher training (Huertas-Abril & Palacios-Hidalgo, 2024; O'Dowd & Vinagre, 2024). To fill this gap, we present our empirical perspective in a theoretical framework to contribute to a better understanding of the need to implement COIL projects in language teaching at EU4Dual HEIs.

1.1 Learning in the EU4Dual context

The EU4Dual alliance, established in 2022, is one of 65 European Universities alliances that have been created by the EU since 2018 to enhance internationalization in higher education. EU4Dual promotes values including dual education, sustainability, innovation and regional anchoring. Despite its nascent stage, EU4Dual has already contributed to fostering academic internationalisation by creating joint master's programs, organising conferences, staff weeks, blended intensive programmes (BIPs), and issuing joint research in the Scientific Journal of European Dual Higher Education.

However, the holistic integration of policies into practice requires time and effort, which is confirmed by the report on the outcomes and transformational potential of the European Universities initiative, published in January 2025. Data for this report were collected from 38 alliances in 2019 and 2020.

“The European Universities are in the process of intensifying their efforts to deepen and mainstream their activities, reaching out to more students and staff members; these efforts need to be continued, engaging all faculties and departments of the partner institutions, in an unprecedented scale and scope... Most alliances have established transnational diversity and inclusion/gender inclusion/social inclusion plans, codes of conduct, strategies, support staff, and offices. Some HEIs report that their participation in an alliance also pushed the diversity and inclusion matters to the top of the institutional agendas. Despite these achievements, the alliances did not fully reach their potential yet, and more efforts are still needed” (Grumbinitė et al., 2025, p.315)

Opinions in the literature review, which have been shared by members of other European universities' alliances on their involvement in this initiative, are in line with the report's findings emphasising the long-term goals and perspectives. Researchers point to the slow growth levels of participation in alliances' activities and highlight that organic community growth needs time, more internationally-minded adopters and the evolution of institutional conditions (Curyło & Frame, 2024). Nevertheless, the partnerships are perceived as ‘a way for the international academic community to interact more broadly, to prepare people better for the future and to do better research.’ (Bugaj et al., 2023, p.20)

Training and internships are typical practice-based forms of learning in dual study programmes. Various recent studies have described and compared the dual education and their national features from the point of view of training and internships, e.g., in Hungary (Sági & Fülöp, 2024), in Austria (Dragan & Hochrinner, 2024), and in France (Merlo et al., 2023). Training and internships aim to familiarise students with the specifics of work in enterprises (Halista-Telus, 2023). In Finland, for example, workplace pedagogy models and learning practices have long been linked to the authentic work life phenomenon, where theory and practice are not seen as separate, but competence is developed comprehensively (Laukkanen et al., 2024).

However, as Turk (2023, p. 1-2) points out, one of the main characteristics concerning dual study programs is 'that the practical phases go beyond the usual scope of professional internship, both in terms of time and in terms of specification of the content'. As we see it, the dual approach due to the diversified national regulations should be flexible—offering high-quality academic teaching, and simultaneously, training students to be skilled workers with high employability. The COIL projects could be seen as one of the flexible methods that go beyond the usual scope of traditional learning methods, such as internships.

According to the January 2025 report (Grumbinaitė et al., 2025, p.166), 123 COIL projects were carried out by the 38 alliances under study. Being language teachers involved in sub-task 6.9 of EU4Dual Work Package 6, which is responsible for language classes to foster seamless mobility and creating the Language Portal to offer on-site, online and tandem courses, we decided to launch a small-scale pilot project to test COIL's feasibility in language learning, identify potential issues and refine the approach before further deployment.

We believe that incorporating remote work elements into the curriculum of language courses might contribute to practice-based education. Both dual and practical education prioritizes connecting academic teaching with the needs of industry by strengthening the relationships between higher education institutions (HEIs) and industry. Since virtual cooperation in an international industrial environment is an essential skill in today's global workforce, it should not be excluded from classroom-based teaching. It is risk-free, cost-efficient and can be practised just as the other work-related skills offering a chance to gain confidence in authentic intercultural situations during regular English as a Second Language (ESL) and Language for Specific purposes (LSP) classes. After all, the optimal aim for all stakeholders in dual education is students-future employees with a well-rounded skill set to succeed in the labour market.

1.2 Review of Terminology

According to Stevens Initiative's "2024 Survey of the Virtual Exchange Field. Report findings from a survey of virtual exchange programmes connecting young people in different countries from autumn 2022 through summer 2023" virtual exchange definitions pose challenges both for re-searchers and statistics reports. Virtual exchange programs are defined and understood differently due to typology, which may be specific to a given world region. They have been referred to as virtual international activities (O'Dowd, 2018), telecollaboration (Chun, 2015), online intercultural exchange (Akbar, 2015) and virtual mobility (European Commission, 2013), among others. Rubin and Guth (2022, p. 26) coined the following analogy to clarify one of the terminology issues: 'Virtual Exchange is like the word sports, while COIL is like the word basketball.' Elaborating on this sports analogy, all these terms may be referred to as activities with the ultimate goal of keeping the ball of structured online interactions rolling. They aim to engage learners with partners from different cultural backgrounds as a part of their study programmes under the guidance of teachers.

1.2.1 COIL

Collaborative Online International Learning (COIL) is an educational method that has been used to internationalise curriculum and facilitate international learning through collaboration (Hackett et al, 2023). COIL is a relatively new method and is sometimes used simultaneously with international virtual exchange (Kastler, 2020) as the design and implementation of COIL involve technology and do not require physical mobility. The COIL format is cost-effective, highly collaborative and follows a bottom-up approach. There are institutions that support COIL modules, e.g., the SUNY COIL

Centre launched on the Purchase College campus of the State University of New York in 2006 or the Collaborative Online International Learning Initiative's directory, which offers a chance to match partners worldwide.

The newest definition coined by Hackett et al. (2024) integrates COIL assumptions in the most accurate way and aligns with the COIL project discussed. 'It is an inclusive, environmentally friendly teaching and learning method used to internationalise the curriculum, in which educators from different educational institutions in different countries connect to co-design and co-facilitate collaborative online learning assignments that are embedded within the curriculum, with the goal of facilitating the development of students' collaborative skills, intercultural competence, and curriculum content learning through collaboration'. (Hackett, et al., 2024, p 1084)

1.2.2 Virtual Collaboration

Virtual collaboration is classified under type 4 of the OECD Centre for Educational Research and Innovation's typology. This type focuses on curricula in foreign languages or linguistics that explicitly address cross-cultural communication and provide training in intercultural skills (Nilsson, 2001). Collaborative learning is an inherent concept of social constructivist theories (Vygotsky, 1978; Bruner 1961). They emphasise the importance of social interactions, problem solving, and active exploration in the learning process. Thus, collaborative learning is an example of the educational strategy in line with social constructivism, which involves a group of learners who cooperate towards a common goal to find a solution to a problem, complete a task or create a product with an educator as a facilitator (Dillenbourg, 1999; Johnson & Johnson, 2008; Laal & Ghodsi, 2012).

