

Research Article

Virtual Exchange Programs for Cross Cultural Communication and Global Collaboration among University Students

Dewi Nuryanti ^{1*}, Imelda Kusumastuty², Arvy N. Osma ³

¹ Institut Bisnis Nusantara, Indonesia; Email : deaprodhite@gmail.com

² STBA LIA Yogyakarta, imelda@stbalia-yk.ac.id

³ Mariners' Polytechnic Colleges Foundation of Canaman, Filipina; Email : arvyosma@yahoo.com

* Corresponding Author: Dewi Nuryanti

Abstract: The rapid expansion of digital platforms in higher education has paved the way for Virtual Exchange (VE) as a viable alternative to traditional student mobility programs. VE leverages online technologies to connect university students from diverse cultural and academic backgrounds, enabling cross-cultural communication and global collaboration without the financial and geographical barriers associated with physical exchanges. Despite its potential, challenges remain regarding student engagement, technological limitations, and reduced immersion compared to face-to-face interactions. This study aims to evaluate the effectiveness of VE in fostering intercultural awareness and teamwork skills among university students. A mixed-method approach was employed, combining quantitative surveys to measure intercultural competence and collaboration with qualitative interviews to explore students' experiences in depth. The findings indicate that VE contributes significantly to the development of intercultural understanding, digital literacy, and teamwork, with students reporting enhanced awareness of cultural diversity and improved adaptability in online collaboration. Visual and statistical analyses highlight clear patterns in how VE facilitates skill development, while qualitative data emphasize both the benefits and obstacles students encounter, such as managing time zone differences and cultural nuances. The study concludes that VE represents an inclusive and scalable educational approach that complements traditional exchange programs, offering broader access to global learning opportunities while addressing issues of equity and accessibility. However, its limitations suggest that VE should be integrated strategically, potentially through hybrid models that balance virtual and physical mobility to maximize its impact.

Keywords: cross-cultural communication, global collaboration, higher education, intercultural competence, Virtual Exchange.

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1. Introduction

The rapid advancement of digital platforms since 2020 has significantly reshaped higher education, particularly accelerated by the COVID-19 pandemic, which forced institutions worldwide to transition from face-to-face to online learning modalities. Platforms such as Zoom, Google Meet, Skype, and Discord became essential for remote instruction, while Microsoft Teams emerged as a preferred tool for large-scale collaboration. This digital shift has created unprecedented opportunities for students across different countries to engage in global collaboration, transcending geographical limitations. Initiatives such as Collaborative Online International Learning (COIL) have demonstrated the potential of online pedagogical practices to foster global engagement by connecting faculty and students worldwide through project-based learning.

Global collaboration through digital platforms provides substantial educational benefits. These include the enhancement of cross-cultural competencies, improved global awareness, and the development of critical thinking and digital communication skills. For instance, the TalkTech 2022 project showed how international collaboration can strengthen students' intercultural skills and digital literacy. Nevertheless, challenges such as feelings of isolation, lack of engagement, and high dropout rates in online programs persist. Case studies, including international gamified competitions like the eTournament and collaborative initiatives such as the APRIS Robot Challenge, further highlight how global virtual projects enhance teamwork, intercultural competence, and technical innovation among students.

Beyond these examples, research on online international collaboration underscores additional challenges and opportunities for global education. Studies on distance and online education reveal that learners often face motivational issues and limited interaction compared to traditional classrooms. However, global projects in higher education have demonstrated that virtual teamwork can enhance digital competence, intercultural communication, and problem-solving skills when structured effectively. These findings highlight the dual nature of virtual exchange initiatives: they create both challenges in maintaining engagement and unique opportunities for collaborative learning.

Despite these advantages, traditional student exchange programs remain limited by high costs, restricted access, and issues of mobility. The financial burden of travel, accommodation, and living expenses prevents many students from participating. Access is further constrained by eligibility criteria, such as language proficiency and academic performance, as well as infrastructural disparities in developing regions. Additionally, students often face scheduling conflicts that hinder long-term mobility. These barriers underline the inequitable nature of physical exchange opportunities.

As a solution, virtual exchange (VE) and hybrid mobility models have emerged as inclusive alternatives. VE reduces travel-related costs, expands access to geographically diverse participants, and provides flexible scheduling for students with demanding academic commitments. Through carefully designed programs, VE enables students to engage in intercultural dialogue and collaborative projects that were previously accessible only through physical exchange.

