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Online + International: Utilizing Theory to Maximize Intercultural Learning in Virtual Exchange Courses

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Abstract

Virtual exchanges (VEs) are course-based experiences designed to promote global learning, often by integrating cross-cultural interactions and collaborations with people from other areas of the world into coursework in a virtual format. Due to the widespread disruption of the COVID-19 pandemic, VEs have seen an increase in popularity. However, research findings on the effectiveness of VEs are mixed, and limited guidance is available to VE instructors on how to structure and facilitate these programs. The purpose of this paper is to highlight how theories and literature in two distinct areas of scholarship, Intergroup Contact theory and the Community of Inquiry model in online learning, could be applied to VEs to maximize student learning. We discuss each of these theories first and then highlight how they could be applied to VEs using illustrative examples from a pilot study of five VE courses offered at one institution during the summer of 2021.

Keywords:

Virtual exchange, intercultural learning, intergroup contact, online learning

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Introduction

The COVID-19 pandemic caused massive disruptions in the field of international higher education. As difficult as the semesters impacted by the pandemic have been, innovative responses also provide an opportunity to address many of the long-standing challenges in international education, particularly in the field of education abroad (e.g., issues of diversity and equity in participation, environmental impact of study abroad programs, etc.; Leask, 2020). One such innovative response is the expansion of Virtual Exchanges (VEs; also referred to as “virtual international programs” or “global classrooms”). These course-based experiences are designed to promote global learning, often by integrating cross-cultural interactions and collaborations with people from other areas of the world into coursework in a virtual, online format (Ceo-DiFrancesco et al., 2020).

VEs originated as school pen pals and multimedia exchanges in the 1920s (O’Dowd & Dooley, 2020). With the emergence of the internet in the 1990s, new possibilities for virtual exchanges arose (O’Dowd & Dooley, 2020). Interest in VEs was already increasing prior to the onset of the COVID-19 pandemic (O’Dowd & Dooley, 2020); however, due to restrictions on travel, VEs became particularly popular during the height of the pandemic. Research suggests that VEs can help students develop intercultural competencies (Lee & Song, 2019; Soria & Troisi, 2014), foster open-mindedness (Verzella, 2018), and stimulate curiosity for other cultures (Lee & Song, 2019). In a study of almost 7,000 participants in VE programs, the Stevens Initiative (2022) found that participating students reported gains in knowledge of the other country or culture, perspective taking, cross-cultural communication and collaboration, and positive feelings toward people in the other country. The largest gains for U.S. participants were consistently in the domain of knowledge of the other country or culture.

Despite these positive outcomes, many have raised doubts about the potential for these online courses to truly contribute to students’ global and intercultural learning. For example, Honey et al. (2019) raised the concern that courses would be better face-to-face, as online environments can result in less student investment in learning. Laux et al. (2016) also questioned whether VEs could create the necessary sense of community and connectedness to facilitate intercultural learning. Faculty members may doubt the value of online education more broadly and may not want to invest the additional planning time necessary to make VE courses successful (Ubell, 2020). In spite of these

doubts, VEs have proliferated in recent years (Martel, 2020), and many international education scholars and practitioners argue that we should use the disruptions of the COVID-19 pandemic to rethink internationalization – including the use of online education to complement other comprehensive internationalization strategies (e.g., Leask, 2020; J. Davis, personal communication, June 15, 2021).

Despite the increasing popularity and mixed research findings of VEs' effectiveness, limited guidance is available to instructors of VEs on how to structure and facilitate these programs. Current scholarship on VE focuses primarily on intercultural experiences and intercultural learning, without bringing in theory and research in online teaching and learning. The purpose of this paper is to highlight how theories and literature in two distinct areas of scholarship, Intergroup Contact theory (e.g., Allport, 1954) and the Community of Inquiry (COI) model in online learning (e.g., Garrison et al., 2010), could be applied to VEs to maximize student learning. We discuss each of these theories first and then highlight how they could be applied to VEs using illustrative examples from a pilot study of five VE courses offered at one institution during the summer of 2021.

Intergroup Contact Theory

One of the most influential theories that has guided intercultural learning initiatives in higher education is Allport's (1954) contact hypothesis. Allport argued that contact between members of different groups is likely to reduce prejudice, particularly when that contact involves four key conditions: (1) equal status within the contact situation, (2) shared goals among members of both groups, (3) intergroup cooperation, and (4) support of authorities. Research on intergroup contact has shown that these conditions provide a foundation for participants to form cross-group friendships, which are a key factor in prejudice reduction (Pettigrew, 1998).

In a meta-analysis of 515 studies of intergroup contact, Pettigrew et al. (2011) found robust support for the role of intergroup contact in the reduction of prejudice, which often happens through decreased anxiety about intergroup interactions and increased empathy, perspective taking, knowledge, and trust. These effects have been found in intergroup contact involving members of different racial/ethnic groups, which was the focus of Allport's original hypothesis, but also for other differences such as sexual orientation and

(dis)ability. The effects tend to generalize beyond the initial contact situation and beyond the particular outgroup with whom participants were interacting. As other researchers have identified, intergroup contact can also lead to additional positive outcomes, such as intercultural competence and openness to and appreciation for cultural similarities and differences (e.g., Meleady et al., 2021).

