

Applying Multiliteracies: Student-Teacher Reflections on a Telecollaborative Experiential Learning Project

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This qualitative case study explored the experiences of 19 graduate-level English language teachers in training as they engaged in telecollaborative lesson planning and team teaching with a multiliteracies focus. The study used repository data from five groups, primarily written self-reflections, collected during the semester of the collaboration between a large public southeastern US university and a public southwestern Spanish university's teacher-training programs. Thematic analysis was used to analyze the data. Findings revealed that the experiences included forming the group dynamic—coming together or staying separate; navigating internal and external challenges; and reflecting in retrospect on learning from challenge and valuing intercultural exchange. The findings have implications for teacher trainers interested in a telecollaboration with a relatively compressed timeline between participating institutions. While the groups oriented largely toward similarities as they focused on their primary team-teaching goal, the experience shared by participants in this case study includes evidence of opportunities to practice mediation and emotional intelligence while navigating challenges within the exchange. These takeaways of the student-teacher experience while applying multiliteracies toward lesson design and implementation are valuable outcomes of experiential learning for language teacher training.

Cette étude de cas qualitative a examiné les expériences de 19 futurs enseignants d'anglais aux cycles supérieurs, alors qu'ils participaient à la planification de leçons et au coenseignement en télécollaboration, en mettant l'accent sur les multilittératies. L'étude a utilisé les données d'archives de cinq groupes, principalement des autoréflexions écrites, recueillies au cours d'un semestre de collaboration entre les programmes de formation d'enseignants d'une grande université publique du sud-est des États-Unis et d'une université publique du sud-ouest de l'Espagne. Une analyse thématique des données a été effectuée. Les résultats ont révélé que les expériences comprenaient la formation de la dynamique de groupe (à savoir se rassembler ou rester séparés), la gestion des défis internes et externes, ainsi que la réflexion rétrospective sur les enseignements tirés des défis et la valorisation des échanges interculturels. Ces résultats ont des implications pour les formateurs d'enseignants intéressés par une télécollaboration avec un calendrier relativement condensé entre les établissements participants. Alors que les groupes se sont largement orientés vers leurs points communs en se concentrant sur leur objectif principal de

coenseignement, l'expérience partagée par les participants à cette étude de cas montre l'existence d'occasions pour pratiquer la médiation et l'intelligence émotionnelle tout en naviguant les défis liés à l'échange. Ces enseignements tirés de l'expérience des enseignants en formation alors qu'ils mettaient en œuvre les multilittératies dans la conception et la mise en œuvre des leçons constituent des résultats précieux de l'apprentissage expérientiel dans la formation des enseignants de langues.

Keywords: English language teacher education, learning by design, multiliteracies, telecollaboration, virtual exchange

Telecollaboration (also known as virtual exchange) has been used for many years as a way of connecting classroom communities toward various goals including language learning and teacher training (Dooly & Vinagre, 2022; Helm, 2024; O'Dowd, 2018). Widely used to join language learners with language teachers in training, telecollaboration has also become an important tool to connect communities of language teachers and teachers in training to one another to create learning opportunities and foster supportive networks at distance (O'Dowd & Vinagre, 2024). One such opportunity is intercultural communicative competence.

A great deal of attention has been given to the role of intercultural communicative competence in language teacher training (e.g., Byram, 1997; Senyshyn, 2018) and as an outcome of virtual exchanges (Dooly, 2017; Helm, 2024). There is also potential for developing transformational learning toward intercultural citizenship (Byram et al., 2021). Indeed, the Council of Europe's *Common European Framework of Reference for Languages* (CEFR) (2020) Companion Volume includes mediation of plurilingual/pluricultural communicative exchanges within authentic contexts as a goal in an action-oriented approach to language learning and teaching (pp. 20–30). Similarly, the proficiency guidelines of the National Council of State Supervisors for Languages (NCSSFL) and the American Council on the Teaching of Foreign Languages (ACTFL) include can-do statements for intercultural communication (ACTFL, n.d.). Multiliteracies pedagogy and Learning by Design (LbD) also encourage development of intercultural communicative competence by expanding literacy instruction to include recognition of diverse student lifeworlds and multimodal transposition (Kalantzis et al., 2005; Kalantzis & Cope, 2025; NLG, 1996). While prior research in telecollaboration has addressed multiliteracies through studying multimodal interactions, additional research is needed to further explore the development of intercultural communicative competence and pedagogical awareness in language teachers while engaging in artifact co-creation (Glimäng & Magadán, 2024; Guth & Helm, 2012).

The goal of this study was to analyze the experience of student teachers as they engaged in and reflected upon telecollaborative lesson-planning activities and team teaching with a multiliteracies focus. This article presents qualitative findings from a case study during the initial year of planning and enacting a telecollaboration between a US university's and a Spanish public university's graduate English language teacher-training courses. The case study included a telecollaborative task: to design and team-teach English language lessons with multiliteracies pedagogy to learners in a live online setting. The created lesson materials and perceptions of the students in teacher-training classes who made them were collected in the study, alongside feedback from English language students who took part. This article focuses on a subset of findings of perceptions from the students in these teacher-training classes (hereafter student teachers) about their experiences, as described in their reflections. This approach provided an opportunity for a

focused examination of how student teachers felt about the challenge-based telecollaboration task design, their interactions with international groupmates, and their reactions to the live online team-teaching experience.

Literature Review

Telecollaboration

Definitions

Several terms have been used to refer to online exchanges and collaboration projects with intercultural aims completed between partner institutions at distance. O'Dowd (2018) listed terms within the scope of virtual exchanges such as telecollaboration, online intercultural exchange, and collaborative online international learning (COIL; see also Rubin, 2016) while highlighting that the variability of terms used in research literature can be challenging. The challenge of potential confusion caused by the use of multiple terms in the research literature is also echoed by Colpaert (2020), who expressed preference for the term *telecollaboration* over *virtual exchange*. In the present study, we opted to use the terms *telecollaboration* (Belz, 2003) and *telecollaborative exchange* because of the terms' roots in foreign language and language teacher education while acknowledging that *virtual exchange* is a broader and equally appropriate term that could be used in this context too.

