

# An introduction to local and global health behaviors using a Collaborative Online International Learning exchange

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Collaborative Online International Learning (COIL) uses technology to facilitate the engagement of students from different countries in collaborative coursework and sharing of cultural perspectives. This practice paper describes an original COIL exchange between students enrolled in health psychology modules at higher education institutions in Ireland (n = 35), and the United States of America (n = 20). The exchange consisted of a ten-week initiative, during which students engaged in synchronous and asynchronous coursework. This paper provides course instructors with strategies for designing and implementing a COIL virtual exchange as well as strategies for increasing student engagement. We believe COIL is a valuable teaching approach that helps students learn module specific material, understand multicultural viewpoints, and enhance their professional skill set.

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**Keywords:** Collaborative Online International Learning (COIL), psychology, higher education

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## 1. Introduction

Collaborative Online International Learning (COIL) is a form of virtual exchange (VE) that was developed at the State University of New York (SUNY) (Rubin, 2017). It is a teaching and learning paradigm that brings students and faculty from different countries together online to work

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collaboratively and exchange ideas. As outlined by O'Dowd (2021), the existing literature shows that students report high levels of satisfaction with VE and develop cultural knowledge and awareness. Students also develop skills relevant to the workplace such as problem solving, intercultural collaboration, teamwork, and digital competence. Amongst the reported benefits of participation specifically in a COIL exchange are the experience of effective and respectful communication across cultures, enhanced learning, and the building of coping skills and resilience in situations that are unfamiliar and challenging (Vahed & Rodriguez, 2021). In this paper, we present our unique approach to designing and implementing a COIL exchange in our undergraduate health psychology modules. We identify the implementation challenges we encountered and provide recommendations for instructors interested in integrating virtual learning into their modules.

## 2. Context

Faculty from a higher education institution in Ireland and in the United States of America (USA), both lecturers in the Departments of Psychology at their institutions, designed and implemented a COIL exchange that was incorporated into our health psychology modules. At the higher education institution in Ireland, students undertake the module in year 3 or 4 of their four-year undergraduate Psychology degree program. At the higher education institution in the United States, the module is undertaken by undergraduate students enrolled in a variety of majors (i.e., psychology, social work, nursing, health sciences, education). There were approximately 35 students enrolled in the higher education institution in Ireland and 20 students at the higher education institution in the USA. Ethical approval for a study examining students' experience of taking part in the COIL exchange was granted by the ethics review board at each institution.

## 3. Objectives

The overarching goals of our COIL exchange were to provide opportunities for students to develop a global understanding of health behaviors (discipline specific knowledge), enhance cross-cultural communication, an essential skill across majors, and further their digital literacy. Based on recommendations from the COIL Faculty Guide (SUNY COIL Center, 2017), we implemented our COIL exchange in the context of Health Psychology, something that, to our knowledge, has not been previously reported in the literature. Students could share local resources, research cultural perspectives on various health behaviors, and examine module related artifacts, such as health information resources. Furthermore, integrating diverse perspectives by increasing "awareness,

knowledge, and skills,” aligns with health psychology module design suggestions by the Society of Health Psychology (SfHP, 2020). Results from the [EVOLVE project \(2020\)](#) showed that when students were presented with an opportunity to engage with students from the partnering institution, it generated excitement, increased engagement, and benefitted their learning. In creating our COIL exchange within a health psychology module, we aimed to bring to life and put into context the module material, which students typically only read in a textbook.

Within the context of our innovative VE, we adapted the above recommendations and the Global Learning Value Rubric created by the [AAC&U \(2014\)](#) to create our learning outcomes. They are as follows: (1) Identify and explain multiple perspectives (such as cultural, disciplinary, and ethical) when exploring health behaviors and outcomes, (2) Identify some connections between an individual’s personal decision-making and certain local and global issues (applying theories of health behaviour to better understand peoples’ lifestyle choices), (3) Enhance knowledge of how to use digital media (including discussion posts and virtual classroom software) to interact with international peers, and (4) Further develop one’s written and oral communication skills. These outcomes were aligned with the learning outcomes of the individual health psychology modules which at both institutions included understanding the theories of health psychology and evaluating the research guiding these theories, and understanding the contribution of biopsychosocial factors to health outcomes and disease development.

