

Research methods in teletandem context: approaches and possibilities

Métodos de pesquisa no contexto de teletandem: abordagens e possibilidades

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ABSTRACT

The purposes of this paper are to (i) show how research in teletandem has been carried out over the years since the beginning of the Project Teletandem Brasil: Foreign Languages for All; (ii) relate the context to the possibilities of data collection; (iii) discuss methodological approaches applicable to teletandem; (iv) introduce MulTeC (Multimodal Teletandem Corpus) as an alternative for diverse types of research. We empirically demonstrate data from theses, dissertations, and papers related to methodology; present approaches of methodological research from quantitative and qualitative perspectives, presenting characteristics of each; discuss how viable individual data collection is; demonstrate how MulTeC (Multimodal Teletandem Corpus) may help researchers and be used as a model for future data collection. Finally, we share some current research using the mentioned corpus in an attempt to show an array of possibilities both from the qualitative and quantitative perspectives.

Keywords: Teletandem, MulTeC (Multimodal Teletandem Corpus), Methodology.

RESUMO

Os objetivos deste artigo são (i) mostrar como as pesquisas em teletandem têm sido conduzidas desde o início do Projeto Teletandem Brasil: Línguas Estrangeiras para Todos; (ii) relacionar o contexto às possibilidades de coleta de dados; (iii) discutir as abordagens metodológicas aplicáveis ao teletandem; (iv) apresentar o MulTeC (Multimodal Teletandem Corpus) como uma alternativa para diversos tipos de pesquisa. Demonstramos, empiricamente, dados de teses, dissertações e artigos relacionados à metodologia de pesquisa; apresentamos abordagens metodológicas tanto de perspectiva qualitativa quanto quantitativa, enfatizando as características de cada uma; discutimos a viabilidade de coleta individual de dados; demonstramos como o MulTeC pode ajudar os pesquisadores e ser usado como modelo para futuras coletas. Finalmente compartilhamos pesquisas atuais com os dados do referido corpus.

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Palavras-Chave: *Teletandem, MulTeC (Multimodal Teletandem Corpus), Metodologia*

1. Introduction

Research on telecollaboration has become a trending issue over the years due to technological advances, evidence of effective learning and competences development (LEWIS; O'DOWD, 2016), and the certainty that virtual exchange has its place in academic life (CAVALARI, 2018; DOOLY; SADLER, 2020; LEONE, 2019; O'DOWD, 2021; OSKOZ; VINAGRE, 2020; VINAGRE, 2018; VINAGRE; GONZÁLEZ-LLORET, 2018). In Brazil, a pioneering telecollaborative project for learning foreign languages has been implemented by Dr. João Telles at UNESP (São Paulo State University) (TELLES, 2006). The author has designed the project with Maria Luisa Vassallo based on their own experience of learning Italian and Portuguese mediated by computer tools (TELLES; VASSALLO, 2006). Not only has the project allowed thousands of students access to learning a foreign language by using tandem principles mediated by CMC (Computer-Mediated Communication) - at least 8,544 students in different countries (BRASIL, 2021) - but it also has enabled researchers to understand more about the teletandem context itself, strategies to learn foreign languages, discourse, corrective feedback, self-assessment, genres, power relationships, teacher education, among other relevant issues in Applied Linguistics (AL)³.

The multiplicity of actors involved in each cohort of the project has somehow hindered possibilities of multi-methods research or analysis involving more than part of the actors, let alone longitudinal studies, which would demand time-consuming and long-term data collection. The complexity of data collection, organization, anonymization, and storage following academic research protocols, has also contributed to impeding the analysis of larger groups and data triangulation. As pointed out by Aranha and Wigham (2020, p. 14),

One challenge for research into telecollaborative exchanges is the complexity of the research environment: (1) the participants' exchanges occur in online as well as face-to-face spaces, (2) researchers involved are frequently from different institutions, and (3) colleagues conduct research from distant locations and may have different research cultures.