1.2.3 Virtual mobility and Internationalisation at home

Virtual mobility (VM) and Internationalisation at Home (IaH) have been prominent in academic discourse since the early 2000s, influenced by advancements in learning management systems, social networks, and collaborative online tools (Rubin, 2017; de Wit & Hunter, 2015; Crowther et al., 2001). VM is defined as 'the use of information and communication technologies to obtain the same benefits as one would have with physical mobility but without the need to travel' (Poulová et al, 2007, p. 87). IaH involves the purposeful integration of international and intercultural dimensions into the formal and informal curriculum for all students within domestic learning environments (Beelen & Jones, 2015, p.69). The European Commission's 1999 strategy introduced IaH as a third pillar, broadening ERASMUS programmes with virtual mobility and Blended Intensive Programmes. The Erasmus+ 2025 programme guide defines virtual mobility as "...online people-to-people activities that promote intercultural dialogue and soft skills development. They make it possible for every young person to access high-quality international and cross-cultural education without physical mobility, which takes place in small groups and is always moderated by a trained facilitator. They should be easily integrated into youth (non-formal education) projects or higher education courses." (Erasmus + Programme Guide, 2025, p. 211)

1.3 Theoretical Framework for the COIL Pilot Project

Experiential learning theory (Kolb, 1994) emphasises the central role of experience in the learning process; it describes the relationship among learning, work, other life activities and the creation of knowledge itself. It is thus interconnected with the work of Levin (1998).

"In the Levinian experiential learning model, immediate experience is the basis for observation and reflection. These observations are assimilated into a "theory" from which new implications for action can be deduced. These implications or hypotheses then serve as guides in acting to create new experiences. This action research is based on feedback processes. Lewin borrowed the concept of feedback from an electrical engineer to describe a social learning and problem-solving process that generates valid information to assess deviations from the desired goals. This information feedback provides a basis for a continuous process of goal-oriented action and evaluation of the consequences of that action." (Kolbe, 1994, pp 21-22)

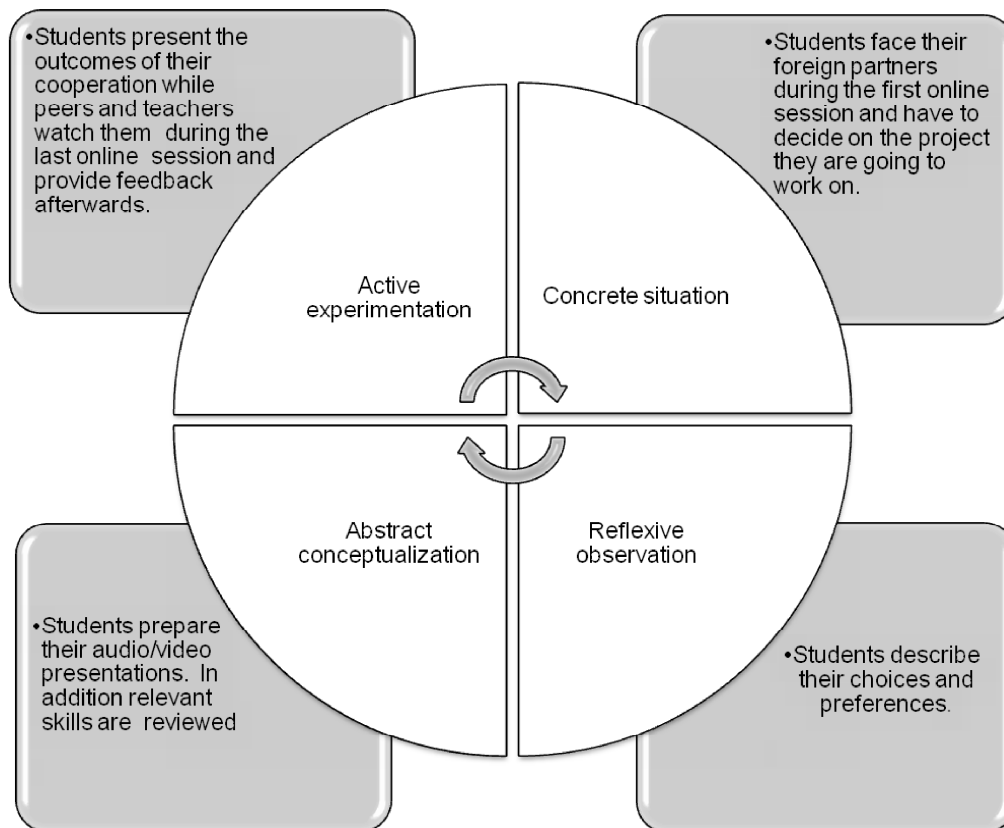


Figure 1. Experiential learning in COIL. Adapted from Kolb's learning cycle

Students who participate in COIL programmes have a chance to be immersed in a real, immediate experience and must deduce new implications on the way towards achieving the desired goal, i.e. completion of the task assigned in an international, new but structured environment. Combining reflective observation abilities, abstract conceptualization abilities and active experimentation, they should decide in a real information gap situation which set of learning abilities to use for a specific task. In this way, they can form adaptive approaches to international collaboration. They first detect, depict, or grasp knowledge, and then the phase of construction should occur to complete the learning process (Abdulwahed & Nagy, 2009).

2 Method

In this section, the implementation and learning process design of the COIL teaching collaboration will be described, also showing the relation to Kolb's experiential learning cycle (Section 2.1). The data collection method used in this COIL teaching experiment was a student survey. The survey and the respondent profile will be presented in the last section (Section 2.2).

2.1 Practical implementation of KUT-Savonia COIL virtual collaboration

2.1.1 Curriculum integration and student participation

The COIL pilot project was carried out in cooperation between Koszalin University of Technology in Poland and Savonia University of Applied Sciences in Finland in March 2025, over a period of three weeks. The planning work started in May 2024. The COIL pilot project was integrated into such English language courses at both universities where the objectives of the COIL collaboration fit naturally into the current curriculum. The suitable courses for the pilot project were identified by comparing their descriptions and learning outcomes, which included acquiring the knowledge of

determinants of social relations, demonstration of a sufficient range of lexical resources to express thoughts with some acceptable hesitation, demonstration of flexibility in linguistic interactions, formulation of understandable spoken statements and making a presentation on the issues of the studied discipline. The feedback students received was based on these criteria. However, it was pedagogical only, not part of this research analysis. The workload, from the student's perspective, was designed to be approximately 0.5 ECTS (13-14 hours). The students were aware of the implementation plan of the course when registering for it. The courses that included the COIL pilot project were part of students' compulsory studies. The students at Koszalin University of Technology were 3rd year students in logistics (Bachelor degree), while the students at Savonia University of Applied Sciences were 2nd and 3rd year electrical engineering and information technology students (Bachelor degree). A total of 28 students participated in the teaching experiment. Of these, 2 were Belarusian, 11 were Finnish, 13 were Polish, and 2 Ukrainian.