## **4. Project design**

### **4.1. Planning**

Administrators within the Office of Global Affairs at the higher education institution in the USA and in the International office at the higher education institution in Ireland facilitated faculty introductions and coordinated registration for COIL training. Both faculty members learned about best practices for implementing a COIL exchange by completing a three-week, online COIL Design workshop delivered by the SUNY COIL Center. Our unique exchange was informed by this training and by lessons learned from previous VE programs ([Ingram et al., 2021](#); [de Castro et al., 2019](#)). For example, [Ingram et al. \(2021\)](#) and [The Stevens Initiative \(2019a\)](#) recommended that early in the collaboration, the lecturers make a timeline to determine a meeting schedule, create COIL specific content, and disseminate information and assignments to their students. These suggestions were important to our COIL exchange because the time frame of our spring semesters differed. The faculty member and students in Ireland received their program timetables two weeks prior to the start of their

semester, whereas the faculty member in the USA had their timetable by the end of the autumn semester. In addition, in the higher education institution in the USA, the module was delivered online and in the higher education institution in Ireland the module was taught in-person.

Moodle, the learning management system at the higher education institution in Ireland, was utilized to create the virtual learning environment. An Information and Communications Technology staff member at the higher education institution in Ireland created guest accounts for the faculty member and students in the USA. Staff members in the Learning Enhancement and Academic Development Centre at the higher education institution in Ireland created a separate module shell for the COIL exchange, provided support in designing the module shell and selected the appropriate technology to facilitate the collaboration. The faculty member at the higher education institution in Ireland shared training videos and written instructions on how to establish a Moodle account, navigate the module shell, and complete specific assignments, with the faculty member at the higher education institution in the USA. These tutorials were beneficial, as Blackboard is the digital platform used at the higher education institution in the USA. Although some students from the USA noted that learning Moodle was challenging, 100% of the students in the USA completed the first activity due on Moodle and 95% completed the second activity. Students who faced Moodle challenges were provided with technical support and an assignment deadline extension when needed.

#### **4.2. Implementation**

The implementation of this VE was informed by approaches described in the existing literature. We adapted these approaches to create an exchange that met the needs of our students. Each faculty member discussed the COIL exchange with their own students during the first week of their respective semesters. Students were informed that engagement in the exchange was a required component of the module. They were expected to participate in three synchronous sessions, and related asynchronous activities. The [EVOLVE project team \(2020\)](#) and the [Stevens Initiative \(2019a\)](#) recommended using both formats to facilitate communication between students. In addition, the design of the exchange was also informed by the online learning approach of [Salmon \(2013\)](#); whereby students are presented with a series of smaller, structured tasks (termed ‘e-tivities’) that build towards a larger piece of coursework. Within our COIL design, the early synchronous and asynchronous activities completed by the students were ‘low stakes’, non-graded, collaborative activities that allowed us to scaffold their learning and facilitate their development of the skills necessary to complete the later graded assignment. The time frame for the COIL exchange was approximately ten weeks in length. A timeline of our synchronous and asynchronous activities is presented in Table 1 (see Appendix A.).

Early in the spring semester (week 1 for the higher education institution in Ireland and week 3 for the higher education institution in the USA, whose semester commenced two weeks earlier), students from both institutions were assigned their first low stakes, non-graded, asynchronous COIL activity. We wanted students at the higher education institution in the USA to become familiar with the Moodle platform and ensure that all students were comfortable with using Moodle to communicate with one another (Ingram et al, 2021). Therefore, we asked students to record, in Moodle, a two-minute introduction video, whereby they shared a fun or interesting fact about their home-town, or a hobby they enjoy. To encourage peer-to-peer engagement, students watched at least one of their international peers' videos and posted either a video or a written response – whichever they were most comfortable with. Notably, our students were directed to examples of video introductions and responses the faculty members at both institutions created. When students first opened the module shell, they saw a welcome video made by the faculty partners that described their backgrounds, reinforced the goals of COIL, and provided information about each participating institution.

