

## 12. Preparing Future Professionals in and for a Global Context: A Case for Telecollaborative Educational Initiatives

Elisabet Arnó-Macià

UNIVERSITAT POLITÈCNICA DE CATALUNYA

Tatjana Schell

INDEPENDENT SCHOLAR

**Abstract:** This chapter evaluates the educational practices of the Trans-Atlantic and Pacific Project (TAPP), a multinational collaborative network that has connected hundreds of students and their lecturers in the United States, Europe, Asia, and Africa. While these partnerships connect a variety of classes in writing, translation, and English for Specific Purposes for different disciplines through telecollaboration, their main purpose is for college students to hone their professional, technical, and intercultural communication skills in an increasingly globalized professional world. By asking current and former students, educators, and administrators about their experiences with the TAPP, the authors have been able to evaluate how such exchanges provide participants with opportunities to strengthen these skills. The authors argue that including telecollaboration into the technical and professional communication (TPC) education can help educators design more internationalization-focused college curricula and support students in strengthening those skills that extend beyond oral and written communication (project management, intercultural awareness, teamwork, etc.). Furthermore, the results of their analysis point to an overall positive impact of telecollaboration on TPC pedagogy, although greater effort should be made to raise students' awareness of the value of telecollaboration for prospective international employability in the increasingly globalized professional world.

**Keywords:** education, technical communication, professional communication, telecollaboration, English as a lingua franca (ELF)

### Key Takeaways:

- Telecollaboration can be an effective means of teaching technical and professional communication (TPC) within international contexts.
- Including telecollaboration into the TPC curriculum can help instructors design more internationalization-focused assignments and support stu-

dents in strengthening those skills that extend beyond oral and written communication.

- Greater effort should be made to raise students' awareness of the value of telecollaboration for prospective international employability.

Recent college composition scholarship has explored the factors influencing the ways professional writers work. The most obvious one has been the technological development in communication. In their recent article "Redefining Writing for the Responsive Workplace," Claire Lauer and Eva Brumberger (2019) explore various real-life professional writing environments and conclude that technology has redefined the role of professional writers. "Rather than the originator of content, the writer is becoming a sort of multimodal editor who revises, redesigns, remediates, and upcycles content into new forms, for new audiences, purposes, and media," they argue (Lauer & Brumberger, 2019, p. 634). As the technological tools used by professional communicators influence their tasks as writers, so does the cultural and linguistic context in which they perform this work.

Furthermore, because the work of technical and professional communicators often involves speakers of different languages, their ability to communicate effectively becomes even more crucial. With regard to communication in multilingual environments, recent scholarship in our field has focused on the theory and practice of translanguaging (Canagarajah, 2009, 2013a, 2013b; Horner et al., 2011). In her in-depth overview on this subject, Joleen Hanson (2015) defines translanguaging practice as "the strategies, languages, signs, and genres that people can use to communicate effectively in global contact zones" (p. 89). In order to help professionals excel in communicating effectively in their post-graduate workplaces, their learning about such "strategies" should begin while in college. The goal here is to help students hone their skills in effective technical and professional communication (TPC) to various audiences in diverse discourse communities and to manage the complexity of such work in order to adequately prepare them for the demands of their future career (Arnó-Macià et al., 2014; Brewer & St. Amant, 2015; Hanson, 2015).

One way to incorporate this outcome into the teaching process is to encourage intercultural, or international, collaboration within the context of higher education in order to enrich students' knowledge of intercultural communication and work practices in the increasingly globalized professional world. Telecollaboration (Guth & Helm, 2010), or online intercultural exchange (O'Dowd & Lewis, 2016), also recently named virtual exchange (O'Dowd, 2018), has received considerable attention in the past years, as universities strive for greater internationalization (Verzella, 2018). In this chapter, we introduce and evaluate the impact of a specific telecollaborative project that has connected students and instructors at multiple universities in the US and abroad.

This study focuses on the Trans-Atlantic and Pacific Project (TAPP), a collaborative network that has connected hundreds of students and instructors at

various institutions of higher education in the United States, Europe, Asia, and Africa, working together to hone students' professional, technical, and intercultural communication skills (Arnó-Macià et al., 2014; Maylath et al., 2008; Sorensen et al., 2015). Through telecollaboration, the TAPP features multiple grass-roots partnerships, pairing classes in writing, translation, and English for Specific Purposes for different disciplines. Although such partnerships provide instructors with the flexibility to include any assignments that fit their own course goals, the TAPP usually involves bilateral partnerships (writing-translation, writing/translation-editing, authoring, and peer review) in the technical, scientific, and more recently, the humanities fields (e.g., Humbley et al., 2005; Tzoannopoulou & Maylath, 2018).

In multilateral partnerships, virtual teams of up to six students work on complex projects that involve writing, translating, and usability testing of technical documents (Maylath et al., 2013a). Through such projects, students experience the realities of professional collaboration in international working environments. Yet however realistic these contexts are, they remain a safe learning space for students; "because they are not actual workplaces, the stakes are much lower, allowing [students] to make mistakes and learn from them without incurring losses" (Moustén et al., 2018, p. xx).

As an integral part of regular college-level courses, TAPP partnerships can facilitate the transition between higher education and the workplace. Keeping this idea in mind, this chapter aims to explore the ways telecollaboration can contribute to the development of international professional communication skills through the following research questions:

1. What is the role of a telecollaboration initiative integrated in language, communication, and translation courses in the development of international professional communication?
2. What skills are perceived to be necessary for graduates to participate effectively in international professional communication?
3. How do participants evaluate their own telecollaboration experience and what adjustments do they suggest to better prepare graduates for effective communication in the globalized workplace?

In order to answer these questions, a small-scale exploratory study was conducted to gather stakeholders' perspectives on how telecollaborative initiatives, such as the TAPP, can contribute to preparing students for future careers as professional communicators within the context of a globalized job market.

