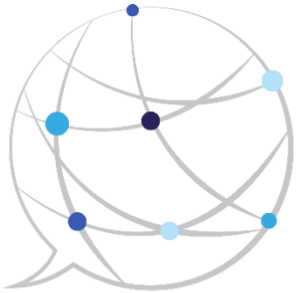

International Academic Mobility in a (Post) COVID-19 World
Spanish and German Perspectives

International Academic Mobility in a (Post) Covid-19 World.

Conference Proceedings

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DAAD Deutscher Akademischer Austauschdienst
German Academic Exchange Service

The conference was funded by the DAAD from funds of the German Federal Foreign Office (AA)

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DOI 10.5281/zenodo.6610827

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Introduction

Svenja Bedenlier* & Victoria I. Marín*

The DAAD-funded project and online conference "*International Academic Mobility in a (Post) COVID-19 World*" (17th-18th June 2021, website: https://intmobility-conference.de/) addressed the present and the future of international academic mobility in higher education by fostering the dialog between German and Spanish higher education institutions and communities within the DAAD program "*Higher Education Dialogue with Southern Europe 2021-2022*".

The project stems especially from the influence that the Covid-19 pandemic exercised on higher education institutions worldwide that needed shift to widespread digital teaching, research and support, presenting students, teachers and institutions with previously unknown challenges. This influence has been remarkably relevant in the case of international academic mobility of students and researchers: Research stays being suspended, study abroad occurring at a distance from the dorm room and most academic interaction (conferences, consultations, collaborations) moving online. Digitalisation, online and distance learning and teaching, and collaboration at a distance form is now an important – at times the only possible – part of international academic mobility, including teaching and student virtual exchange, research and collaboration. Being perceived as enablers for other, more flexible and open ways to be internally mobile and foster exchange between institutions and individuals, they are as well questioned to be a viable means to truly realize exchange. Both Spain and Germany are important sending and receiving countries for students and staff from all over the world and are well-connected with one another within the Erasmus+ exchange scheme. At the same time, both countries employed different approaches to the pandemic situation; hence, the project highlighted experiences and approaches in Spanish and German higher education, aiming at mutual learning and exchange of impulses and ideas.

The online conference considered the situation of international academic mobility under the impact of the pandemic and focused on the change potential of digitalisation to shape current and future international academic mobility. This way, it aimed at eliciting innovative and forward-looking approaches for the organisation and implementation of diverse forms of mobility, discussed them in a scientifically sound manner and also critically questioned its preconditions and implications. The structure of the conference offered different possibilities to engage, participate in knowledge transfer and discuss the in the form of keynote speeches, panel sessions, workshops and paper sessions. Similarly, the contributions were invited to consider diverse formats: theoretical, empirical and reflective.

Throughout the conference, different forms of mobility derived from the digitalization phenomena, as well as their challenges and potential, were covered. With this regard, a professional and cultural exchange and networks involving Spanish, German and other communities connected to international academic mobility, internationalization and digitalization, has taken place by sharing institutional and personal experiences in the paper sessions. In addition, undergraduate students, early career researchers, academics, and administrators from the two countries were brought together, in particular in the panel sessions, to analyse and discuss the mobility experiences in the light of the pandemic and consider opportunities and obstacles. Paper sessions included the

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active involvement of both young German and Spanish researchers in the exchange and discussions, as well as and knowledge transfer and dialogue, between the participants of both countries. The emphasis by the participants was made on the relevance of dialogue regarding the hot issue of international academic mobility in a post Covid-19 world. The workshops offered provided administrators, instructors and researchers with both professional training in the field and options for the dialogue with regards to the topics of internationalization and digitalization from an institutional perspective, and virtual mobility from a teaching point of view.

Considering the phenomenon of internationalization in higher education and the setup of the theoretical lenses to look at international academic mobility and their digitalized forms from German and Spanish perspectives, a macro level perspective of the national and regional context has been covered. Aspects related to this macro level perspectives such as the question of colonization vs. internationalization, the consideration of more nationally or locally-focused international collaboration, or the ambiguity of internationalization and international mobility in teacher education (standardization vs. authentic experience of alterity) have contributed to expand and frame the discussions. All in all, it has been made clear that cultural differences are present in international academic mobility, and online communication is also cultural situated, even if we use the same tools (standardization of tools in virtual mobility, global tools). In addition, the issue that internationalization of the class and intercultural competence is not just using English was also raised.

The meso level regarding higher education institutions was also present through the perspectives of administrators. In this view, virtual internationalization is established as a comprehensive concept in which virtual mobility is embedded, and includes institutional aspects, administrative leadership, etc. Strategies and articulated institutional commitment are transversal elements of virtual internationalization and, therefore, institutional support is needed to move from personal initiatives to institutional initiatives. On the other hand, there is a need for balance between the bidirectional benefits from mobility from the institutional perspective (for the host and the original institution, in addition to the benefits for the individuals and the people with whom they establish collaboration/connections).

From a micro level perspective of teaching and learning, the final aim of virtual internationalization, and in particular of virtual mobility as an option among international academic mobility, is to enhance quality of education through internationalization and the use of digital tools as means. In these experiences, as in traditional academic mobility, instructors play a key role as mentors in international mobility. However, it has also been noted that international academic mobility is not just about formal learning, but also about growing as a person, which is not possible only in an online format. This claim brings some challenges to the new forms of mobility, and the consideration of the potential for blended international academic mobility to provide students with more flexibility in terms of exams, classes, recordings, deadlines, etc. with regards to classes, or in terms of tasks, deadlines and collaborations, in case of research mobility for early career researchers. On the other hand, simply getting abroad does not provide all the recognized benefits from international academic mobility: in any case there is a need for encounters and be psychologically open to them (to learn from them).

A question that was discussed is if virtual mobility was challenging physical mobility patterns. There was some degree of consensus that possibilities are not yet being extended: we are still replicating the physical mobilities, often relying mostly on synchronous meetings, without having yet fully explored the affordances of asynchronous settings. Furthermore, institutions are still

sceptical regarding the possibilities of virtual mobility, and blended options are still not much extended either. The contributions to the conference were an opportunity to discuss these challenges, along with their possibilities. Also, it was clear that there is still a long way to go for the acceptance and recognition of alternative forms of international academic mobility, especially from an institutional point of view but, to certain degree, also from an individual perspective (instructors', students' and early career researchers' perceptions). We could venture that the new funding programs that the DAAD and the European Commission provide in this regard will probably be key for individual and institutional recognition.