A critical, yet common, misunderstanding of intergroup contact theory is that intergroup contact alone leads to positive outcomes. Previous research indicates that negative intergroup contact can lead to negative outcomes such as increased prejudice and racism, lower self-efficacy in interacting across cultures, and reduced intentions to engage with members of the other group in the future (e.g., Meleady & Forder, 2019; Pettigrew et al., 2011; Schäfer et al., 2021). Intent to avoid future contact as a result of negative contact also generalized to other outgroups (Meleady & Forder, 2019). Allport's (1954) four conditions provide guidance on how to create positive intergroup contact. Importantly though, Pettigrew et al. (2011) found that positive outcomes are possible from intergroup contact even when these conditions are not met or not all of them are met. Pettigrew et al. (2011) identified additional conditions that promote positive intergroup contact: the opportunity to develop cross-group friendships as well as deep, rather than superficial, contact, and contact where group salience is high. Intergroup Contact theory literature also points to the importance of opportunities for people to learn from the experiences of outgroup members (e.g., King et al., 2013). Negative contact is more likely when the situation makes participants feel threatened or when participants did not choose to engage in contact (Pettigrew et al., 2011).

While most research on intergroup contact, whether positive or negative, has focused on face-to-face contact, an emerging body of research points to the potential for virtual contact to lead to positive outcomes. In a meta-analysis of studies related to online intergroup contact, Imperato, Schneider et al. (2021) found an overall moderate relationship between online contact and reduction in prejudice, with significant heterogeneity of effects across studies; unsurprisingly, the type of online contact and specific conditions are likely to change the effectiveness of the contact in reducing prejudice. Individual studies have found positive effects of a wide array of virtual intergroup interactions, including playing video games (Benatov et al., 2021), engaging in text-based messaging (Walther et al., 2015), exchanging emails and photos (Tavakoli et al.,

2010), reading online comments on a news article (Kim & Wojcieszak, 2018), and both spontaneous (Imperato, Keum, et al., 2021) and organized (Schwab et al., 2019) interactions on Facebook.

Intergroup Contact Theory and Virtual Exchanges

Intergroup contact undergirds many of the internationalization efforts on college campuses, including study abroad (Brajkovic & Matross Helms, 2018; Hudzik, 2015; Knight & de Wit, 2018) and interactions of domestic and international students (Parson, 2011; Wilson-Forsberg et al., 2018). Research on study abroad participation generally finds links between studying abroad – in particular interactions with host nationals – and the development of intercultural competence, global awareness, and interest in further intercultural engagement (Haupt & Ogden, 2019; Nyunt, 2021; Nyunt et al., 2022). Similarly, research on interactions of international and domestic students has found that experiential learning courses, collaborative group projects, and the formation of friendships can lead to intercultural knowledge and skills as well as increased outgroup understanding for both domestic and international students (Parsons, 2010; Wilson-Forsberg et al., 2018). Similar to research on intergroup contact, research on internationalization highlights the potential for negative outcomes from contact across cultures (e.g., Niehaus & Nyunt, 2022; Nyunt et al., 2022). Scholars have argued that disparity in research findings may be due to differences in the design and execution of different study abroad programs (e.g., Niehaus et al., 2019; Niehaus & Wegener, 2017; Tuma, 2007) as well as differences in students' backgrounds and how they approach study abroad (e.g., Allen, 2010; Nyunt et al., 2022), much like the difference in other intergroup contact experiences in the broader contact literature (Pettigrew et al., 2011).

In the last few years, researchers have started to explore the potential for intergroup contact through VE to lead to positive effects on college students' intercultural development (Bowen et al., 2019; Bowen et al., 2021; Kopish & Marques, 2020; Schutte et al., 2018; Silla et al., 2021). Findings indicate that there is the potential for building trust and a sense of commonality across cultural differences as well as developing skills necessary for collaboration across cultures (Bowen et al., 2019; Bowen et al., 2021). While some studies (e.g., Bowen et al., 2019; Bowen et al., 2021) focused on in-depth, project-based VE courses, other studies have reported positive outcomes even with less intense contact in VEs. For example, Silla et al. (2021) conducted a case study of a cross-cultural

leadership course between students in Spain and Brazil where the “exchange” element was a synchronous voice or video call during which randomly assigned pairs interviewed one another. Despite the relatively brief contact, Silla and colleagues found that students showed increased interest in learning about other cultures, awareness of cultural differences, and understanding of and sensitivity to other cultures.

Just as with intergroup contact more broadly (Pettigrew et al., 2011) and study abroad (e.g., Niehaus & Nyunt, 2022; Nyunt et al., 2022), the potential for negative contact exists in VEs. Instructors thus need to be intentional in how they facilitate intergroup contact in their VEs. Allport’s (1954) four conditions of intergroup contact can provide guidance. Previous research on virtual intergroup contact and VEs (e.g., Bowen et al., 2019; Bowen et al., 2019; Imperato, Schneider, et al., 2021) found that intergroup cooperation (the third condition of Allport’s (1954) intergroup contact theory) and equal status (the first condition) are particularly important. Specifically, in a large review of the virtual contact literature, Imperato, Schneider et al. (2021) identified cooperation as the only condition that consistently predicted positive outcomes in virtual intergroup contact. Related to VEs, Bowen et al. (2019) found that equal group status was an important condition for positive contact experiences, although they also noted that this is quite difficult to achieve in VE courses.

