77 Erasmus+ KA220, Fostering Students' Interdisciplinary Competence through the Action-Oriented Approach and Collaborative Online International Learning

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COIL SPECIAL REPORT

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No. of cohorts: 4

I. Introduction

- Leading institutions: Gymnázium Myjava, Slovakia; Badji Mokhar University, Annaba, Algeria, Partium Christian University, Oradea, Romania, Západočeská univerzita, Pilsen, Czech republic
- Monitoring institutions: Constantine the Philosopher University, Nitra, Slovakia; Partium Christian University, Oradea, Romania; Gymnázium Myjava, Slovakia; Casimir Pulaski University, Radom, Poland; Eszterházy Károly Catholic University, Eger, Hungary; Gymnázium Nitra; Západočeská univerzita, Pilsen, Czech republic;
- Participating institutions: Gymnázium Nitra, Slovakia; Evanjelická spojená škola, Liptovský Mikuláš, Slovakia; Gymnázium Banská Štiavnica, Slovakia

In accordance with the project proposal, this special report is drafted by the partner institution of Evanjelická spojená škola in Liptovský Mikuláš, Slovakia, following the four sets of COIL cohorts. The project special reports summarize the COIL cohorts' results contributing to the project's general objectives.
The main objectives of the Workpackage n. 3 are as follows:

1. to validate newly designed learning materials in a highly interactive and international educational virtual setting;

2. to develop interdisciplinary competence of all participants (teachers and students alike);

3. to empower teachers and students who have no or very little previous experience with COIL to get actively involved;

4. to provide teachers experienced in COIL with opportunities to share their expertise and knowledge with others and to improve their own practice in this field;

5. to provide safe space for communication and creativity of all participants;

6. to intensify, strengthen and sustain collaboration and network of partner institutions involved in the project;

7. to get necessary feedback from participants on the quality of learning materials and the effectivity of their use in COIL.

These goals are duly reflected by the methodology below (see section II below), as well as the assessment of the COIL data and formulation of its results (see section III below).

II. Methodology

The following qualitative and quantitative indicators were used to measure the level of achievement of the work package objectives and the quality of the results:

- COIL inclusivity for both teachers and students;
- quality of the newly designed digital teaching materials (content, interdisciplinary perspective and adaptability to COIL);
- COIL participation of all partner institutions;
- teacher and student motivation for active involvement in COIL;
- teacher and student motivation for COIL implementation in their respective institutions;
- student activity and interaction with students from other partner institutions.
  - number of COIL cohorts (overall estimate – *n* 8)
  - number of teachers involved in COIL (overall estimate - *n* 25)

- number of students involved in the activities of the resource centre (overall estimate – *n* 130)
- number of feedback questionnaires collected (overall estimate - *n* 155).

2.1 Data Collection

To assess the success of the project, we utilized both quantitative and qualitative approaches. Data were collected through pre- and post-COIL questionnaires for students and a post-COIL questionnaire for teachers. Observation sheets for monitoring institution teachers were also used.

In particular, the online questionnaire for participating students (pre-COIL cohort) had 7 items (one open-ended and one closed-ended item covering factual information, one closed-ended item and four rating scales relating to the Workpackage n. 3 assessment). The online questionnaire for participating students (post-COIL cohort) had 8 items (again, consisting of one open-ended and one closed-ended item to cover factual information and to pair up the questionnaire, two closed-needed items, and four rating scales to assess the Workpackage n.3). The online questionnaire for participating teachers (post-COIL cohort) had 19 items (two open-ended items for factual information, two closed-ended and two open-ended items and 11 rating scales to assess and comment on the Workpackage n.3). The observation sheet for monitoring teachers had the format of a structured observation including 12 items (two factual open-ended items, one open-ended item and 9 rating scales for Workpackage n.3 assessment).