The COIL pilot project consisted of a learning process that included the following five (5) phases:

- a. Pre-boarding – Introducing the teachers, objectives of the COIL pilot project and participating universities (independent work)
- b. Orientation and preliminary task – Studying preparatory materials and project case descriptions (independent work)
- c. Session 1 – Ice-breaking and first decisions (teamwork)
- d. Session 2 – Team working and solving the project case (teamwork)
- e. Session 3 – Presenting the results & self-assessment (independent work)

2.1.2 Pre-boarding, Orientation and the preliminary task, Sessions 1-3

2.1.2.1 Pre-boarding

In the pre-boarding phase, the students independently familiarised themselves with an introduction video produced by the teachers in which the teachers and the objectives of the COIL pilot project were introduced. Additionally, the students were guided to familiarise themselves with the partner university through its web portal. The aim was to create a positive impression of the upcoming international collaboration and to emphasise that the aim of the collaboration was to enable the students to have an authentic experience in international work life related co-operation and how to communicate with participants of various language levels and cultural backgrounds, while working virtually. The pilot project prioritised the communicative competences necessary to achieve the purpose rather than the extent of language systems' usage (grammar, vocabulary and pronunciation).

2.1.2.2 Orientation and the preliminary task

The orientation phase included participation in the information Session organised by a teacher, held separately for each university. In other words, there was one initial info Session for KUT students and one for Savonia students. In addition to the real-time, face-to-face meeting, the course implementation plan and other instructions were shared with the students in writing. Additionally, a separate meeting was arranged where students could test joining the Zoom meeting platform, which was used as the working platform, before the first joint online meeting.

The preliminary task for the students, before Session 1, was to familiarise themselves with eight (8) project case descriptions and select their top 3 preferences. Project cases are often used in educational settings to simulate professional work environments and enhance learning experiences. The goal is to develop solutions, strategies, or recommendations for the given case, which can then be presented and evaluated.

The project case descriptions were all in English and their topics were varied, relating, for example, to HR management, electrical planning of a studio room or a warehouse, and logistical issues in harsh conditions. The challenge was creating topics for projects that would include work-life skills such as negotiation, elements of LSP (Language for Specific Purposes) and cultural diversity.

The priority was to prepare projects that would be low in complexity but integrative and boosting collaboration. The projects are presented in Appendix 1 at the end of the paper.

2.1.2.3 Session 1

The next phase was Session 1, where the students met each other for the first time, face-to-face, virtually. It was held via Zoom, lasting 60 minutes. After a brief welcome speech and introduction of the meeting agenda by the teachers, the students were divided into smaller teams using the Breakout Room function.

Each team consisted of 3-5 students, with at least one student from both KUT and Savonia UAS. The goal of the first meeting was to get to know the team members. This was supported by a short ice-breaking task. Additionally, the team had to decide on the following:

- Which project case to choose for their team to solve?
- When will the team meet next?
- Which tool will they use for online meetings (Zoom, Teams, Face Time, Discord...)?
- What tool will the students use for written communication (email, WhatsApp ...)?
- How will they prepare for the next team meeting (Session 2)?

After session 1, each student reported personally to their own teacher about the success of the meeting and what was decided, either orally or in writing (a memo sent by email).

2.1.2.4 Session 2

Each team carried out Session 2 independently, as they had agreed with the team members (e.g., time and meeting platform). The goals of Session 2 were to:

1. Discuss and solve the project case.
2. Decide how the team will present the results in the last session (Session 3).
3. Plan and prepare the presentation material to be used in Session 3.

The team recorded the meeting and submitted the recording to the teachers who provided feedback based on the recording to the team members on the home universities' Moodle platforms respectively. The feedback was aligned with the assessment criteria which focused on:

1. Organisation and timing (topic was clearly stated; talk was well-timed)
2. Content (speaker was in control of the subject matter)
3. Speech (pace was varied and volume appropriate)
4. Pronunciation did not hinder comprehension
5. Discussion management (speaker controlled the flow of questions and discussion, they responded confidently)

The criteria are informative explanations as the project was embedded in the curriculum, not only designed for this research purpose.

2.1.2.5 Session 3

Session 3 was the final meeting of the COIL pilot project, again held via Zoom and lasting approximately 90 minutes. During the session, each team presented the project case they had chosen and how the project case was solved. They also described the perspectives and issues they considered when solving the project case as well as the most challenging aspects of the project case. At the end of the presentation, they described the useful work-life skills they learned from the international collaboration for their future careers. The feedback given to each team focused on communication and presentation skills.

The final task of the COIL pilot project was to complete a self-assessment task regarding the learning and the experience itself. The last task also served as a feedback survey, which was mandatory for all participants.

As an extra reward, the students were offered the option to receive a separate certificate of participation in the international EU4DUAL based on the learning project. It could be used in the future job application process to document students' experience in communication and cooperation in the intercultural context in higher education.

2.1.3 The COIL learning design featuring Kolb's experiential learning cycle

As presented in Section 1.3, the theoretical framework of this COIL project pilot is based on Kolb's (1994) experiential learning cycle. It consists of four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation.

The COIL pilot project was aligned with this model but pre-boarding and orientation (including preliminary tasks) were the pre-stages of concrete experience. There, students watched an introduction video and familiarised themselves with the partner university, setting the stage for their learning experience. Participation in info sessions and familiarisation with project case descriptions provided initial hands-on training.

The first concrete situation was facing other foreign students and the immediate experience of interacting with them to negotiate the choice of pre-read projects. The reflexive observation stage was included in Session 2. Students reflected on their initial interactions and decisions made during the ice-breaking activities and team formation. As students worked on their project cases, they reflected on their teamwork and problem-solving processes and analysed how to collaborate best.

The stage of abstract conceptualization was part of Session 2 and Session 3. Students developed strategies and solutions for their project cases, conceptualizing their experiences into actionable plans, presenting their solutions, structuring their ideas, reflecting on the theoretical aspects of their projects and integrating their experiences into broader concepts. They could also analyse what happens when interacting with their international peers.