## ■ Data Collection and Analysis

Data were collected in the spring term of 2019 through open-ended question surveys about stakeholders' experiences with the TAPP. Taking a qualitative perspective (Crocker, 2009; Denzin & Lincoln, 1994), we focused on participants'

accounts of their experience and their views on the development of professional communication competencies. An open-response item questionnaire was chosen (Brown, 2009), which consisted mainly of broad questions encouraging lengthy free writing, although a few closed questions were also included to measure participants' evaluation of the project (on a five-point scale) and for comparison across the different categories of participants.

To evaluate the effectiveness of the TAPP from a variety of perspectives, we selected four types of respondents on three different levels: instructional (college instructors and students involved in the TAPP network), workplace (former TAPP students, who have since graduated), and institutional (program and college administrators).

All participants were asked similar questions, although some were adapted to their experiences with or knowledge of the TAPP. Accordingly, the survey included the following parts, following a brief section asking for basic demographic information:

- account and evaluation of own TAPP experience,
- relating the TAPP (and telecollaboration initiatives in general) to effective preparation for future career, and
- general views on (teaching) intercultural TPC.

The students' survey focused especially on their personal experiences as TAPP participants so as to incorporate students' views into the design of future telecollaborative projects. With instructors, survey questions focused on their motivation to join the TAPP network and their opinion about the role of telecollaboration in TPC pedagogy. On the other hand, the graduates' and administrators' surveys focused on the visibility and recognition of telecollaboration programs and on their role in developing professional communication skills, both from the perspective of former students, now graduates in the labor market, and from an institutional perspective in the case of university administrators. In the latter case, respondents were asked whether they were familiar with the TAPP, and about the support it receives at their institution. It was an adaptive survey so that if they were not familiar with the TAPP, they were asked about their general views on telecollaboration and its role in helping students to learn more about TPC within international contexts.

The surveys were sent to prospective participants as Google forms (former graduates were contacted mostly via LinkedIn and Facebook). A total of 44 subjects volunteered to complete the survey; most of them were instructors and students participating in TAPP partnerships (see Table 12.1). There were fewer graduates and administrators, and the latter came from the universities that the authors of this study are or have been affiliated with.

For the closed questions, means and standard deviations (*SD*) were calculated, while the open-ended questions were analyzed qualitatively, from an exploratory-interpretive perspective (Hobbs et al., 2010), i.e., without predefined

assumptions to probe into participants’ perceptions and interpret them in the context of each participant’s profile. Categories were derived from the themes that emerged in the analysis of the open-ended questions, which were in turn refined through an inductive-deductive process.

Table 12.1. Summary of respondents

Students	14
Instructors	15
Graduates	11
Administrators	4

## ■ Findings: Stakeholders’ Perspectives on the TAPP

### ■ Students

A total of 14 students responded to the survey. Eight were M.A. students of English from Konin, Poland and six were mechanical and computer engineering students in the last year of their bachelor’s degree at the Polytechnic University of Catalonia (UPC) in Barcelona, Spain. Both cohorts were involved in bilateral projects with U.S. students. Polish students were engaged in writing instructions, exchanging them with their U.S. partners and giving feedback on and testing the usability of each other’s texts. UPC students, on the other hand, participated in the TAPP as part of a project-focused technical communication course. As learners of English for Specific Purposes, they made creative videos on their technical projects, which were reviewed by their U.S. partners. In addition to this collaboration, some of the students had previously participated in the TAPP while in technical English courses focused on writing or speaking, respectively.

Overall, students are highly satisfied with the TAPP, with a rating of 3.93/5 ( $SD = 0.47$ ), because they improved their written and spoken communication skills, intercultural communication, and had contact with native speakers of English: “TAPP project is an opportunity to learn about the other cultures and also improve your English skills.”

On the other hand, students pointed out a few shortcomings connected to project management for assignments, such as unclear instructions and lack of commitment on the part of their partners. One respondent specified, “The idea is fine, but instructions are sometimes obscure and my partners don’t stick to the deadline.” Another participant highlighted the complexity of project organization (especially time constraints) as one of its main challenges: “I found the project really useful. However, it is difficult to find time for TAPP cooperation and answer emails from my partner regularly because of numerous duties.”

When asked specifically about the strong and weak points of their telecollaboration experience, the respondents highlighted a number of points (see Table

12.2). Most of the strong points are similar to those previously mentioned, such as interaction and collaboration with foreign partners who were native speakers of English and the creativity of assignments and organization skills, while the weak points include time zone differences and different levels of commitment on the part of partners.

These perspectives across different respondents sometimes appeared to be slightly contradictory. For example, some students mentioned challenges related to the demands of collaboration (organization, commitment, and time management) and to the short duration and low intensity of the exchange (in collaborations designed to be manageable for students with busy academic lives). One respondent said, “The strong point is the easy communication that we have nowadays, the weak point is the short time project that does not help to obtain a relationship with the TAPP partner.” Such contradictory expectations are difficult to meet unless collaborations are designed to be so flexible that they allow for different levels of engagement.

**Table 12.2.** Strong and weak points of telecollaboration according to students

Strong Points	Weak Points
International, intercultural contact	Different levels of commitment in partners
Improve language skills	Different time zones
Creative, non-routine tasks	Short duration/little intensity

The main points in Table 12.2 are captured in the following response by one of the Polish students who said,

Strong: getting to know new people, learning about other cultures, improving organization skills. Weak: different time zones can be a problem; The success of cooperation depends on the attitude of people who are taking part in it, whether they are willing to cooperate or not.

The strong points outweigh the weak points, as students show positive perceptions of their telecollaborative projects, seen as a way of developing their competencies and enriching their learning experience, a finding aligned with previous research on telecollaboration (Ferreira et al., 2018; Kohn & Hoffstaedter, 2017) where students show high levels of engagement, building rapport at a distance (Vinagre & Esteban, 2018). Other responses referred to the specifics of the different projects rather than telecollaboration in general. Some engineering students discussed their experience in a collaboration project—a video presenting a technical project—in terms of the challenges that it poses for students who are language learners with different levels of proficiency, or the fact that a communication project is “not real” if compared to the projects developed in other engineering courses which involve the creation and manipulation of tangible objects:

What I didn't like was the short time and that the project just consisted of an idea (nothing real). It would be better to work with other engineering courses to have more technical implications and make something real to share with native speakers.