To sum up, the sessions during the online conference "*International Academic Mobility in a (Post) COVID-19 World*" and the contributions to this open access book provide key elements to further consider political and social issues embedded in the project within the macro, meso and micro level perspectives and foster the continuation of the dialogue in the intersection of the political and societal issues that constitute digitalization, internationalization, interculturality and academic mobility. Hence, topics such as international academic mobility, digitalization, online and distance learning and teaching, internationalization, sustainability, digital divide, virtual mobility and virtual exchange, international collaboration or intercultural competence, among others, were, are and will be present in future discussions around international academic mobility. Through this project and online conference, the following aims were realized:

- Professional and cultural exchange and networks between foreign and German participants, by considering the active involvement of participants affiliated to German and Spanish higher education institutions, as well as other countries' institutions, in the paper sessions.
- The involvement of young researchers in the measures, as active participants in the panel discussions and paper presentations.
- Professional training in current research areas and political and social issues, through the participation in different workshops.
- Knowledge transfer (dialogue) between the cooperation partners about society-related issues, through the Spanish and German keynote speeches and the active involvement of participants in dialogue throughout all the sessions.

We would like to sincerely thank the DAAD for the opportunity to carry out this project and to the participants of the conference and contributors to this publication. We are looking forward to continuing our discussion in this community of practice.

Cordially,

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Virtual Internationalization in higher education. A conceptual model and the pandemic disruption to internationalization in Germany

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Abstract

The advent of the COVID-19 pandemic had a strong impact on the international activities of German higher education institutions (HEIs). Virtual mobility and other usages of information and communications technology (ICT) moved from a niche to the mainstream of internationalisation. This paper discusses the immediate negative impact of the pandemic on international relations, as well as alleviating measures taken at HEIs. It also presents a perspective on the role which ICT may take in international contexts post-pandemic.

Keywords: Virtual internationalisation, virtual mobility, COVID-19, international academic mobility, Germany, sustainable internationalisation, sustainable mobility.

1 Introduction

At a conference in January 2021, former secretary general of the German Academic Exchange Service (DAAD), Dorothea Rüland, said in her talk about “Internationalization, digitalization, and COVID: A German Perspective”:

> Digitalization has been a pressing issue on the agenda for quite some time, and for good reason. Now, however, we are facing a turning point: COVID-19 is speeding up many processes; the cards are being reshuffled. We find ourselves in the middle of an extensive transformation process, which will change not only the academic world of universities, but also our working environment – and our lives in general. Universities, international higher education, and international research collaboration will look quite different after COVID-19. (Rüland, 2021, p. 11)

This quote reflects the situation in which internationalisation found itself in Germany in 2021. COVID-19 had boosted the integration of information and communications technology (ICT) in higher education, including in its international operations. Irreversibly that is, according to Rüland (2021) and others who look at the situation globally (White & Lee, 2020, April 18; Zhou, 2021, January 23). The Alexander von Humboldt Foundation (AvH), which promotes international cooperation in research on behalf of the German federal government, adopts a similar perspective:

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This article reflects the personal opinion of the author.

> COVID-19 forced us to adopt quick, short-term and even radical answers to replacing physical mobility by networked knowledge and digital exchange. The Foundation responded with flexible solutions that saw research fellowships starting independent of location, networking events digitised, and academic projects conducted by digital exchange. Building on the experience of the last year and based on a scientific study of international research mobility, the Foundation will draw up new concepts for combining the advantages of personal encounters with the opportunities inherent in the virtual arena. (AvH, 2021a, para. 2)

In order to ensure a reasonable integration of digitalisation in internationalisation in the long term, it is important to not only draw from experiences made in the extreme circumstances of the pandemic, but to also consider the broader picture: What are realistic scenarios for integrating virtual elements into internationalisation? And why should higher education institutions do so, anyways?

I would like to highlight three rationales in particular:

1) Access to an international experience "beyond the mobile few". Most students will not have experienced physical international learning mobility by the time they graduate. In Germany, two in three graduates have not spent a month or more abroad for their studies (DAAD & DZHW, 2021, pp. 71, numbers for 2016/2017). ICT can support Internationalisation at home (IaH) in particular, offering international experiences to *all* students, whether or not they physically travel abroad for a degree, semester, summer school or internship. It also facilitates virtual transnational education (TNE), offering international experiences to students from another country.
2) Environmental sustainability. The carbon footprint is reduced when students participate in virtual instead of physical mobility, or when academic and administrative staff attend online meetings and virtual conferences instead of travelling physically.
3) Resilience. In addition to COVID-19, other external factors may endanger international relations, including regional conflicts and nationalist policies. ICT can help maintain international relations in different kinds of challenging environments.

2 Virtual Internationalisation and its Connection to Covid-19 in Germany

There are many ways in which ICT can be employed for internationalisation. They include virtual mobility, which I use as an umbrella term for virtual forms of student and staff exchange and collaboration, study-abroad trips, internships, field trips, conference attendances, or expert mobility. Other forms include Open Educational Resources (OER) and Massive Open Online Courses (MOOCs), virtual TNE, digital games, Virtual Reality/Augmented Reality, m-learning, e-tutoring and e-mentoring, social media, websites – and all forms of online media and e-learning in general (Figure 1).