Community of Inquiry

While intergroup contact theory can provide some guidance on how to maximize intercultural learning in VEs, the online format necessitates the consideration of online teaching and learning literature and theories. While online education has grown in the past several decades, it exploded during the pandemic exposing many students and educators to a wide variety of applications and challenges (Adedoyin & Soykan, 2020). One model that has emerged in practical application and across the literature is the Community of Inquiry (COI) model that situates effective educational experiences at the center of social, cognitive, and teaching presences in a virtual environment. The COI model emerged in the early 2000s as a framework to facilitate positive educational experiences in a computer-mediated environment. Since that time, a growing body of research points to improvements in student satisfaction, perceived learning, and sense of community when instructors use the COI in developing and facilitating online courses (Akyol & Garrison, 2010; Arbaugh & Hwang, 2006; Garrison & Arbaugh, 2007; Swan & Shih, 2005). The COI model is

now one of the most extensively used frameworks in online teaching and learning and central to virtual communication in educational spaces (Castellano-Reyes, 2020).

This social constructivist model, developed by Garrison et al. (2000), situates educational experience at the center of three interdependent elements: Cognitive Presence (CP), the extent to which learners can construct knowledge through discourse and reflection (Swan & Ice, 2010); Social Presence (SP), the extent to which learners feel connected and develop interpersonal relationships (Garrison et al., 2000; Garrison, 2009); and Teacher Presence (TP), “the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes” (Anderson et al., 2001, p. 5). CP focuses on welcoming and exploring new ideas, linking concepts, and transforming information without making inferences (Garrison et al., 2000). Knowledge is co-constructed through sharing/comparing of ideas, dissonance, testing and application of knowledge (Gunawardena et al., 1997), as well as clarification, assessing of evidence, and judging inferences (Norris & Ennis, 1989). SP, socio-emotional interaction and support, undergirds meaningful and worthwhile educational experiences. SP is created through a collaborative process that draws learners into a shared experience of constructing meaning (Garrison et al., 2000). Developing group cohesion at the beginning of a course is important as it helps students feel a sense of belonging, which fosters engagement and learning (Garrison et al., 2010; Garrison, 2008). The last element, TP, is essential for balancing and structuring CP and SP. TP exists in three categories: instructional management, building understanding, and direct instruction (Garrison et al., 2000). Instructional management is structural in nature and focuses on the setting of curriculum, course design, and assessment. Instructors make critical decisions about course elements such as group size, medium of communication, moderation style, and regulation of content, which impact both CP and SP. The second category, building understanding, is concerned with productive knowledge acquisition and creating effective spaces for reinforcing or prompting understanding. The model emphasizes the need for the instructor to be a facilitator and moderator when building understanding. Finally, direct instruction is an active and constructive form of TP, which requires content expertise and proactive contributions to discussion, assessment, feedback, and the inclusion of knowledge from diverse sources.

The three presences are seen as interconnected. For example, selecting content is an important aspect of TP, which also influences CP. Setting the climate in the educational space, another aspect of TP, fosters SP. Encouraging discourse between students fosters both CP and SP. Thus, learning occurs through the interaction of the three constructs. Research shows that TP, in particular, is a key piece of the COI model, as it has substantial influence on the other two presences by way of arranging activities and setting climate (Akyol & Garrison, 2010; Szeto, 2015). For example, TP shapes CP and SP when instructors engage with students in online discussion boards by actively moderating students' engagement and critical thinking (Akyol & Garrison, 2010; Garrison et al., 2000). The model also emphasizes collaboration, as cognitive development is seen as occurring within the social context (Garrison et al., 2000). Intentionally integrating and moderating both, CP and SP, in educational spaces can maximize learning. While previous research has highlighted the direct and indirect impact of utilizing the COI model on student learning outcomes (Akyol & Garrison, 2010; Arbaugh & Hwang, 2006; Garrison & Arbaugh, 2007; Olpak & Kiliç Çakmak, 2018; Swan & Shih, 2005), the value of the model is in the description and interaction of the constructs and focuses more on the nature of educational transaction than learning outcomes (Akyol et al., 2009).

COI, Intergroup Contact, and VEs

Utilizing the two models could provide valuable guidance on how to maximize learning in VEs, where intergroup contact theory highlights how to foster intercultural learning and COI is used to create engaging virtual environments. The two theories complement each other, as aspects of the COI align with the conditions of intergroup contact theory. For example, TP can provide the support of authorities needed for positive intergroup contact experiences. The emphasis on collaboration and SP in the COI (Garrison et al., 2000) aligns with Intergroup Contact theory's conditions of intergroup cooperation and shared goals among members of both groups (Allport, 1954). Virtual ways to engage with diverse others foster SP and CP (Garrison et al., 2000) and have also been found to lead to positive intercultural learning outcomes (Walther et al., 2015; Schwab et al., 2019; Tavakoli et al., 2010).

But, while many aspects of the models align, they each bring unique guidance to VEs. The COI emphasizes engagement of students but does not focus, in particular, on interactions across cultures, an area where intergroup contact theory can shed light on effective practices. Similarly, intergroup contact theory,

though previously applied to virtual settings before (e.g., Imperato, Schneider, et al., 2021), does not provide specific guidance on how to create engaging online spaces. The COI can fill in this gap by highlighting ways to foster learning in virtual environments. By utilizing both models, instructors could design VEs that create a virtual community that maximizes intercultural learning for its participants.