The same student further elaborates on this idea in response to the question about recommendations for future TAPP projects, suggesting that telecollaboration should be incorporated into “more real” engineering courses (i.e., projects involving tangible objects). This student seems to recognize the value of telecollaboration, although he probably does not fully acknowledge that of technical communication courses: “I would recommend that in the future, projects have to be more than a simple idea, and take it more seriously. I suggest working with other courses like ‘project management’ in order to do a more serious project.”

Another question asked students about their perceived development of professional and technical communication skills. Engineering students mainly reported on language and (technical) vocabulary and increased language awareness (“... awareness of having to adapt my language to get understood. I noticed what mistakes I made ... [and saw] how native speakers use their language.”). These reflections point to language learning gains in English as a lingua franca as well as to heightened awareness (Arnó-Macià et al., 2019; Helm & Acconcia, 2019).

Probably reflecting on their own specific telecollaboration project, focusing on speaking skills, students mentioned professional speaking skills—and to a lesser extent, writing—as well as “more confidence to speak in English in different situations,” as the main learning outcome. The nature of the project (writing-translation partnership) is also reflected in the Polish students’ answers, who mentioned writing and translation skills, together with paraphrasing and editing (“paraphrasing the meaning in order to be understandable to my TAPP partners,” “how to prepare and translate instruction[s] ... [and give] feedback on somebody’s work”).

The fact that some of the engineering students surveyed had participated in several previous TAPP partnerships allowed them to reflect on their overall experience with telecollaboration. For example, one student had participated in two simultaneous TAPP partnerships in the previous term—one on technical writing and the other on technical speaking—and reflected on his development of specific professional communication skills, namely a written genre (instructions manual) and an oral one (the job interview). Another engineering student valued “shar[ing] [their] project with foreign people, from different disciplines and realities” as a positive experience. The best summary of what telecollaboration means for the international employability of graduates is captured in the following answer, pointing out the similarities between the TAPP and the workplace: “You don’t get to have a situation where you have to communicate professionally like this one before going into the job market.”

These reflections on international employability are made in a context in



which most of the students (11 out of 14) consider the possibility of working abroad or for an international company. With this in mind, students were asked for suggestions for future TAPP projects. Apart from the general suggestion of integrating telecollaboration in other engineering courses, specific suggestions were also made regarding the implementation of telecollaboration (see Table 12.3).

Table 12.3. Specific suggestions made by students

(i) clear organization and planning	“To be disciplined, organized, make all the tasks on time, being open-minded for an idea of the other person, More specific information. Also, I suppose that deadlines for performing tasks should be longer.”
(ii) communication and participation (more ICT tools used; promoting sustained contact with partners)	“I think it would be great to try to explore different ways of communication, not only by emails. I recommend to keep in contact with his TAPP partners, you can learn more out of the class. Increasing the intensity of contact through, for example, video calls. To involve only the students that are really interested in cooperation.”
(iii) diverse task design	“Perhaps less complex tasks would be a good option. Students would find it easier to cooperate then. They should find a different task.”

Overall, students suggested very specific guidelines for implementation, involving detailed and clear instructions and deadlines, the use of a wider range of information and communication technology (ICT) tools, better communication between partners, and more clearly designed tasks.

■ **Instructors**

Half of the respondents came from the US (and mostly from North Dakota State University (NDSU), a hub of the TAPP), while the other half came from a variety of European universities, thus reflecting typical bilateral partnerships within the TAPP. Specifically, they came from three translation classes in Europe and from TPC classes—in Europe, often termed English for Specific Purposes—from European and U.S. universities. Instructors reported on a wide range of activities developed through TAPP partnerships: (co-)writing different types of texts, translation, editing, storytelling and user experience, and spoken professional communication. Most of the respondents were experienced TAPP lecturers (ranging from 4 to 17 or 18 years of experience), and they had joined the network on their own initiative, although some explained that they had either been invited to participate or that the TAPP was part of the course procedures at their institution.

Instructors discussed their openness towards telecollaboration arising from “the desire to help. . . students understand the skills necessary to function in a



globalized work environment.” Thus, telecollaboration is regarded as “a means for cultural exchange and develop[ing] the ‘additional’ proficiencies the networked collaborative medium affords.” One of the instructors specifically stressed the potential of telecollaboration in facilitating students’ transition into a professional environment: “The first motivation that comes to mind is ‘authentic, grounded projects’; that is, I wanted students to participate in work that reflected the transition of an upper-division writing course (student to professional).”

When asked about the skills students can develop as a result of participating in the TAPP, instructors mentioned cooperation, communication, and language. They also mentioned professional competencies, including a broader professional stance and awareness, highlighted in the statement below as “ownership of expertise”: “Attention to cultural differences, editing, and professional correspondence. Ownership of their expertise.”

One of the U.S. instructors discussed a variety of interrelated competencies she thinks students can develop through telecollaboration:

Communicating with students who are several time zones away requires students to be mindful of how those time differences affect the transfer of information, which influences project management decisions. When working with students from different culture backgrounds than their own, my students learned to be mindful of how someone else might interpret their words and actions in a way that they did not expect. Students also learned to be mindful of variations between American English and Global Englishes.

The array of professional competencies promoted through the TAPP, including project management, interpersonal skills, and awareness of different varieties of English, also encompasses broader (and probably less well-defined) professional skills, such as “awareness of professional environment diversity.” Respondents pointed out that the TAPP becomes a unique global scenario to put such a broad range of competencies into practice: “By participating in the TAPP, students have the opportunity to develop skills in verbal and written intercultural communication, which they likely would not have otherwise.”

The value of telecollaboration in teaching technical and professional communication was rated high by all instructors. For instance, one of the U.S. respondents discussed the notion of authenticity by pointing out that telecollaboration projects reach beyond course assignments, as students engage in sustained interaction and collaboration with remote partners. Thus, as telecollaboration projects mirror the authenticity of real-world professional practices, they provide a valuable learning opportunity even when the outcomes are not as satisfactory as expected, which indicates that their learning value lies in the process.