Implementation

Practitioners design telecollaborative exchanges based on research guidance and individual settings. The Progressive Exchange Model (O'Dowd & Waire, 2009) is one popular option for such exchanges (e.g., Helm, 2024; O'Dowd & Vinagre, 2024). In this model, students engage in three types of tasks, beginning with a dialogue exchanging information, followed by comparisons and analysis of culture, and finally a collaborative task toward a joint deliverable. Helm (2024) also outlined comparative, dialogue-based, and challenge-based exchanges as strategies to approach virtual exchange organization. All models recognize that major components of telecollaboration include intercultural exchange and collaboration as well as integration of these tasks into a formal educational program with instructional guidance (O'Dowd & Vinagre, 2024).

Relevance to Language Teachers

Telecollaboration benefits language teacher training for a number of reasons. Telecollaborative exchange can encourage autonomy in learning through reflective collaborations where student teachers connect theory to practice (Dooly & Sadler, 2020). Engagement in telecollaboration projects develops relevant skills such as intercultural communicative competence and technology use (Wu, 2023). Benefits of participating in telecollaboration include increased intercultural awareness, intercultural collaboration skills, critical digital literacies, and agency in the learning process (Glimäng & Magadán, 2024; O'Dowd & Vinagre, 2024). Challenges noted in systematic reviews of literature include time constraints, technology issues, emotional and language-related challenges, limitations with asynchronous computer-mediated communication, pressure felt in synchronous meetings, and variable institutional investment in the collaboration (Coşkun, 2023; Wu, 2023). Experiencing the challenges and benefits of telecollaboration can not only grow

individuals' skill sets but also inspire student teachers to later organize and enact their own telecollaborations to pass on these benefits to their future students (Dooly & Sadler, 2020).

Multiliteracies

Definitions

First coined by the New London Group (NLG, 1996), *multiliteracies* refers to an expanded definition of literacy created by educators reacting to a changing and increasingly interconnected world that requires a more nuanced approach to literacy beyond the traditional definition of learning to read and write a standard national language in print form. Multiliteracies includes recognition of the diversity in students' lifeworlds (material, embodied, and symbolic differences) as well as multimodal ways of communicating (e.g., using text, image, speech, and body movement). Multiliteracies was extended into Learning by Design (LbD) to create a more user-friendly pedagogical focus through four knowledge processes: experiencing, conceptualizing, analyzing, and applying (Cope & Kalantzis, 2015; Kalantzis & Cope, 2025).

Relevance to Language Teachers

Multiliteracies and LbD have a great deal of relevance to language educators as they make instructional decisions to empower their students to engage with desired speech communities. Zapata's (2022) work provides a thorough overview of multiliteracies and LbD pedagogy for language teacher training. In this study, multiliteracies and LbD were used for two main reasons as a common training basis for student teachers as they prepared to instruct adult English language students. First, there is evidence to support the value of multiliteracies, including multimodal and digital literacy in adult literacy education (García-Barroso & Torres-Vélez, 2023). Also, there is a need for additional research on multiliteracies pedagogy for teachers training to teach adult language learners and especially for those who will work with migrant populations (e.g., Cores-Bilbao, 2022; García-Barroso & Fonseca-Mora, 2023).

Intercultural Communication and Mediation

While there are several links between multiliteracies and LbD pedagogy and telecollaboration as a part of language teacher training, intercultural communication is of particular interest in this study of student-teacher experiences during this first telecollaborative exchange between the universities. In her book describing three approaches to virtual exchange and intercultural communication, Helm (2024) aligned with the concept of culture as process rather than product—and as something that is dynamic to evolution through interactions (p. 13). Just as Byram's (1997) model for intercultural communicative competence called for language teaching to be tailored to learners' needs and contexts, so too does language teaching using multiliteracies and LbD. Telecollaboration can facilitate intercultural experiences and provide practice toward this end. Furthermore, creating opportunities for guided intercultural encounters increases competence in both the CEFRL and ACTFL contexts, supported at distance through telecollaborative learning.

Mediation is another relevant term in the context of intercultural communicative competence. The CEFRL 2020 Companion Volume (Council of Europe, 2020) describes mediation as when a "user/learner acts as a social agent who creates bridges and helps to construct or convey meaning, sometimes within the same language, sometimes across modalities ... and sometimes from one language to another" (p. 90). A mediator must draw upon their emotional intelligence and empathy toward others who are engaging in the communicative situation. This concept resembles Byram's intercultural speaker, as it highlights the

language learner's ability to mediate not only between languages but also across cultural differences. A goal in this case study was to analyze reflections from the student-teacher experiences to continue to develop and support this partnership in future years too.

Theoretical Framework

This study acknowledges a sociocultural framework for telecollaborative exchange (e.g., Dooly & O'Dowd, 2012; Fuchs, 2016; Guth & Helm, 2012). Sociocultural theory (Vygotsky, 1962, 1978) highlighted language as an important symbolic tool for mediation and showcased the value of collaborative interaction to support learning within the Zone of Proximal Development (ZPD). Just as the sociocultural view of language learning in telecollaboration frames learning in social contexts with collaborative interactions, student teachers in this study working with their peers in groups allowed opportunities for collaborative learning across social and cultural settings (Guth & Helm, 2012). This study also employs the multiliteracies and LbD framework (Kalantzis & Cope, 2025; NLG, 1996). Intention toward artifact co-creation with this lens provided an opportunity to observe how the student teachers reflected on this framework as designers and communicators in the process of designing.

Methods

Context

The current qualitative case study explored how a group of student teachers perceived their experiences as they applied multiliteracies and LbD concepts to group lesson planning and live online teaching with international colleagues. The activities were embedded into existing university courses and offered through the US university in collaboration with the Spanish university. The study was part of an ongoing repository project that included free community English teacher training and language support services to English language students. Volunteer participants provided informed consent for their lessons, reflections, and synchronous session recordings to be collected, de-identified, and stored at the US university in accordance with its Institutional Review Board (IRB) protocol. The current study on student-teacher perceptions while engaging with a community English service used a portion of the repository data and was approved by the university's IRB (Study #00007413).