Active experimentation, the final stage of Kolb's cycle, was also included in Sessions 2 and 3, where students first tested their solutions and strategies in a collaborative environment, experimenting with different approaches. Finally, they presented their results in public and completed the self-assessment. These allowed students to apply and assess their learning and the feedback received, which they can use in future learning tasks, projects and at work.

2.2 Data collection

The final learning task of the COIL project pilot was a self-assessment and feedback survey. It served as a data collection method for the research purposes. In addition, the two teachers involved in the teaching experiment observed all the learning activities and interaction taking place throughout the experiment, both in documented learning outcomes (written and recorded documents), as well as in teacher-student communication and interaction in a live virtual classroom. However, these observations were neither documented nor treated as research data, but they will be used for reflection in Section 4.

2.2.1 The survey

The survey was conducted online using Google Forms. The language of the survey was English. It contained 23 questions (Table 1), of which 17 were multiple-choice questions (closed or structured) and 6 were open-ended, semi-structured questions. Their relevance to the research questions is shown below:

- RQ 1. What is the impact of the COIL virtual collaboration on increasing students' linguistic confidence and communication skills in an international virtual teamwork? → Q10, Q11, Q12

- RQ 2. How do learners experience internationalisation at home and develop work-life skills for future careers during the COIL virtual collaboration? → Q13, Q14
- RQ 3. What is the impact of the COIL virtual collaboration on mobility readiness? → Q19, Q20

Table 1. Google survey questions. KUT - Savonia cooperation (COIL), March 2025

1. How old are you?
 2. Please write your gender.
 3. Your nationality
 4. How would you describe your English skills? Are you a basic (A1-A2), independent (B1-B2) or advanced (C1-C2) user?
 5. Is this your first experience of international virtual co-operation at university?
 6. Which platform did you use to work with your team?
 7. The general instructions for team work were clearly explained. Likert's scale
 8. The instructions for the project cases were clear and easy to understand. Likert's scale
 9. The project cases were: easy, challenging enough, not challenging.
 10. This co-operation was a positive experience. It increased my confidence in speaking English. Likert's scale
 11. Based on the co-operation experience, what are you already good at, when communicating in English?
 12. Based on the co-operation experience, what kind of English or communication skills should you still practise and learn more about?
 13. This co-operation increased my self-confidence when working with international colleagues and partners. Likert's scale
 14. How did this co-operation in the international team strengthen your work-life skills for the future? What did you learn about working virtually in international teams?
 15. The teachers should have been involved more with the teams. Likert's scale
 16. The length of this co-operation (3 meetings together) was too short. Likert's scale
 17. Were there any challenges when doing the project? (technical, communicational, cultural...)
 18. Would you recommend taking part in this kind of international co-operation to other students? Why?
 19. I have never been interested in being an exchange student and taking part in ERASMUS+ exchanges. Likert's scale
 20. After this KUT - Savonia co-operation experience, I could consider taking part in ERASMUS+ exchanges. Likert's scale
 21. Evaluate the number of working hours you needed to complete this co-operation process (incl. all preparation, meetings, contacting, feedback survey etc.)
 22. Anything else you want to say to the teachers, Joanna and Irene? Any development ideas for the co-operation in future?
 23. Do you grant your permission to use the contents of this survey for research purposes? The survey data will be processed in accordance with GDPR regulations and the answers will be anonymous.
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The task had to be completed immediately after Session 3, and it was a compulsory part of the course work. All the students were informed in advance that their responses would be treated as research data. In the survey, the students were asked to grant permission to use the contents for research purposes (see Table 1, Question 23). Withholding research consent did not affect course grading and only anonymised, consented responses were analysed. The survey data were processed in accordance with the EU's GDPR regulations.

2.2.2 Respondent profile

The survey was answered by 28 respondents. Table 2 with the respondents' profile is based on closed questions 2, 3, and 4 in the survey.

Table 2. Respondents' profile

DETAIL	TOTAL RESPONDENTS	TOTAL PERCENTAGE %
1. Gender		
Female	9	32.14%
Male	18	64.29%
Non-binary	0	0.00%
Prefer not to say	1	3.57%
2. Nationality		
Belarusian	2	7.14%
Finnish	11	39.29%
Polish	13	46.43%
Ukrainian	2	7.14%
3. English skills - self-assessment		
A1-A2	2	7.14%
B1-B2	21	75.00%
C1-C2	5	17.86%

Overall, 93 % of the respondents self-assessed their skills to be on the level of B1-B2 or higher on the CEFR scale. The English skill level aimed at our HEIs is typically B2.

3 Results

All participating students completed the COIL pilot project successfully. In this section, we examine the survey results reflecting the three research questions. We describe the learners' experiences related to the development of their linguistic confidence and communication skills in an international virtual teamwork (Section 3.1), the strengthening of their international competence needed in working life during the COIL pilot project (Section 3.2), and the impact of the experience on respondents' attitudes towards Erasmus+ mobility (3.3).

The key findings will be illustrated in two ways. Figures 2-5 are based on the structured survey questions (Questions 10, 13, 19, and 20) where a Likert's scale from 1 to 5 was used, while the discourse samples represent the semi-structured survey questions (Questions 11, 12, 14, 18, and 22). The discourse samples were chosen as illustrations as they allow the students' voice to be heard as it is, with nuances and rich details.

3.1 Learners' experiences in developing language confidence in international teamwork

Most learners (78,6 %) viewed the COIL pilot project as a clearly positive experience and saw it as boosting their confidence in using the English language.