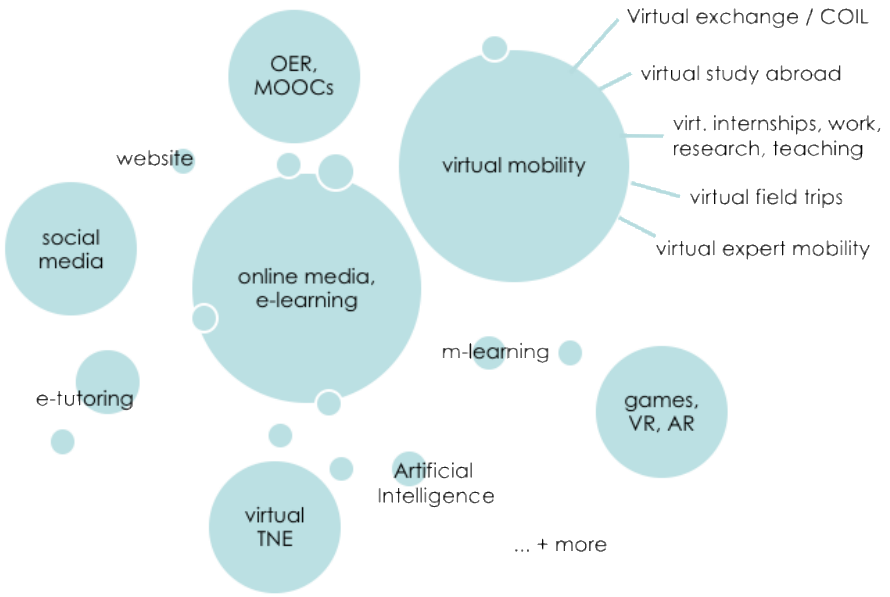

Fig. 1: *ICT for Virtual Internationalisation*

When ICT is employed in higher education international contexts, I speak of Virtual Internationalisation (VI) (Bruhn, 2020; Bruhn-Zass, 2021). These contexts are not limited to the curriculum, but concern the institution as a whole, in the sense of Comprehensive Internationalisation (Helms & Brajkovic, 2017). The VI concept includes six parallel categories, namely:

1) Administrative leadership, structure, and staffing
2) Curriculum, co-curriculum, and learning outcomes
3) Faculty policies and practices
4) Physical student mobility
5) Collaboration and partnerships
6) Online and distance education

These parallel categories are connected with the transversal category of strategies and articulated institutional commitment (Bruhn, 2020, p. 148).

In this paper, I discuss the effect of COVID-19 on the six parallel categories of VI in Germany: The challenges which the pandemic posed, and the measures taken by higher education institutions (HEIs). In a second step, I broaden the perspective by asking about the role which ICT may take post-pandemic.

Most of the data reported in this paper are taken from a survey conducted by the DAAD in June 2020, entitled “COVID-19 And The Impact On International Student Mobility In Germany” (DAAD, 2020). It reflects the immediate impact of the pandemic when it hit. A follow-up survey was conducted in March 2021 (DAAD, 2021a). Other sources used include the study “Wissenschaft Weltoffen 2021” [Opening Up Science] (DAAD & DZHW, 2021), the DAAD Annual Report 2020 (DAAD, 2021b), and a worldwide survey conducted by the International Association of Universities (IAU, 2020).

3 Administrative Leadership, Structure, Staffing

The COVID-19 pandemic adversely affected the international mobility of administrative staff, with exchange programmes discontinued across Germany (at nine in ten HEIs surveyed by the DAAD). International staff who required a workplace, advising or support, were confronted with closed offices. In response, administrators moved their work and services to the virtual space. Widely offered were virtual counselling hours and a COVID-19 information website (DAAD, 2020, pp. 7-8).

While COVID-19 had immediate effects on staff internationalisation, administrators and HEI management are also key stakeholders for implementing VI measures within their institutions. They develop strategies and are responsible for the overall institutional commitment regarding digitalisation, internationalisation, and the connection of the two (as in the transversal category of the VI concept, *strategies and institutional commitment*). Administrators also generally organize co-curricular offerings and other opportunities for domestic and international students and staff to connect online, such as virtual international events. Staff development and training may assist staff in competently applying ICT in their respective international contexts and in dealing with interculturality in the virtual space. For instance, International Office staff may wish to improve their digital literacy to communicate in online channels, moderate peer-to-peer exchange, operate online tests, and help international students and staff with online immigration. They also need to be knowledgeable about legal framework conditions online (including data security and privacy protection). Other administrative staff may wish to gain intercultural competence for the virtual space (and beyond) – which, by analogy to the term digital literacy, may be called “intercultural literacy”.

4 Curriculum, Co-Curriculum, and Learning Outcomes

Students who were planning to follow campus-based studies in Germany in 2020 (both domestic and international students) were adversely affected by the pandemic. Courses were cancelled at 40 % of German institutions that participated in the DAAD (2020) survey, and events outside of teaching were cancelled almost everywhere. In response, almost all HEIs surveyed converted to virtual teaching. Many gave international students opportunities to virtually participate in classes while residing abroad, allowing them an international experience in spite of their inability to travel. Moreover, IaH was strengthened for domestic students. Worldwide, virtual mobility increased at two in three HEIs (IAU, 2020, p. 3).

In the long term, ICT can continue to be used for offering inclusive international experiences via IaH – beyond the *mobile few*. It can also make international experiences more resilient in times of crisis, because virtual formats can still be accessed when there are barriers to physical travel. Virtual exchange and Collaborative Online International Learning (COIL) are prominent examples that facilitate international experiences for students, but there are various other forms as well (see Figure 1). Among them are virtual internships and expert mobility, both of which allow students a perspective into international businesses and organisations, and virtual field trips that create multimedia-based experiences of faraway places. Teaching and learning materials from abroad (including OER, MOOCs, and other digital media) can broaden discipline-specific knowledge and increase access to quality educational materials. And with games, virtual reality and augmented reality applications, students can explore international scenarios in a playful manner. In addition

to providing international, global, and intercultural competencies, ICT can also be used for providing the 21st century skills graduates need for working in globalized workplaces and for connecting international and domestic students on campus (with social media channels, e-tutoring offerings, etc.).

5 Faculty Policies and Practices

The impact of COVID-19 on German faculty, academic and teaching staff was strong as well. Just like administrative staff, they were affected by closed offices, cancelled business trips, and discontinued exchange programmes. In addition, conferences were cancelled or postponed (worldwide: at 83 % of HEIs surveyed by IAU, 2020). In spite of these circumstances, Rüland (2021) evaluates research collaboration in Germany during the pandemic as resilient – at least insofar as "researchers already knew each other, had met before, and were used to working together" (p. 11).