The first 90-minute live session with students from both institutions was held approximately two weeks after students completed the asynchronous introductory COIL activity. Students used Big Blue Button, the web conferencing system at the higher education institution in Ireland, embedded within the Moodle site to virtually connect. Students at the higher education institution in the USA did not report any significant difficulties with using Big Blue Button and it did not present a barrier to engagement. At the beginning of this session, we reviewed the COIL learning outcomes and detailed the two tasks students would engage in during the session. We assigned students to online groups via 'break-out' rooms in which there were, typically, two to three students from each institution. Students initiated discussion in these break-out sessions by introducing themselves and answering icebreaker prompts. The second assigned task required students to brainstorm participation guidelines for the COIL exchange. Harvey (2017) asserted that groups further develop their level of trust within an intercultural context by establishing clear expectations for working together. We reviewed with students Meyer's (2014) Eight-scale Tool for Mapping Cultural Differences to ensure they considered strategies for communicating within an intercultural class environment including trust, scheduling, and language in their group discussions. Once their lists were finalized, each group verbally shared their ideas with the class and posted their written responses to the Moodle site. Lastly in this session, we reviewed the purpose of their second asynchronous COIL activity titled 'How well do models of health behavior predict health behavior or changes in an individual's health behaviors?', and instructions for completing it. Students had two weeks to find an empirical article related to the assignment question, answer prompts related to the article in a post on Moodle, and comment on a peers' post. This assignment presented one opportunity for students to share information about health behaviors within their respective countries and abroad that they could choose to include in

their health information resource. To maintain momentum and enthusiasm for the exchange, we scheduled the second live session for the following week.

After the first live session, faculty met to create a formal document summarizing the students' main recommendations for successful COIL participation. At the beginning of the second live session, we shared the document with students, highlighted the COIL learning outcomes, and provided specific instructions about the small group activity they would be collaborating on. Importantly, to facilitate preparation and engagement with online discussions, students were provided with the discussion task for live sessions 2 and 3 in advance of the class. Similar to the first session, in the second live session (which lasted 90 minutes), each break-out room consisted of about five students, who were randomly assigned to groups in which both institutions were represented. The students evaluated two health information resources consisting of short videos and leaflets. Each group was provided with a resource created by national health organizations located in Ireland and in the United States. The resources from Ireland pertained to the promotion of getting active (increasing rates of walking and of physical activity more generally) and those from the United States related to promotion of healthy eating and increasing awareness of dangers of alcohol overdose. Within their groups, students evaluated the resources by identifying the theories of health behavior used to create the resource, intended audience, cultural considerations, and whether each resource effectively conveyed the respective health organization's message (e.g., content, language used, font size, color, graphics, etc.). Time was allotted for students to share their feedback about the resources with all students who were present for the live session. They also posted their groups' written responses to the COIL Moodle page. Before the session concluded, we reviewed the requirements for their final COIL assignments.

Utilizing the information learned in their respective health psychology modules and the COIL exchange individually, students created their own health information resource and annotated their work, (e.g., rationale for health behavior theory used, cultural considerations, information they included and/or excluded, etc.). Consistent with a 'Universal design for learning' approach and to further facilitate the technology learning outcome of the exchange, students could prepare either a health information pamphlet or video. Resources relevant to preparing a video were provided. Students had one month to complete this assignment, which corresponded with the date of the last synchronous session. The decision to have students undertake and complete an individual project was informed by the existing literature. Time zone difference can be a barrier to communication as well as the organization of groupwork (Vahed, 2022). Furthermore, considerations regarding data protection regulations may apply, whereby students are required to submit their assignment to an institution outside of their home country. This latter consideration led these instructors to grade the work of the students at their own institutions. The assessment was worth 45% of the overall grade for the module.

