

Enhancing intercultural competence and global engagement through COIL: A narrative literature review

Shafia Aulia Rakhma¹, Aulia Zilmi Kafah², Muhammad Soali³

English Education Department, Social Science Faculty, Universitas Harapan Bangsa,
Purwokerto, Indonesia

Corresponding author:

Email: muhammadsoali@uhb.ac.id

Abstract

This study examines the role of Collaborative Online International Learning (COIL) in enhancing intercultural competence, digital literacy, and global citizenship among higher education students. Using a narrative literature review supported by the frameworks of social constructivism, transformative learning, and technological determinism, this research synthesizes findings from 22 peer-reviewed studies. The results show that COIL promotes inclusive international learning by enabling cross-cultural collaboration without physical mobility. It also highlights COIL's potential to democratize access to global education, support the development of 21st-century competencies, and foster reflective, interculturally aware learners. However, challenges such as technological inequality, time zone coordination, and institutional readiness remain significant. The study concludes that with strategic implementation and ongoing support, COIL can evolve into a sustainable and transformative model for global learning in higher education.

Keywords: COIL; Global Awareness; Learning Materials; Global Learning; Intercultural Competence; Virtual Collaboration

INTRODUCTION

The necessity for learners to have global competences and engage in intercultural collaborate has led to a significant evolution in global education in recent years. One significant development that fills these gaps is Collaborative Online International Learning (COIL), which links teachers and students across borders to promote successful collaborations (Zhu et al., 2023). Students from various academic and cultural backgrounds participate in collaborative learning experiences through COIL, which improves communication and critical thinking abilities while also fostering global awareness (Sadoroschny, 2024).

In contrast to conventional internationalization programs like study abroad programs, which are frequently limited by financial and practical issues, COIL offers an approachable substitute that is more inclusive and exclusive. A key component of the initiative to "internationalize at home"—a concept intended to make global learning accessible to students who might not have the resources or chance to travel abroad—is

COIL, which facilitates virtual partnerships between universities throughout the globe (Sathees Kunjuthamby, 2021).

Although COIL has been around for more than 20 years, its use increased dramatically in the period following of the COVID-19 outbreak. During this time, COIL became an essential instrument for upholding international collaborations and sustaining global learning as universities all over the world were compelled to switch to online learning environments (Hackett et al., 2023). COIL flourished because of the pandemic-induced transition to digital learning, which allowed institutions to find creative ways to continue promoting intercultural contacts despite travel boundaries. In terms of ensuring that global education continues during times of crisis, COIL's capacity to bridge physical distances via digital platforms has also shown interest for the long-term incorporation of virtual interaction in higher education (Zhu et al., 2023). This change reflects the increasing understanding that, regardless of a student's physical location, global learning can and needs to be a key component of their academic experience (Champion., 2024).

The hidden key to COIL's success is its capacity to foster meaningful, thoroughly exchanges among students from various cultural backgrounds. COIL members are encouraged to interact with global concerns including sustainability, human rights, and social justice from diverse viewpoints through cooperative projects, group discussions, and collaborative learning assignments (Hackett et al., 2023). Through these exchanges, students can get a more thorough and compassionate perspective of the world by seeing difficult global issues through the perspectives of their international peers. For example, students from various countries could compare and assess their respective governments' responses to climate change in a COIL course on environmental policy. This kind of cooperation fosters intercultural sensitivity and a feeling of global citizenship in addition to enhancing students' academic understanding (Global Programs and Strategy Alliance) (Sakamoto, 2021). These results are in line with the objectives of universities, which are placing more and more emphasis on producing graduates who are capable of navigating the challenges of a multicultural and interlinked world.

The way COIL uses technology to make these international trades possible sets it apart. Digital tools like online discussion boards, interactive publishing platforms, and video conferencing are often used in COIL courses to facilitate in-person communication and group problem-solving (Yayoi Anzai, 2022). Students in different time zones can still collaborate on group projects and have synchronous discussions thanks to this technology. Furthermore, because some activities are online and afford flexibility in participation, COIL is a workable option for academic institutions with a wide range of student populations and academic calendars. The combination of both those components ensure that students may work together productively, even in the face of logistical difficulties caused by distance.

Even though COIL has clear educational benefits, its successful implementation needs careful consideration of a number of issues. The lack of equal access to technology

throughout institutions is one of the main obstacles to COIL, especially when working with partners in underdeveloped nations. Uneven access to computers, high-speed internet, and technical help can frequently result in major obstacles to involvement and inequities in the standard of students' educational experiences (Appiah-Kubi). Institutions must work together to make sure that all students have access to the tools and assistance they need to participate completely in the course in order to address these inequities.