Course Descriptions

For the US student teachers in this study, training to serve the needs of English as a Second Language (ESL) students in their local context with this multiliteracies framework added tools to their pedagogical repertoire to help them serve their local community. The US student teachers in this study were enrolled in one of two graduate-level courses that included a lesson-planning assignment. The practicum course was delivered in a fully online modality, while the approaches to language teaching class was delivered in a mixed mode of online and in-person instruction at the university, with online components on the Canvas Learning Management System (LMS).

The Spanish student teachers were enrolled in two concurrent courses for their graduate program which included learning and teaching foreign languages (English) as well as teaching innovation and introduction to educational research in language teaching. These students attended in-person classes for four hours from Monday to Friday. These courses relied on lectures for instruction with support content on the Moodle LMS. For the Spanish student teachers, sharing their multiliteracies knowledge with the US

students, while lesson planning and team teaching, provided a new experience that would be many students' introduction to both online teaching and teaching adult English language students.

The telecollaboration tasks in this study added online multimedia instructional training on multiliteracies and LbD as well as instructional design for live online teaching as a common basis from which to work toward a lesson-planning assignment for a live online English language class.

Participants

This study includes data from five working groups with US and Spanish student teachers chosen from the repository, with the groups meeting the following criteria:

1. A majority of members (three or more) needed to submit their final reflections on the experience, with both US and Spanish student representation.
2. Members of the team needed to be present for all live teaching sessions.

US participants were enrolled in either the master's in Teaching English to Speakers of Other Languages (MA TESOL) or the graduate Teaching English as a Foreign Language (TEFL) certificate program. The MA TESOL is a 30–36 credit-hour program. The TEFL certificate shares pedagogically oriented course options with the MA TESOL and can be completed in one year. Three students from the MA TESOL and two students from the TEFL certificate were included in this study (five US students total). Three US students were international, with home countries listed as Canada, Brazil, and Vietnam. Combining nationality and age within the US group is avoided intentionally in this article to protect confidentiality. First languages in the group were English (3), Vietnamese (1), and Portuguese (1).

Spanish participants were enrolled in the Official Master's Degree in Teacher Training for Secondary Education, Vocational Training, and Language Teaching (English Language Specialty) (MAES). This is a 60 credit-hour program typically completed in one year for students who wish to teach at the secondary education and vocational training level as well as those who want to teach adult learners of English at official language institutes throughout Spain. Fourteen students from the MAES program were included in this study. First languages were Spanish (11), Romanian (1), Arabic (1), and Polish (1).

All student-teacher groups included at least one US member, who was added to existing groups within the context of the Spanish course. Spanish student teachers grouped themselves at the beginning of their course prior to the telecollaboration. The US members were added to the groups to balance the amount of experience among the group's members, with the goal being to ensure that each group had at least one member with prior teaching experience. Additional information about the groups, including pseudonyms used, can be found in Appendix A.

Activities

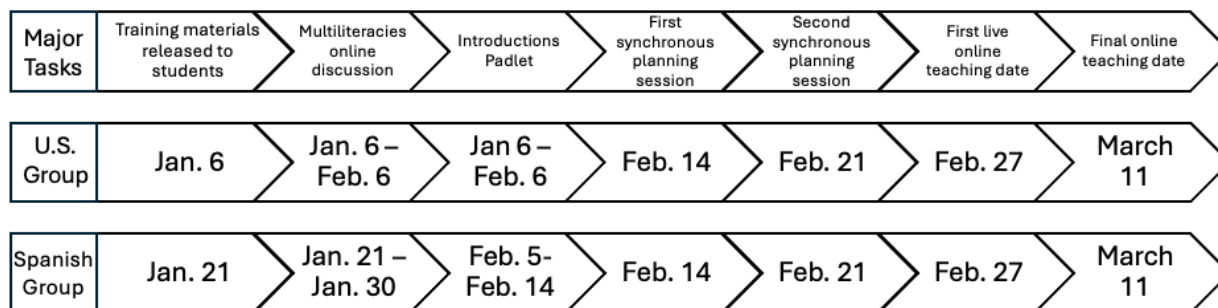
This telecollaboration took inspiration from the challenge-based approach to virtual exchange (Helm, 2024), where “students are presented with complex and often interdisciplinary challenges that require them to apply their knowledge, critical thinking, creativity, and collaboration skills to develop solutions” (p. 36). The design of a live online lesson for English learners shared between classes of student teachers is admittedly not a fully interdisciplinary challenge. However, the intercultural team-teaching challenge of creating and presenting a live online lesson with a multiliteracies lens for English language students did require creative application of various skill sets and critical thinking toward a common goal. Creative constraints presented to the groups included lesson delivery in a live online format through

videoconferencing software for 50-minute lessons. The overall instruction for the groups was to use a list of learner-provided topics of interest to generate a creative and multiliteracies-infused lesson that incorporated multimodal elements and recognized student lifeworlds. Student teachers were cognizant that the adult English language students recruited for the experience could have variable attendance, difficulties with connections, and variable technology literacy so that these elements were considered in lesson delivery plans.

Activities in this telecollaboration included online training and an associated online discussion about multiliteracies (completed within the independent class LMSs before the exchange began), a shared online discussion on Padlet for first introductions, various staged lesson-planning activities, and two team-teaching days. Due to differing class schedules and content release dates between the universities, student teachers had access to the training content for different amounts of time. All activities lasted from January through early March of 2025. Figure 1 illustrates the activity sequence and differences between the US and Spanish groups.

Figure 1

Task Sequence for Activities



Data Sources

The data for this study included participant demographics obtained in the registration survey, online discussion reflections written after each lesson-planning day and the first teaching date, and a final individual reflection written after the last live online teaching day. To allow privacy to discuss potential intercultural communication challenges freely, all online discussion reflections were kept separate within each university's LMS. Of the five groups selected for inclusion in this study, Groups A, D, and E were intact, with all members present throughout the synchronous sessions. Two groups had partial attendance on the final teaching day: Group C had one member, and Group B had two members. Final reflections were collected from all members except for Esperanza in Group C.