The collaboration helps to increase the gravitas of projects without ephemeral partnerships (some service learning projects, some

problem-based pedagogical approaches). Students need practice interacting beyond the classroom without the artificiality of end-of-project presentations to a panel of local business people. . . . The projects can be an intense interaction between two (or more) student groups, each from a different program, working to complete deliverables. Even when the projects “fall to pieces,” it is an instructable moment because “real world” projects often also “fall to pieces” . . . so learning how to cope with those situations has tremendous value (possibly more than when everything goes “right”).

Furthermore, instructors emphasized the role of telecollaboration in preparing students for the globalized workplace. As one said, “Students gain experience working in collaborative situations that closely follow the kinds of international collaborative projects that happen in real-life with many multinational companies.”

In line with these answers, the rating given to telecollaboration as a way to enhance global employability is very high, 4.53/5 ( $SD = 0.64$ ). When asked to explain their rating, a few instructors reported on anecdotal evidence of graduates coming back after having participated in the TAPP and highlighting how it had helped them towards employability. One of these statements is expressed by a U.S. lecturer (who happened to give the lowest rating on this question) as she herself expressed her reluctance to make claims that connect the TAPP with employability, while she pointed out (at the end of the quote below) that this is an aspect that merits further evaluation:

I do not have available data. I have one anecdote of a student using a TAPP project as part of an interview, and subsequently earning the position. In terms of a rate, one of dozens is not great. However, I do not know if other students mentioned the projects, or if the projects allowed students to set themselves apart from a “crowded” applicant pool. [My] reluctance to be more assertive about this question . . . reflects that I am not comfortable making claims about employability in absence of effort(s) to trace that information. As previous responses make clear, I see value in TAPP. I wish the value was better evaluated, though.

Another point made by this instructor is that boosting employability will depend on how graduates “market” their international experience during a job interview. She said, “The job market is increasingly about how workers can present/market themselves, so being able to draw on interesting experiences like the TAPP can help.”

However, most of the instructors made stronger connections with employability based on the development of such skills as international professional communication and collaboration through these projects. Yet other respondents

pointed out that greater employability may be affected by several factors, such as whether “it is clearly aligned with related course objectives that are developed before and after the project,” “depend[ing] on the individual student’s level of engagement,” or depending on how successful the project outcome was. This last answer appears to contradict the previous assertion that even less successful projects lead to interesting learning opportunities. Regarding the quality of project outcomes, yet another instructor pointed to the need to show project deliverables, like a professionally produced technical text, as evidence of having acquired the skills needed in the globalized workplace: “Being able to show a potential employer a professional piece of technical writing produced in collaboration with an international partner can provide evidence of skills that not every university student will have.”

Finally, telecollaboration is seen as contributing to internationalizing U.S. students’ education, opening up new perspectives on internationalization: “Students in the United States, in particular, might not otherwise have the opportunity to work with people outside of the country . . . . This will make them more competitive in the marketplace.”

Overall, the instructors interviewed, with a strong motivation towards the TAPP as they took the initiative to join the network, discussed a number of advantages that telecollaboration brings to their teaching (see Table 12.4).

Table 12.4. Advantages of telecollaboration according to instructors

Development of a variety of skills for the workplace
Realism of projects
Boosting employability (a connection that merits further research)
Acquisition of professional skills
Campus internationalization

## Graduates

We were interested in the opinions of former students who had experienced TAPP projects in order to find out whether, in hindsight, they perceive the TAPP to contribute to potentially increased employability. The goal of gathering graduates’ views about employability aligned with the responses by instructors in relation to employability, especially the notion that tracing this experience merits further investigation. After contacting former students through social networks and personal contact, we received 11 responses (six from former engineering students at UPC and five from former M.A. and Ph.D. students of English at NDSU). They all had graduated in the past five years and work as engineers or university instructors of English or are pursuing further studies. The engineers had participated in bilateral projects involving the development

and review of oral presentations, while the English graduates from the US had participated in both multilateral and bilateral projects. Overall, they expressed a very high level of satisfaction with their participation in the project, with a rating of 4.55 ( $SD = 0.52$ ).

Accordingly, they expressed positive views on the experience, pointing out the advantages of collaboration through technology, the similarity of the learning scenario with the real workplace, and the combination of skills that are practiced in such projects, including project management, communication, collaboration, and, for U.S. students, internationalization. One of the engineers mentioned technical communication in English, from his dual perspective as a former engineering student and a learner of English as a foreign language: "I improve[d] my technical English skills in the technical sector, I had a multidisciplinary experience with another student of different specialties."

We were specifically interested in whether the students had included their TAPP experience on their *résumés*. All U.S. respondents did, and two of them reported on the interest the project had aroused among search committees (one of them specifically mentioned technical writing). Neither of the Spanish students had included the TAPP experience on their *résumés*, although one of them referred to an indirect mention (i.e., his technical communication courses featuring the TAPP), and two of them expressed their intention to do it in further *résumé* updates. This difference in awareness of the potential of the project can probably be explained by the field of study (English) of U.S. respondents, while engineering students (learning English as a foreign language in an optional course) may not be fully aware of the potential of such projects, as they do not come with any additional recognition. With respect to the role of the TAPP in the development of their technical communication skills for the job market, the rating is also quite high (4.18,  $SD = 0.75$ ).

However, in this case there was a difference between U.S. and Spanish graduates, as the former's ratings ranged between 4-5 and the latter's ranged between 3-4. Although the low number of respondents should be taken with caution, what is revealing are the qualitative comments. The two students who had given ratings of 3 justified them in terms of having a low level of proficiency in English at the time of the collaboration and of the short duration of the experience ("Was just one subject! So it was a short time but useful"). In terms of suggested improvements, responses ranged from no suggestions ("I think the project is well organized and I learned a lot about communications skills, so I can't think about improvements") to giving it more visibility, namely by including explicit reflection on skills as part of instruction ("I think the instructions could help us reflect on the skills we've practiced so that we can include them on resumes/CVs"). Other specific suggestions included more focus on professional projects and more creativity in the types of tasks performed. One of the engineering students even suggested matching European students with U.S. companies: "It could be even more interesting if the exchange and telecollaboration project was more focused

on collaborating with a real company in the USA. This way, graduates would feel more prepared and value the real needs and tasks as engineers.”