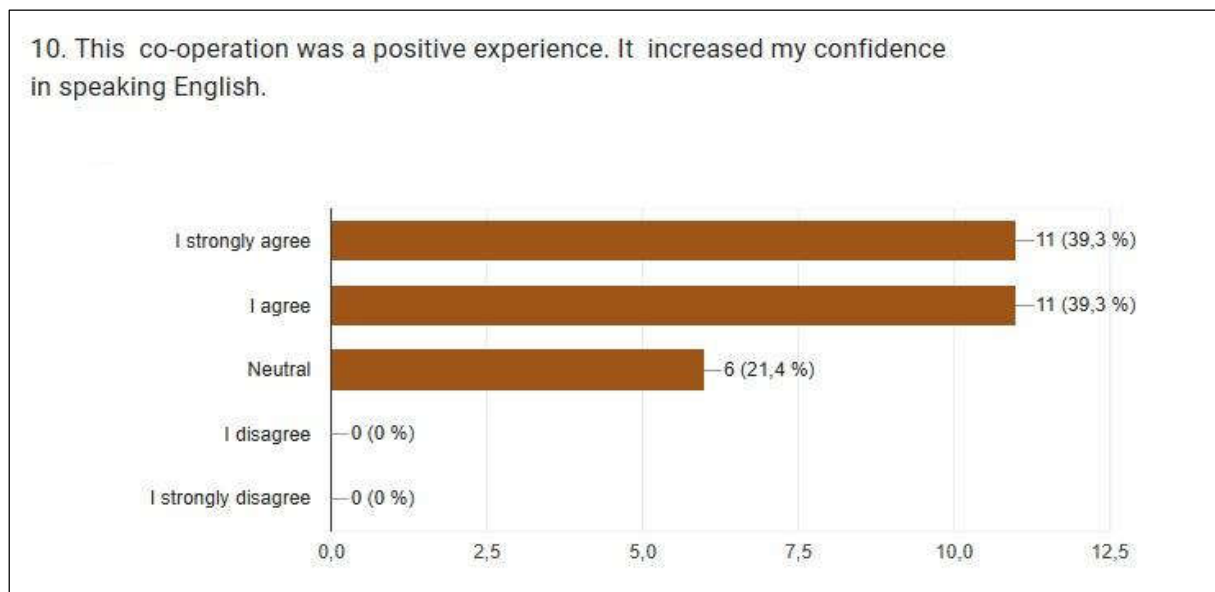


Figure 2. Students' self-assessment of the increase in speaking English confidence

In questions 11 and 12, students were asked to reflect on their language skills before and after the COIL project.

The learners recognised that they already had a good understanding of English; they could speak English well and felt confident using it in teamwork and problem-solving situations. Writing and vocabulary skills were also highlighted as strengths in several responses.

"I can understand and speak well."

"I'm already comfortable speaking English."

"I think my strength is in writing and the English vocabulary."

The responses also reflected a decrease in negative feelings and experiences during the COIL experiment. However, the need for further learning was highlighted alongside the strengths.

"I am less ashamed to speak English because I don't like my accent."

"less stress and more confidence during the conversation"

"I think I'm better at it, but I still have a lot to learn."

The learners were able to recognise many development needs related to the English language and communication skills. The most prominent need was to increase vocabulary management, especially regarding English for Specific Purposes. Responses also emphasised the importance of improving speech production, focusing on both pronunciation and presentation skills.

"I need to work on improving my pronunciation and expanding my knowledge of professional terminology."

"Widen my vocabulary especially regarding technical terms"

"I need to practice speaking more to improve my pronunciation."

The importance of active listening skills for smooth interaction was identified, along with the need for precise expression.

"I have sometimes struggled with clearly expressing my ideas in discussions, so I need to practise giving concise and structured responses. I also want to improve my active listening skills to ensure better understanding and collaboration."

Many respondents also highlighted their successes and identified learning methods to independently improve their English language skills, proving that experiential learning contributes to reflective observation development.

“my language barrier has decreased significantly; I can explain what I am talking about in different ways so that everyone can understand”

“I think I still need to work on my confidence and I think it was a good experience that we recorded how we spoke and thanks to that we can listen to how we speak again and see what mistakes we make.”

3.2 Learners' experiences in internationalisation at home and development of work-life skills for future careers.

Most of the learners (78,5%) felt that participating in the COIL pilot project during their English course made them feel more confident when working with international colleagues and partners. It is noteworthy that for a vast majority of the respondents (89,7%) this COIL project was their first experience of international virtual cooperation at university.

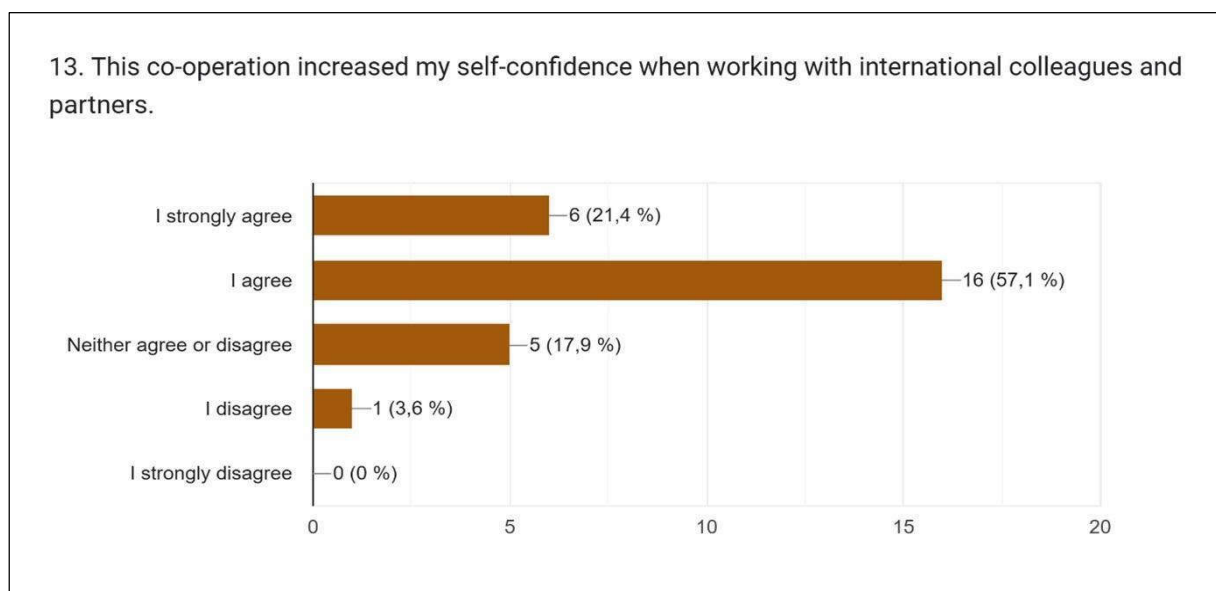


Figure 3. Student self-assessment on the increase in self-confidence while working with international colleagues

The responses to question 14 ‘How did this co-operation in the international team strengthen your work-life skills for the future? What did you learn about working virtually in international teams?’ clearly highlighted four perspectives considered essential for skills needed in future careers. These were communication skills, intercultural skills, technical skills, and confidence and adaptability.

The learners appreciated that they could practice communication skills in a real, interactive, and professional situation and learn through practical work with peers.

“Gained experience in communicating in English in a work environment, which will definitely be beneficial in the future.”

“Engaging in discussions, asking clarifying questions, and actively listening without interrupting will also help enhance your communication skills.”

Learning intercultural skills was seen as becoming better prepared to meet and work with people you do not know in advance and who have different kinds of cultural backgrounds which may

also influence the use of English. Also practical issues, such as time zone differences and handling them, were seen as an intercultural skill.

"Cultures can differ from each other and it is worth remembering that."

"This made me more comfortable in talking to strangers from different countries, and it is likely to be useful in the future."

"Each country has its own accent."

"Remember about time differences and set a meeting time that is clear to everyone."