Furthermore, because various cultural contexts and learning styles can have an impact on collaboration and communication, COIL instructors need to be aware of these factors. Students from other educational systems could, for instance, have different expectations about evaluation, feedback, and class involvement. In order to overcome these obstacles, COIL teachers must implement inclusive teaching strategies that take into account cultural differences and meet the requirements of all pupils (Sakamoto, 2021).

The faculty members' professional growth and assistance is another important component that contributes significantly to the effectiveness of COIL courses. Instructors that teach COIL courses must be experts in digital pedagogy, intercultural communication, and the subject topic they teach (Tuke et al., 2021). To create and carry out an academic program that is interesting and pertinent for students from a variety of backgrounds, faculty members must collaborate closely with their foreign partners. This frequently entails aligning learning objectives, co-developing tasks, and making sure that evaluations accurately represent the collaborative nature of learning. As a result, organizations that provide COIL must make investments in programs for the training and development of faculty members, giving them the tools they need to provide excellent, cross-cultural learning experiences. Institutions can assist faculty in navigating the challenges of teaching in a COIL setting by offering resources including training on digital technologies, intercultural communication, and collaboration course design (Champion., 2024).

COIL is an innovative strategy to global education that gives students the tools they need to succeed in a worldwide society and democratizes access to foreign learning opportunities (Mudiamu, 2020). Students' intercultural competency, critical thinking, and problem-solving skills are improved by COIL through the promotion of cross-cultural collaboration and the incorporation of global viewpoints into the curriculum. Its success, meanwhile, rely on resolving issues with teacher readiness, cultural disparities, and technology access. COIL will surely become more and more important in determining the direction of global learning as long as higher educational institutions continue to place a high priority on internationalization. This change reflects the increasing understanding that, regardless of a student's physical location, global learning can and needs to be a key component of their academic experience. In light of this, this study uses a narrative literature review methodology, supported by social constructivism, transformative learning, and technological determinism, to analyze critically how COIL improves intercultural competency and makes it easier to integrate global learning resources. It also

identifies important obstacles and potential paths forward for COIL's successful implementation.

Several studies have examined COIL's effectiveness in promoting global learning, improving digital literacy, and developing intercultural competencies in recent years. The benefits of COIL for multicultural learning and experiences in design education were investigated in a 2019 study by Abimbola and Oluwatoni (Asojo et al., 2019). The study showed that COIL encourages cross-cultural awareness and collaboration using shared virtual spaces. The study found that COIL had a major influence on students' capacity to interact with global issues and collaborate in different teams, confirming the theory that intercultural collaboration promotes deeper learning.

Follow-up research by Borger (2022) looked at how COIL classes have evolved into a necessity for preserving connections to international education throughout the epidemic. The study brought attention to an increase in COIL participation, especially in 2020 as higher education across the globe had to shift to online instruction. According to Borger, COIL offers an effective paradigm for online, global education, highlighting its ability to produce worthwhile educational experiences in spite of geographical limitations. This study supports the notion that COIL is a revolutionary substitute for conventional internationalization initiatives, increasing a larger student physical access to foreign education.

The usefulness of COIL in promoting linguistic and cultural competences among college students from diverse linguistic origins was examined by Layag and Genevieve (2023). According to their findings, students taking part in COIL classes were able to communicate more effectively in cross-cultural contexts by improving their language abilities and gaining a greater knowledge of cultural diversity. This strengthens the idea that COIL imparts vital real-world communication skills in addition to strengthening academic learning.

An investigation of COIL's effects on the development of intercultural competency in higher education was presented by Hackett and Simone (2023). Their study demonstrated that students who participated in COIL projects exhibited considerable increase in communication between cultures skills, flexibility, and global awareness. Furthermore, the study discovered that because students must overcome technological and cultural barriers when working in groups, COIL courses foster critical thinking and problem-solving skills.

Kučerová (2023) made a significant contribution as well. She looked at the advantages and difficulties of teaching COIL classes, with an emphasis on how universities may get over issues like time zone variations and technology inequality. This study underlined how crucial institutional support is in giving professors and students access to the tools and training they need. The study also pointed out how COIL may establish enduring international alliances amongst academic institutions, perhaps resulting in longer-lasting and more comprehensive collaborations in global learning. Also, Liu's (2023) research investigated the wider effects of COIL on students, specifically with regard

to fostering digital literacy and global citizenship. According to Liu's research, COIL students are more aware of global issues like environmental and human rights and are better suited to handle the digital demands of contemporary workplaces. This is consistent with the mission of COIL, which is to educate students to be responsible global citizens

Therefore, this study is essential in addressing the growing need for accessible international education by demonstrating how COIL facilitates the development of intercultural competence, digital literacy, and global citizenship among students. By evaluating existing studies through a narrative literature review and conceptual framework, this research underscores the transformative potential of COIL in bridging educational gaps across geographic and economic barriers. The findings aim to inform institutions seeking inclusive and scalable strategies to enhance global engagement in higher education.