The last questions in the survey inquired into professional communication skills that could increase graduates’ international employability. Respondents assigned a very high score to the importance of professional communication in the global labor market (4.73, *SD* = 0.65) and mentioned specific skills that graduates need, like learning about the organization of engineering companies and communication skills for persuasion and transmitting trust: “I think they have to learn how a company works. In engineering it is important to demonstrate that you are able to manage different kinds of situations and scenarios.”

Some of the responses were similar to those of students and instructors, especially those that referred to professional communication skills such as technology-mediated intercultural communication and collaboration as well as concise technical writing. Finally, from the respective viewpoints of English native speakers and Spanish learners of English, respondents focused on the development of language skills and greater awareness, which they practiced in their communication between native and non-native speakers, the latter having to accommodate interlocutors with varied levels of proficiency in English. However, what we found especially valuable in the graduates’ responses was their connection with the workplace and the views they could provide from the perspective of former students currently in the professional world. Table 12.5 summarizes graduates’ views on the advantages of telecollaboration and suggestions for improvement.

Table 12.5. Advantages of telecollaboration and suggestions for improvement according to graduates

Advantages	Suggestions
Collaboration through technology	Connection with companies
Similarity to workplace scenario	Greater visibility/connection with employability (through <i>résumés</i> )
Development of language and communication skills	Greater variety of projects and tasks

■ Administrators

One of the focuses of this study was the extent to which telecollaboration is recognized by universities, which is why we gathered the perspectives of university administrators. It should be noted that these exchanges are grassroots partnerships initiated by lecturers from different universities. A small number of administrators were approached from NDSU (the hub university) and UPC. A total of four respondents answered the survey, three from UPC and one from NDSU. One of the UPC respondents held a vice-dean’s position. The other two were not related to the TAPP: one held an academic management position in

the department where the TAPP is implemented and the other was a specialist in quality assurance. The NDSU administrator held a dean's position. The first question asked about participants' knowledge of the TAPP (a question to which two of the UPC respondents and the NDSU respondent answered positively). When asked to describe the project, one of the descriptions was very specific and included an account of its integration in one of the technical communication courses. The same respondent was also specific about how long the university had been involved in the TAPP. Also, the three respondents considered the initiative to be "highly valuable for students as a learning experience," especially for the U.S. students who may have little international experience: "This project connects them directly with classes at a university abroad and provides a framework for working together in a safe and non-threatening manner."

According to the administrators, telecollaboration can help Spanish students of engineering, who are learners of English and novice technical writers, become aware of the complexities of technical writing (which go beyond learning the grammar of a language). Faced with "English-speaking students' difficulties in writing," students discover that writing "is not an easy task, even for [native speakers of the language]."

Two of the respondents said that the TAPP was given visibility/recognition at their university, and more specifically, all three agreed that it deserved institutional support—and even one of them specified the type of support needed, namely greater dissemination and catering for needs derived from TAPP implementation.

While specific TAPP questions were only addressed to those respondents that knew about the project, more general questions about telecollaboration in higher education were asked to all participants. A high rating was given to the question on the value of telecollaboration for teaching professional and technical communication in higher education (4.5,  $SD = 0.58$ ), and the following benefits were mentioned: (i) creating a global learning network for a globalized workplace, (ii) a more sustainable alternative to physical mobility, and (iii) raising non-native speakers' awareness of technical writing in other contexts. The following quote summarizes these views: "Online collaboration is the only way to go. Physical mobility is expensive, time-intensive, conflicts with other personal and professional obligations, cannot be sustained over long stretches of time. Access to online communication has become ubiquitous."

In terms of boosting students' international employability, respondents mentioned several affordances of telecollaboration, such as experience in international teams, open-mindedness, and writing in different contexts. However, they pointed to several conditions necessary for such telecollaboration to have an impact on students: "One of them is that the contact was sustained and impactful enough to make a difference; another one is that students are made aware of the significance of this particular learning experience so that they are able to express the value of this learning activity in applications and resumes."

This latter reference to including telecollaboration on résumés echoes instructors’ reflections on employability and “marketing” students’ experience. Regarding the role of telecollaboration in preparing students for the labor market, administrators agree that it integrates multiple skills sought by employers (international communication, collaboration, personal reflection) in a realistic international context: “An essential role, as telecollaboration facilitates contact with people and groups that would be impossible or costly to achieve face to face.”

When asked about professional communication skills that can be developed through the TAPP and more generally through technical communication (TC) courses, all administrators agreed on similar answers (self-management, intercultural awareness, adapting to different audiences and situations, problem-solving), which suggests an alignment between telecollaboration practices and objectives set for curricular professional communication courses. Again, differences appear between Spanish respondents’ references to a “foreign language” (English) and U.S. respondents’ references to adapting to other interlocutors, thus highlighting the role of English as a lingua franca and the benefits of native speaker/non-native speaker communication as preparation for international professional communication contexts. Overall, administrators consider telecollaboration a valuable experience in their universities for a variety of reasons (see Table 12.6). Some argue that telecollaboration is “the way to go,” yet they maintain that certain conditions need to be met for this experience to have a lasting impact on students. The administrators’ views of telecollaboration as deserving greater support and visibility also points to the need for balancing the flexible, grassroots nature of such partnerships with institutional policies and practices.

Table 12.6. Advantages of telecollaboration according to academic administrators

Safe environment for collaboration
Greater awareness and authenticity of writing
Sustainable internationalization experience for students
Potential to develop a variety of personal, professional, and communication skills

## ■ Discussion and Application

In response to the first research question, different stakeholders discussed telecollaboration as a highly valuable tool that helps students strengthen their written and oral communication skills. For students who are non-native speakers of English, it is a way of improving English language proficiency, in addition to practicing intercultural communication, and developing creativity and project organization skills.