Promising Practices for Creating a Virtual Community for Intercultural Learning

During the summer of 2021, we conducted a small pilot study of five VE courses offered at a large public research university in the Midwest of the United States. Courses included a range of virtual and international activities; some courses were entirely online, while others included a variety of face-to-face components. The data we were able to collect in each course varied, but in general we conducted class observations, reviewed course documents, and conducted interviews and focus groups with students enrolled in the courses. Based on our pilot data, we identified a number of promising practices that can combine Intergroup Contact theory with the teacher, cognitive, and social presences of COI to maximize student learning. Below we discuss our observations of four of these practices: virtual host families, international guest speakers, engaging students from multiple countries in one course, and having instructors from multiple countries co-leading a course. We specifically highlight how intergroup contact theory and COI could be used to inform and improve these practices.

Virtual Host Families

Cultural immersion, particularly through living with host families, is often hailed as one of the most effective practices for fostering intercultural competence in the study abroad literature (Engle & Engle, 2004; Norris & Gillespie, 2009; Nyunt, 2021; Schmidt-Rinehart & Knight, 2004). Living and interacting with host families provides ample opportunities for intergroup contact, allowing students to not only learn about other cultures but improve their ability to effectively interact across cultures. Within these interactions, host families often take on the role of educators or cultural mentors, providing students with valuable insights into cultural practices and allowing students to learn about the daily life in the host country (Nyunt, 2021).

Considering the value of this commonly used strategy from study abroad programs, instructors designing VEs should strive to find ways to replicate this practice in a virtual setting. Our pilot study included a course where participants were assigned a host family from Brazil. Students met with their host families using WhatsApp or another virtual meeting platform twice a week for the duration of the course. Students were asked to discuss a variety of topics ranging from family life to cultural holidays, racial issues in the host country, and the COVID-19 pandemic with their host family during these meetings. After each meeting, students wrote a short reflection paper on what they learned from the conversation and how it relates to the course content. During synchronous classes, the instructor would check in and ask about students' experiences with their host families. Students were excited to share insights from their conversations and noted how they greatly enjoyed this aspect of the course and found it to be a valuable learning experience.

The application of our guiding frameworks for the practice of connecting students with virtual host families highlights a need to be careful in how virtual host family experiences are crafted. Intergroup Contact theory (Allport, 1954) highlights two potential challenges with this practice: First, the requirement to interact with host families for a course assignment can create unequal status in the contact situation, with the student feeling pressure to engage in a potentially uncomfortable situation. Second, due to this being a required class activity, students do not get a choice whether or not to participate in this type of intergroup contact. These conditions could limit students' intercultural learning or lead to potentially negative outcomes (Allport, 1954; Pettigrew et al., 2011). To minimize these challenges, instructors should try to create a structure where students and families learn from each other, thus creating opportunities for a more balanced exchange of information. Shifting the focus from learning from others to engaging with each other, where each party learns about the other, may foster intergroup cooperation, as all parties involved are striving to achieve increased cultural knowledge (Allport, 1954). This practice also aligns with the COI model, which stressed the need for SP (Garrison et al., 2000; Garrison, 2009). Encouraging students and host families to engage not only around course-related topics but to get to know each other on a more personal level can allow participants to feel more connected and foster the development of interpersonal relationships. In addition, the COI model challenges instructors to maximize CP. One strategy to do so could be providing a reflection component – such as the

reflection paper assignment and in-class conversations in our pilot study – which challenges students to construct meaning from their experiences through discourse and reflection (Swan & Ice, 2010). Designing this reflection component to be interactive (i.e., the instructor provides feedback and actively moderates the conversation, whether in-class as in the VE we observed or via discussion boards) can further increase student learning (Akyol & Garrison, 2010; Garrison et al., 2010).

International Guest Speakers

Inviting international guest speakers can be another avenue for providing opportunities for intergroup contact in a virtual space. Guest speakers can share valuable insights into other cultures, connect theoretical knowledge with personal experiences, and make cultural learning more relatable (Kong, 2018). Interactions with guest speakers in in-person classroom settings have been found to foster student engagement and cultural learning (Davis, 1993; Kong, 2018).

Several of the courses from our pilot study utilized international guest speakers. Incorporation of guest speakers ranged from guest lectures on a specific topic related to the course content to interactive or project-based engagement. One particularly engaging way to incorporate guest speakers occurred in a theater course. Students in the course would give short performances that the guest speakers, artists from the United Kingdom, would watch live via Zoom and then provide feedback. These feedback sessions allowed students to interact and work closely with guest speakers. This practice allowed guest speakers to have TP by creating opportunities for students to work with the guest speaker toward specific learning outcomes, i.e., improving their performance (Anderson et al., 2001). This practice also aligns with Intergroup Contact theory's condition of shared goals among group members (Allport, 1954). Students in our pilot study spoke highly of these interactions with guest speakers, noting how working with these artists was an opportunity they may otherwise never have. Notably, students from other courses where guest speakers provided more traditional lecture-style guest speeches did not highlight the value of international guest speakers in their interviews and we observed disengagement during some of the guest lectures. One student shared in an interview that guest lecturers were at times confusing because the students lacked the background knowledge to understand what guest lecturers were talking about. Being unable to make meaning of the guest speaker's lecture

can limit students' CP in a course (Swan & Ice, 2010). Thus, carefully crafting the role of international guest speakers is important to fostering student learning.