In this context, the bulk of research in teletandem so far is focused on the qualitative approach and somehow restricted to specific cohorts/partnerships. MulTeC (Multimodal Teletandem Corpus) (LOPES, 2019; ARANHA; LOPES, 2019b; ARANHA; WIGHAM, 2020) has been designed to meet researchers and community needs for longitudinal studies and data triangulation, analysis of larger samples, comparison among diverse pedagogical context characteristics, allowance of external researchers access

³ See Rampazzo and Cunha (2021) for a descriptive map of published research articles on teletandem.

to data from cohorts in which they were not initially involved, among other needs that research in AL may unveil. This paper focuses on the history of methodological approaches in researching teletandem since the beginning of the practice at UNESP, describes MulTeC briefly, and shows how the corpus has been used by researchers and among them, including Masters and PhD students.

2. Teletandem: a telecollaborative context for learning foreign languages

Teletandem Brasil: Foreign Languages for All (TELLES, 2006) is a project that has been promoting intercultural contact between Brazilian university students and university students abroad. Participants in teletandem form dyads of foreign language learners who meet online to help each other with learning their languages or languages in which they are proficient speakers in an autonomous and (tele)collaborative way. Contact among learners (Brazilians and foreigners) is mostly synchronous and enabled by VoIP (Voice over Internet Protocol) technologies. Such encounters have been recently named Teletandem Oral Sessions (TOS)⁴, and students may also communicate asynchronously via e-mail and other tools, such as cloud-based storage services (eg.: Google Drive). Learners and mediators also meet in mediation sessions. The Teletandem context has been described in innumerable works (cf. www.teletandembrasil.org).

Teletandem is also recognized as a telecollaborative initiative or virtual exchange project (O'DOWD, 2018), given that it promotes contact among people from different cultures who are also geographically distant. More specifically, teletandem is a form of telecollaboration aimed at language learning and grounded on tandem principles (BRAMMERTS, 1996). According to Vassallo and Telles (2006), three teletandem principles should guide learners' experience: separation of languages, reciprocity, and autonomy. The principle of separation of languages, also named bilingualism (BENEDETTI, 2010) and equality (PICOLI; SALOMÃO, 2020), establishes that partners should have the same chance at practicing the target language during TOS. Reciprocity means that participants should alternate in the roles of learners of a foreign language and tutors of their language or language of proficiency, as well as equally invest in their partner's learning. Autonomy is related to an attitude that dyads should have: collaboratively, they are expected to define what and how to learn and lead their learning process.

At first, in its original proposition (TELLES, 2006), teletandem practice was promoted in the institutional non-integrated modality. Institutional non-integrated teletandem is the term used by Aranha and Cavalari (2014) to refer to situations in which Higher Education (HE) institutions support teletandem

⁴ Such terminology has been used by researchers from UNESP, São José do Rio Preto campus. The synchronous encounter is also referred to as interaction or teletandem session in other papers.

practice, but it is not integrated into any syllabus. Some teletandem partnerships between UNESP campuses of Assis and Araraquara and institutions abroad still function as a non-integrated modality. However, throughout the years, there have been changes in the organization of non-integrated practices.

Currently, at the UNESP campus of São José do Rio Preto, teletandem is typically implemented in the institutionally integrated modality (iiTTD). Aranha and Cavalari (2014) explain that iiTTD means that teletandem is promoted by institutions and integrated into the language classroom in both universities. Partnerships are arranged so that groups of learners enrolled in the Portuguese course abroad and groups of learners enrolled in the English course in Brazil participate in the teletandem oral sessions at the same time and place – unless pandemic restrictions apply. Professors are the ones responsible for the pairing logistics. Another organizational possibility is the institutional semi-integrated teletandem modality (isiTTD) when students from one institution are enrolled in a language class that promotes teletandem and the others are volunteers.

Specifically in the iiTTD modality, as it occurs in São José do Rio Preto, participation in teletandem is mandatory for learners of English both from Translation and Language and Literature majors. Besides attending TOS, students are also required to perform various tasks, such as (i) participating in a tutorial meeting – an orientation about teletandem principles and procedures; (ii) writing texts in the target language to be revised by the most competent speaker; (iii) writing learner diaries after each oral session to reflect on their learning process; (iv) filling out two questionnaires, one at the beginning, and another at the end, to establish learning goals and evaluate the experience; (v) enrolling in mediation sessions carried out after TOS, in which both professors and participants discuss issues related to the practice (ARANHA; CAVALARI, 2014; CAVALARI; ARANHA, 2016; ARANHA; LEONE, 2017).

Teletandem learning context, especially in the integrated and semi-integrated modalities, allows for the generation of a large amount of data, which may contribute to expanding research in Applied Linguistics from multiple perspectives.