Instructors emphasized the potential of telecollaboration in helping students to develop a range of professional competencies. They viewed telecollaboration



as a unique opportunity to put students in realistic professional scenarios and to practice a variety of skills related to project management, multidisciplinary work, and communication. Thus, beyond the competencies related to international communication, like interculturality, politeness, and global Englishes, instructors highlighted professional attitudes—less tangible than competencies—such as “awareness of professional environment diversity” and “ownership of expertise.” “Authenticity” was also a key word in instructors’ responses related to the projects and documents that constitute the output of such collaborations. Authenticity, linked to a learner’s agency in the sense of participation and initiative, has also been pointed to as one of the affordances of telecollaboration (Kohn & Hoffstaedter, 2017).

Just like the instructors, the graduate respondents also value the potential of telecollaboration in replicating realistic professional scenarios and in offering useful experiences in project management, collaboration, internationalization, and technical communication in English as a lingua franca. Telecollaboration is equally valued by administrators, who highlight the opportunities it offers students to work in international teams and to write in different contexts. However, they argue that certain conditions should be met for such opportunities to have an impact on students, including a steady contact among the project partners and also the need to raise students’ awareness about the value of this experience.

The idea of “marketing” students’ international telecollaborative experience as an asset for employability is mentioned by different respondents, which contrasts with the fact that the graduates we surveyed had not included this experience in their job applications. It is assumed that telecollaboration can help bridge the gap between higher education and professional environments, along the lines of the recommendations made by Elspeth Jones (2016). However, to help students make the most of their telecollaboration experience, it is necessary to include an explicit reflection on project participation (O’Dowd, 2015a), which in the TAPP is usually performed through pre- and post-learning reports, to encourage students’ reflection on both expectations and learning outcomes (Moustén et al., 2012). The results of this study are in line with previous TAPP studies (e.g., Arnó-Macià et al., 2019) in that as students interact across languages and take on multiple roles in realistic work projects, they show a greater appreciation of language(s), especially English as a lingua franca. Regarding the design of activities, some valuable suggestions were made by students and graduates, mostly (i) simplifying tasks and increasing exposure to communication with foreign partners, (ii) connecting technical communication with other courses, and (iii) connecting with real companies. In terms of planning and implementation, care has to be taken to integrate online and classroom work in a meaningful way (Ferreira et al., 2018).

The second research question focused on a general reflection on the skills needed for international professional communication—as opposed to concrete experience—and was elicited in graduates’ and instructors’ surveys. Graduates place great value on professional communication in the global labor market,

mentioning specific skills that are needed, like learning about the organization of companies and adapting to different situations, as well as specific communication skills related to persuasion and transmitting trust.

Connections can be made between the communication skills that, according to graduates, are needed in the workplace, and students' and instructors' responses about the skills developed through the TAPP. These include intercultural communication and collaboration and technical writing. As English is the language of international professional communication, different perspectives are expressed by native and non-native speakers, with the former learning to accommodate non-native audiences and the latter practicing and improving foreign language skills.

When asked about professional communication skills that can be developed through the TAPP and, more generally, through university courses, administrators give similar answers (self-management, intercultural awareness, adapting to different audiences and situations, and problem-solving). These responses suggest an alignment between telecollaboration practices, and the objectives set for curricular professional communication courses. Like graduates, administrators point to the role of English as a *lingua franca* in international professional communication contexts from a native vs. non-native speaker perspective (i.e., adapting to non-native audiences vs. improving proficiency in English as a foreign language).

On the last research question, participants' evaluations of their telecollaboration experience were extremely positive, with high ratings by students, instructors, and graduates. From their institutional perspective, administrators referred to the potential of the TAPP/telecollaboration initiatives for curriculum (and institutional) internationalization in a sustainable way (Verzella, 2018). The affordances of telecollaboration mentioned by participants in this study, namely interacting and collaborating with foreign partners, developing creative assignments, and developing management and organization skills, were aligned with proposals made in the literature about teaching technical communication, in that it must cover a broader range of skills that are demanded in the workplace (e.g., Brumberger & Lauer, 2015). Thus, telecollaboration projects in TC allow the integration of such broad skills with more specific writing sub-skills, such as paraphrasing or editing, as well as the ability to work with specific genres (usually procedural texts in TAPP technical writing assignments). Such projects bring to the TC classroom the complexity of real workplaces (Maylath et al., 2013b), so that students are faced with the challenges—as confirmed by participants in this study—of managing time zone differences and dealing with different partners that show varied perspectives, skills, and levels of commitment to the project, as well as coping with the demands of multi-tasking and tight deadlines, let alone the linguistic challenges faced by the students with lower proficiency in English.

Overall, the TAPP appears to contribute to students' preparation for international professional communication, although students are cautious in making such a direct link with international employability, as indicated by the rating given on that question (not as high as that for their evaluation of the experi-

ence). This may be due to the fact that either students find the activity enjoyable and different from their everyday academic activity or that the project has a limited impact, probably due to the short-term nature of the collaborations and the lack of engagement of students once they have completed the required work. Despite these limitations, students mention a number of ways in which the TAPP has helped them develop international professional communication skills: negotiation, intercultural communication, use of technology, and especially the opportunity to experience a scenario that replicates the demands of a workplace environment while they are still at university.

Instructors appear as highly motivated and dedicated (not surprisingly, considering the grassroots nature of the project), a result that aligns with previous literature that identifies a broad range of competences and attitudes that characterize instructors engaged in telecollaboration (O'Dowd, 2015b). The motivation among instructors in this study arises from the desire to bring a globalized learning environment—"a networked component"—into their courses, giving students the opportunity to engage in cultural exchange and develop skills related to the complexities of project management in international professional communication (Maylath et al., 2013b). In this regard, the term "authenticity" appears as a key word in participants' responses (authenticity of situations, projects, and especially with purposeful assignments that exceed mere course requirements).