The nature of guest lectures creates unequal status between the guest speaker and the students; there is often limited opportunity for shared goal setting or cooperation. Creating engaging learning opportunities is essential to overcome these barriers to positive intergroup contact. Both the COI model and Intergroup Contact theory provide guidance on how to do so. Guest speakers need to focus on fostering CP by allowing students to engage with them in reflective conversations, rather than focusing solely on sharing context. Guest speakers can engage in some shared goal setting with students, one of the conditions for positive intergroup contact. In addition, if students can be engaged in the presentation – such as in the example of the theater course – it will encourage SP in the virtual classroom and can lead to intergroup cooperation. Finally, course instructors should work with guest speakers to gear their presentations toward important learning outcomes and ensure students recognize the value of these outcomes, thus creating TP and promoting the achievement of shared goals.

Students from Multiple Countries

The presence of students from multiple countries in a course has much to offer in the development of intercultural competence, communication skills, and interpersonal skills. However, research on intergroup contact theory has shown that the mere presence of individuals from different cultures is not enough to facilitate intercultural learning (Pettigrew et al., 2011; Meleady & Forder, 2019; Schäfer et al., 2021). Thus, the practice of including students enrolled at multiple institutions in multiple countries into VEs needs careful attention by instructors.

Our pilot study included a VE course that consisted of both domestic university students and students matriculated in a Brazilian higher education institution. Students in the course were assigned to group project teams that included a mixture of American and Brazilian students. Zoom breakout rooms were utilized as collaborative space for students to work on their projects during class time. From our focus group with some of the American students, we found that the breakout rooms were the most valuable part of the course. The students valued their interactions with each other in an unstructured atmosphere which allowed them to freely learn about each other's culture. This finding aligns with

our guiding frameworks, both of which stress the importance of collaboration. The unstructured nature likely allowed for SP by providing opportunities to get to know each other on a personal level and develop relationships. Students had the shared goal of completing their course projects and the status among group members was equal, both conditions that foster positive intergroup contact.

Alternatively, one of the other courses in our pilot study provided an example of a course layout that failed to facilitate meaningful connections among students. The course included both American and Rwandan students but was organized such that students gave presentations about their home culture to the whole class and had minimal interactions with each other in small groups. In an interview with one of the Rwandan students, the student mentioned that she knew some other Rwandans in the course from previous classes but was not able to get to know many other students in the course. She stated, "I haven't learned too much about my other peers who I didn't know closely... I only know a little bit about the people who spoke up." Our guiding frameworks shed light on why the practice of having students from multiple countries was not as effective in this course. Having students present lectures during class created unequal statuses among students. This structure also failed to promote intergroup cooperation, shared goals, and SP.

Utilizing intergroup contact theory and the COI model to guide the practice of having multiple students from different countries in a VE can help maximize the learning that occurs. Instructors need to be intentional about how to create SP and opportunities for intergroup cooperation and shared goals among students from different countries. Having students work on projects together and providing time to meet and get to know each other in small groups during synchronous online meetings, as in our first example, is a possible strategy to achieve these goals. Instructors also need to be careful to create equal status within the contact situation. For example, instructors should be wary about content that privileges one cultural lens over another or activities that set up one group of students as the experts. Providing opportunities to work on projects together further fosters CP, as students will co-construct knowledge with each other, thus learning from and with each other.

Multinational Co-Instructors

Another best practice that instructors can utilize to facilitate intercultural learning in virtual spaces is to collaborate with a co-instructor

from an international institution or with a different cultural background. Co-instructors work together on all aspects of course design, sharing all pedagogical decisions from identifying course outcomes, developing syllabi, selecting technology to be used, and creating assignments (Rubin & Guth, 2015). Co-instructors bring in unique cultural perspectives and engage in a process of “give and take” among equal partners as they develop the course together (Zhang & Pearlman, 2018, p. 8). This instructor partnership role models collaboration across cultures for students, while exposing students to different cultural perspectives and pedagogical approaches.

Our pilot study featured a course that was collaboratively taught by three different instructors: one from an American institution and two from a Brazilian institution. The three instructors collaborated in teaching content and guiding class discussions. All three instructors were active in both the Zoom chat and video environment, and they visited members of student project groups through Zoom breakout rooms to provide feedback and support on curricular content and cultural aspects of the group project, allowing students the opportunity to work and hear from different instructors. In interviews and focus groups, students stressed how they appreciated the co-instructor model.

Our guiding frameworks provide guidance on how to effectively engage in this practice. First, as in the example from our pilot study, co-instructors need to be equal partners collaborating on pedagogical decisions. This approach role models the equal status and intergroup cooperation needed for positive intergroup contact (Allport, 1954). Relying on the expertise of one instructor in course design and implementation would undermine the purpose of this teaching practice and limit the intercultural learning for students (Zhang & Pearlman, 2018). Simply having co-instructors from different countries, however, may not lead to the expected results if the instructors are not utilizing the COI model in developing their course. In our example, instructors demonstrated TP by actively engaging in the educational environment as moderators and facilitators (Garrison et al., 2000). The instructors also provided opportunities for students to engage with each other as well as with each of them, fostering SP and CP. Institutions utilizing this practice emphasize the need for co-instructors to engage in extensive course planning prior to the course (Zhang & Pearlman, 2018); utilizing the COI in trainings for multinational co-instructors could allow for not only effectively bringing in cultural perspectives but also engaging students in an effective virtual learning environment.