3. Research in AL and TTD

Applied Linguistics, according to Phakiti and Paltridge's definition (2015), is an interdisciplinary field interested in examining the roles and the nature of language use or the problems related to language in social contexts. The interdisciplinarity of the field is also reflected in the multiplicity of research themes and methods (BYGATE, 2004; PHAKITI; PALTRIDGE, 2015). Dörnyei (2007) suggests that applied linguists may find methodological resources in many areas, such as social sciences, psychology, and education. The author explains that research methods may be applied and transferred from different fields.

Brown (2004) claims that different characteristics may motivate the classification of studies in Applied Linguistics: the context of the studies, their intrusiveness, selectivity, data collection methods, data type, data analysis methods, time orientation, variable description, and researcher's perspective. For many applied linguists, however, the basic distinction among studies is whether the approach is quantitative or qualitative, as indicated by Brown (2004), Bygate (2004), Mackey and Gass (2016), Phakiti and Paltridge (2015).

In general terms and supported by Dörnyei (2007) and Phakiti and Paltridge (2015), we may argue that quantitative research (i) is concerned with exploring or determining the relationship between variables to generalize the findings; (ii) involves *a priori* categorization; (iii) prioritizes objectivity throughout the research process; and (iv) prefers large samples, which are analyzed through statistics and numerical methods. On the other hand, qualitative research (i) is interested in understanding language use, language learning, or a social phenomenon related to language; (ii) sets an investigation plan that is kept open and flexible to changes; (iii) is essentially interpretative and, therefore, concerned with opinions and subjective experiences; (iv) involves a variety of data, and small sample size.

Apart from quantitative and qualitative research, literature in the area also addresses mixed methods research to describe the combination of the two approaches in the same research project. Mixed methods is the label used to refer to (i) the use of one approach as complementary to the other; (ii) the use of one approach as the starting point for another; or (iii) the use of methods from both approaches in order to answer different research questions.

Despite the distinctions among different types of research in Applied Linguistics, Brown (2004) criticizes the simplistic dichotomy between quantitative and qualitative approaches. The author defends qualitative and quantitative research to be seen as a matter of degrees, a continuum in which the characteristics of the approaches interact with each other. According to his proposition, many combinations within the continuum are possible, as also later suggested by Mackey and Gass (2016). Brown (2004) presents figure 1 with the characteristics of primary research – studies that involve collecting empirical data – as opposed to secondary research – studies that answer their research question(s) through the investigation of other research and sources (PHAKITI; PALTRIDGE, 2015).

Figure 1. Primary research characteristics continuum

particular phenomena related to telecollaborative language learning. Results of studies on teletandem have been published in Masters theses, Doctoral dissertations, research articles, books and book chapters⁵.

The wealth of data generated for each teletandem partnership⁶ and the diversity of research themes – 11 in published research articles, according to Rampazzo and Cunha (2021) – does not translate into the diverse use of research approaches. Despite the variety of procedures (case studies, interviews, discourse analysis, among others), we may say that the majority of studies on teletandem are located more to the left of the continuum proposed by Brown (2004) when it comes to methodological approaches.

To illustrate the argument that most research on teletandem is of qualitative type, we observed the methods sections of research articles that report empirical studies on teletandem, the same articles analyzed by Rampazzo and Cunha (2021)⁷. The vast majority of authors of such publications classified their research as qualitative – 51 out of 67 articles. 12 authors did not classify their studies, three claimed they used mixed methods, and only one author states she used statistical methods in the analysis (see appendix).

The high rate of qualitative research on teletandem may be related to the advantages of the qualitative approach, the challenges data collection imposes, and the complexity of data. Regarding the advantages of qualitative studies, Dörnyei (2007) points out that the exploratory nature of such a type of investigation is appropriate to the investigation of new areas. He argues that when a phenomenon is not well-known and previous studies are not available, detailed reports of a few cases may be enlightening. Moreover, Dörnyei (2007, p. 39-40) addresses the following advantages of qualitative research: (i) it aims at understanding the complexity of a situation, and interpretation emerges from the data; (ii) it searches for explanations; it is useful for longitudinal observation of dynamic phenomena; (iii) its flexible research plan is open to changes if these are needed.

