The idea for this special issue was first discussed during the UNIcollaboration second research methods workshop, which took place in Aix en Provence in October 2018 with the support of the UNIcollaboration association and of the SFERE federation. Given the rapid growth of the field of Virtual Exchange (VE), or telecollaboration, and the diverse directions that it was taking at the time of the workshop both in its pedagogic and in its research dimensions, it seemed important to us to have a special issue on research methods to reflect on recent developments in methodologies to study VE.

This special issue gathers three contributions. In the first one, Hauck, Müller-Hartmann, Rienties, and Rogaten argue for a mixed methods approach in order to depict a comprehensive picture of the impact of VE on the Technological Pedagogical Content Knowledge (TPACK) (Mishra & Koehler, 2006) of student teachers. The authors illustrate the proposed robust methodological approach drawing on the data generated as part of the Evaluating and Upscaling Telecollaborative Teacher Education (EVALUATE) project funded by the European Commission. Their analysis zooms in on one of the 25 exchanges generated in the project – a VE between a German and a Polish language teacher education programme. While the quantitative data come from pre- and post-exchange surveys, the qualitative data offer triangulation from multiple sources of data: participant diary entries composed at four key stages of the project, Moodle group forum posts, Google Docs chat records as participants work on specific tasks in smaller groups, and face-to-face reflective discussion sessions in the local classrooms guided by the teacher. A qualitative content analysis of this data set illuminates individual nuances observed, highlights challenges in reliance on self-reports in measuring impact, and is thus able to offer a differentiated insight into the processes.
involved in TPACK development through VE. It also presents a fuller view of the learners’ VE experience as the analysis draws on data collected from both online (forum posts and chat records) and offline interactions (reflective diary entries and discussions with the teacher). While the authors argue that VE offers the ideal setting to provide a technologically and pedagogically informed teacher education, their multifaceted analysis, which reveals results at various macro and micro levels, demonstrate the much-needed evidence in support for widespread implementation of telecollaborative teacher education programmes.

In the second contribution, Fondo and Jacobetty illustrate the development of a quantitative tool to assess Foreign Language Anxiety (FLA) and its impact on telecollaboration. After defining FLA and after showing its relevance for the VEs exploiting videoconferencing tools, the authors argue for the need to develop tools to inquire into this phenomenon. In their article, they discuss the creation and validation of a Telecollaborative Foreign Language Anxiety Scale (T-FLAS), a tool composed of 21 questions developed on a five point Likert scale that was developed to this end. Fondo and Jacobetty illustrate and discuss the application of the T-FLAS with two populations of students involved in a telecollaborative exchange. The first one is a bilingual exchange in English and Spanish for business purposes. The second one is a monolingual exchange in English for students enrolled in a course in statistics. Mobilising a principle component analysis, the authors validate the T-FLAS and identify four main dimensions of anxiety that can be invested by students involved in telecollaboration. These four dimensions subsequently allow to identify four clusters related to possible profiles of telecollaborators, which can function, in the authors’ terms, as an “embryonic guidance for practitioners” to address the issue of FLA in telecollaboration. The T-FLAS and this study provide an example of how research tools can be developed to address pedagogic questions and how those tools can be developed on different types of telecollaboration to provide a basis for comparison across telecollaborative settings.

The special issue closes with an interview between Melinda Dooly and Bryan Smith on methodological issues in the fields of telecollaboration and computer-assisted language learning. The interview begins with a discussion of the definitions of VE, telecollaboration, and related terms in light of what aspects and dimensions of the phenomena those terms highlight, be it the distant dimension, collaboration, etc. The discussion then dwells on the practical issues related to the set up and running of telecollaborative exchanges, with a focus on the different degree of collaboration that can be expected depending on the learner’s profile and age, and the teachers’ and trainers’ work to design and scaffold those degrees of collaboration. Shifting to the topic of research on telecollaboration, Dooly and Smith discuss the tensions and possible mismatches between the categories that can be found in the literature and their confrontation to different and new types of
datasets. The discussion of new theories in the field, such as the one of translanguaging, leads to the examination of transdisciplinarity and interdisciplinarity and the efforts needed for researchers coming from different disciplinary perspectives to build a common language. The interview closes on a discussion on the relationship between research and assessment in telecollaboration and on the intercultural dimension of this phenomenon.

From the reading of the contributions of this special issue, two observations arise. The first one is the tension between the need for methodological tools that enable researchers and practitioners to handle observation of many telecollaboration settings and the fact that data often challenges the categories implicit in those methodological tools. Fondo and Jacobetty present an interesting contribution in developing research tools that can be used across various VE settings to improve our understanding of VE and, more particularly in their case, of affective phenomena such as anxiety. Moreover, the challenges raised by employing mixed methods for interpretation of data is particularly evident in the contribution from Hauck and colleagues, where qualitative analysis sheds a different light on the quantitative results.

The second open question is the one of how to combine different methodological traditions and/or disciplinary perspectives in research on VE. Many dimensions present in VE call for different disciplines and methods to be considered both in isolation and in their interactions. The discussion on transdisciplinarity in Dooly and Smith highlights the need for researchers coming from different perspectives to discuss the meanings of terms used to define their practices because each term tends to be associated with different concepts in different disciplines. Such discussions need large amounts of time, which are not always available in the present times characterised by the pressure of publishing (Colpaert, 2012), especially in certain parts of the world. This leads more often than not to small monodisciplinary incremental studies, which though necessary, are not enough to understand long-term effects of VE in its complexity. In this sense, we hope that the present special issue will open venues for sound methodological reflection leading to robust empirical research in VE.

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