The effectiveness of VE in fostering cross-cultural communication and global collaboration has been supported by recent empirical studies. For example, U.S.-Thai virtual exchanges enhanced participants' intercultural communication, critical thinking, and global awareness. Similarly, Spanish-American VE initiatives allowed students to gain firsthand cultural insights and cross-cultural understanding through task-based interactions [20]. Collaborative projects between universities, such as the Technical University of Munich and Tongji University in China, showed how global virtual teams improved students' intercultural competence. Broader initiatives like the Global Case Study Challenge (GCSC) demonstrated

that VE can strengthen interdisciplinary teamwork and sustainability awareness across more than 30 universities worldwide .

While challenges such as technological barriers, time zone differences, and language issues remain, students and instructors have developed adaptive strategies to enhance communication efficiency and optimize virtual collaboration . Overall, VE represents a transformative educational approach that not only mitigates the structural limitations of traditional exchange but also equips students with essential intercultural and professional competencies for the digital era.

2. Preliminaries or Related Work or Literature Review

Tinjauan Konsep Virtual Exchange sebagai Alternatif Pertukaran Tradisional

Virtual Exchange (VE), yang juga dikenal sebagai Collaborative Online International Learning (COIL), dipahami sebagai pendekatan pedagogis berbasis teknologi yang memungkinkan mahasiswa dari berbagai negara berkolaborasi tanpa harus melakukan perjalanan fisik. Dalam praktiknya, VE muncul sebagai respons terhadap keterbatasan program pertukaran tradisional, terutama ketika pandemi COVID-19 mendorong institusi pendidikan tinggi untuk mengintegrasikan pembelajaran lintas batas berbasis daring. Penelitian terdahulu menegaskan bahwa VE dapat diimplementasikan melalui berbagai model, mulai dari kolaborasi antar kelas hingga proyek internasional lintas universitas, yang kesemuanya diarahkan untuk memperkuat keterampilan komunikasi antarbudaya dan global citizenship .

Peran Teknologi Digital dalam Komunikasi Lintas Budaya

Peran teknologi digital dalam mendukung komunikasi lintas budaya melalui VE sangat signifikan. Alat digital seperti konferensi video, blog kolaboratif, papan diskusi daring, serta dokumen berbagi memungkinkan mahasiswa untuk saling berinteraksi secara sinkron maupun asinkron . Teknologi ini tidak hanya memfasilitasi pertukaran informasi, tetapi juga berfungsi sebagai medium untuk mengembangkan literasi digital dan kompetensi antarbudaya. Studi terdahulu menunjukkan bahwa pengalaman mahasiswa dalam proyek VE menjadi lebih mendalam ketika teknologi memungkinkan partisipasi aktif, diskusi kritis, dan keterlibatan kreatif dalam penyelesaian tugas kolaboratif .

Manfaat Program Virtual Exchange

Literatur menunjukkan sejumlah manfaat penting dari implementasi VE. Pertama, mahasiswa memperoleh pengembangan kompetensi antarbudaya melalui interaksi dengan peserta dari latar belakang budaya berbeda . Kedua, VE memperluas aksesibilitas dan inklusi, karena memungkinkan partisipasi mahasiswa yang tidak dapat mengikuti pertukaran tradisional akibat keterbatasan biaya, mobilitas, atau kendala geografis . Selain itu, VE mendukung penguasaan keterampilan digital yang krusial dalam konteks global, termasuk kolaborasi daring, komunikasi lintas budaya berbasis teknologi, dan pemecahan masalah secara kolaboratif .

Tantangan Program Virtual Exchange

Meskipun memberikan manfaat besar, program VE juga menghadapi berbagai tantangan. Salah satunya adalah menjaga keterlibatan mahasiswa, terutama ketika dukungan institusional dan motivasi belajar tidak memadai. Selain itu, perbedaan budaya, bahasa, serta zona waktu dapat menghambat kelancaran interaksi antar peserta. Faktor lain yang tidak kalah penting adalah resistensi dari sebagian dosen atau institusi dalam mengadopsi VE, yang dapat mengurangi efektivitas program dan membatasi skalabilitas implementasi di tingkat universitas.