Although first publications on telecollaboration date from the 1990s⁸, and despite the increasing interest in telecollaboration, which culminates in a greater number of publications on the topic in the last decade, empirical reports on teletandem started to be published just over 10 years ago with Kfoury-Kaneoya's (2008) study. Only recently has the number of publications shared with the scientific community risen – 44 published articles about teletandem between the years 2015 and 2020.

⁵ Links to most studies are available at teletandembrasil.org under the tab “Publications”. For an overview of research articles that report empirical studies on teletandem see Rampazzo and Cunha (2021).

⁶ See Aranha and Lopes (2019b) and Aranha and Wigham (2020), for instance.

⁷ The authors selected research articles following the criteria: (i) articles were peer-reviews; (ii) data reported on partnerships between Brazil and other countries; (iii) they were empirical studies; (iv) the language of publication was Portuguese, English, or Spanish; (v) they were fully available online.

⁸ See Brammerts (1996) and Warschauer (1996).

In addition, the preference for qualitative research on teletandem research may reside in the characteristics of the approach, which tends to rely on a diversity of data and in the use of triangulation to interpret the results. As Rampazzo and Cunha (2021) identified, research on teletandem has concentrated on a multiplicity of data types⁹, and the use of triangulation in analyses has also been frequent¹⁰.

The choice of qualitative approaches on teletandem may also be related to the objects and goals of the investigations. One of the most frequently reported themes in teletandem research, for instance, is interculturality. Studies on intercultural learning in teletandem are concerned with answering questions such as: *what* are the representations constructed by the participants and *how* they negotiate such representations (ALVES, 2018); *how* stereotypes reinforce hegemonic ideas (FRANCO; RAMPAZZO, 2016); *what* are the potential sequences of intercultural learning in an oral session of teletandem and *how* such sequences can contribute to the mediation sessions (FRESCHI; LOPES, 2016); *what* are teachers' conceptions and beliefs about language and culture and *how* participation in teletandem affects their beliefs (SALOMÃO, 2015); *how* participants perform their national identities and *what* improvements can be thought of for language teaching pedagogy (TELLES, 2015). It may be noted that the cited reports are concerned with understanding not only *what*, but also *how* a phenomenon occurs. Such questions are likely to be explored using qualitative approaches.

On the other hand, according to Dörnyei (2007), one of the disadvantages of qualitative research relates to the observation of a small sample size. The aforementioned articles that focus on interculturality in teletandem, for instance, use small samples. Alves (2018), Franco and Rampazzo (2016), Freschi and Lopes (2016), and Telles (2015) investigate ten, two, four, and three teletandem oral sessions, respectively; and Salomão (2015) analyzes autobiographies, questionnaires, interviews, classroom recordings, and oral sessions of eight Brazilian learners.

We emphasize that our goal in this paper is not to compare the relevance of the different approaches for research on teletandem. We understand that the choice for a method depends on the object of the investigation and that each approach contributes to the advance of scientific knowledge in a given area. Additionally, we agree with Brown's (2004) proposition that the characteristics of the quantitative-qualitative continuum may be combined in a variety of ways to serve research goals and assist with answering the research questions. Nevertheless, we draw attention to the fact that literature in the area of telecollaboration, and, more specifically, teletandem, may benefit from more studies that incorporate the characteristics of various approaches. Such a combination of methods may contribute to the investigation of other relevant aspects of teletandem practice, and allow for the observation of a larger amount of data.

⁹ According to Rampazzo and Cunha (2021), 35 types of data were used in publications on teletandem.

¹⁰ Triangulation occurred in 39 out of 67 published articles (RAMPAZZO; CUNHA, 2021).

Especially concerning data collection challenges, Multimodal Teletandem Corpus (MulTeC) can serve as an ally to researchers. The following item presents the corpus and discusses the possibilities it offers.

4. Multimodal Teletandem Corpus

Multimodal Teletandem Corpus (MulTeC) (ARANHA; LOPES, 2019a) is a multimodal corpus composed of data generated in institutional integrated and semi-integrated partnerships. Its organization aims to contribute to the Open Science movement, as MulTeC files may be accessed, used and shared among researchers (ARANHA; LOPES, 2019b; ARANHA; WIGHAM, 2020). Given that MulTeC includes data from teletandem partnerships between São Paulo State University (UNESP), in Brazil, and the University of Georgia (UGA), in the United States, the corpus is also bilingual in – Portuguese and English.