In agreement with its governmental funders, the AvH provided flexible options for its fellows. They included the option to start fellowships while residing at one's country of residence, online networking events, and research projects conducted by digital exchange (AvH, 2021a). Virtual workplaces, a conversion to virtual teaching, and virtual conferences cushioned the effect of COVID-19 on faculty, making them generally less severely impacted than students, according to Rüland (2021).

Besides the direct effects of the pandemic on faculty, their role as key stakeholders for (virtual) internationalisation needs to be emphasized. Faculty, academic and teaching staff put forward international (virtual) research collaboration, implement IaH in curricula, and provide education and (academic) support to international students. Within these stakeholder groups, staff development offerings may help build the necessary digital literacy, as well as competences in teaching international students online. ICT can also be used to support the integration of international faculty – with social media portals or MOOCs that inform about the host HEI and bureaucratic steps to take when transitioning to said institution.

6 Physical Student Mobility

At first glance, the data provided in *Wissenschaft Weltoffen* suggests that physical student mobility to Germany was not particularly affected by the pandemic: The numbers of international students even increased by 1.5 % (to 324,729) from the 2019/20 to the 2020/21 winter semester (DAAD & DZHW, 2022). Yet, a closer look reveals that this was rather due to students not leaving the higher education system than to new enrolments (DAAD & DZHW, 2021, pp. 60-61). Short-term credit mobility (such as Erasmus+) was diminished in particular: The number of international first-year students not intending to graduate in Germany fell by 54 % between the 2019 and 2020 summer semesters (DAAD & DZHW, 2021, p. 63).

In fact, many students were unable to enter Germany in 2020. At 39 % of HEIs in the DAAD (2020) survey, this applied to half or more students. Other students left the country: At 16 % of institutions, half or more of incoming students were affected (p. 12). Welcome events were cancelled at 80 % of HEIs, and a variety of marketing activities could not take place (p. 16). Students from Spain were affected at around one in four HEIs (26 %, p. 11).

HEIs responded with a variety of measures to help (prospective) incoming students before and during (or sometimes: instead of) their stay:

- Regarding the *before*, virtual counselling hours for students were offered at nine in ten German HEIs in the DAAD (2020) survey. Almost all institutions provided an information website on COVID-19. Also offered were online applications, online tests, online immigration documentation, special permissions for electronic signatures on documents, and increased online marketing.
- Services offered *during* – or often *instead of* – the stay included online enrolment through distance education (74 %) or independent study (15 %). The *Wissenschaft Weltoffen* study shows that many students took advantage of this opportunity: The number of students with a semester address in a foreign country increased by 25 % from around 3,900 in the summer of 2019 to ca. 4,900 in the 2020 summer semester – an increase from 12 % to 21 % of all international first-year students (DAAD & DZHW, 2021, p. 62). Measures also included asynchronous learning options for students in other time zones, virtual welcome events, and virtual events/webinars. At many institutions, physical events were converted to virtual events (DAAD, 2020).

In the long term, ICT can be used as a support of physical mobility for incoming students in degree and credit mobility alike. It facilitates seamless transitions on the continuum of before – during – after, as well as "seamless orientations" that can be begun prior to the physical stay:

- Ways in which ICT can be used in the *before* include marketing, advising, courses or MOOCs on language and culture, and support with enrolment and bureaucracy.
- *During* the stay, ICT can provide additional support, such as platforms for (anytime-anywhere) advising, online language courses, opportunities to virtually connect international with domestic students, etc.
- *After* the stay, ICT can help with alumni management, while international alumni can also be included in international marketing.

Regarding outbound mobility, at the time of writing, *Wissenschaft Weltoffen* data for 2020 (or following years) have not been reported yet. Therefore, the DAAD surveys of 2020 and 2021 serve as the major sources here.

58 % of German HEIs in the DAAD (2020) survey report that half or more stays abroad were cancelled. At some institutions, exchange programmes were discontinued completely: At 22 %, this affected all programmes; at 30 %, certain programmes. The impact was particularly strong regarding Spain, the prime destination of German students in the Erasmus+ programme, with 69 % of HEIs reporting that exchange students there were affected. While 8.440 German students spent a semester or academic year in Spain in 2019, only 7.954 students were able to do so in 2020 (DAAD, 2021b).

HEIs in Germany supported their students abroad by coordinating return travel arrangements, integrating returning students into current (domestic) classes, and (rarely) by providing special courses for them. Several HEIs also offered financial support for travel expenses, or implemented other measures (DAAD, 2020, p. 21). To provide students with international experiences in spite of their physical immobility, IaH needed to take a more important role than in previous years (see III. Curriculum).

In the long term, following the lift on COVID-19 related restrictions on physical mobility, ICT can (again) be used as a support of physical mobility for outgoing students. Communication around the stay or programme – advising, promotion/marketing, transfer of documents, etc. – can be provided anytime, anywhere, and through a variety of channels. In addition, positive virtual experiences may enhance students' motivation to go abroad. Shorter physical stays can also be formally embedded in virtual experiences as blended mobility, making education abroad accessible to students who would not be able to spend an extended period away from their home. Blended mobility scenarios – and ICT in general – facilitate seamless transitions from before the stay to the stay abroad to re-entry:

- *Before* the stay, COIL, virtual field trips, or MOOCs on language and culture may embed the physical stay into a broader international experience (instead of simply *preparing* students for the *actual* experience).
- *During* the stay, ICT may be employed for deepening the experience – be it with reflective e-portfolios, distance language courses, or peer networking opportunities on social media. It can also help with continuing the studies at home, for example, by allowing students to participate in online exams or in entire courses from their home institution.
- On *re-entry*, students may continue projects begun abroad, and host institutions may offer online reflective workshops or follow-up virtual mobility experiences, to name a few options.

7 Collaboration and Partnerships

In addition to their adverse effects on individual international experiences and travel opportunities, university closures and travel restrictions caused by COVID-19 also led to problems in international collaborations and partnerships on the institutional and departmental levels. Branch campuses were temporarily closed, joint programmes endangered, and project-related travel cancelled. In response, around one in four HEI representatives in the DAAD (2021a) survey report that they entered into new, virtual cooperation agreements with universities abroad, e.g. to enable students to participate digitally in their courses. 14 % say they concluded collaborations with HEIs in Spain (p. 25).