3. Research Methodology

This section outlines the methodological framework employed to evaluate the effectiveness of Virtual Exchange (VE) in enhancing cross-cultural communication and global collaboration. The methodology was designed to provide a comprehensive perspective by combining quantitative approaches, which measure students' learning outcomes numerically, with qualitative approaches, which explore their experiences in depth. Accordingly, this study applies a mixed-method design, consisting of quantitative data collection through surveys, qualitative data collection through interviews, and integrated analysis of both datasets.

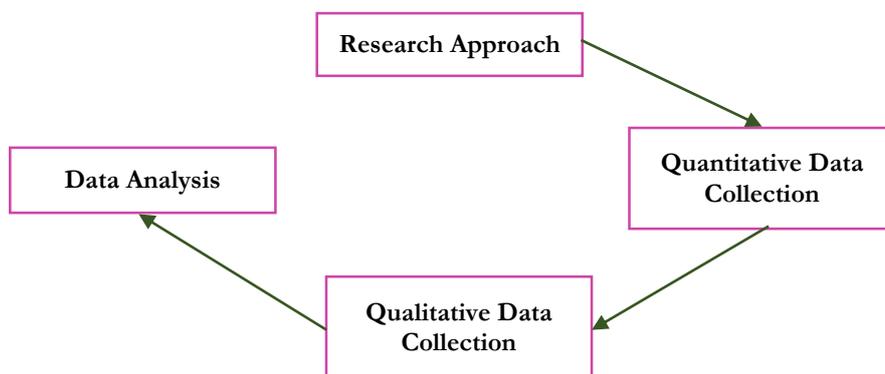


Figure 1. Flowchart of Research Methodology.

Research Approach

This study adopts a mixed-method approach that combines quantitative and qualitative methods to provide a holistic understanding of the effectiveness of VE in fostering cross-cultural communication and global collaboration. This approach was chosen because it allows the researcher to measure student learning outcomes numerically while simultaneously gaining insights into their lived experiences.

Quantitative Data Collection

Quantitative data were collected through structured surveys using questionnaires designed to measure students' intercultural awareness and collaboration skills. The instrument was constructed using a five-point Likert scale covering aspects such as intercultural competence, teamwork skills, and students' comfort in cross-cultural interactions. The survey

data were analyzed using descriptive and inferential statistics to identify general patterns and assess the extent to which VE contributes to the development of these skills.

Qualitative Data Collection

Qualitative data were collected through semi-structured interviews focusing on students' subjective experiences during the VE program. The interviews explored perceptions of technological barriers, cultural differences encountered, and adaptation strategies employed in online collaboration. Thematic analysis was used to analyze the transcripts and identify key themes that illustrate the dynamics of students' experiences in the context of virtual exchange.

Data Analysis

Data analysis was conducted by integrating both quantitative and qualitative findings. Quantitative data were analyzed using descriptive statistics to measure levels of intercultural awareness and collaboration skills, as well as simple inferential tests to examine relationships between variables. Meanwhile, qualitative data were analyzed through thematic analysis to identify recurring themes related to students' experiences, such as technological challenges, cultural differences, and adaptation strategies. The two sets of findings were then triangulated so that numerical results could be enriched by experiential narratives, providing a more comprehensive understanding of the effectiveness of Virtual Exchange.

4. Results and Discussion

Results

The analysis of the quantitative survey results provides an overview of how Virtual Exchange (VE) programs contribute to intercultural competencies and collaborative skills. Table 1 presents the descriptive statistics of the main variables measured in the study.

Table 1. Descriptive Statistics of Quantitative Survey Results.

Variable	Mean	SD
Intercultural Awareness	4.21	0.56
Teamwork Skills	4.08	0.61
Comfort in Cross-Cultural Interaction	3.95	0.72
Perceived Effectiveness of VE	4.15	0.59

The table shows that intercultural awareness obtained the highest average score ($M = 4.21$), indicating that VE significantly enhances students' ability to recognize and adapt to cultural differences. Teamwork skills also received a relatively high score ($M = 4.08$), suggesting that collaborative projects within VE environments effectively build cooperation across diverse groups. Meanwhile, comfort in cross-cultural interaction scored slightly lower ($M = 3.95$), reflecting ongoing challenges such as language barriers and differing communication styles, though still above the neutral level.

To better visualize these findings, Figure 1 illustrates the average scores of the surveyed variables.