Altogether, MulTeC includes 581 hours of audio and video recordings of teletandem oral sessions, 956 texts written in English by the Brazilian learners, 664 learner diaries written by Brazilians, 91 initial questionnaires, 41 final questionnaires, and 351 chat registers. Not all oral sessions have been transcribed yet. Currently, MulTeC includes 82 transcripts, a total of 333,193 tokens, 18,429 types, and 19,404 lemmas.

In addition, MulTeC includes metadata. Lopes (2019) explains that metadata provides relevant information to researchers who have not participated in data collection so that they have access to contextual information pertinent to their analysis. Metadata includes spreadsheets with information about participants (e.g.: age and majors), spreadsheets about the data (e.g.: how many files of each kind are available), as well as pairing lists, files with group schedules, and files presented in the tutorial meetings. Data and metadata have been anonymized to avoid the identification of participants' identities. Each participant has received a code to replace their names: the teletandem identity (IT for the acronym in Portuguese) (ARANHA; LOPES, 2019b). MulTeC also allows researchers to verify recurrent partners in different cohorts.

The experience with implementing the corpus has also helped us devise protocols for data collection and management, raise questions for further researchers who might want to implement corpora in teletandem and discuss storage, consent, data sharing issues¹¹.

5. Published and current research and partnerships

Besides the works that focused on the process of designing and implementing MulTeC (ARANHA; LUVIZARI-MURAD; MORENO, 2015; LUVIZARI-MURAD, 2016; LOPES, 2019,

¹¹ For more details, please refer to Aranha and Wigham (2020).

ARANHA; LEONE, 2016, 2017; ARANHA; WIGHAM, 2020), many have been developed with the data available due to the corpus. Although the following Master theses (Table 1) have used data that was later included in the MulTeC, collected as mentioned, the corpus had not yet received a name – the name was coined by Lopes in her dissertation in 2019. Until then, the works mentioned a databank described by Aranha, Luvizari-Murad and Moreno (2015) to reinforce the origin of data.

Table 1. Master theses that used data from the previous version of MulTeC

Author and date	Title	Objective	Data used
Ferreira (2019)	O processo de escrita colaborativa síncrona em língua inglesa nas sessões orais do teletandem institucional integrado.	Characterize the production process of collaborative texts in English in the context of an integrated institutional teletandem.	Audio and video recordings and transcripts from two teletandem oral sessions from 2015 from one dyad.
Freschi (2017)	A avaliação por pares no teletandem institucional integrado: um estudo de caso sobre o feedback linguístico nas sessões orais em português.	Investigate how peer assessment is characterized in oral modality in teletandem context; describe how Brazilian participants, Language and Literature students, offer language feedback to Portuguese as foreign language learners' oral production.	Recordings of institutional integrated oral sessions from 2012, 2013, 2014 from three dyads.
Rampazzo (2017)	Gêneros textuais e telecolaboração: uma investigação da sessão oral de teletandem inicial.	Investigate the rhetorical structure of the first 15 minutes of the initial teletandem oral session (iTOS), a genre within the institutional integrated teletandem genre system.	Transcripts of ten iTOS that were held between 2011 and 2014 from ten dyads.
Toledo (2017)	Um estudo sobre o uso de vocabulário rico por aprendizes de inglês na sessão oral do teletandem institucional integrado.	Characterize teletandem oral sessions regarding the use of rich vocabulary (RV) and discover which characteristics of the learning scenario are	Recordings of 14 teletandem oral sessions from 2015 from two dyads.

		more relevant to the use of RV.	
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Organization: The authors.

In addition to the Master theses mentioned above, journal articles have also focused on investigating data from MulTeC. Freschi and Cavalari (2020) selected 20 teletandem oral sessions from MulTeC that were held over a period of three years to investigate peer corrective feedback, considering the multimodal nature of the teletandem environment. The authors opted for a case study approach to describe how three Brazilian students offered feedback to learners of Portuguese. The aim of their investigation and data analysis approach is consistent with qualitative studies approaches in Applied Linguistics as described in the previous sections, given that the study focuses on understanding language learning issues through interpretation of small sample size (BROWN, 2004; DÖRNYEI, 2007; PHAKITI; PALTRIDGE, 2015).