2.2 Sample Description

The research included a cohort of 69 students in the pre-questionnaire phase and 34 students in the post-questionnaire phase. The different number of students attending the COIL sessions at the beginning and at the end of the sessions resulted partly from the technical issues – relating to the online format and the administration process of the research tools (for more, see below). Following the project specifications, the students were from 5 countries (Slovakia, Romania, Algeria, Poland and Czechia) and 8 institutions (five universities and three grammar

schools). We gathered responses from 14 teacher's questionnaires. Observation feedback was obtained from 16 respondents monitoring the COIL sessions (Constantine the Philosopher University,Nitra, Slovakia Partium Christian University, Romania for the third COIL, Constantine the Philosopher University, Gymnázium Myjava, Slovakia for the fourth COIL, the fifth COIL was monitored by Casimir Pulaski University, Radom, Poland and Západočeská univerzita, Pilsen, Czech republic and sixth one by Gymnázium Nitra, Slovakia and Eszterházy Károly Catholic University, Eger, Hungary). However, some respondents attended more than one coil session, which resulted in 34 observation responses.

III. Results

The assessment below is based on pre- and post-COIL questionnaires, teachers' post-COIL questionnaires and COIL observation sheets and follows the project Workpackage no. 3 objectives.

3.1 Student Evaluation

Pre-COIL Questionnaire

Regarding students' understanding of the concept of interdisciplinarity, 91% of respondents were able to select the most appropriate definition, suggesting that *interdisciplinarity is when different subjects or fields of study are combined and work together*. Although 71% of the respondents replied that they were only *somewhat familiar* with the concept. The majority of the respondents believed that attending the COIL sessions would enhance their knowledge of the topics discussed (52% strongly *agree*, 48% *agree*). Most respondents agreed with the statement regarding their *active participation in discussions and other activities during the COIL sessions* (28% *strongly agree*, 64% *agree*). Similarly, respondents mostly believed that they would have enough opportunities to participate and speak freely during COIL sessions (30% *strongly agree*, 65% *agree*).

Post-COIL Questionnaire

After attending the COIL sessions, the data were collected from 49% of the students participating in the pre-coil questionnaire. The majority of the respondents replied that their understanding of interdisciplinarity changed over the course of the COIL sessions (79% of respondents).

The number of respondents who were able to select the most appropriate definition of the concept of interdisciplinarity remained the same (91% in the pre-coil and 91% in the post-coil data).

On the other hand, respondents praised the format of the COIL sessions: 76,5% of the respondents *strongly agreed*, and 23,5% *agreed* that teachers' instructions were clear. 53% of the respondents *strongly agreed*, and 47% *agreed* that attending the COIL sessions enhanced their knowledge of the topics discussed. The respondents also mostly believed that they were active in discussions and other activities during the COIL sessions (24% *strongly agree*, 62% *agree*). However, 15% of the participants *disagreed* on actively participating. They also mostly agreed with the statement that they were given enough opportunities to participate and speak freely during COIL sessions (62% *strongly agree*, 35% *agree*).

3.2 Teacher Evaluation

Post-COIL questionnaire for teachers

As regards the usefulness of the lesson plan in executing the COIL session, teachers were assessing the lesson plans as *very useful* (86%) and only marginally as *somewhat useful* (14%). Nevertheless, 43% of the respondents replied that there were also some unexpected events during the COIL sessions. This included mainly general technical issues.

The effectiveness of interaction with the students in the online sphere, compared to a traditional in-person lesson, showed some differences (50% of the respondents believed it was *About the Same,* 29% *Less effective* and 21% *More effective*). And, the majority of the respondents believed that they made effective use of the tools of the digital medium/platform (86%). Teachers used the following tools and formats in the online COIL sessions: Google Classroom, shared Google documents, PPT presentations, Youtube, Gutenberg.org website, and breakout rooms and chatbox via Zoom link. The majority of the respondents agreed that using digital tools enhanced the teaching experience and improved the lesson (29% *strongly agree*, 57% *agree*). Nevertheless, 14% *strongly disagreed.*