The COIL project highlighted the importance of technical skills when working virtually. The learners faced and had to solve technical problems (e.g. software-related choices and challenges, weak Internet connection, audio-related problems) together, virtually, in order to make the team work successful in the first place.

"How to deal with technical difficulties and organize group work across platforms."

"The first time was difficult, but I learned to use the communication app for the future."

The perspective of confidence and adaptability was strongly present in the responses. The learners valued the authentic context to practice their skills and to be able to gain the first professional intercultural encounter already during their studies, making them more prepared to face similar situations when employed.

"Thanks to this I could see that cooperation with other people from other countries is not that difficult and gives a lot of new opportunities."

"It reminded me that sometimes I will have to meet new people and work with them; I think I might be more ready for that now."

"I'm starting to think I'd really like to work within international teams in my career."

"When I have my first online meeting in my working life, it is not my first time."

3.3 Learners' experiences in mobility readiness

All respondents were ready to recommend the COIL learning experience, a short-term informal virtual exchange, to other students (Question 18). They found several reasons why working in an intercultural team online, even for a short period of time, is supporting students in improving their language skills and soft skills necessary in working life. These reasons included personal development, English skills, social interaction skills and motivational factors that make learning enjoyable. The responses also indicate a slight change in the attitudes towards ERASMUS+ exchanges.

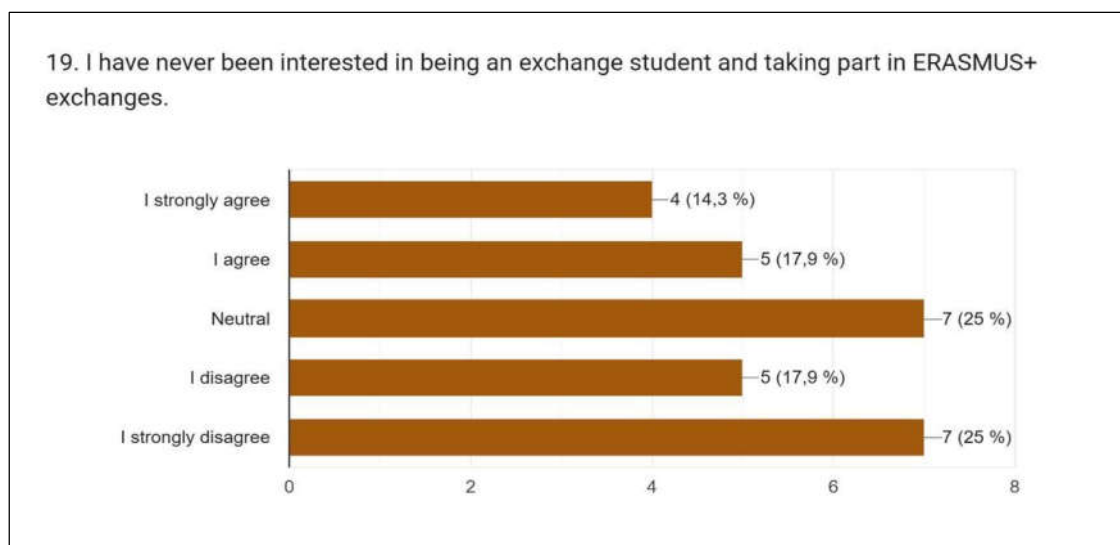


Figure 4. Students' interest in ERASMUS + exchanges before the COIL project

Based on the responses, 9 respondents were not interested in being an exchange student before participating in the COIL pilot project. After the project experience, there were only 7 respondents who were not interested in exchange studies. The number of respondents (n=7) who had a neutral attitude towards mobility before the COIL pilot project grew by 4 responses (n = 11) when asked about the readiness for ERASMUS+ mobility after the COIL experience.

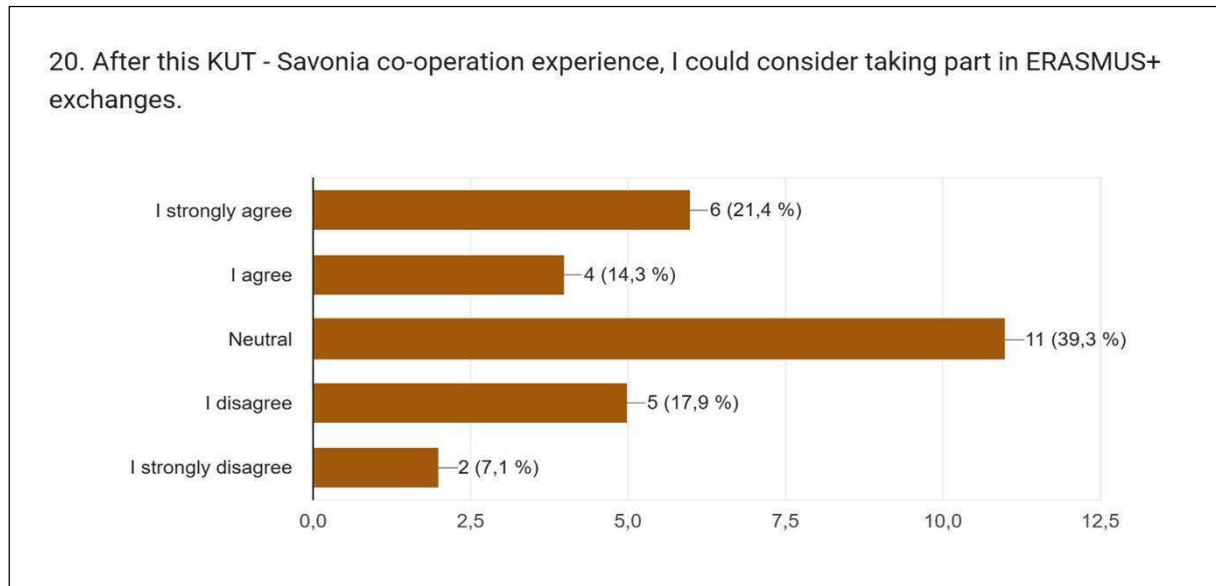


Figure 5. Students' interest in ERASMUS+ exchanges after the project

The changes in the response numbers were small. The number of neutral responses was higher after the COIL experience, but this does not necessarily indicate that the COIL assignments and projects stimulate automatic commitment to mobility readiness in higher education. More likely, the short duration of this COIL project yields only attitude softening.

As a future development idea in Question 22 "Anything else you want to say to the teachers, Joanna and Irene? Any development ideas for the co-operation in future?". The respondents strongly supported the continuation of such opportunities to practice team working in international contexts, seeing COIL as a useful and even enjoyable way of learning.

"I would like to have more such joint projects, this is a truly wonderful experience and it's a pity that this hasn't happened before"

"The cooperation was a great learning experience. For the future, maybe more interactive sessions or smaller group discussions could help improve engagement and teamwork."