All student teachers completed an individual registration form before participation which included questions about prior teaching experience and what they would like to learn from this experience. The primary data collected in this study were written reflections from all student teachers, representing 65 total pieces of reflection used in the analysis. The prompt for the first three reflections (requested after the one-hour synchronous sessions on February 14, 21, and 27) was general. Student teachers were instructed to focus on what was most salient to them in the sessions and lessons learned which could be applied to future sessions. Figure 2 shows a screenshot from one of the LMS pages that housed online discussions from this semester.

Figure 2

Discussion Post Prompt

What to post

This is a space for you to post your reflections after each of the synchronous telecollaboration sessions. The aim of reflecting as a group is to offer an opportunity to find common themes and support throughout the telecollaborative process.

Evaluation

The deliverable for this discussion is one paragraph (or 1-2 minute audio message if you prefer) after each session. It should include what you contributed to the session, your feelings about how the session went, any memorable moments in the session, and considerations of what you may do in future collaborative sessions. Note any cultural communication issues if you notice them. Sharing these posts with each other should enhance the experiences and assist others in engaging fully in the process.

I recommend that you post after each Zoom meeting so that the material is fresh in your mind.

A second type of reflection was the final reflection, submitted individually to encourage more freedom in the responses. This prompt included final reflection questions used in Helm and Baroni (2020) (Part 1), as well as some additional questions (Part 2); see Figure 3.

Figure 3

Final Reflection Prompt

Final Reflection

Part 1

1. How do you feel about working in an intercultural team?
2. Describe any challenges you faced in your group work. What do you think the causes were? How did you try to resolve them?
3. Is there anything that has positively affected your telecollaborative exchange experience?
4. Is there anything that has negatively affected your telecollaborative exchange experience?

Part 2

1. My group communicated in other ways additional to the original shared Google Doc and the planned synchronous Zoom sessions. (Yes, we did/No, we did not)
 - If you answered "yes" to additional group communication, what tool(s) did you use to communicate with your group? (For example, WhatsApp, emails, etc.)
2. We originally asked you to describe any expectations you had for this project. (For example, what do you think you will learn?) How did your experience compare to your expectations?

Data Analysis

This study focused on exploring how student teachers felt about their experiences as they applied multiliteracies pedagogy to lesson planning and team teaching with international peers during a telecollaborative virtual exchange. Additionally, multiliteracies and the LbD framework approach learning processes from both an individual cognitive lens and a sociocultural lens; because of this framework, the qualitative analysis in this study was inductive and attentive to both the realist (taking participants' words at face value) and constructionist (looking for broader social explanations) perspectives (Braun & Clarke, 2006). Braun and Clarke's (2006) six phases of thematic analysis were used as a guide for the qualitative analysis to evaluate retrospective self-reflections. Additionally, the qualitative coding guide by Saldaña (2021) was referenced for guidance on coding choices most appropriate for this inductive data analysis.

The first author led the qualitative analysis by first familiarizing herself with the data entered into NVivo 15 software to form a list of initial codes. The list of processing codes (Saldaña, 2021) was created to reveal action or conceptual actions over time in alignment with investigating the experiences of student

teachers, such as “changing mindsets.” Afterwards, she shared the drafted codebook including the list of initial codes, definitions, and a representative sample quote for each at the initial data meeting with the other researchers on the team to corroborate and consolidate codes. After discussion and feedback on the initial code list (Hemmler et al., 2022), the first author conducted a second round of coding, applying the refined code list. In their second meeting, the team randomly chose an excerpt of reflection data and proceeded to independently code three copies of those same two pages with the refined code list. They calculated an intercoder agreement of 85%. Appendix B includes an excerpt of the codebook with process codes and definitions as well as an example of codebook application toward these codes in reflection data.

In the next phase, evolving patterns were discussed, and metadata that accompanied the reflection data were used to contextualize the findings. Additionally, the created lesson plans were used to triangulate reflection content by using different sources of data (Creswell & Poth, 2018; Lincoln & Guba, 1985). Themes and sub-themes were extracted collaboratively after a detailed examination of the reflection data within and across each team over the telecollaborative period. Member-checking for themes was done through the repository principal investigator (PI) who contacted participants via email and forwarded their de-identified replies to the rest of the research team.

Trustworthiness

Four classic criteria are used within qualitative inquiry to establish trustworthiness: credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). Credibility was addressed with triangulation and member-checking (Tracy, 2010). Triangulation includes the use of multiple data types. This study primarily used reflection data: some submitted to online discussions within their separate courses and final reflection data that were submitted individually. Additionally, researcher-created Google docs used for group communication were examined, and metadata accompanying the reflection data and lesson plans created by groups were used to contextualize student teachers’ reflections. Findings include thick description for transferability. Intercoder agreement was calculated satisfactorily (Saldaña, 2021).

Findings

Findings in this qualitative case study revealed three overarching themes in response to the research question: What is the experience of student teachers as they engage in telecollaborative lesson-planning activities and team teaching with a multiliteracies focus? The themes of the experience included forming the group dynamic, with sub-themes of coming together and staying separate; navigating challenge, with sub-themes of internal and external challenges; and finally reflecting in retrospect, with sub-themes of learning through challenge and valuing intercultural collaboration. To illustrate group dynamics, a representative quote from each group’s final individual reflections was selected as titles, listed below:

Group A: “My group still talks in the Whatsapp group!” (Jessie)

Group B: “A quite cool experience in which we all felt very proud” (Mateo)

Group C: “In the end these are problems of the group as individuals and not of the telecollaboration project itself” (Paulina)

Group D: “The opportunity to hear other teachers share their opinions” (Sophia)

Group E: “The good attitude towards collaboration” (María)

Forming the Group Dynamic

Coming Together

Reflections originally collected in the online discussion forum from each separate university group after the initial synchronous meeting in the semester highlight the tone set within each group, which shaped the trajectory of the group experience. While all groups mentioned their enthusiasm about the opportunity to work with international colleagues, Groups A, B, D, and E highlighted enthusiasm about coming together for the collaboration as focal points of their reflections. Several instances of changed mindsets from initial trepidation to feeling comfortable were noted in the data. For example:

Initially, I was afraid due to my lack of experience in public speaking. However, I must admit that the experience exceeded my expectations. (Alba, Group B)

I was feeling expectant and a little apprehensive about telecollaboration ... but I feel that with the help of my team, it worked out and I think the feeling is good. (Álvaro, Group A)

Coming together was also reflected in comments about valuing synchronous introductions. For example, Group E found the discovery of their similar ages memorable and noted by the second session that “working together was much easier because we already knew each other” (Hugo). In Group D, Lucía highlighted appreciation for meeting a more experienced partner: “My Group and I have been lucky because Sophia has been very friendly and participative. We’ve shared good ideas between us, and the time has passed quickly [translated from Spanish].”