While students worked independently on their projects, we continued to follow our respective syllabi. During the third live collaborative session with students from the higher education institutions in Ireland and the USA, we reviewed the learning outcomes, the group activity, and due dates for the final assignments. The goal for this session was to ensure that each student had the opportunity to share with their peers three key pieces of information they learned from researching and creating their health information resource. Break-out rooms were not utilized in this session. Students gave a one-minute presentation for which they were awarded 5% of their overall grade for the Health Psychology module. Responses ranged from reflecting on the process of completing a health information resource, highlighting information they learned about the health behaviour, commenting on theories that drive behaviour change, or the effect of culture on health behaviours. Since this session took place prior to the submission of the final assignment students could reflect on the learning and experiences shared by others and incorporate this knowledge into their own assignment. While students were told in advance that attendance at the session and completion of the presentation were required, students who could not attend the synchronous sessions were encouraged to complete the task and post it on the Moodle page.

Lastly, following the final live session with students in Ireland and in the USA, students had two weeks to write a 500-word reflection about their COIL experience. We provided students with discussion prompts derived from [Stevens Initiative \(2019a\)](#) that included: ‘Did your views and opinions about other cultures/countries/people change as a result of taking part in this project?’ Students were also provided with a rubric adapted from [Fines \(2014\)](#) that provided them with the grading criteria for the assignment, as students may not have had prior experience writing a reflection and may not know what content to include. Students at each of the higher education institutions submitted their papers to their respective health psychology module shells. We do not have ethics committee approval to analyze the reflections and share student comments in this paper. After grading our own classes’ papers and discussing the feedback, we shared the common themes that emerged from the assignment with our students.

## 5. Project evaluation and recommendations

Approximately 93% of students completed the first COIL activity of recording an introduction video, while a smaller percentage posted a written comment on another student’s video. Giving students more time to record their video and post a response to another student may (or may not) have amounted to more students leaving comments on each other’s posts. The second activity (discussion post about a journal article) was completed by 88% of students. All students completed the written

reflection, which was graded. The percentage of students who attended the three live sessions ranged from 68% for the first session to 53% for the second and 42% for the final session. As noted above, students received 5% of their overall grade for the brief presentation completed in the third live session. With regard to the lower rate of participation in this session, it may be that competing demands on students' time later in the semester was a contributing factor or that those not in attendance had missed one or both of the earlier sessions and considered themselves less well-placed to complete the presentation. It is also possible that presenting to an international audience may have been a source of anxiety for some of the students and they chose not to participate. To our knowledge, technical challenges did not present a barrier to participation.

In the future, we may want to emphasize that the final session may be an opportunity to build coping skills and resilience (Vahed & Rodriguez, 2021). It is also arguable that students may have been less inclined to attend the third session as there was less opportunity for direct peer-to-peer learning and engagement. In repeating this exchange, we would amend the third session such that opportunities for group discussion and peer-to-peer engagement replace the one-minute individual presentations. Awarding a grade to those students who have attended all live sessions is also something to consider.

Our approach to designing and implementing the synchronous and asynchronous peer activities helped us to scaffold and support collaboration and learning, and to create a clear incentive for students to actively engage in the exchange. For the asynchronous activities, the Moodle settings were configured such that students had to post their work before they could see the work of others. We assigned 10% of the overall grade for the module to the written reflection to encourage active participation and intercultural collaboration. A further incentive to participation in the exchange worth noting here was that students were presented with the opportunity to interact with and learn from students in another country, an opportunity that they don't typically have in their other modules.

One suggestion for enhancing peer-to-peer engagement is the provision of guidelines and materials, that relate to class discussions in the synchronous sessions, to students in advance. They will have more time to formulate their opinions and become better informed about the assigned topics. In the current exchange this approach was helpful as students from each of the two higher education institutions' knowledge about health psychology may have differed. A further consideration concerning peer-to-peer engagement is the scheduling of synchronous classes which at times proved a challenge owing to time zone differences and individual commitments.