Considering that their opinions combine both the student perspective and that of a post-graduate employee, the responses of graduates were particularly important. In their evaluation of the TAPP experience, they reflect on similar positive points as do students and instructors, namely technology-mediated collaboration, realistic projects, similarity to workplace environments, internationalization, and foreign language learning. However, these highly positive characteristics of telecollaboration are not usually included in their *résumés*, which indicates that graduates may not always be aware of the value this experience can have for potential employers or do not know how to incorporate this experience into their job application materials.

Furthermore, graduates consider that the TAPP helped them improve their professional communication skills for the job market, with the only hindrances being a low level of proficiency in English and the short duration of the overall project experience. Similarly, administrators who participated in this study expressed a highly positive view of telecollaboration, acknowledging that it needs more visibility and support by universities. It is not surprising that such initiatives are not usually catered to by institutional policies (Helm, 2018), as many TAPP collaborations develop through the arrangements by individual instructors. Apart from praising telecollaboration as a teaching tool, the administrators discuss its advantages as linked to the idea of internationalization at home (Crowther et al., 2000). Such initiatives are a more sustainable alternative to physical mobility, and they contribute to creating international learning networks for globalized work environments.

Respondents' recommendations can help improve future TAPP collaborations focused on TPC. Students' recommendations range from project organization to the types of tasks assigned to extending telecollaboration to subject-specific courses. Instructors' link between the TAPP and increased employability needs further research but encouraging graduates to better "market" their international experience constitutes one step forward. Certain conditions should be met for telecollaboration to fulfill its potential: alignment with broader course objectives and methodology as well as specifying professional outcomes that students can display.

In sum, the telecollaboration initiative analyzed in this chapter is based on students taking on roles that replicate workplace experiences, and it offers enormous potential for increasing the relevance of TC teaching to authentic professional needs. In spite of the limitations of this study in terms of scope and number of respondents, certain implications can be derived for maximizing the effectiveness of telecollaboration: (i) making students aware of the activity so that they can take advantage of its full potential, (ii) organizing the tasks so that they reflect potential professional settings and at the same time are presented to students in a clear and manageable way, and (iii) strengthening the links between telecollaboration and the overall TPC curriculum. Through the practice of intercultural TPC in an experiential way, telecollaboration provides an opportunity for students to go beyond strengthening writing and communication skills by helping them develop broader skill sets to become effective professional communicators for diverse audiences and contexts against the background of an increasingly globalized workplace.

## ■ References

- Arnó-Macià, E., Isohella, S., Maylath, B., Schell, T., Verzella, M., Minacori, P., Moustén, B., Musacchio, M. T., Palumbo, G., & Vandepitte, S. (2014). Enhancing students' skills in technical writing and LSP translation through tele-collaboration projects: Teaching students in seven nations to manage complexity in multilateral international collaboration. In G. Budin & V. Lušický (Eds.), *Languages for special purposes in a multilingual, transcultural world. Proceedings of the 19<sup>th</sup> European Symposium on Languages for Special Purposes, 8-10 July 2013, Vienna, Austria* (pp. 249-259). University of Vienna. <http://lsp2013.univie.ac.at/proceedings>
- Arnó-Macià, E., Vandepitte, S., Minacori, P., Musacchio, M. T., Hanson, J., & Maylath, B. (2019). A multilingual background for telecollaboration: Practices and policies in European higher education. *European Journal of Language Policy*, 11(2), 235-255. <https://doi.org/10.3828/ejlp.2019.14>
- Brewer, P. E., & St. Amant, K. (2015). Education and training for globally-distributed virtual teams [Editorial]. *Connexions: International Professional Communication Journal*, 3(1), 3-7. <https://connexionsjournal.org/wp-content/uploads/2019/12/brewer-st-amant.pdf>
- Brown J. D. (2009). Open-response items in questionnaires. In J. Heigham & R. A. Croker (Eds.), *Qualitative research in applied linguistics: A practical introduction* (pp. 220-219). Palgrave Macmillan.

- Brumberger, E., & Lauer, C. (2015). The evolution of technical communication: An analysis of industry job postings. *Technical Communication*, 62(4), 224-243.
- Canagarajah, A. S. (2009). Multilingual strategies of negotiating English: From conversation to writing. *JAC*, 29(1/2), 17-48. <https://www.jstor.org/stable/20866885>
- Canagarajah, A. S. (Ed.). (2013a). *Literacy as translingual practice: Between communities and classrooms*. Routledge.
- Canagarajah, A. S. (2013b). Negotiating translingual literacy: An enactment. *Research in the Teaching of English*, 48(1), 40-67. <https://www.jstor.org/stable/24398646>
- Crocker, R. A. (2009). An introduction to qualitative research. In J. Heigham & R. A. Crocker (Eds.), *Qualitative research in applied linguistics: A practical introduction* (pp. 3-24). Palgrave Macmillan.
- Crowther, P., Joris, M., Otten, M., Nilsson, B., Teekens, H., & Wächter, B. (2000). *Internationalisation at home. A position paper*. The European Association for International Education.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (1994). *Handbook of qualitative research*. Sage.
- Ferreira-Lopes, L., Bezanilla, M. J., & Elexpuru, I. (2018). Integrating intercultural competence development into the curriculum through telecollaboration. A task sequence proposal for Higher Education. *Revista de Educación a Distancia (RED)*, 58. [http://www.um.es/ead/red/58/ferreira\\_et\\_al.pdf](http://www.um.es/ead/red/58/ferreira_et_al.pdf)
- Guth, S., & Helm, F. (Eds.). (2010). *Telecollaboration 2.0: Language, literacies and intercultural learning in the 21<sup>st</sup> century*. Peter Lang.
- Hanson, J. R. (2015). Preparing globally distributed virtual team members to bridge boundaries of language difference: A graduate program teaching case. *Connexions: International Professional Communication Journal*, 3(1), 87-112. <https://connexionsjournal.org/wp-content/uploads/2019/12/hanson.pdf>
- Helm, F. (2018). The long and winding road... *Journal of Virtual Exchange*, 1, 41-63. <https://doi.org/10.14705/rpnet.2018.jve.3>
- Helm, F., & Acconcia, G. (2019). Interculturality and language in Erasmus+ Virtual Exchange. *European Journal of Language Policy*, 11(2), 211-233. <https://doi.org/10.3828/ejlp.2019.13>
- Hobbs, V., Matsuo, A., & Payne, M. (2010). Code-switching in Japanese language classrooms: An exploratory investigation of native vs. non-native speaker teacher practice. *Linguistics and Education*, 21(1), 44-59. <https://doi.org/10.1016/j.linged.2009.12.004>
- Horner, B., Lu, M.-Z., Royster, J., & Trimbur, J. (2011). Language difference in writing: Towards a translingual approach. *College English*, 73(3), 303-321. <https://www.jstor.org/stable/25790477>
- Humbley, J., Maylath, B., Moustén, B., Vandepitte, S., & Veisblat, L. (2005). Learning localization through trans-Atlantic collaboration. In *IPCC 2005. Proceedings. International Professional Communication Conference* (pp. 578-595). IEEE. <https://doi.org/10.1109/IPCC.2005.1494227>
- Jones, E. (2016). Mobility, graduate employability and local internationalization. In E. Jones, R. Coelen, J. Beelen, & H. de Wit (Eds.), *Global and local internationalization* (pp. 107-116). Sense Publishers. [https://doi.org/10.1007/978-94-6300-301-8\\_15](https://doi.org/10.1007/978-94-6300-301-8_15)
- Kohn, K., & Hoffstaedter, P. (2017). Learner agency and non-native speaker identity in pedagogical lingua franca conversations: Insights from intercultural telecollaboration in foreign language education. *Computer Assisted Language Learning*, 30(5), 351-367. <https://doi.org/10.1080/09588221.2017.1304966>