Groups that came together also highlighted collaboratively learning from one another within their reflections. For example, Lucas (Group A) stated, “We had the chance to introduce Jessie to a Spanish gamification site called Genially, and we learned a lot from Jessie as well.” An additional quality of these groups is decision making that felt fair and comfortable to the group. For example, Mia (Group E) noted how the group decision making “proved to be no challenge as we all respected each other’s ideas.”

Staying Separate

The theme of staying separate was situated in the reflection data from Group C. The group initially reflected on some technical issues, which are further highlighted below in the “navigating challenges” theme. However, Group C began to have different experiences between the US and Spanish groupmates, as noted from the first session’s reflection discussion. For example, the US groupmate discussed initial trepidation at the meeting followed by a changed mindset, like the groups that came together: “Contrary to my initial expectations that the meeting with my colleagues from [Spain] would be serious, it turned out to be a friendly and engaging discussion on building rapport and setting collaboration guidelines” (Iris). In contrast, the Spanish groupmates mentioned that it was memorable to “[get] to know the person you will work with on the other side of the world” (Esperanza), but they pivoted in tone, with comments including “to hear and respect each other’s ideas and respect speaking turns” (Esperanza) as lessons learned for future sessions. The desire to feel heard while encountering miscommunication was present throughout the reflections for Group C, beginning in the first reflection when Paulina mentioned it was memorable when the group began to understand each other, because, “at first it seemed that there were misunderstandings.”

The misunderstandings continued into the reflection discussions after the second synchronous session when the Spanish groupmates perceived a shift in predetermined group roles, with the US

groupmate taking more initiative in materials design than the Spanish groupmates were comfortable with. Reflections from the partners interpreted this as a shift in the pre-organized group roles after Iris had agreed to one group role in the first session but took on what appeared to be a leadership role in the second session. As Esperanza stated, “The four of us are supposed to work in a group but with different roles and, suddenly, these roles are not clear.” In response to this change, in a reflection Paulina shared frustration at not feeling heard in the collaboration: “Most of the time we speak over other members and our ideas always encounter a ‘but,’ so we cannot reach a consensus. Sometimes it feels like we are Iris’ students instead of partners the way she speaks to us.” Meanwhile, Iris did not highlight the tension felt in the Spanish side. She shared, “Everyone contributed valuable insights, demonstrating a strong sense of responsibility, dedication, and teamwork. The discussions were constructive, allowing us to refine our ideas and ensure clarity in our objectives.”

Overall, the groups’ orientation as revealed in the post-session reflection discussions after the initial synchronous sessions, as they were forming the group dynamic, was something that carried over throughout the experience and were also found in the final reflections.

Navigating Challenge

Internal Challenge

Internal challenges in this context are those that occurred within and between group members. These included navigating feelings within the collaboration such as being anxious about unknown elements, decision making, and encountering miscommunication.

In cases where the group came together, like Group D, decision making through differing opinions was a challenge that was overcome. For example, “We had great communication but sometimes we may have different opinions. We try to listen to each other carefully and maybe vote for the idea we like the most” (Isabella, final reflection).

In the case where the group did not come together (Group C), the focus on miscommunication dominated the reflections to the point where an illuminating final reflection from the Spanish side shared this comment: “Two of the group members were constantly making their own decisions without consultation, treating the remaining members as if we were their students rather than as if we were their partners” (Paulina).

In groups that had come together, cases where reflections revealed anxiety or concern about the project were acknowledgements of their self-reflections as they moved through the process of the collaboration. For example, in Group D, the appointed team leader shared that working in an intercultural team is “something that makes me feel cautious and afraid of being misinterpreted” (Sophia, final reflection). The same groupmate referenced the challenge of adjusting to others’ work pacing by sharing, “For me it was difficult having to wait others to contribute. I would go to the shared Google doc and write messages organizing what we had discussed and prayed for everyone do your part. But, overall, I could handle my anxiety better than I expected” (final reflection). Her group successfully came together, collaborated, and shared their activities on time, so this was a learning experience for Sophia as she assumed a leadership role.

External Challenge

External challenges in this context included prominent elements beyond the control of the group, for example, navigating technology issues, managing time, and reflecting on learners’ needs.

All groups mentioned some form of technical issue generally or in the form of audio quality, internet connection, or both. While all groups experienced some form of technology issues, Group C consistently highlighted feeling frustrated with them. In contrast, groups that came together frequently mentioned solutions to the issues alongside the frustrations: “We eventually were able to solve these problems by moving to different rooms or muting while the other speaks” (Mia, Group E, reflection discussion). Additionally, the Group A Spanish partners commended their US partner: “Jessie was super patient and willing to work. That help the team overcome every adversity” (Álvaro, reflection discussion). The US partner in Group A was already brainstorming how to improve connectivity after the first session.

Managing time was another consistent external challenge that all groups faced. For example, student teachers commented on wanting longer pre-planned synchronous sessions with their partners: “One hour for two sessions is not enough to discuss, develop, and design the lesson plan. So, for the future, you could consider extending the time or providing more sessions” (Sophia, Group D, reflection discussion).

Reflecting on Learner Needs

The final major external challenge that student teachers reflected on was learners’ needs. Reflections on learner needs by level occurred primarily in the data collected after the first teaching day. Students from both the US and Spanish sides of the collaboration expressed a mismatch between their planned lessons and the eventual students that they would teach. For example, “We thought we didn’t take into account the levels because advanced level in the Spanish frame is higher we think, so activities were difficult for them” (Mateo, Group B, reflection discussion).