During each live session, we discussed the four learning outcomes with the students to make it clear how each learning outcome aligned with each activity and assignment and how it specifically aligned



with the goals of a COIL exchange. In the future we may present our learning outcomes in a similar way to [Oenbring and Gokcora \(2022\)](#), who communicated the formal objectives of their COIL exchange to students as follows: intercultural learning, subject matter learning objective, and technical competency. Included within their learning objectives were examples of relevant assignments. This connection might benefit those students who did not participate in the live sessions with understanding the relationship between the learning outcome and the COIL activity or assignment, as we did not record our live sessions.

Rates of participation in the questionnaire, circulated on completion of the exchange, were low with eight responses received. All students received an email inviting them to complete the questionnaire, a link to the information sheet, and the questionnaire. They were informed that the questionnaire would take approximately 15 minutes to complete and that participation was voluntary. The questions were written based on (1) recommendations of [Ingram et al. \(2021\)](#) on assessment of learning outcomes that concern intercultural relations, (2) questions presented by [Vahed and Rodrigues \(2021\)](#), and (3) recommendations of the [Stevens Initiative \(2019b\)](#) on participant outcomes to measure in evaluating VE. For example, questions included: ‘How satisfied were you with your overall experience of taking part in the COIL project?’ and ‘What did you like most about taking part in the COIL project?’ We summarize the findings briefly here but acknowledge that we do not have the ability to draw conclusions or generalize from the findings. A total of 50% of students indicated that what they liked most about taking part in the exchange was ‘the opportunity to learn about the culture of another country’, while for 25% of students it was ‘the opportunity to collaborate and share ideas with others’. When asked whether the quality of the COIL exchange contributed to a valuable learning experience, 87.5% of students responded either ‘somewhat agree’ or ‘agree’, while 75% indicated that they were either ‘somewhat’ or ‘very’ satisfied with the experience of taking part in the exchange.

The low rate of response to the questionnaire may be attributable to the students having been invited to complete the questionnaire near the end of the semester, at a point when they had already undertaken the task of writing a reflection on their COIL experience. Additional responses might have been obtained had the questionnaire been presented to students sooner. As noted, all students submitted written reflections and, importantly, they were largely in alignment with the survey results. Again, in broad terms, students were receptive to and positive about the opportunity to meet and engage with students from another country and to learn more about their culture and college experience. A pre- and post-questionnaire is recommended in future to ensure student awareness of the learning outcomes and to facilitate the assessment of changes, if any, in intercultural competence owing to participation in COIL and this may also allow us to better assess the achievement

of learning outcomes. In addition, given that students from the higher education institution in Ireland were psychology majors and students at the higher education institution in the USA came from a variety of disciplines, in the future, it might be beneficial to inquire about whether this difference in levels of foundational knowledge affected their participation in the exchange.

Lastly, as student assignments were submitted to and graded by faculty in their own institution, we recommend considering ways of sharing assignments, such as by sharing them in anonymous form on the Moodle page (with students' permission, and after the grading process is complete), so that cross-national insights may be observed.

## **6. Conclusions**

This collaboration was intended to teach skills specific to the discipline of health psychology and skills that can be applied across disciplines. Students interested in pursuing other careers may have also benefitted from our COIL exchange. In fact, it might have even enhanced their health psychology module experience, as our module design encouraged them to listen to multiple perspectives, increase self-awareness, learn how to effectively communicate with others in person and through discussion boards and messaging. This COIL exchange also allowed students an opportunity for personal and professional growth, as they were challenged to learn material in the health psychology module and share their knowledge with an international audience. The COIL approach to VE appears to present an effective way to introduce global learning and enhance student learning. We have shared our approach to implementing a COIL exchange in an undergraduate health psychology module and offered recommendations for enhancing student engagement. Evaluation of the student experience of participating in COIL is recommended to further clarify the benefits of taking part.

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