METHOD

This study employed a narrative literature review approach to explore how Collaborative Online International Learning (COIL) contributes to the development of intercultural competence, digital literacy, and global citizenship in higher education contexts. This method is appropriate for synthesizing findings from a broad range of theoretical and empirical studies without the rigid structure of a systematic review (Green, 2020).

Source Selection

A total of 22 peer-reviewed publications were selected from the references used in this article. These sources include empirical studies, theoretical discussions, and conceptual analyses on COIL implementation and its educational implications. The selected literature spans the period between 2019 and 2024, with earlier foundational works included where necessary to provide theoretical context (e.g., social constructivism, transformative learning).

The references were drawn from reputable academic sources such as the *Journal of Virtual Exchange*, *Frontiers in Education*, *Springer*, and institutional repositories. Selection was based on the followings:

1. relevance to COIL in higher education,
2. overage of learning outcomes (e.g., intercultural skills, global engagement),
3. explicit discussion of theoretical perspectives or pedagogical practices.

Analytical Framework

The review was guided by three interrelated theoretical lenses:

1. social Constructivism – emphasizes knowledge construction through social interaction, particularly relevant for COIL's collaborative and intercultural setting (Idaresit et al., 2020; Appiah-Kubi & Annan, n.d.).
2. transformative Learning – highlights perspective shifts and critical reflection that occur through engagement with different worldviews (Lehmann et al., n.d.).

3. technological Determinism – addresses the influence of digital platforms on shaping learning access, particularly in cross-border educational contexts (Zhu et al., 2023; Liu, 2023).

The selected literature was examined thematically to identify how COIL facilitates the development of key global competencies and what challenges emerge in its application. The review further integrated empirical findings with conceptual insights to construct a coherent understanding of COIL's transformative potential in international education.

RESULTS AND DISCUSSION

The implementation of Collaborative Online International Learning (COIL) significantly contributes to the globalization of learning materials and the development of students' intercultural and digital competencies. By promoting collaborative interactions across cultural and academic boundaries, COIL reshapes the design and delivery of educational content.

Impact on global learning materials

COIL enriches learning materials by integrating cross-cultural perspectives into curricula. As highlighted by Hackett et al. (2023), the use of diverse case studies, readings, and assignments drawn from different socio-economic and cultural contexts expands students' understanding of global issues. Through collaborative digital tools—such as discussion forums, shared documents, and video conferencing—students engage in joint projects that not only deepen subject comprehension but also improve teamwork and digital communication skills.

The adaptable, online nature of COIL enables inclusivity by removing geographical and financial barriers. This inclusive access supports global learning experiences for a wider range of students, regardless of physical location.

Development of key competencies

Participating in COIL activities equips students with essential 21st-century competencies. Asojo et al. (2019) assert that COIL enhances language skills, digital literacy, global awareness, and intercultural sensitivity. Students learn to navigate time zone differences, manage projects remotely, and use various digital platforms to complete collaborative tasks (Hackett et al., 2023).

These activities not only foster academic growth but also prepare students to communicate effectively in multicultural environments. For second-language learners, COIL presents an authentic context for practicing language and cultural negotiation (Hackett et al., 2023).

Teacher and student's roles

Teachers in COIL programs play multiple roles—as facilitators, designers, mentors, and evaluators. Bloomquist et al. (2022) explain that teachers design culturally inclusive lesson plans, mediate cross-cultural misunderstandings, and support students

throughout the collaboration process. They also assess both individual and group contributions, ensuring fairness and recognizing each student's participation.

Students, in turn, act as collaborators, problem-solvers, and cultural informants. Their active involvement in discussions, knowledge sharing, and critical thinking helps foster a cooperative learning environment. COIL enables students to contribute not only academically but also by supporting team dynamics and peer learning.

Teaching procedures and evaluation

Effective COIL implementation requires careful planning. According to Tuke et al. (2021), institutions must establish international partnerships, co-develop syllabi, align goals, and coordinate assessment strategies. Ice-breaking activities and orientation sessions help students build rapport and develop cross-cultural communication skills before engaging in collaborative tasks.

Assessment in COIL includes both individual and group evaluations. Teachers use rubrics to assess intercultural communication, collaboration, and content mastery (Bloomquist et al., 2022). Reflective assignments and feedback from both students and partner institutions inform continuous improvement.

Strengths and challenges of COIL

Studies show that COIL is a good way to promote inclusivity, cultural understanding, and digital skills (Hackett et al., 2023). It helps students work with international partners without needing to travel, making global learning more accessible. Layag, Rincón-Aguilera, and Rebaldería-Rodríguez (2023) also point out that when teachers design courses to support different languages and cultures, students feel more comfortable and learn better in diverse groups.