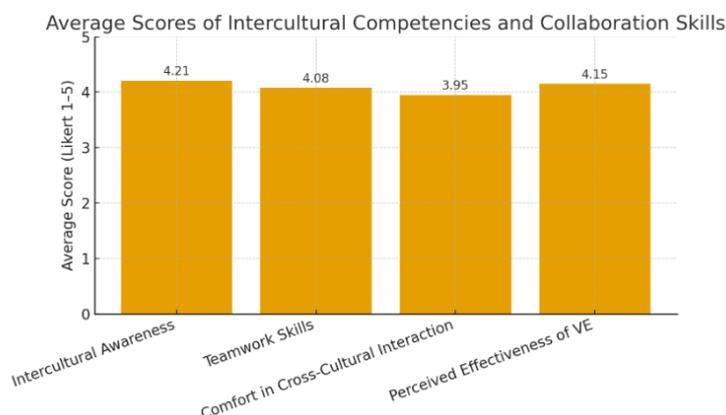


Figure 2. Average Scores of Intercultural Competencies and Collaboration Skills.

The bar chart confirms that intercultural awareness and perceived effectiveness of VE are the strongest outcomes, while comfort in cross-cultural interaction remains an area requiring further development. This aligns with the qualitative data, where students reported that although they valued the chance to interact with international peers, some felt less confident when navigating cultural nuances or overcoming technological barriers.

Beyond the numbers, qualitative insights provide a deeper understanding of student experiences. Several participants expressed that VE gave them opportunities to build friendships across cultures, broaden their perspectives, and gain confidence in international teamwork. At the same time, students acknowledged difficulties such as time zone differences, internet instability, and initial hesitation in expressing ideas in English. Interestingly, many described these obstacles as learning moments that enhanced their adaptability and resilience, turning challenges into opportunities for growth.

Figures and Tables

The results of this study demonstrate that Virtual Exchange (VE) programs provide significant benefits for university students in developing intercultural awareness, teamwork skills, and global collaboration. The high mean score for intercultural awareness ($M = 4.21$) indicates that students were able to recognize, respect, and adapt to cultural differences more effectively through VE activities. This finding supports previous studies showing that digital platforms can serve as authentic environments for intercultural learning, even without physical mobility. Compared to traditional exchange programs, VE offers a more inclusive and affordable pathway to global engagement, especially for students with limited access to international travel.

Teamwork skills also showed a strong outcome with an average score of 4.08, suggesting that VE encouraged students to engage in collaborative problem-solving and group coordination across cultural and linguistic boundaries. This reinforces the idea that global online collaboration can prepare students for international workplaces where teamwork and digital communication are crucial. However, comfort in cross-cultural interaction recorded a

slightly lower mean of 3.95, highlighting an area that requires attention. This score suggests that while students gained valuable experience, some still struggled with confidence in expressing ideas, managing language barriers, or navigating unfamiliar communication styles. Such challenges underline the need for preparatory workshops or training in intercultural communication to strengthen students' readiness for VE programs.

Qualitative findings complement these numerical results. Students reported that VE not only expanded their perspectives but also improved their adaptability and resilience. Interestingly, technological barriers and time zone challenges, which might be seen as drawbacks, were often reframed by students as opportunities for growth. This reflects the experiential nature of VE, where overcoming obstacles becomes part of the learning process. When combined with the quantitative evidence—such as the relatively high perceived effectiveness score of 4.15—these insights confirm that VE provides both measurable skill development and meaningful personal experiences.

Overall, the integration of VE into higher education can serve as a complementary alternative to physical exchange programs. While it cannot fully replicate the immersive experience of studying abroad, VE broadens access, reduces costs, and equips students with intercultural and professional competencies essential for the digital era. Universities should therefore consider institutionalizing VE initiatives within their curricula, supported by structured training and technological facilitation, to maximize both inclusivity and effectiveness.

5. Comparison

This study highlights the distinct strengths and limitations of Virtual Exchange (VE) compared to traditional exchange programs. On one hand, VE offers broader accessibility and inclusivity, enabling participation from students who may face financial, geographic, or institutional barriers. The quantitative findings confirmed that students developed intercultural awareness ($M = 4.21$) and teamwork skills ($M = 4.08$), while qualitative insights revealed enriched perspectives and adaptability fostered through digital collaboration. This demonstrates that VE can effectively replicate several outcomes of traditional exchange programs, especially in terms of intercultural competence and collaborative learning, without requiring physical mobility.