Adopting a qualitative approach, Rampazzo and Aranha (2019b) investigate ten iTOS available at the previous version of MulTeC. Their research goal was to verify iTOS genre status within the telecollaborative learning environment of teletandem through the analysis of the rhetorical structure of the sessions in relation to the learning scenarios they belonged to. The iTOS the authors selected were recorded between 2011 and 2015, and the time orientation of the study can be described as longitudinal and interpretive (BROWN, 2004; DÖRNYEI, 2007; PHAKITI; PALTRIDGE, 2015).

Rampazzo (2019) studies seven iTOSs, also from the previous version of MulTeC. The author adopts a genre-based perspective to observe the relation between variation in iTOS rhetorical structure and the fact that participants do not have earlier experiences with the genre or knowledge of its structure. Analysis lies on interpretation and the research consists of a hypothesis forming investigation as opposed to hypothesis testing (BROWN, 2004), and Rampazzo (2019) suggests that variation in iTOS may be related to the occlusion of iTOS.

Cavalari and Freschi (2018) provide an interpretive analysis of teletandem oral sessions from MulTeC to investigate error correction in the moments when both partners are involved. Some quantification is also explored through counting correction moments; however, the study presents more characteristics from the qualitative spectrum for it investigates the Portuguese portion of 20 sessions from different years (2012, 2013, 2014), observing them in their natural context.

The qualitative approach is the basis for Rampazzo and Aranha's (2018) investigation of the first 15 minutes of iTOS. Using a variety of data (DÖRNYEI, 2007; PHAKITI; PALTRIDGE, 2015) – ten

iTOS, PowerPoint files used in the tutorials, and initial questionnaires, all available at the previous version of MulTeC –, the authors observe the regularities in iTOS rhetorical organization.

Cavalari (2016) focuses on describing a collaborative writing task within the institutional integrated teletandem and discussing Brazilian learners' perceptions of such a task. The author investigates the learner diaries from 13 participants from 2015, available at the previous version of MulTeC. The research goals and methods may also be described as qualitative, given that it is an interpretive study which investigates qualitative data, occurring in their natural context, from an emic perspective (BROWN, 2004; DÖRNYEI, 2007; PHAKITI; PALTRIDGE, 2015).

Aranha and Cavalari (2015) analyze the texts written in Portuguese by American participants in teletandem and corrected by their Brazilian peers. The authors analyze written production of nine selected students. The study aims at addressing issues about how Brazilian pre-service teachers offer feedback to their peers. Data is observed in its natural context, and analyzed interpretively, characteristics more closely related to qualitative studies.

In terms of current research, the following PhD and Masters theses are being developed using datasets from MulTeC. On the PhD level, Ferro (ongoing), to map the use of written chat in Teletandem practices at UNESP in São José do Rio Preto campus from 2006 to 2020, uses the corpus for the bulk of her research. The research is divided into three phases: in the first one, data is collected from theses and dissertations (from 2006 to 2011) and is part of a period in which collecting data was a very time-consuming activity due to technical difficulties and lack of partnerships. The absence of protocols may also be pointed out as a complication. The second part comes from MulTeC data (from 2012 to 2015), so the quantity and the quality are far superior to the first and third ones. The third phase comes from the documents originated from the MulTeC organization, named pedagogical scenarios. The study is characterized as a longitudinal qualitative research that uses a computer-assisted qualitative data analysis software (CAQDAS) as a technological tool to help data interpretation. The combination of methodologies is a characteristic of qualitative research that connects complex and multiple methodologies to deal with new fields of studies such as new media, multimodality and interdisciplinarity (MASON, 2002). As longitudinal research, methodology should also consider ways of describing interconnected patterns and causal relations that may underlie time observations. Besides drawing relevant considerations about the use of chats throughout the project, this work also shows that chats are versatile resources which can promote the materialization of different genres that are only possible to happen in the Internet hybridization zone.

Rampazzo (2021) investigates the first virtual synchronous encounter between dyads, more specifically, the genre iTOS, in order to discuss the characteristics of its rhetorical organization and the

politeness strategies that are employed by participants. She analyses 10 iTOSs from three different learning scenarios and periods, in a total of 46.604 words or seven hours, seven minutes and 26 seconds. Data analysis is also consistent with the qualitative approach, given that it relies on researcher's interpretation to identify the recurrent rhetorical actions in iTOS and the regularities in the use of politeness strategies. In addition, based on O'Connor and Joffe (2020), Rampazzo's dissertation presents a discussion of intercoder reliability (ICR) in the analysis of teletandem oral sessions, and her data has been subjected to two coders. According to O'Connor and Joffe (2020), ICR contributes to increasing the consistency and transparency of research, and Rampazzo's study demonstrates it can and should be applied to the teletandem context and data.