"More of this kind of project would be good practice for students."

"Taking part in such a project is very interesting and developing and it is worth continuing"

4 Discussion

This research focused on three key research questions concerning 1) the impact of COIL virtual collaboration on increasing students' linguistic confidence and communication skills in international virtual teamwork, 2) the learners' experience of internationalisation at home and development of work-life skills for future careers through virtual international collaboration, and 3) whether COIL virtual collaboration could influence students' mobility readiness. These questions were studied through the COIL project pilot, which implemented project-based elements into an English curriculum, familiarising students with practical problem-solving skills while working in an international team during their English classes.

The results of the study show that there were several rewarding and informative aspects of the COIL project. Regarding RQ1, students' self-reported that linguistic confidence and communication skills increased as agreed by 78.5% of the respondents. It is crucial to mention that participants

considered the COIL project may influence their future career, which resonates with the comments students made in the survey (see section 3.2). These findings are in line with insights from the works of researchers like Helm (2015), Nokes-Malach et al. (2019), Nowak and Rażewska (2024) who studied students and educators' beliefs about the value of outcomes of virtual collaboration.

With reference to RQ2 on learners' experience of the COIL-based working in language classes, the respondents described the COIL learning experience positively if not enthusiastically (see section 3.3). This could imply that COIL-based learning and teaching methods could be important motivational factors to support students' learning processes, and perhaps even attract students to choose more language courses in their study program.

Whether COIL participation increased their mobility readiness, i.e., RQ3, the survey results do not conclusively show an increase in mobility readiness. This COIL project pilot provided, however, only a short-term experience, and changing student attitudes is a complex process influenced by various psychological and social factors which may take a long time. Nevertheless, COIL collaboration in teaching could be seen as an effective component influencing attitude change. It provides a structured, supported, and safe environment to practise and experience interaction in an international context.

As mentioned earlier, the teachers' observations during the COIL project pilot were not treated as research data. Nonetheless, we – the teachers designing and implementing this COIL project pilot – observed the students' enthusiasm and the positive outcomes in all learning activities included in the project pilot. Beyond the analysed survey data, through observation of student encounters during the online sessions and assessing their learning outputs, such as recordings of each team's meetings and their presentations, our teaching reflections suggested that synchronous virtual group interaction requires students to overcome shyness, reticence, and the tendency to rely on written notes and even dialogue scripts. Compared to traditional collaborative practice in monolingual groups, in a physical classroom with a teacher present all the time, this experience allowed students to face English language communication in practice without teachers' backup. While some discussions lacked fluency, they reflected real-life communication challenges with moments of silence, hesitation, anxiety, and misunderstandings.

Furthermore, it could be argued that short virtual COIL-based mobilities are more attainable and also prepare students for a world where 'more and more communication is at a distance, supported via the Internet, mobile communications technologies, video conferencing and multimedia presentations' (Pickford & Brown, 2006, p.61). Despite technological advancement and the acceleration of the introduction of online teaching tools at universities, the internet's stability and different levels of participants' digital competences may disrupt synchronous meetings. Thus, it is crucial for universities to invest in technological infrastructure and create support systems to address digital discrepancies for more inclusive virtual programmes which would attract students with financial and mobility constraints.

From the perspective of sustainable development and the economical use of resources, COIL teaching and learning could also be seen as a green option to foster mobility through internationalisation at home. Whether long- or short-term, but only virtual, COIL can offer several benefits of physical mobility, and it also simulates the authentic international work environment. However, it does not cause travel costs and has a lower carbon footprint.

As practical recommendations for the feasibility of future, teacher-led COIL projects in the EU4Dual alliance, we suggest planning the compatible available platforms for cooperation and more detailed instructions regarding the technical requirements for the tools used in virtual meetings, e.g., using headsets to prevent echo and to improve volume and sound quality. Also, conducting virtual cooperation in computer laboratories or webinar rooms could be considered. Additionally, video recordings could be favoured over audio recordings to further encourage students to engage in natural communication rather than reading comments prepared in advance.

As a recommendation for peer language teachers, we strongly encourage them to consider the alliance opportunities to include COIL methods in their teaching, either short- or long-term, taking into account different academic calendars, learning outcomes and time zones. The Language Portal, sub-task of EU4Dual Work Package 6, planned to be implemented as a part of the EU4Dual website might be a perfect platform to match language teachers interested in such cooperation both within regular classes or alternatively as elective language courses. For us, this COIL project pilot was an

invaluable opportunity to reflect on our own methodological, IT, and organisational skills in an international context. Investing time, effort, and resources is worthwhile, as it is a great opportunity to develop one's own professional language teacher identity. However, it must be noted that without mutual, cross-institutional, and personal understanding, this kind of cooperation might not be feasible. We are planning to continue our cooperation in 2026 and have shared the invitations for other language teachers via EU4Dual network. We also hope that publishing this study can be a valuable, practical and theoretical incentive. However, it should be mentioned that due to language teaching organisational differences within the alliance, the willingness of teachers themselves is the fundamental issue.

In light of the results, future research should focus on assessing the long-term impact of COIL projects on students' linguistic confidence, communication skills, and mobility readiness. This would help in understanding the lasting effects of virtual collaboration and internationalisation at home. In addition, comparative studies between short- and long-term COIL projects could provide insights into their respective benefits and challenges. This would help language educators in determining the optimal duration for such projects to maximise student engagement and learning outcomes. Finally, gathering more extensive and detailed feedback from both students and teachers involved in COIL projects would provide valuable insights into the practical challenges and benefits of such initiatives in language learning and teaching, or in any other field of education.

5 Conclusions

The results demonstrate that COIL virtual collaboration contributed positively to enhancing students' linguistic confidence and communication skills in international teamwork (RQ1), while also offering meaningful experiences of internationalisation at home and supporting the development of work-life skills relevant to future careers (RQ2). According to the respondents' feedback, such projects contribute significantly to these goals. They provide a chance to gain greater familiarity with working in authentic international work-life contexts. The quotes in 3.2 demonstrate that students acquired some transferable competencies, central to both professional and intercultural development, such as the value of "communicating in English in a work environment" and "the ability to engage in discussions, asking clarifying questions". The respondents also recognised that "cultures may differ from each other and it is worth remembering that" while developing greater ease while "talking to strangers from different countries". Furthermore, students described strengthening their technical skills "learning to deal with technical difficulties and organize teamwork across platforms" thus becoming more adept despite initial challenges. These self-reported observations indicate that this COIL project was a valuable contribution to building students' skill set. With regard to mobility readiness (RQ3), the findings were less definitive, indicating that repeated engagement in COIL initiatives may be required to generate changes in students' willingness and preparedness to participate in physical mobility programmes.