On the other hand, VE remains less immersive than traditional exchange experiences. Although students reported moderate comfort in cross-cultural interaction ($M = 3.95$), challenges such as differing time zones, technological barriers, and limited exposure to host cultures constrained the depth of engagement. While traditional exchanges allow students to experience cultural practices firsthand, VE relies heavily on mediated communication, which can restrict spontaneous learning opportunities. Overall, VE is positioned not as a

replacement but as a complementary alternative that balances global reach with practical limitations, making it especially valuable in contexts where physical exchange is not feasible.

6. Conclusion

The findings of this study demonstrate that Virtual Exchange (VE) holds significant potential in fostering intercultural awareness, collaboration skills, and digital literacy among university students. The combination of quantitative data and qualitative insights indicates that VE can provide meaningful opportunities for global engagement and cross-cultural learning, even in the absence of physical mobility. This reinforces VE as an inclusive and scalable alternative to traditional exchange, particularly in contexts with financial, geographic, or institutional constraints.

However, VE is not without limitations. While students reported growth in intercultural competence and teamwork, challenges such as technological barriers, time zone differences, and limited cultural immersion were evident. These limitations suggest that VE should not be seen as a substitute for traditional mobility, but rather as a complementary approach that extends access to global learning. For future implementation, universities are encouraged to strengthen institutional support, integrate VE more systematically into curricula, and develop hybrid models that combine virtual and physical elements to maximize learning outcomes.

References

- A. de Wit and H. Hunter, "Internationalization of Higher Education: European Trends and Global Perspectives," *International Higher Education*, no. 87, pp. 3-5, 2016. [Online]. Available: <https://doi.org/10.6017/ihe.2016.87.9501>
- A. Helm and D. van der Zanden, "Adapting to challenges in virtual exchange: Strategies for effective intercultural collaboration," *Journal of Virtual Exchange*, vol. 5, pp. 55-72, 2022. [Online]. Available: <https://doi.org/10.21827/jve.5.38783>
- A. Khalil et al., "The sudden transition to synchronized online learning during the COVID-19 pandemic in Saudi Arabia: a qualitative study exploring medical students' perspectives," *BMC Medical Education*, vol. 20, no. 1, pp. 285-297, 2020. [Online]. Available: <https://doi.org/10.1186/s12909-020-02208-z>
<https://doi.org/10.1186/s12909-020-02208-z>
- A. Rienties and R. Rivers, "Measuring and understanding learner engagement in online international projects," *International Journal of Educational Technology in Higher Education*, vol. 16, no. 1, pp. 1-15, 2019. [Online]. Available: <https://doi.org/10.1186/s41239-019-0179-8>
- B. Beelen and E. Jones, "Redefining internationalization at home," in *The European Higher Education Area: Between Critical Reflections and Future Policies*, Cham: Springer, 2015, pp. 59-72. [Online]. Available: https://doi.org/10.1007/978-3-319-20877-0_5
https://doi.org/10.1007/978-3-319-20877-0_5
- C. C. Lanham and C. Voskuil, "Virtual exchange: Expanding access to global learning," in *Academic Voices: A Conversation on New Approaches to Teaching and Learning in the post-COVID World*, pp. 3-14, 2022. [Online]. Available: <https://doi.org/10.1016/B978-0-323-91185-6.00013-6>
<https://doi.org/10.1016/B978-0-323-91185-6.00013-6>
- C. Jackson et al., "The Global Case Study Challenge: Preparing students for intercultural teamwork in a virtual environment," *Journal of Virtual Exchange*, vol. 4, pp. 1-18, 2021. [Online]. Available: <https://doi.org/10.21827/jve.4.35781>
<https://doi.org/10.21827/jve.4.35781>
- C. Montgomery, *Understanding the International Student Experience*, London: Palgrave Macmillan, 2010. [Online]. Available: <https://www.scopus.com/record/display.uri?eid=2-s2.0-84859520737>
- D. Breshears and R. du Plessis, "Choosing to learn outside the classroom: Rural South African students' motivation for and benefits of participating in voluntary international virtual exchanges," *SOTL in the South*, vol. 8, no. 1, pp. 19-33, 2024. [Online]. Available: <https://doi.org/10.36615/sotls.v8i1.314>
<https://doi.org/10.36615/sotls.v8i1.314>