Del Monte (ongoing) analyses the diaries written by two recurrent participants, which means the same individual participated in the project in different cohorts, one in 2012 and the other in 2013. That implies diverse pedagogical scenarios and some expertise after the first participation. The focus of the investigation is the development of autonomy in Brazilian students. The first recurrent participant wrote seven diaries in 2012 and five diaries in 2013, in a total of 1979 words. The second recurrent participant wrote five diaries in 2012 and seven in 2013, in a total of 2.223 words. All diaries are analyzed from a longitudinal perspective (Dörnyei, 2007).

Cunha's project (ongoing) includes SOTs, to verify how the task of exchanging and giving feedback to written texts is negotiated; the written texts, to analyze the type of feedback given and if the partner used the feedback to reformulate the text; and metadata of each pedagogical scenario. She proposed comparing and contrasting these data from different datasets.

On the Masters level, Pereira Filho (ongoing) investigates how correction by peers is characterized, focusing on how a proficient speaker of English, who has participated in the project more than once, corrects their Portuguese speaking partner. The case study relies on a longitudinal cut of two semesters in 2012. The results show that when the most competent partner offers feedback, there is a preference for reformulation, and the incorporation of the expression put into place. The analysis is based on the categories continuum proposed by Freschi (2017), who investigated peer corrective feedback in TOS, one of the first investigations using MulTeC.

Menecheli (ongoing) analyzes all the 662 diaries from 268 participants in the corpus through mixed methods research, using the tool KWIC (keywords in context) of the LancsBox software (BREZINA; TIMPERLEY; McENERY, 2018) in an attempt to search for facets of culture that are narrated in the diaries. Once the themes chosen are brought by the tool (from a quantitative perspective), the author moves to the SOT to verify how this cultural element was discussed or brought upon.

Paschoal's (ongoing) research focuses on identifying the effects of silence in 10 initial iTOSs. Her theoretical background is based on Orlandi (1993), for whom silence can be understood as a communication problem by common sense, but the phenomenon is part of the communication as much as the verbal interactions. The research aims at finding what the silence may cause in the flux of interaction. She uses a multimodal methodology based on Wigham, 2017, focusing on both verbal and visual expressions. The analysis identifies the occurrences of silence in the oral sessions and registers the visual expressions of the participants when dealing with the phenomenon. She follows by analyzing both visual expressions and verbal responses to the phenomenon to identify the effects caused by the silence and tries to catalog the groups of effects silence creates.

Other Masters and PhD students are using the corpus, but their research is still in the beginning stages, which means that the dataset is still undetermined.

MulTec has also allowed national and international partnerships with (i) researchers who implement the project in their own universities, such as Paola Leone from Unisalento, Italy, (ii) international researchers who are from telecollaboration field and wanted to perform studies on corpus, as Lewis and Satar, the former a well-known researcher in the field of telecollaboration and the latter, a renowned scholar from Newcastle University, who is starting a project with Brazilian researchers on multimodality, and Wigham (already mentioned here). Nationally, besides the researchers directly involved with the teletandem practice, Lima-Lopes, from UNICAMP (Campinas State University) joined the group to implement corpus analysis procedures.

Leone, Aranha and Cavalari (ongoing) analyzed all the 662 reflexive diaries written by Brazilian participants from 16 different cohorts, both in Portuguese and English. All diaries were saved in different files and organized into two separate corpora: the ones written in English (TTELD), consisting of 350 diaries, and the ones in Portuguese (TTPLD), 312 diaries. The former corresponds to 66,738 tokens and 59,150 words and the latter counts 56,344 tokens and 49,316 words. The most frequent word in both corpora was interaction/interação. The authors used frequency lists and concordances from Sketch Engine (KILGARRIFF; RYCHLY; SMRŽ; TUGWELL, 2004), which primarily implies a quantitative approach. By analyzing the word in its co-text, they found out that participants use the reference of their oral session to (i) describe facts or present general evaluation of the experience, or (ii) reflect from undep and deep perspectives. The qualitative approach is based on Moon's (2004) reflective writing analytical framework and Wenden's (1998; 1999) metacognitive knowledge theory.