However, COIL still has some problems. Skaten and Sortland (2024) explain that working across time zones can be hard, and not all students have good internet or devices. Schools often have different ways of teaching, and students may have different ideas about how to behave in class. These differences can cause confusion and need regular communication and flexibility. It's also difficult to fairly assess student work when they come from different cultures. To solve these problems, schools need to train teachers, offer strong technical support, and create flexible and inclusive course content.

Practical illustration: COIL between University A and B

To illustrate the key themes discussed in the literature, this section presents a case study of a COIL project between University A in the United States and University B in Japan, as reported by Radjai and Hammond (2024). This project aimed to enhance students' intercultural and global competencies through collaborative engagement on environmental sustainability issues. The course was jointly designed using various digital platforms, such as forums, video conferencing, and collaborative tools, to enable synchronous and asynchronous interaction. Despite differences in time zones, teachers scheduled flexible tasks and adapted to students' availability. The collaboration included joint projects, structured discussions, and cultural case studies that encouraged cross-cultural communication.

This aligns with the findings of Kanduboda (2021), who emphasizes the importance of intentional instructional frameworks such as the Interaction for Learning Framework and translanguaging to enhance engagement in multicultural online classrooms. Kanduboda's study underscores that when cultural norms and communication styles are actively acknowledged and integrated into course design, students from diverse backgrounds engage more meaningfully and collaboratively.

However, several challenges emerged during implementation. Students with limited access to reliable internet and up-to-date devices faced difficulties in participating fully. Teachers mitigated this by offering low-bandwidth alternatives and pre-recorded content. Additionally, students initially struggled with unfamiliar communication styles and academic expectations, which required educators to provide ongoing support and flexibility. Kanduboda (2021) similarly identifies these barriers in Japanese universities and advocates for adaptive practices that respect cultural variability in student and teacher interactions.

Final assessments in this COIL program incorporated both individual and group evaluations, emphasizing collaboration and intercultural competence. Feedback from students highlighted increased global awareness, improved digital collaboration skills, and a greater appreciation for cultural diversity, although some acknowledged discomfort at the beginning of the exchange. This case exemplifies many of the broader findings discussed earlier. It reflects both the transformative potential of COIL and the practical constraints institutions must navigate. The success of the program was largely due to intentional instructional design, institutional support, and adaptive teaching practices, which reinforces the literature's emphasis on strategic planning and inclusive implementation (Kanduboda, 2021; Hackett et al., 2023; Kučerová, 2023; Bloomquist et al., 2022).

Future directions in COIL implementation

Building upon the practical insights from the case study, several future directions can enhance the scalability and inclusiveness of COIL programs. One promising avenue is the integration of emerging technologies, such as virtual reality (VR) and augmented reality (AR), to create more immersive and interactive intercultural learning experiences (Hackett et al., 2023). These tools can simulate real-world environments and enable students to engage more deeply with global perspectives.

Additionally, expanding COIL beyond single-course collaborations into interdisciplinary and multi-institutional networks offers greater opportunities for sustained global engagement. Asojo et al. (2019) emphasize the potential of COIL to connect learners and educators across diverse fields, fostering richer academic exchanges and global problem-solving. Ensuring equitable participation, especially for students from underrepresented and marginalized groups, must also become a strategic priority. This includes designing low-bandwidth-friendly content, offering flexible learning formats, and providing technical and institutional support to overcome digital divides (Kučerová, 2023; Skaten & Sortland, 2024).

From a methodological standpoint, future COIL research would benefit from longitudinal studies that assess not only short-term outcomes but also the long-term impact on students' professional trajectories and global citizenship. Moreover, continued use of theoretical integration, including social constructivism, transformative learning, and technological determinism, remains critical for evaluating both the pedagogical and structural dimensions of COIL in a globalized education system.

CONCLUSION

Collaborative Online International Learning (COIL) offers a promising model for internationalizing higher education through virtual cross-cultural collaboration. By leveraging digital platforms, COIL allows students to engage meaningfully with global peers, enhancing their intercultural competence, digital literacy, and global awareness—without the need for physical mobility.

This review affirms that COIL fosters essential 21st-century skills, including cross-cultural communication, collaboration, and critical thinking. It also expands access to international experiences for students from geographically or economically constrained backgrounds, making global learning more inclusive.

Despite its benefits, COIL presents ongoing challenges, such as time zone coordination, technological disparities, and curriculum alignment across institutions. To address these, sustained investment in faculty training, institutional support, and equitable digital infrastructure is essential.

Emerging technologies such as virtual and augmented reality, interdisciplinary project models, and long-term academic partnerships offer exciting possibilities for COIL's future. With continuous improvement and inclusive design, COIL can evolve into a sustainable and transformative approach for global education—preparing students not only to succeed academically, but to thrive as responsible global citizens.

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