Another area of reflection from the student teachers was the level of English language students’ familiarization with technology tools. For example, “We were surprised that it seems the students are not very accustomed to using technology since they did not know Padlet, and it took us some time for them to understand it [translated from Spanish]” (Isabella, Group D, reflection discussion). Learner levels and technology familiarity will be addressed further in the discussion.

Reflecting in Retrospect

Learning through Challenge

Reflections collected from discussions after the live teaching days primarily showcase how the experience was an opportunity to learn through challenge. All groups addressed their experiences of managing time, problem solving, and learning adaptability in reference to live teaching days. While the groups had carefully planned their lessons, enacting their lessons came with realistic challenges. As María (Group E) very succinctly shared, “In this session, we have learned that what we plan and what happens in the classroom doesn’t have to be the same [translated from Spanish].” The sentiment was echoed elsewhere such as by Iris (Group C): “This lesson reinforced the importance of adaptability in online teaching.” In reference to time management, Sophia (Group D) shared, “What I learned from this experience is that it’s better to have less and be able to do everything.”

The metadata of the first live class session revealed a delayed start due to technical issues. Student-teacher experiences from all groups reflected how the groups worked around this unexpected element to the lesson. For example, “In spite of the technical difficulties, the session was utterly enjoyable, students had fun and so did teachers. Everyone made a massive effort to make the most of the session, and I would say it was a success” (Lucas, Group A). Groups worked actively toward making the most of their first session with the English language students. Some groups reflected on wanting to have more participation

from their students in the live class session, while acknowledging that camera shyness and mixed learner levels would have reasonably contributed to variable learner engagement.

Overall, groups demonstrated pride and enjoyment in their lesson-planning and team-teaching accomplishments. The element of live teaching was a valuable point of reflection:

It is the first time I've experience something like this and I really enjoyed! I could keep doing more live teaching sessions if possible!! (Lucía, Group D, final reflection)

My biggest fear was facing the final [live teaching] day and teaching the class with the students, and to my surprise, that was the part I enjoyed the most. (Paulina, Group C, final reflection)

We all felt very proud in our group because we felt they [English students] learnt about idioms, and they have fun! (Mateo, Group B, reflection discussion)

Whether the groups reflected on the internal or external challenges faced within their telecollaborative experiences, the overall sentiment across groups was one of valuing the opportunity to learn through these challenges. A summary of the experience from Adella's (Group A) final reflection includes the following:

I had no experience as a teacher, and this has been like a first contact for me. It has also helped me to see how different it is to teach online and face-to-face, and to take my first steps in the world of teaching. I have learnt a lot from all my colleagues, and I have learnt several techniques that can be used in class if there are problems (lack of participation, technical problems, etc.).

Collaborating Interculturally

Each group had its own dynamic, which impacted their experiences, and intercultural communication was an element of this dynamic. While the experiences differed, all groups positively valued the opportunity to work with international partners.

Group E's final reflections emphasized the collaboration as positive, calling it fun and "one of the best things of the project" (Hugo). María shared, "I like it because you know other cultures." About the overall experience, Mia shared, "It was an enlightening experience. I learned many things from my fellow classmates and got to experience situations I've never been in before."

Group D also listed enjoying working with their intercultural group and were able to navigate differences of opinion in planning with patience, communication, and voting. This group had a clear leader in Sophia, who was older and had more experience than her Spanish counterparts, and her reflections demonstrated awareness of the need for sensitivity in intercultural contexts: "It is something that makes me feel cautious and afraid of being misinterpreted; Having the opportunity to hear other teachers share their opinions about the lesson planning was really interesting, because it made me reflect and agree that not always what I was proposing was the best" (final reflection). The Spanish groupmates respected and complimented their team leader. Openness for shared opinions was highlighted in this group's dynamic.

Group C had miscommunications throughout, which led to differing experiences in reflections, with final reflections quoted here. From the Spanish side, a groupmate shared this about challenges: "There were little misunderstandings, maybe because of miscommunication" (Carmen). Mindset within individual members may have also played a role in the experience, as Iris from the US side shared: "Personally, I found this experience helped me develop greater emotional professionalism I also feel that I have become more open-minded and now see differences as a natural and valuable part of collaboration." Regardless, all partners shared that they valued working on an intercultural team. Notably, Paulina

commented, “We did not have the opportunity to share many moments with our U.S. colleague. It would have been interesting to learn more about the differences and similarities of what we learn.”

Group B discussed in their final reflections that working in an intercultural group was “very rewarding, and great for professional development” (Olivia). Also, Emi said, “I feel great about it, since we had a lot to share, and getting to know each other, and working on this project was amazing.” Mateo shared, “I love it, it is for me like when I was an Erasmus student.” This comment about the Erasmus exchange shows that at least one student in this group had studied in an intercultural, plurilingual experience for a period of time.

Finally, in Group A, both sides of the collaboration described how they appreciated the experience, with final reflections quoted below. The US partner (Jessie) shared, “I think working with an intercultural team was fun! It was interesting talking about some minor differences in our cultures. I just felt slightly guilty that they were speaking English just for me, when I was the outsider in their group.” Meanwhile, a member from the Spanish side of the collaboration commented, “It is true that my [Spanish] group agreed that we are friends But honestly, our partner from Florida was integrated into the group as one more and has been super friendly which has made communication and work very easy” (Álvaro).

Overall, findings revealed three themes in the group experiences for this telecollaborative project: coming together, navigating challenges, and reflecting in retrospect. The data demonstrated a mixture of initial enthusiasm and uncertainty at the beginning of the project while the groups came together (Groups A, B, D, and E) or stayed separate (Group C). Later the groups navigated both internal and external challenges, with the experience being impacted through whether the group had come together or not. Finally, reflecting in retrospect demonstrated that all groups found value in the experience of facing challenges and collaborating interculturally.