- D. Claes, "TalkTech 2022: Fostering global competence through international virtual collaboration," *Journal of Virtual Exchange*, vol. 5, pp. 1-20, 2022. [Online]. Available: <https://doi.org/10.21827/jve.5.38580>
- D. V. Schroeder, A. C. Clark, and T. A. Cathey, "Adapting to remote learning, teaching, and assessment during COVID-19," *Journal of Chemical Education*, vol. 97, no. 9, pp. 2760-2764, 2020. [Online]. Available: <https://doi.org/10.1021/acs.jchemed.0c00748>
<https://doi.org/10.1021/acs.jchemed.0c00748>
- E. A. Wood, S. L. Collins, S. Mueller, N. E. Stetten, and M. El-Shokry, "Transforming Perspectives Through Virtual Exchange: A US-Egypt Partnership Part 1," *Frontiers in Public Health*, vol. 10, art. no. 877547, 2022. [Online]. Available: <https://doi.org/10.3389/fpubh.2022.877547>
<https://doi.org/10.3389/fpubh.2022.877547>
- E. Toquero, "Challenges and Opportunities for Higher Education Amid the COVID-19 Pandemic: The Philippine Context," *Pedagogical Research*, vol. 5, no. 4, pp. 1-5, 2020. [Online]. Available: <https://doi.org/10.29333/pr/7947>
<https://doi.org/10.29333/pr/7947>
- H. Leask, *Internationalizing the Curriculum*, London: Routledge, 2015. [Online]. Available: <https://www.scopus.com/record/display.uri?eid=2-s2.0-84931061719>
<https://doi.org/10.4324/9781315716954>
- I. Rets, B. Rienties, and T. Lewis, "Untangling the relationship between pre-service teachers' development of intercultural effectiveness and their experiences in virtual exchange," *ReCALL*, vol. 31, no. 8, 2023. [Online]. Available: <https://doi.org/10.1017/S0958344023000046>
<https://doi.org/10.1017/S0958344023000046>
- J. D. Branch and A. Gillett, "Unlocking the Wealth of Cultures with Technology," in *Global Classroom: Multicultural Approaches and Organizational Strategies in Teaching and Learning Business and Economics*, pp. 123-133, 2024. [Online]. Available: <https://doi.org/10.1108/978-1-83549-284-020241016>
<https://doi.org/10.1108/978-1-83549-284-020241016>
- J. Helm, "Developing digital competence through global virtual projects: Lessons from practice," *Journal of Virtual Exchange*, vol. 2, pp. 45-63, 2019. [Online]. Available: <https://doi.org/10.21827/jve.2.35619>
- J. O'Dowd, "Virtual exchange: Moving forward into the next decade," *Journal of Virtual Exchange*, vol. 3, pp. 1-23, 2020. [Online]. Available: <https://doi.org/10.21827/jve.3.1>
- J. Rubin and S. Guth, "Collaborative Online International Learning: An Emerging Format for Internationalizing Curricula," in *The Guide to COIL Virtual Exchange*, New York: SUNY, 2017, pp. 15-25. [Online]. Available: <https://www.scopus.com/record/display.uri?eid=2-s2.0-85042998218>
- K. Müller and Y. Zhao, "Developing intercultural competence through global virtual teams: A case of German and Chinese students," *Journal of International Education in Business*, vol. 14, no. 1, pp. 75-91, 2021. [Online]. Available: <https://doi.org/10.1108/JIEB-06-2020-0051>
- M. A. Cleveland-Innes and D. R. Garrison, *An Introduction to Distance Education: Understanding Teaching and Learning in a New Era*, New York: Routledge, 2010. [Online]. Available: <https://www.scopus.com/record/display.uri?eid=2-s2.0-84859593044>
- M. H. B. Stambouli and H. Sarnou, "Developing the Intercultural Competence of Algerian University Students through Virtual Intercultural Exchanges," *Arab World English Journal*, Special Issue CLVS, pp. 62-74, Jan. 2023. [Online]. Available: <https://doi.org/10.24093/awej/comm1.5>
<https://doi.org/10.24093/awej/comm1.5>
- M. Hilliard et al., "Global eTournament: Gamified competition for international collaboration," *Journal of International Education in Business*, vol. 13, no. 2, pp. 185-200, 2020. [Online]. Available: <https://doi.org/10.1108/JIEB-11-2019-0055>
- M. J. Ennis, M. Verzella, S. Montanari, A. M. Sendur, M. S. Pissarro, S. Kaiser, and A. Wimhurst, "A Telecollaboration Project on Giving Online Peer Feedback: Implementing a Multilateral Virtual Exchange during a Pandemic," *Journal of Language and Education*, vol. 7, no. 4, pp. 66-82, 2021. [Online]. Available: <https://doi.org/10.17323/jle.2021.11914>
<https://doi.org/10.17323/jle.2021.11914>
- M. Masterson, "An exploration of the potential role of digital technologies for promoting learning in foreign language classrooms: Lessons for a pandemic," *International Journal of Emerging Technologies in Learning*, vol. 15, no. 14, pp. 83-96, 2020. [Online]. Available: <https://doi.org/10.3991/ijet.v15i14.13297>
<https://doi.org/10.3991/ijet.v15i14.13297>
- M. Yoshida and T. Oshima, "APRIS Robot Challenge: A collaborative approach to global STEM education," *International Journal of Engineering Pedagogy*, vol. 10, no. 3, pp. 92-101, 2020. [Online]. Available: <https://doi.org/10.3991/ijep.v10i3.12839>
- P. Garcés and R. O'Dowd, "Upscaling Virtual Exchange in University Education: Moving From Innovative Classroom Practice to Regional Governmental Policy," *Journal of Studies in International Education*, vol. 25, no. 3, pp. 283-300, 2021. [Online]. Available: <https://doi.org/10.1177/1028315320932323>
<https://doi.org/10.1177/1028315320932323>
- P. L. Young and S. L. Nichols, "U.S.-Thai virtual exchange: Enhancing intercultural competence in higher education," *Journal of Studies in International Education*, vol. 25, no. 2, pp. 133-150, 2021. [Online]. Available: <https://doi.org/10.1177/1028315320948266>
- R. Álvarez-Valdivia and J. Iglesias-López, "Task-based virtual exchanges between Spanish and American students," *Language Learning & Technology*, vol. 24, no. 3, pp. 1-15, 2020. [Online]. Available: <https://www.scopus.com/record/display.uri?eid=2-s2.0-85094896041>
- R. O'Dowd, S. Sauro, and E. Spector-Cohen, "The Role of Pedagogical Mentoring in Virtual Exchange," *TESOL Quarterly*, vol. 54, no. 1, pp. 146-172, 2020. [Online]. Available: <https://doi.org/10.1002/tesq.543>
<https://doi.org/10.1002/tesq.543>