Lewis and Cavalari (ongoing) examine the goal-setting activity in 79 answers from initial questionnaires of Brazilian participants over four years, based on goal setting and self-regulated learning theories (LOCKE; LATHAM, 2012; SCHUNK, 2001) which propose that appropriate, efficient goals are

focused on the learning process (not on the product) and are specific, proximal (short-term) and moderately difficult. The authors coded the goals and analyzed them separately. Their results show that approximately 10% of the data sample is considered congruent/efficient goals, i.e., specific (because they are focused on particular learning item and/or ability), proximal (because they mention the iiTTD exchange period), and moderately difficult (because they are not multiple goals, for example). They do not use any corpus tool to analyze the data, but the methodology they use prevents questions on reliability and validity, as both researchers approach the data separately and then compare results. Using the goals from diverse cohorts that belong to various learning scenarios is more feasible via corpus use.

Lima-Lopes and Aranha (ongoing) analyze 16 Initial Teletandem Oral Sessions (TOS) from different pedagogical scenarios, all including Portuguese and English partnerships, to verify if and how participants rely on the principle of language separation. The analysis derives from a quantitative study and discusses the results qualitatively. On the quantitative approach, all iTOS were broken into two main corpora: one including all Portuguese interactions, the other all English ones, resulting in four additional subcorpora: Portuguese clauses by Brazilian speakers (subcorpus 1); Portuguese clauses by non-Brazilian speakers (subcorpus 2); English clauses by Brazilian speakers (subcorpus 3); English clauses by non-Brazilian speakers (subcorpus 4). Wordlists for each subcorpus were made by using text processing **R** (R Core Team, 2021) packages such as Tidytext (SILGE; ROBINSON, 2016), responsible for processing and counting words, and Dplyr (WICKHAM; FRANÇOIS; HENRY; MÜLLER, 2021), responsible for data manipulation. Each word was, then, classified in a second column according to the language. The quantitative results show that Portuguese is the most common lexical choice (691‰), followed by English (221‰), cognates and undefined have very similar numbers (45‰ and 42‰, respectively). Besides, Portuguese and English have a similar type/token ratio. Although the former is more commonly present than the latter, Brazilian speakers tend to repeat lexis equitably in these languages. Portuguese is three times more common than English as a choice, while English is eight times more frequent than the cognates, which have a 10% repetition ratio. The results also show that the principle of language separation is respected to some extent. The cross-use between languages (use of English during the Portuguese subsection and vice versa) occurs when there are questions about vocabulary, phonetic misunderstanding of words or requests for clarification by one of the participants. Other quantitative results unveil relevant information, and thus, open windows for understanding how the sessions are organized in terms of language separation.

Final Remarks

This paper has discussed the methodological approaches applied and applicable to teletandem research by showing how research in teletandem has been carried out and by introducing MulTeC as an alternative for diverse types of research. On that, Lopes (2021) explores some research possibilities fostered by MulTeC in terms of data and themes that could be of interest to researchers. The present paper pointed out that MulTeC also offers some research prospects in terms of research methods.

It is crucial to mention that only from 2019, publications on teletandem included the origin of data in the keywords (the acronym MulTeC has been part of every paper ever since), and consequently, in the methods section. The ongoing discussion about OpenData access and resources must be implemented in the teletandem context. In the long run, it seems that the reinforcement of methodological approaches for investigating language learning in teletandem may avoid questions on validity and reliability, not deeply approached in this paper, but long-questioned in international conferences and by reviewers of manuscripts. The same set of data may (and should) be investigated by distinct perspectives and reevaluated by other researchers to corroborate or contradict results. Besides, the possibility of data triangulation is maximized with related data that can be found in the corpus. As already mentioned, MulTeC entails oral and written data from TOS, diaries, questionnaires, chats, and texts exchanged and corrected by partners. Data may also be used for longitudinal studies, as presented earlier in this paper.

We are aware that each individual is unique and each partnership holds very specific characteristics. However, using a corpus can contribute to investigate what is common ground in teletandem learning despite who, where and when two persons meet to learn the language of the other and teach their own language of proficiency based upon autonomy, reciprocity and separation of languages.

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Appendix – Methodological approach in teletandem research as indicated by the authors



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