The IAU (2020) survey asked HEI representatives worldwide how COVID-19 affected their partnerships. About half (51 %) state that it weakened them, and that they had to concentrate resources on local issues. However, almost one in five (18 %) agree with the statement that it strengthened them, and that they coordinated efforts to respond to COVID-19. And around one in three (31 %) affirms that COVID-19 created new opportunities with partner institutions (p. 3). These opportunities generally involved virtual forms of collaboration, and may continue to do so in the long term. Existing partnerships may be strengthened through virtual means of communication and collaboration. In addition, new forms of (virtual) collaboration may emerge. An example is the creation of trans-institutional OER or MOOC platforms. Another is the diversification of TNE delivery, with blended learning models or virtual expert mobility enriching the curriculum. In parallel with expanded ways to collaborate and deliver education transnationally, ICT can expand opportunities to improve access, capacity, and/or quality of higher education through diversified partnerships.

8 Online and Distance Education

As on-campus education and physical mobility were impeded due to COVID-19, online and distance education moved to the mainstream of higher education, including in the field of international education. In fact, at many German HEIs, international students were offered enrolment through distance education (74 %) or independent study (15 %). This sometimes included asynchronous learning options for students in other time zones (13 %) (DAAD, 2020).

It appears safe to say that ODE is going to continue to be part of the internationalisation mainstream: On the one hand, there are increasing numbers of ODE programmes, including in traditional campus institutions, and it is only consequential to consider ways to internationalise them, while also integrating international students enrolled. On the other hand, ODE is increasingly offered transnationally through virtual TNE (cf. e.g. Bruhn, 2017).

9 Future Outlook

Will the pandemic have changed international higher education permanently, and will there be a "new normal" for internationalisation, or will things go back to before in the long term?

In its 2021 survey, the DAAD asked HEI representatives what they believe will be the importance of digital elements and offerings in the internationalisation of higher education after the COVID-19 pandemic. Half of respondents expect it to remain similar, and almost one in five believes it will grow, while only around one in three thinks it will decline again (DAAD, 2021a, p. 26).

The DAAD (2021a) also asked about medium to long-term effects of the pandemic that HEIs will take into account in their future planning. Prominently figure the expansion and improvement of virtual offerings (courses, application procedures, marketing) and a shift from physical to virtual mobility. Some respondents expect a stronger focus on sustainability, especially with regards to business trips abroad, and an increasing importance of short-term mobility. On the downside, there are concerns that workload will increase due to pandemic-related changes and that international student numbers will fall.

Just 4 % of HEI representatives in the DAAD (2021a) survey expect that the pandemic will help improve resilience and make HEIs better prepared for crisis and emergency situations. While there is certainly no automatism in this regard, the potential of VI to make internationalisation more resilient was demonstrated during the pandemic. The flexible shift to remote work, ODE, and virtual mobility has helped maintain international relations and the provision of intercultural experiences to students and staff. Such measures may potentially be employed again during future crises. VI can also make internationalisation more accessible and inclusive by relativizing the need for physical mobility for international experiences. Finally, VI can support environmentally sustainable internationalisation, when the necessity to travel physically is critically examined and weighed against alternative forms of mobility and communication.

The turn of 2021-2022, with a more and more broad COVID-19 vaccination coverage among the German population, has seen a relaxation in restrictions to physical travel. HEIs have successively gone back to on-campus teaching, onsite advisory services, physical mobility programmes, in-lab cooperative work, etc. However, it has become apparent that international higher education will not come full circle to the status quo before the pandemic. Many institutions have come to appreciate the inclusion of virtual and hybrid formats in their international activities.

Climate change and the carbon footprint of physical travel – together with positive experiences made with hybrid conferences, virtual mobility, and other flexible formats – have promoted sustainable internationalisation and sustainable mobility. They have also found their way into the DAAD's and AvH's strategic positioning. Both organizations aim to foster virtual and hybrid forms of international connections beyond the pandemic (AvH, 2021b; DAAD, 2021c). Arguments in favour of the continued use of ICT in internationalisation most often encountered in the discourse these days concern crisis-resilience and environmental sustainability. In addition, however, the line of reasoning concerning accessibility and inclusiveness which has surrounded the IaH movement from the beginning (cf. e.g. Beelen & Jones, 2015) should not be left aside.

In closing, I would argue that whether we use ICT, physical or other means, we should always have in mind that they are all not aims in themselves, but tools to aid internationalisation – while internationalisation itself is not an aim in itself, but a tool "in order to enhance the quality of education and research for all students and staff, and to make a meaningful contribution to society" (de Wit, Egron-Polak, Howard, & Hunter, 2015, p. 29).

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Digitally Competent Educators joining international classrooms. A students' perspective

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Abstract

The aim of this contribution is to explore the implementation of an international online classroom conceptualised as virtual mobility, from the perspective of the involved students. To this end, we apply a three-step approach. In a first step, we take stock of the two phenomena 'internationalization at a distance' and 'virtual mobility' before we present the teaching and learning concept of the European Short Learning Programme (E-SLP) 'Digitally Competent Educators' in detail in a second step. In a third and final step, we use thematic analysis to examine data gathered during the second run of the introductory module. Based on our findings, we discuss issues connected to our results and derive possible approaches for the further development of international classrooms of this kind.

Keywords: educators, digital competence, virtual collaboration, reflexive thematic analysis, students.

1 Introduction

Merging internationalisation and digitalisation as key topics at universities is a relatively new phenomenon that is still under-researched (Bedenlier & Bruhn-Zaß, 2021). While 'Internationalisation Abroad' and 'Internationalisation at Home' are quite well known and established concepts, the linking of internationalisation and distance learning (especially important for distance universities where students are often geographically dispersed and do not necessarily live in the country where their university is located) as "Internationalisation at a Distance" (Mittelmeier, Rienties, Gunter, & Raghuram, 2021; Mittelmeier, Rienties, Rogaten, Gunter, & Raghuram, 2019) has only been recently conceptualised, perceived as complimentary to the other two concepts. It includes "[a]ll forms of education across borders where students, their respective staff, and institutional provisions are separated by geographical distance and supported by technology" (Mittelmeier et al., 2019, p. 2). Hence, while ideas and knowledge move internationally via the virtual setting supported by technologies, students remain in place (Mittelmeier et al., 2021, p. 269f.).