As for interdisciplinary competence, most of the teachers agreed that the COIL session helped develop their interdisciplinary competence (36% *strongly agree*, 64% *agree*). They also replied that their students had

enough opportunities to participate in discussions and other activities (50% *strongly agree*, 50% *agree*), confirming that their students could speak freely and that their ideas and contributions were accepted (93% *strongly agree*, 7% *agree*). Teachers mostly agreed (43% *strongly agree*, 57% *agree*) that their instructions were clear and that the aims and objectives of the lesson were clearly communicated to students (43% *strongly agree*, 57% *agree*). As for the lesson aims and objectives, respondents believed that these were achieved (50% *strongly agree*, 50% *agree*). Teachers were thus satisfied with the session results (50% *very satisfied*, 50% *satisfied*) and felt that the material was appropriate for the students' age group and proficiency level (79% *strongly agree*, 21% *agree*). On the other hand, although 7% (*strongly agree*) 29% (*agree*) of the respondents believed that all students were equally engaged with the topic, 57% of the respondents disagreed with the statement. In the final comments, respondents' replies reflected a lack of students' participation due to technical problems and limited interaction in the online sphere.

3.3 Observer Evaluation

Observation Sheet

Most of the monitoring teachers agreed with the statement that the objectives of the session were clearly communicated to students (88% *strongly agree*, 12% *agree*). The results imply that the teacher`s approach and lesson plan were appropriate for meeting the session`s aims and objectives (76% *strongly agree*, 24% *agree*). The respondents also believed that the teacher`s instructions to students were communicated clearly (88% *strongly agree*, 12% *agree*). Regarding collaboration between students, teachers seemed successful in encouraging students to collaborate (68% *strongly agree*, 29% *agree, 3% disagree*). This was also reflected by the data showing that students had enough opportunities to participate in discussions and other activities (73.5% *strongly agree*, 23.5% *agree, 3% disagree*). Monitoring teachers confirmed that students could speak freely, and their contributions and ideas were accepted by the teacher and other students (82% *strongly agree*, 18% *agree*). Accordingly, the overall atmosphere of the session was friendly and supportive (100% *strongly agree*). The material provided was appropriate for the students' age group and language proficiency (85% *strongly agree*, 15% *agree*). The respondents mostly consider the session as truly interdisciplinary (as opposed to focusing too

much on only one discipline) (68% strongly agree, 32% agree). In the additional comments section, the respondents commented mainly on four aspects: organisational questions (e.g. technical issues and problems), suggestions concerning the encouragement of students' collaboration during sessions, pre-teaching vocabulary and appreciation of the topics selection and materials used.

IV. Conclusions

Overall, the spring period of 2024 of COIL can be assessed as successful in achieving its objectives. Although some issues need to be addressed as well. In other words, COIL seems inclusive for both teachers and students – although there are technical issues that students need special assistance with to tackle and to enjoy the online format without obstacles.

The newly designed digital teaching materials (content, interdisciplinary perspective, and adaptability to COIL) appeared to have the assumed quality – though there are several recommendations for its improvement (i.e. regarding the collaboration among students). The data imply that the interdisciplinary competence and the interdisciplinary perspective was included in all COIL sessions, and it was emphasized in the content of every lesson.

The individual partner institutions were participating in compliance with the project plan – there was some confusion concerning the questionnaire administration, and the number of students during the COIL sessions was not consistent, which is mostly connected to the technical issues of the online format and partly relates to the instruction comprehensibility. These aspects will be reflected in future COIL sessions accordingly. The individual research tools, however, proved effective in eliciting relevant feedback from the participants on the quality of learning materials and the effectiveness of their use in COIL. Moreover, both teachers and students were motivated and actively involved in the COIL sessions; they collaborated with students from other partner institutions and expressed approval of the format of the COIL sessions.

The LP and the newly designed learning materials have been thus, to an extent, validated or tested in a highly interactive and international educational virtual setting. Both students and teachers have, in many

respects, developed their interdisciplinary competence – although there is still some space for improvement in this respect (see above). Teachers and students with no or very little previous experience with COIL got actively involved, and those more experienced in COIL had a chance to share their expertise and knowledge with others and to improve their own practice in this field, providing a safe space for communication and creativity of all participants.

All partner institutions can thus consider the Spring 2024 COIL cohorts a positive experience that helped them intensify, strengthen, and sustain collaboration and network.

This special report serves as a comprehensive overview of the progress and outcomes of the first period of COIL. We would like to extend our gratitude to all involved for their efforts and participation.

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