- S. Brooks and C. Waters, *Student Mobilities, Migration and the Internationalization of Higher Education*, New York: Palgrave Macmillan, 2011. [Online]. Available: <https://www.scopus.com/record/display.uri?eid=2-s2.0-84931095933>
- S. Buko, E. Knappitsch, A. Zinenko, and B. Covarrubias-Venegas, "The Global Case Study Challenge: A Virtual Exchange Developing Global Work Competencies," in *Proc. European Conf. e-Learning (ECEL)*, Oct. 2022, pp. 32-41. [Online]. Available: <https://www.scopus.com/record/display.uri?eid=2-s2.0-85172333586>
<https://doi.org/10.34190/ecel.21.1.775>
- S. Moore and J. Kearsley, *Distance Education: A Systems View of Online Learning*, Belmont: Wadsworth, 2012. [Online]. Available: <https://www.scopus.com/record/display.uri?eid=2-s2.0-84944770812>
- S. Nowak and A. Rażewska, "Challenging but Rewarding Aspects of Telecollaboration: The Case of Virtual Israeli-Polish (VIP) Project," *Theory and Practice of Second Language Acquisition*, vol. 10, no. 1, art. no. TAPSLA.14881, 2024. [Online]. Available: <https://doi.org/10.31261/TAPSLA.14881>
<https://doi.org/10.31261/TAPSLA.14881>
- T. Anderson, *The theory and practice of online learning*, Athabasca University Press, 2008. [Online]. Available: <https://www.scopus.com/record/display.uri?eid=2-s2.0-84859574863>
<https://doi.org/10.15215/aupress/9781897425084.004>