With a focus on how mobility can take place, 'virtual mobility' such as virtual campuses and virtual mobility programmes (Ruiz-Corbella & Álvarez-González, 2014, p. 167) have been developed along with and influenced by the rise of information communication technologies (ICT)

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(Teresevičienė, Volungevičienė, & Daukšienė, 2011). In this regard, distance and open universities have been at the forefront of developing and systematising new concepts of mobility that do not rely solely on physical mobility (Ubachs & Henderikx, 2018). Such concepts comprise a wide spectrum of mobility forms that allow students who are not able to move physically for different reasons - work-related, family-related, financially-related, physically or mentally related - to benefit and gain insights from this way of experiencing the world (Ubachs & Henderikx, 2019). In the context of Erasmus+ programmes, the European Commission understands virtual mobility as an enabler for international collaborative learning experiences for students as well as an enhancer of international collaboration and teaching experience for teachers and facilitators (European Commission, 2020). In this respect, learning takes place in an international classroom - populated and shared by students and facilitators from Europe and beyond.

Taking internationalization at a distance and virtual mobility as our starting point, this research paper will take a closer look at one recently developed programme that involves learners across Europe and beyond. We present and detail the virtual mobility approach and teaching and learning concept of the European Short Learning Programme (E-SLP) 'Digitally Competent Educators'. The aim is to understand how the participants of this module perceived their learning processes in this international and virtual classroom. To this end, we look more closely at the students' perspective in one specific module of this E-SLP that we, ourselves developed and implemented. Focusing on the voices of the participants, we have analysed data gathered within the second run of the module by employing a thematic analysis approach (Braun & Clarke, 2006, 2020). Based on our findings we discuss possible approaches for the further development of international classrooms of this kind.

2 The Context

Taking into account the specific needs of learners with professional backgrounds and their need for continuous professional development and lifelong learning, the European Association of Distance Teaching Universities (EADTU) coordinated an Erasmus+ project with the aim of developing European Short Learning Programmes (E-SLP) that focus on specific subject areas that respond to both the demands of the economy and personal development. E-SLPs are new, flexible structured programmes, built as units or modules that can be used as stackable elements or implemented into larger formal degrees and thus enable universities to quickly respond to market demands. Due to their flexible and scalable nature, as well as their online implementation, they attract both traditional and non-traditional students (Melai et al., 2020). As online programmes, they can be made available worldwide as well as serving as virtual mobility, in particular for lifelong learners in higher education in the sense that they can "enable self-directed education and more (international) mobility" (Melai et al., 2020, p. 4).

The E-SLP Digitally Competent Educators (DCE), with which the authors of this paper have been involved from the very beginning, was developed as a joint venture of four European distance universities: University of Jyväskylä (Finland), Universidade Aberta (Portugal), Anadolu University (Turkey) and FernUniversität in Hagen (Germany). The programme content is based on the European Framework for the Digital Competence of Educators (Redecker, 2017) and aims to develop and foster digital competences in teaching and learning. DCE is directed at educators from various levels of education and fields of education all over the world. The international

learning experience takes place solely online and is set up mainly in an asynchronous learning mode in order to allow a maximum degree of flexibility. DCE consists of three modules with 5 ECTS each and has a total student workload of 135 hours and 8 to 10 weeks length. The three modules can be completed individually or together as a certified Short Learning Programme (SLP) within a multi-campus scheme where all four universities collaborate on one platform. The programme is recognized at each of the participating universities on EQF level 6 (MA level) and students can follow the programme from anywhere in the world and achieve credit points for portability if successfully completed. Thus far, the E-SLP has been integrated into three of the universities' study programmes, whereas our university is currently in the middle of the process of integrating it into an MA programme. In the following section, we focus on the module for which we are directly responsible, the first module of the programme: 'Introduction to Digital Competences for Educators'.

The module 'Introduction to Digital Competences for Educators' aims to serve as a low-threshold entrance into the programme for educators worldwide, primarily to initiate and enable exchange. The module is structured in several one-week learning building blocks. As the module has been designed to be scalable to allow an unlimited number of participants, the tutoring work focuses only on generic guidelines, avoiding interventions in regard to the discussion of the content (Bastos et al., 2021). This basic pedagogical approach facilitates an inquiry-based and active learning approach: Different digital tools and applications are tested and integrated by the students. All tasks focus on the participants' professional background but deploy various forms of collaboration. In the final assessment, students have to draft a digital teaching or work project that connects all elements learned within the course with their professional work experiences. The projects are peer-reviewed and finally assessed and graded by the tutors. In the pilot more than 30 students from all four partner universities participated in the first module. After the pilot, the module was further developed, integrating a co-teaching model. The module was extended to 10 weeks in order to provide participants more time, especially for the final assignment. Additionally, the course was opened up to participants from outside the partner universities. In the second run, 49 participants from all over the world successfully completed the module.

3 Methodology and Collection of Data

For reconstructing the students' perspective on this online international classroom we use data from one distinct activity within the second run of the module (October to December 2020). As already stated above, we would like to better understand how students perceive the virtual international classroom in this module and whether they consider aspects connected to virtual mobility to be beneficial in terms of fostering their own digital competence. For this reason, we have analysed the final reflections from 45 of the 49 students after completing the module. By using thematic analysis (Braun & Clarke, 2006, 2020) we go beyond the quite positive overall feedback from students and examine students' understandings of international and virtual collaboration.

The last task within the course asks students to complete a final course reflection, looking at their learning progress within the module. Reflecting on their results from an online self-assessment tool (that they completed at the very beginning for testing their digital competence) and their e-portfolio entries, students had to consider their initial goals for this module, the potential

acquisition of (new) digital competencies, the implementation of these digital competencies and further goals. Participants were asked to share their final course reflection as a comment in the forum.