Before a discussion of the themes that emerged from the reflection data, it is necessary to address the limited number of explicit comments about multiliteracies pedagogy in the student-teacher reflections. They worked together to apply multiliteracies in lesson planning which aligned to their learners' lifeworlds and engaged them in multimodal communication, but their reflections emphasized group dynamics and challenges rather than multiliteracies pedagogy itself. Occasional comments in reflections mentioned learning about multiliteracies and incorporating it into lessons:

I think we have created some good activities and resources with what we have seen in class about multiliteracies, because they were very engaged. (Adella, Group A, reflection discussion)

I thought it was an experience that provided me with more learning opportunities than I imagined. I could learn different ways to integrate the Multiliteracies in the lesson planning, had the chance to reflect on my strengths and weaknesses in working with other people, had to be patience and wise to deal with technical issues during the synchronous teaching and more patient to wait others' contributions to the lesson planning. (Sophia, Group D, final reflection)

I learned a lot about multiliteracies, of which I had no previous knowledge. At first I thought the experience was going to be a bit chaotic and that I wouldn't like it, but in the end I was positively surprised and it was an enriching experience. (Adella, Group A, final reflection)

Discussion

Our findings provide examples of telecollaborative group engagement within the context of task design for online team teaching to inform future telecollaborative activities with English language teacher education and work with multiliteracies. As previously stated, there is evidence to support the value of

multiliteracies, including multimodal and digital literacy in adult literacy education (García-Barroso & Torres-Vélez, 2023). The lived experiences of student teachers as they engaged in telecollaborative lesson planning and team teaching with a multiliteracies focus highlighted several relevant points for designers and mediators of these projects. This exploration provided insights on participant experiences in the context of this challenge-based exchange with a condensed timeline, which deviated from the more traditional Progressive Exchange Model with gradual and extended communication including discussions of cultural comparisons prior to the final collaborative task (e.g., O'Dowd & Waire, 2009).

While the student teachers worked together to apply multiliteracies pedagogy to lessons, it appeared that the interactions and challenges of working in telecollaborative groups were more salient to the student teachers at the time of their reflections compared to multiliteracies concepts themselves. Regardless of whether they mentioned multiliteracies directly, there is some indication of elements in the collaboration that are relevant to multiliteracies, such as awareness of others' diverse lifeworlds and the use of multimodal elements to facilitate inclusive access to learning.

When addressing the theme of coming together, it should be noted that the type of task in telecollaborative exchange influences the communication. Task design for telecollaboration in teacher training is more complex than the task design intended for language learners alone (Wu, 2023). A unique feature in the case study discussed in this article is that the telecollaboration included groups of both student teachers and adult English language students for the team-teaching element. In tasks such as ours with a joint goal, participants may limit their expressions of difference to focus on the common goal rather than explore intercultural differences (Helm, 2024). The nature of coming together for a purpose outside the class assignments—in this case teaching the English language students—could be interpreted along these lines. All groups tapped into their emotional intelligence to mediate group decision making. We could say that there was some evidence of intercultural communicative competence in the resulting themes in teams that came together, and specifically in Group A's statements about continued communication beyond the scope of the project. As discussed in Di Sarno-Garcia (2024), a positive outcome in telecollaboration for intercultural communicative competence is finding that the participants are open to continued communication after the project because establishing and maintaining relationships is part of intercultural communicative competence (Byram, 1997; Byram et al., 2021).

Encountering miscommunication and frustration at organizing team roles was a primary point of reflection in the sub-theme of staying separate in Group C's initial reflections. However, the group focused on the product for the team-teaching date and never addressed these tensions openly. With respect to critical incidents (Fuchs, 2019), Group C's major turning point was in the second synchronous planning session where the Spanish groupmates perceived a shift in the pre-determined roles. If they had been given more time, this shift would have been an opportunity for the mediating teacher(s) to use the tension for further dialogue and reflection about resolutions, as recommended by Dooly and Vinagre (2022). Indeed, during the final reflection, a Spanish student teacher in Group C lamented not having more time to get to know her US groupmate.

The group dynamics influenced how student teachers reflected on navigating internal and external challenge. All groups navigated both types of challenge, but the groups that came together tended to emphasize problem solving and complimenting teammates as they addressed these challenges. There were many examples of mediation and emotional intelligence. For example, student teachers in Groups A and D managed anxiety around assignment expectations. A member of Group C specifically stated how mediating group decision making grew her emotional professionalism. On the concept of communicating within a shared virtual space, it is noteworthy to highlight that this virtual space is not truly neutral, because how communication tools are used can differ and cause tensions between participants (Helm, 2024, p. 22). This was indeed an aspect relevant to the Group C reflections.

Both the internal and external challenges that student teachers experienced throughout this project align with those listed by Coşkun (2023) and Wu (2023). One example of external challenge was time pressure during synchronous sessions. This pressure felt to accomplish goals within synchronous meetings was something all groups reflected on. While some amount of time pressure is unavoidable, and the time required to engage in virtual exchange is a common challenge for organizers and participants (O'Dowd & Vinagre, 2024), a possible interpretation of the reflections on time pressure in synchronous meetings in this study could also be related to institutional differences between the collaborating programs. In the Spanish program, students are expected to accomplish their group work primarily during the scheduled class times. Since they met for four hours Monday to Friday, this meant that the in-class time was typically budgeted toward class project completion. In contrast, the US classes were organized around a mixed mode and online schedule which expected students to schedule their primary working time independently. The synchronous sessions in this project were intended as scheduled checkpoints rather than as the primary working time, and the need to work independently on tasks was expected by the project organizer. However, this inter-university difference in interpretation of the purpose of synchronous sessions could have caused unintentional time-pressure tension. Differences between Spanish and US university groups with respect to schedules, course expectations, and time pressure can be felt alongside satisfaction from learning and working with international partners (Di Sarno-García, 2024; Gimeno, 2018). Indeed, the intercultural learning experience includes learning to work across different academic cultures (O'Dowd & Dooly, 2022). Guidance from telecollaboration organizers on how to navigate the communication tools used within a project and how to set expectations about engagement with telecollaborative teams can be helpful in overcoming challenges (Sevilla-Pavón, 2016).