Conclusion

The emergence of COVID-19 may have pushed higher education institutions to utilize the virtual learning environment out of necessity, but, with the right conditions, VEs can be beneficial to global, cross-cultural, and interactive learning for students. In this paper, we discuss how utilizing Intergroup Contact Theory and the Community of Inquiry model in developing and implementing VEs can help instructors maximize the intercultural learning within virtual learning environments. As instructors of VEs adopt and improve these practices, future research should explore in more depth how these two complementing models can be used to foster effective VE courses.

References

- Adedoyin, O. B., & Soykan, E. (2020). COVID-19 pandemic and online learning: the challenges and opportunities. *Interactive Learning Environments*. Advanced online publication. <https://doi.org/10.1080/10494820.2020.1813180>
- Akyol, Z., Arbaugh, J.B., Cleveland-Innes, M., Garrison, D. R., Ice, P., Richardson, J., Swan, K. (2009). A response to the review of the Community of Inquiry Framework. *Journal of Distance Education*, 23(2), 123-136. <https://www.learntechlib.org/p/105536/>
- Akyol, Z., & Garrison, D. R. (2010). Community of inquiry in adult online learning: Collaborative-constructivist approaches. In *Web-based education: Concepts, methodologies, tools and applications* (pp. 474-489). IGI Global.
- Allen, H. (2010). Interactive contact as linguistic affordance during short-term study abroad: myth or reality?. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 19(1), 1-26. <https://doi.org/10.36366/frontiers.v19i1.271>
- Allport, G. W. (1954). *The nature of prejudice*. Addison-Wesley.
- Anderson, T., Rourke, L., Garrison, D. R., & Archer, W. (2001). Journal of asynchronous learning networks. *Journal of Asynchronous Learning Networks*, 5(2), 1-17. <http://hdl.handle.net/2149/725>
- Arbaugh, J. B., & Hwang, A. (2006). Does "teaching presence" exist in online MBA courses? *The Internet and Higher Education*, 9(1), 9-21. <https://doi.org/10.1016/j.iheduc.2005.12.001>
- Benatov, J., Berger, R., & Tadmor, C.T. (2021). Gaming for peace: Virtual contact through cooperative video gaming increases children's intergroup tolerance in the context of the Israeli-Palestinian conflict. *Journal of Experimental Social Psychology*, 92, 1-14. <https://doi.org/10.1016/j.jesp.2020.104065>
- Bowen, K., Barry, M., Jowell, A., Maddah, D. & Alami, H.E. (2021). Virtual exchange in global health: An innovative educational approach to foster socially responsible overseas collaboration. *International Journal of Educational Technology in Higher Education*, 18, 32-43. <https://doi.org/10.1186/s41239-021-00266-x>
- Bowen, K., Khan, A.U., & Wake, A. (2019). Virtual student exchange in journalism: Collaborative reporting through new media and technology. *Australian Journalism Review*, 41(1), 53-66. https://doi.org/10.1386/ajr.41.1.53_1

- Brajkovic, L., & Matross Helms, R.M. (2018). Mapping internationalization on U.S. campuses: 2017 edition. *International Higher Education*, 92, 11-13.
<https://doi.org/10.6017/ihe.2018.92.10277>
- Castellanos-Reyes, D. (2020). 20 years of the community of inquiry framework. *TechTrends*, 64, 557-560. <https://doi.org/10.1007/s11528-020-00491-7>
- Ceo-DiFrancesco, D., Oyarzabal, X.L., Marturet de Paris, C., Bastidas, E.R.S., Mena-Böhlke, M., Mora, O.K., & Böhlke, O. (2020). Bridging the cultural and linguistic divide through virtual exchange. *Jesuit Higher Education*, 9(1), 19-31.
<https://epublications.regis.edu/jhe/vol9/iss1/4>
- Davis, B. G. (1993). *Tools for teaching*. Jossey-Bass.
- Engle, L., & Engle, J. (2004). Assessing Language Acquisition and Intercultural Sensitivity Development in Relation to Study Abroad Program Design. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 10, 219-236.
<https://doi.org/10.36366/frontiers.v10i1.142>
- Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2, 87-105. [https://doi.org/10.1016/S1096-7516\(00\)00016-6](https://doi.org/10.1016/S1096-7516(00)00016-6)
- Garrison, D. R., Anderson, T., & Archer, W. (2010). The first decade of the community of inquiry framework: A retrospective. *Internet and Higher Education*, 3, 5-9.
<https://doi.org/10.1016/j.iheduc.2009.10.003>
- Garrison, D. R., & Arbaugh, J. B. (2007). Researching the community of inquiry framework: Review, issues, and future directions. *Internet and Higher Education*, 10(3), 157-172.
<https://doi.org/10.1016/j.iheduc.2007.04.001>
- Gunawardena, C. N., Lowe, C. A., & Anderson, T. (1997). Analysis of a global online debate and the development of an interaction analysis model for examining social construction of knowledge in computer conferencing. *Journal of Educational Computing Research*, 17, 395-429. <https://doi.org/10.2190/7MQV-X9UJ-C7Q3-NRAG>
- Haupt, J.P. & Ogden, A.C. (2019). Education abroad as a high-impact practice: Linking research and practice to the educational continuum. In E. Brewer & A.C. Ogden (eds.), *Education abroad and the undergraduate experience: Critical perspectives and approaches to integration with student learning and development* (pp. 43-57). Stylus.
- Honey, M., Young, K., & Cows, H. (2019). Virtual student collaboration: Connecting student health professionals. *Studies in Health Technology and Informatics*, 264, 1935-1936. <https://doi.org/10.3233/shti190721>
- Hudzic, J.K. (2015). *Comprehensive internationalization: Institutional pathways to success*. Routledge.
- Imperato, C., Keum, B.T., & Mancini, T. (2021). Does intercultural contact increase anti-racist behavior on social network sites? *Social Sciences*, 10, 207-221.
<https://doi.org/10.3390/socsci10060207>
- Imperato, C., Schneider, B.H., Caricati, L., Amichai-Hamburger, Y., & Mancini, T. (2021). Allport meets internet: A meta-analytical investigation of online intergroup contact and prejudice reduction. *International Journal of Intercultural Relations*, 81, 131-141. <https://doi.org/10.1016/j.ijintrel.2021.01.006>
- King, P.M., Perez, R.J., & Shim, W. (2013). How college students experience intercultural learning: Key feature and approaches. *Journal of Diversity in Higher Education*, 6(2), 69-83. <https://doi.org/10.1037/a0033243>
- Knight, J. & de Wit, H. (2018). Preface: Internationalization of higher education: Where have we come from and where are we going? In D. Proctor & L.E. Rumbley (Eds.), *The*