We also aimed to obtain students' opinions about the implementation of COIL at our home, and potentially other EU4Dual institutions. We wanted to identify potential challenges and refine the approach before further deployment. The project pilot experience confirmed that despite challenges such as technical issues, short-term COIL projects can be effectively integrated into regular language classes.

There are limitations to draw broad conclusions from the survey as the number of respondents was relatively small, the project duration quite short and the increase in linguistic confidence was self-reported. However, we view our attempt more as the presentation of a good practice rather than an in-depth analysis.

Overall, the project has demonstrated that stepping out of one's comfort zone can be an incentivising and motivating factor in both language learning and language teaching. Given the effort and time required from the educators to design and implement this interaction-based COIL pilot project, we conclude that COIL, as a teaching method, can also be a beneficial and instructive process for language teachers. It offers a simple way to enhance one's expertise and benchmark best professional practices in language teaching - whether across the Baltic Sea, within the EU4Dual alliance or throughout Europe.

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Appendix 1 - KUT-SAVONIA COIL projects' descriptions and sample questions

Project title	Project description	Sample project questions
1. Electric Vehicle (EV) fleet for wholesale groceries deliveries	Imagine you are helping a wholesale groceries make a decision whether to switch from gas-powered vehicles to electric ones in Koszalin or Kuopio. The wholesaler operates within a 100-km radius of the city. Your task is to discuss the advantages and disadvantages of such a solution	What are the incentives for purchasing EV vehicles in Poland/Finland? What's the cost of purchasing such vehicles? How far can the EVs travel before they need charging? Where are and where should charging stations be located?
2. Flood-stricken area rescue plan	A mountainous settlement has been severely affected by a flood. Because of the weather, the rescue action should be carried out quickly and efficiently. The approximate number of residents in the settlement is one hundred. Agree on the steps you should take as well and the most useful equipment. The place is not possible to be reached by road and the weather forecast for the night predicts severe winds. The following day's forecast is the same. The aim of the project is to prepare the plan to deliver assistance to the flood-stricken area and to transport the people to safe zones.	What equipment could be used to deliver help? (rescue boats, ropes, insulated blankets, stretchers, snowmobiles, ATVs)? Who should be helped first and why? Are there any specific groups requiring urgent medical attention (e.g., toddlers, elderly)? What products should be delivered to the area? Where should the products be delivered? How will rescued individuals be transported to the safe zones? What might be alternative communication methods in case of equipment failure?
3. Managing an international team	You are working in an international company Solar World Ltd. You design and manufacture customized solar panels for European markets. The organization of the company was just restructured. Now, you are the new management group that is responsible for 3 new teams starting their work next month. The teams are: 1) electrical designing team in Kuopio (Finland), manufacturing team in Delhi (India) and distribution planning team in Koszalin (Poland). The teams need to work well together to create an efficient work flow and the best service for the customers.	What country culture-related things may cause problems in the co-operation of this global virtual team. Identify and discuss potential problems you foresee. How could you, as a team leader or manager, help to ease or solve these country culture related problems? What practical things may cause challenges, or need different ways to manage and lead the team, compared to a team that works only in one country, in the same location/office? How could you, as a team leader or manager, help to ease or solve these practical problems related to teams

Project title	Project description	Sample project questions
	Most of the meetings and decision-making that these 3 teams organize take place virtually, which makes them a global virtual team.	working and managing them? The teams start their work & co-operation next month. Plan what you could do as managers to have a good start for the new restructured organization where every team member in all 3 locations feels they work together no matter where they are located.
4. Plan a perfect studio in a dorm	You have decided to enter a competition for the most ergonomic 1-person studio in a dorm. The studio is 12 square metres (3m x4m).	How to plan the layout ergonomically? Is it important to have lots of storage space or rather more space? Why? What furniture and accessories are a must in a dorm studio? Why? Where should the power points (sockets) and light switches be located and why? What colours should the studio be painted with and why?
5. Redundancies in a warehouse	The company, where you are the head of operations, has been implementing automation in the warehouse. The new system is working efficiently 24/7 so there is a need to make 3 people redundant. You have been asked by the human resources department to comment on 10 employees and decide who is dispensable from your perspective. A list of 10 employees' strengths and weaknesses along with their family situation was included.	Which factors should be prioritised when workers face dismissal from work? Their skills, qualifications, personality, family situation, age? Why would the people you choose find it easier to look for new job positions? What advice would you give to someone who is worried about re-entering the job market? Should dismissal be carried out face to face or by mail? Why?
6. Robotics implementation	PKC group (part of Mother-son), an international company producing components for the automotive and transport industries, is based in Finland (Kempele) and Poland (Czaplinek). It handles many international orders, and its warehouses need optimization. Currently, components are picked from high shelves, packed, and transported, but human errors and damages occur. To fix this, PKC plans to	What do you do before you make a big purchase? What factors do you take into account? Which are the most important factors for choosing robot suppliers? Why are they important? What terms of delivery and maintenance should be reviewed and discussed before the purchase of robots? Why? What questions should be asked to the suppliers? What might be the potential risks and problems when

Project title	Project description	Sample project questions
	use robotics technology in its warehouses and prepare for choosing the best supplier. A list of 4 offers was included.	choosing a supplier? Delays, hidden costs?
7. Temperature-sensitive products transport	Transport of perishable goods and temperature-sensitive goods requires maintaining precise temperature control across the whole supply chain. Not all areas in the world have a power grid so such transport faces a lot of challenges. This project's aim is to discuss a system that operates also off the electricity grid and ensures stable temperatures ranging from -18°C to 0°C, which are critical for certain products e.g. vaccines. The temperature-sensitive product, the transportation route and proposed solutions for maintaining the required temperature in an off-grid system should be selected and discussed in your group.	What products are temperature-sensitive? Why? In which regions or scenarios can off-grid transport be necessary? How can an off-grid refrigeration system be designed and implemented? What temperature does your selected product require? How can temperature be continuously monitored, and what measures can mitigate deviations? Could the system include a tracking mechanism that integrates real-time monitoring of temperature, location, and estimated time of arrival? What are the potential risks and challenges for successful implementation of this type of transport?
8. Warehouse layout and electrical wiring	You have decided to set up an online shop with clothes. The shop will employ about 10 people who will take and complete orders as well as pack and dispatch the ordered items. You have just purchased a small warehouse (200 square metres) which has no furniture or electrical wiring.	How to plan the layout and electrical wiring effectively and ergonomically? What furniture and accessories are necessary in the warehouse apart from those suggested in the picture? Are all the power points at your home well-planned or do you need to use extension leads? Think about the number and location of power points (sockets), light switches or motion sensor lights, fuse boxes, circuit breakers, emergency power supplies, CCTV cameras.