Another well-discussed external challenge across groups had to do with understanding and addressing English language students' needs. Student teachers had planned lessons using English language levels, as reported by their program and topics of interest listed by their students. A challenge for the student teachers was that the learners' language levels were described according to the US English language program rather than by a larger-scale recognized measure (e.g., CEFRL/TOEFL iBT). A comprehensive needs analysis would have been ideal as a precursor assignment for the groups, but the timelines of the collaborating institutions did not allow for this to take place. Future longer-term collaborations with the aim of team teaching could seek to implement an initial needs assessment assignment based on conversations with the English language students to be completed ahead of the lesson planning assignment.

Findings reflecting on the experience in terms of learning through challenge and engaging in intercultural exchange can be connected to prior research in telecollaboration and virtual exchange. In reference to sociocultural theory and the ZPD (Vygotsky, 1962, 1978), reflections on the interactions within groups about their shared task design allowed social co-construction of meaning as they worked to apply multiliteracies concepts to lessons. Similarities are also found between the current case study and Helm and Baroni's (2020) large-scale study regarding the emotion of teacher-training groups engaged in the Progressive Exchange Model (O'Dowd & Waire, 2009). Like Helm and Baroni (2020), in the final reflections, groups in this case study found the experience valuable in spite of facing challenges. Additionally, groups valued intercultural work and were generally oriented toward similarity rather than difference while working toward their mutual goals, an example of how the task can impact the communication exchange (Helm, 2024). These findings align with the development of competencies, which would suit a telecollaborative teacher (O'Dowd, 2015) should the student teachers choose to pursue telecollaboration with their future class groups.

It is also possible that the tight collaboration schedule reduced time to explore intercultural differences. However, there is value in this case study as an example of how an exchange can be mediated by faculty toward a common goal for a learning experience when institutional calendars require a tighter timeframe. Other possible reasons for the mostly positive group dynamics included the fact that the

Spanish group knew each other well from their regular in-person classes, which already included a great deal of group work, reflections in Group A illustrate their close relationship, and Spanish students were allowed to select their local groupmates before their US student counterparts were added to the groups. For example, Group A only had to incorporate their new US groupmate into an established group. An additional possibility that could have reduced group tension was the emphasis on multiliteracies.

As for how multiliteracies could have influenced the outcomes obtained, a key benefit observed is the awareness of otherness: recognition of diverse lifeworlds, reflected in student teachers' emphasis on the need for sensitivity and openness to others' perspectives. They also made deliberate efforts to navigate differences and learn from one another, which proved fruitful, as groups that came together were able to overcome technical difficulties. In addition, the activity of co-creating and designing products (lessons in our case) expressed in multimodal applications while reflecting on the process allowed exploration of intercultural perspectives and self-awareness, shifting from apprehension about the activity to appreciation of the experience (Glimäng & Magadán, 2024). The pedagogy's focus on the intersection of multimodal transpositions for communication and celebrating students' diverse lifeworlds could prime the student teachers for open and flexible communication geared toward mutual understanding and goals. Additional research on the impact of multiliteracies training for telecollaboration is recommended to further explore this connection.

Limitations

This study depended on the use of existing repository data. Therefore, a limitation was the inability to interview the participants for a more in-depth explanation of their written reflections. Measures of triangulation with additional sources of data such as the lesson-planning documents were intended to compensate for this limitation. Another limitation is the length of time in the overall exchange experience for the participants. However, this was contextualized with metadata revealing the need to make adjustments due to the three participating institutional timelines (two universities and one English language program).

Conclusions

The current study of a telecollaborative lesson-planning and team-teaching experience illustrated several benefits to this challenge-based exchange embedded into teacher-training courses across US and Spanish university programs. Even though contact between groups took place over a limited five-week period, the common goal of team teaching with a multiliteracies lens and the pre-planned synchronous sessions guided student teachers toward professional experiences that the groups valued. The findings highlight the potential for shorter and more directly faculty-mediated exchanges in circumstances where aligning institutional schedules for longer periods of time is not possible. Future research on telecollaborative teacher training that includes the goal of team teaching is encouraged.

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Appendix A: Student-Teacher Group Information

Group	Participant	Country	Age	Gender identity	Reported prior teaching experience
A	Jessie	U.S.	23	Not reported	None yet
	Álvaro	Spain	24	M	School internship (secondary school; English & French language teaching); private tutoring
	Adella	Spain	24	F	None yet
	Lucas	Spain	27	M	Extracurricular English teacher in primary school; assistant in secondary; private tutoring; formal language academy teaching

B	Olivia	U.S.	24	F	1.5 years' experience substitute teaching; taught elementary school French
	Alba	Spain	27	F	School internship
	Emi	Spain	31	F	Language academies; private tutoring
	Mateo	Spain	23	M	Private tutoring
C	Iris	U.S.	42	F	16 years' experience at public high schools
	Carmen	Spain	24	F	Some online teaching experience
	Esperanza	Spain	Not reported	F	Taught Spanish in France and English in Spain
	Paulina	Spain	23	F	Private lessons
D	Sophia	U.S.	42	F	17 years' teaching (various ages and contexts including private and public schools as well as language institutes)
	Lucía	Spain	24	F	None yet
	Isabella	Spain	23	F	School internship
	Martina	Spain	26	F	5 years' private lessons; extracurricular high school and academy assisting
E	Mía	U.S.	24	F	Some tutoring
	María	Spain	26	F	3 years' private classes; school internship
	Hugo	Spain	25	M	None yet

Appendix B: Process Codebook Excerpt with Definitions

Code	Definition
Exceeding Expectations	Comments made about the experience of lesson planning and/or team teaching in the telecollaboration which went beyond their initial expectations for the project.
Referring to Multiliteracies	Comments made in direct reference to multiliteracies content learning in the module and/or application to lesson planning and teaching.
Collaborating	General comments made about working with groups
Navigating Tech Issues	Comments made to highlight issues with technology-related challenges

Excerpt of Codebook Application

I thought it was an experience that provided me with more learning opportunities than I imagined (*Exceeding Expectations*). I could learn different ways to integrate the Multiliteracies in the lesson planning (*Referring to Multiliteracies*), had the chance to reflect on my strengths and weaknesses in working with other people (*Collaborating*), had to be patient and wise to deal with technical issues during the synchronous teaching (*Navigating Tech Issues*) and more patient to wait others' contributions to the lesson planning (*Collaborating*). [Sophia, final reflection]