- future agenda for internationalization in higher education: Next generation insights into research, policy, and practice* (pp. xix-xxiv). Routledge.
- Kong, K. (2018). Different voices: Guest speakers as pedagogy in a cultural class. In E. Jean-Francois (Ed.), *Transnational perspectives on innovation in teaching and learning technologies* (pp. 262-284). Brill.
- Kopish, M. & Marques, W. (2020). Leveraging technology to promote global citizenship in teacher education in the United States and Brazil. *Research in Social Sciences and Technology*, 5(1), 45-69. <https://doi.org/10.46303/ressat.05.01.3>
- Laux, D., Luse, A., & Mennecke, B. E. (2016). Collaboration, connectedness, and community: An examination of the factors influencing student persistence in virtual communities. *Computers in Human Behavior*, 57, 452-464. <https://doi.org/10.1016/j.chb.2015.12.046>
- Leask, B. (2020). Embracing the possibilities of disruption. *Higher Education Research & Development*, 39. Advanced online publication. <https://doi.org/10.1080/07294360.2020.1824211>
- Lee, J. & Song, J. (2019) Developing intercultural competence through study abroad, telecollaboration, and on-campus language study. *Language, Learning & Technology*, 23(3), 178-198. <http://hdl.handle.net/10125/44702>
- Martel, M. (2020). *COVID-19 effects on U.S. higher education campuses: New realities for global student mobility in summer and fall 2020*. The Institute of International Education. <https://www.iie.org/Research-and-Insights/Publications/COVID-19-Effects-on-US-Higher-Education-Campuses-Report-3>
- Meleady, R. & Forder, L. (2019). When contact goes wrong: Negative intergroup contact promotes generalized outgroup avoidance. *Group Process & Intergroup Relations*, 22(5), 688-707. <https://doi.org/10.1177/1368430218761568>
- Meleady, R., Seger, C.R., & Vermue, M. (2021). Evidence of a dynamic association between intergroup contact and intercultural competence. *Group Processes & Intergroup Relations*, 24(8), 1427-1447. <https://doi.org/10.1177/1368430220940400>
- Niehaus, E. & Nyunt, G. (2022). Uncovering the potential learning in short-term study abroad. *Journal of Student Affairs Research and Practice*. Advance online publication. <https://doi.org/10.1080/19496591.2021.1997758>
- Niehaus, E. & Wegner, A. (2019). What are we teaching abroad? Faculty goals in short-term study abroad courses. *Innovative Higher Education*, 44(2), 103-117. <https://doi.org/10.1007/s10755-018-9450-2>
- Niehaus, E., Woodman, T.C., Bryan, A., Light, A., & Hill, E. (2019). Student learning objectives: What instructors emphasize in short-term study abroad. *Frontiers: The Interdisciplinary Journal of Study Abroad*, 31(2), 121-138. <https://doi.org/10.36366/frontiers.v31i2.458>
- Norris, S. P., & Ennis, R. H. (1989). *Evaluating critical thinking*. Critical Thinking Press.
- Norris, E. M., & Gillespie, J. (2009). How study abroad shapes global careers evidence from the United States. *Journal of Studies in International Education*, 13(3), 382-397. <https://doi.org/10.1177/1028315308319740>
- Nyunt, G. (2021). Learning partnerships in study abroad: Adapting Baxter Magolda's learning partnership model. *Journal of Student Affairs Research and Practice*, 58(4), 452-467. <https://doi.org/10.1080/19496591.2021.1927060>
- Nyunt, G., Niehaus, E., & Benavides, M. (2022). A catalyst for learning or reinforcement of inequities: Using a critical hope lens to understand the potential and limitations of short-term study abroad in fostering students' ability to effectively interact across