- Lauer, C., & Brumberger, E. (2019). Redefining writing for the responsive workplace. *College Composition and Communication*, 70(4), 634-663.
- Maylath, B., King, T., & Arnó-Macià, E. (2013a). Linking engineering students in Spain and technical writing students in the US as coauthors: The challenges and outcomes of subject-matter experts and language specialists collaborating internationally. *Connexions: International Professional Communication Journal*, 1(2), 159-185. <https://connexionsjournal.org/wp-content/uploads/2019/12/maylath-king-ar-no-macia.pdf>
- Maylath, B., Vandepitte, S., Minacori, P., Isohella, S., Moustén, B., & Humbley, J. (2013b). Managing complexity: A technical communication translation case study in multilateral international collaboration. *Technical Communication Quarterly*, 22(1), 67-84. <https://doi.org/10.1080/10572252.2013.730967>
- Maylath, B., Vandepitte, S., & Moustén, B. (2008). Growing grassroots partnerships: Trans-Atlantic collaboration between American instructors and students of technical writing and European instructors and students of translation. In D. Starke-Meyering & M. Wilson (Eds.), *Designing globally networked learning environments: Visionary partnerships, policies, and pedagogies* (pp. 52-66). Sense Publishers.
- Moustén, B., Humbley, J., Maylath, B., & Vandepitte, S. (2012). Communicating pragmatics about content and culture in virtually mediated educational environments. In K. St.Amant & S. Kelsey (Eds.), *Computer-mediated communication across cultures: International interactions in online environments* (pp. 312-327). IGI Global. <https://doi.org/10.4018/978-1-60960-833-0.ch020>
- Moustén, B., Vandepitte, S., Arnó-Macià, E., & Maylath, B. (2018). Preface. In B. Moustén, S. Vandepitte, E. Arnó-Macià, & B. Maylath (Eds.), *Multilingual writing and pedagogical cooperation in virtual learning environments* (pp. xv-xxi). IGI Global.
- O'Dowd, R. (2015a). Supporting in-service language educators in learning to telecollaborate. *Language Learning & Technology*, 19(1), 63-82. <http://dx.doi.org/10.125/44402>
- O'Dowd, R. (2015b). The competences of the telecollaborative teacher. *The Language Learning Journal*, 43(2), 194-207. <https://doi.org/10.1080/09571736.2013.853374>
- O'Dowd, R. (2018). From telecollaboration to virtual exchange: State-of-the-art and the role of UNICollaboration in moving forward. *Journal of Virtual Exchange*, 1, 1-23. <https://doi.org/10.14705/rpnet.2018.jve.1>
- O'Dowd, R., & Lewis, T. (Eds.). (2016). *Online intercultural exchange: Policy, pedagogy, practice*. Routledge.
- Sorensen, K. S., Hammer, S., & Maylath, B. (2015). Synchronous and asynchronous online international collaboration: The Trans-Atlantic & Pacific Project. *Connexions: International Professional Communication Journal*, 3(1), 153-177. <https://connexionsjournal.org/wp-content/uploads/2019/12/sorensen-hammer-maylath.pdf>
- Tzoannopoulou, M., & Maylath, B. (2018). Virtual networks in English-for-Specific-Purposes education: A translation-reviewing/editing model. In B. Moustén, S. Vandepitte, E. Arnó-Macià, & B. Maylath (Eds.), *Multilingual writing and pedagogical cooperation in virtual learning environments* (pp. 318-343). IGI Global. <https://doi.org/10.4018/978-1-5225-4154-7.ch013>
- Verzella, M. (2018). Virtual exchange between cross-cultural teams: A sustainable path to the internationalization of college courses. *Transformative Dialogues: Teaching and Learning Journal*, 11(3), 1-13. [https://kpu.ca/sites/default/files/Transformative%20Dialogues/TD.11.3\\_Verzella\\_Virtual\\_Exchange\\_between\\_Cross-Cultural\\_Teams.pdf](https://kpu.ca/sites/default/files/Transformative%20Dialogues/TD.11.3_Verzella_Virtual_Exchange_between_Cross-Cultural_Teams.pdf)

Vinagre, M., & Esteban, A. C. (2018). Evaluative language for rapport building in virtual collaboration: An analysis of appraisal in computer-mediated interaction. *Language and Intercultural Communication*, 18(3), 335-350. <https://doi.org/10.1080/14708477.2017.1378227>