For a better understanding of the participants, we would like to share some background data on our 49 students. The group consisted of two thirds female and one third male students, so the majority within both the course and the students' posting comments was female. In addition, there is a clear weighting of the countries of origin of the participants, the biggest group of participants being from Germany, 22 in total. The next largest groups were from Finland and from a so-called multinational group, with eight participants each. To illustrate the multinational group, we would like to give an example: one student was born in Tunisia, has lived for several years in Libya and Spain, and is currently living in Finland. Besides these three groups, students came from all over Europe, but also from countries beyond, such as Argentina, Ukraine, Hong Kong, and Hungary. We can also identify different educational areas within the students' professions; the biggest group, with 16 participants, comprised university teachers, researchers or lecturers. Nine participants worked as vocational education teachers. Five participants were working in the economic sector, followed by four primary school teachers. The same number of students were foreign language teachers, two participants worked as kindergarten educators and another two were special needs educators. The age distribution indicates that most participants were between 41-50 years and 50+ years. With diminishing numbers those age groups were followed by student groups from 36-40 years, 31-35 years, 25-30 years, and 18-24 years. Given this statistical information, a typical course participant would be female, from Germany, between 41-50 years old and working as a university teacher or lecturer.

We chose reflective thematic analysis (reflective TA), "a method for identifying, analysing, and reporting patterns (themes) within data" (Braun & Clarke, 2006, p. 79) as a situated interpretative reflective process, in which themes are the outcome of coding and theme development processes, as it "captures approaches that fully embrace qualitative research values and the subjective skills the researcher brings to the process" (Braun & Clarke, 2020, p. 6). Reflective TA normally comprises six phases (Braun & Clarke, 2006; 2020) which we will elaborate in the following, while outlining our own research process.

1. *Familiarizing with the data*
   This first step is meant to transcribe the data if necessary, reading and re-reading it and writing down first ideas. In our case, the comments from all participants in the Moodle forum were copied into a document, all names were removed, and lines were numbered. In this first step, we thoroughly read the comments to get an accurate first impression. Any impressions and observations were noted or commented, but the data material was not marked, yet. The first step was performed by both researchers individually.

2. *Generating initial codes*
   This step involves systematically coding all interesting features within the data set and compiling relevant data for each code. We reviewed the complete data set once again, this time marking all aspects relevant to the research purpose. Marked aspects could be either single words or whole sentences. After this initial coding, the comments were reviewed, and

similar codes were colour linked. This step was performed individually as well as within the team.

3. *Searching for themes*
   In the third step all codes are gathered into potential themes. We identified potential themes for the codes and collected all codes below each theme. This step was, again, first performed again individually, then collaboratively with both researchers.

4. *Reviewing themes*
   Step four is intended to review the previous steps by checking all themes in relation to codes and the entire data set and generating a thematic map. We reviewed the themes and drafted a thematic map. This step was performed within the team via virtual meeting.

5. *Defining and naming themes*
   This penultimate step of analysis serves to refine each theme and the overall analysis in terms of the general message, as well as to elaborate clear definitions and labels for each theme. In our process all themes were re-examined, sub-themes were defined, named, and again reviewed. This step was performed collaboratively, individually and then again collaboratively. After finishing this process, partly while performing step six and preparing the presentation, we finally developed five main themes with their sub-themes.

6. *Producing the report*
   The last step provides the final opportunity for analysis and involves the selection of illustrative excerpt examples as well as reviewing them in relation to the research question and to literature and writing a scientific report. We divided this step into two parts: firstly, the preparation of the presentation for the conference, for which we worked mainly with visualisations of the thematic map and the different themes with their sub-themes. And secondly, the writing of this article, which provides a more in-depth perspective on our methodology and findings, thereby integrating valuable feedback from colleagues from the conference.

4 Findings

Our final thematic map includes five themes, on which we will elaborate more closely in the following section.

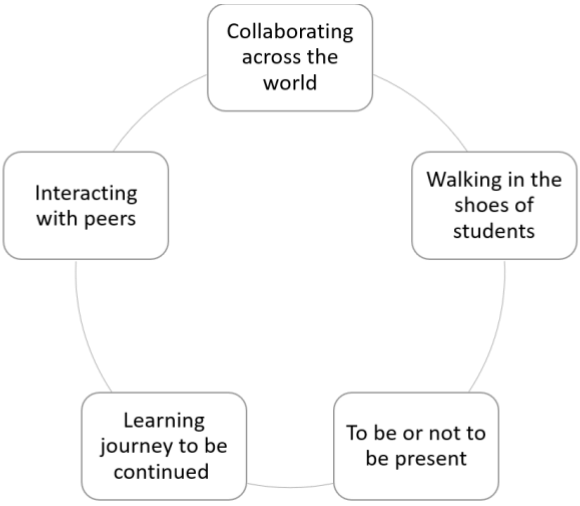

Fig. 1: *Thematic map*

Interacting with peers

One central theme is the students' interaction with their peers. Students perceived their peers as learning facilitators and were thankful for receiving support. They appreciated group work, collaboration, and discussions with other course participants.

Students were divided into small groups. They felt supported within their group and experienced a sense of togetherness as the following statements elucidates: "I want to thank the participants in my group for the great communication and collaboration" (P44, 284-285) and "It was very helpful to speak and collaborate with members of group" (P10, 50-51). The groups had a strong supportive character, they took care of their members, and tried to leave no one behind: "had it not been for an additional discord account created by a student (Big thanks to [name]! You're the best!!), I would have ended the course in the early stages" (P25, 146-148). Participants appreciated all kinds of peer feedback, even if it was critical, as the following remark shows: "I learned a lot thanks to the different exercises and references, as well as all the positive and critical comments provided by the learners" (P33, 193-195). The group was perceived as a timekeeper and fulfilled a leading-by-example function, as one student put it: "showing me the way to keep it going" (P33, 192). Students enjoyed getting insights and sharing experiences with other course participants: "most of all, I enjoyed [...] the online groupworks" (P44, 280-281). Altering perspectives and experiencing different views on certain issues was seen as valuable for one's own learning, as one participant stated: "value has been evolving from different perspectives and ideas evolving from the valuable course content and the co-creation with other participants" (P28, 164-166).

Collaborating across the world

While interacting with peers focuses on support and feedback in general, the second theme is about international collaboration. In demarcation to the previous theme, it emphasises the value of international exchange and diverse cultural habits – learning from otherness.