- differences. *Journal of Diversity in Higher Education*. Advance online publication. <https://doi.org/10.1037/dhe0000421>
- O'Dowd, R., & Dooly, M. (2020). Intercultural communicative competence development through telecollaboration and virtual exchange. In R. O'Dowd (Ed.), *The Routledge handbook of language and intercultural communication* (2nd ed., pp. 361-375). Routledge.
- Olpak, Y. Z., & Kiliç Çakmak, E. (2018). Examining the reliability and validity of a Turkish version of the community of inquiry survey. *Online Learning*, 22(1), 147-161. <https://doi.org/10.24059/olj.v22i1.990>
- Parsons, R. L. (2010). The effects of an internationalized university experience on domestic students in the United States and Australia. *Journal of Studies in International Education*, 14(4), 313-334. <https://doi.org/10.1177/1028315309331390>
- Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology*, 49, 65-85. <https://doi.org/10.1146/annurev.psych.49.1.65>
- Pettigrew, T. F., Tropp, L. R., Wagner, U., & Christ, O. (2011). Recent advances in intergroup contact theory. *International Journal of Intercultural Relations*, 35, 271-280. <https://doi.org/10.1016/j.ijintrel.2011.03.001>
- Rubin, J. & Guth, S. (2015). Collaborative online international learning: An emerging format for internationalizing curricula. In A. Schultheis Moore & S. Simon (Eds.), *Globally Networked Teaching in the Humanities: Theories and Practices* (pp. 15-27). Routledge.
- Schäfer, S. J., Kauff, M., Prati, F., Kros, M., Lang, T., & Christ, O. (2021). Does negative contact undermine attempts to improve intergroup relations? Deepening the understanding of negative contact and its consequences for intergroup contact research and interventions. *Journal of Social Issues*. Advance online publication. <https://doi.org/10.1111/josi.12422>
- Schmidt-Rinehart, B. C., & Knight, S. M. (2004). The homestay component of study abroad: Three perspectives. *Foreign Language Annals*, 37(2), 254-262. <https://doi.org/10.1111/j.1944-9720.2004.tb02198.x>
- Schutte, I., Kamas, E., Wolfensberger, M. & Veugelers, W. (2018). Effects of an international undergraduate honors course on awareness of global justice. *Education Sciences*, 8, 82-101. <https://doi.org/10.3390/educsci8020082>
- Schwab, A.K., Sagioglou, C., Greitemeyer, T. (2019). Getting connected: Intergroup contact on Facebook. *The Journal of Social Psychology*, 159(3), 344-348. <https://doi.org/10.1080/00224545.2018.1489367>
- Silla, I., Tordera, N. & Pérez-Nebra, A.R. (2021). Online intercultural exchange: A case study in work and organizational psychology. *Innovations in Education and Teaching International*. Advanced online publication. <https://doi.org/10.1080/14703297.2021.2003219>
- Soria, K. M. & Troisi, J. (2013). Internationalization at home alternatives to study abroad: Implications for students' development of global, international, and intercultural competencies. *Journal of Studies in International Education*, 18, 261-282. <https://doi.org/10.1177/1028315313496572>
- Stevens Initiative. (2022). *Virtual exchange impact and learning report*. The Aspen Institute.
- Swan, K., & Ice, P. (2010). The community of inquiry framework ten years later: Introduction to the special issue [special section]. *Internet and Higher Education*, 13(1-2), 1-4. <https://doi.org/10.1016/j.iheduc.2009.11.003>.
- Swan, K. & Shih, L. F. (2005). On the Nature and Development of Social Presence in Online course Discussions. *Journal of Asynchronous Learning Networks*, 9(3), 115-136.

- Szeto, E. (2015). Community of Inquiry as an instructional approach: What effects of teaching, social and cognitive presences are there in blended synchronous learning and teaching?. *Computers & Education*, 81, 191-201.
<https://doi.org/10.1016/j.compedu.2014.10.015>
- Tavakoli, M., Hatami, J., & Thorngate, W. (2010). Changing stereotypes in Iran and Canada. *Journal of Intercultural Communication*, 23, 1–15.
- Tuma, K. (2007). Program models. In S. E. Spencer & K. Tuma (Eds.), *The guide to successful short term programs abroad* (2nd ed., pp. 41 45). NAFSA: Association of International Educators.
- Ubell, R. (2020). Overcoming faculty resistance to teaching online. In J. Vivolo (Ed.), *Managing online learning: The life-cycle of successful programs* (1st ed., pp. 89-95). Routledge. <https://doi.org/10.4324/9780429431159>
- Verzella, M. (2018). Virtual exchange between cross-cultural teams: A sustainable path to the internationalization of college courses. *Transformative Dialogues: Teaching & Learning Journal*, 11(3), 1-14. <https://td.journals.psu.edu/td/article/view/137>
- Walther, J. B., Hoter, E., Ganayem, A., & Shonfeld, M. (2015). Computer-mediated communication and the reduction of prejudice: A controlled longitudinal field experiment among Jews and Arabs in Israel. *Computers in Human Behavior*, 52, 550-558. <https://doi.org/10.1016/j.chb.2014.08.004>
- Wilson-Forsberg, S. C., Power, P., Kilgour, V., & Darling, S. (2018). From class assignment to friendship: Enhancing the intercultural competence of domestic and international students through experiential learning. *Comparative and International Education*, 47(1), article 3. <https://doi.org/10.5206/cie-eci.v47i1.9322>
- Zhang, J., & Pearlman, A. M. G. (2018). Expanding access to international education through technology enhanced collaborative online international learning (COIL) courses. *International Journal of Technology in Teaching and Learning*, 14(1), 1-11.
<https://doi.org/10.37120/ijttl.2018.14.1.01>

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