The exchange with participants from other parts of the world was experienced as very enriching: "I think that most rewarding has been workin[g] together [with] people from other countries" (P24, 140-141). As almost all of the students had a background in teaching, they were connected through their professional occupation what gave them a common space and understanding: "I

really enjoyed to collaborate with teachers all around Europe and even from further away" (P42, 270-271). Students appreciated sharing their experiences from different geographic locations as the following statement shows: "the opportunity to talk to colleagues around the world and [that] we shared our experiences" (P38, 228-229). They valued getting distinct perspectives on certain issues: "it was great to get the chance to work with and hear the thoughts of such a diverse group" (P16, 94-95) and "it was nice working with colleagues from around Europe and getting new perspectives that way" (P13, 79-80). Participants could also benefit from other systems and cultural habits as one student stated: "nice to learn from some digital groupwork habits of other people around continent" (P4, 16). An additional topic was the chance to improve one's English, as most participants did not use this language on a daily basis: "brush up my English and get access to use of 'professional' teaching-language" (P11, 62) and "one of my goals was to learn more English and that has happened" (P24, 141-142), or "additionally I was eager to join a course in English language" (P41, 244). However, some students were struggling with language issues when trying to express themselves: "I didn't expect it to be that hard for me not to be able to find the right words" (P11, 63-64).

Walking in the shoes of students

A third theme that we extracted from our reflective TA is the shift of perspective from being a teacher or educator back to being a student. Participants learned how it feels to struggle with the same issues as their students and how this shift of perspective can help them see their own target group from a new vantage point.

For some participants, being a student was a new experience. This helped them better understand their own students as the following statement shows: "the most valuable experience was to be a participant - therefore I can much better feel with my own participants now" (P5, 23). Another student reflects: "within this course, I remembered how it feels to be a student and that helps me to understand my students better" (P27, 158-159). Additionally, participants gained new perspectives on (their own) teaching, which may help them to reconsider not only single activities but also a more general shift of perspective on teaching itself: "these activities led to a new and different view on the subject of teaching" (P10, 51-52). Another reflection focused on the smaller tasks: "I learned [to] make small things better (e.g. how to set up tasks to have motivated students)" (P1, 2-3). The participants experienced a common problem in organized learning situations: struggling with time constraints, as the following remark illustrates: "as usual I feel I could dive much deeper into the different topics, as most of them I feel really interested in. And as usual, I could only do my best to read and work as much as possible in the given time in daily life" (P41, 252-254). This also helped to better understand their own students. Along with time constraints comes the underestimation of workload as well as the feeling of being in control of time and commitments: "for my own learning I would rather choose asynchronous courses in the future, so that I am more in control of my time and commitments" (P43, 272-273).

To be or not to be present

Social presence is an ongoing issue in all kinds of computer-mediated communication, and also in online teaching and learning. Hence, the fourth theme centres around the issue of being or not being present as a student, but also considers the presence (or absence) of the course instructors. Students wished for more live contact with tutors and synchronous (peer) meetings, but without losing flexibility. Including social presence without too many restrictions in the form of obligatory fixed appointments for synchronous meetings will always be a balancing act.

Even though there were 49 participants in the course, students sometimes felt alone due to a lack of synchronous interaction with peers, as shown by the following statement: “I regretted that there was not much direct interaction which was partly due to my own workload. Sometimes I felt a bit alone in the course” (P15, 92-93). Some participants would have liked more exchange and discussions with peers: “I would have liked to have more live-contact with you and the other participants and not just the asynchronous communication (social presence and so on...)” (P5, 25-27). Social presence as feeling a person to be more “real”, live interaction with tutors and synchronous peer-exchange, along with the feeling of closeness and tangibility, are important components not only between students, but even more importantly between students and teachers, as the following reflection illustrates: “unfortunately, the instructors or supervisors remained abstract to me. I would have liked to see an opportunity for personal exchange” (P25, 149-150). Or, even more explicitly formulated by a student in her/his farewell note: “Kind regards to our course leaders – I very much would have liked to get you to know” (P11, 71).

Learning journey to be continued

While students experienced an increase in competence and self-confidence regarding digital teaching and learning as well as an awareness of their newly gained skills, the last theme points to students’ realisation of what they did not achieve and what they still need to learn. This theme is also about perceiving the enrichment of digitalisation as an opportunity and developing further perspectives.

By reflecting on their digital competences at the end of the course, students were able to see their learning achievements: “the course was very helpful to include my competences into a framework. I realized what skills I already have” (P3, 12.13). In addition, participants learned other and more things than expected, as the following remark shows: “I gained more digital competence than I expected from the course” (P1, 1-2). Participants were able to take a broader perspective, adopt a bird’s eye view and look at the whole competence horizon. In this way, they were able to visualise the need for further development: “I feel like I learnt a lot but, at the same time, I also realized how much I still need to learn” (P18, 101-102) and “it seems, that there is still a lot for me to learn” (P29, 170) and “I still have a long way to go and lots to learn” (P21, 126-127 & P22, 130). Furthermore, some participants described their realisation of the possibilities and opportunities within digital environments: “This course has opened my eyes and awareness to many opportunities that digital tools can serve for teaching and learning” (P37, 223-224). Another even broader reflection states that “[this is] surely a personal step forward into the way of using the different opportunities offered by the digital environment and making the learning experience an interactive journey that should aim to be an engaging adventure” (P33, 197-199). And while students are growing personally, they also would like to incite other educators in their professional environment to join this advancement: “would be great if my colleagues get interested on this topic, so we could discuss about it and grow together as educators” (P31, 185-186).

5 Discussion and Implications for Practice

While our study was exploratory and quite limited in its scope, it prompted some interesting results that might merit closer consideration when further developing programmes that are designed as virtual mobility and as international classrooms.

One striking issue was the fact that becoming acquainted with different cultural perspectives as an important aspect of virtual mobility and of an international classroom was barely addressed. While students assumed the added value of 'collaborating around the world', this has not been further deepened in their reflections. Students mainly focused on the aspect of sharing their professional perspectives – "the opportunity to talk to colleagues around the world and [that] we shared our experiences" (P38, 228-229). Hence, it might be worth considering why this is the case. One reason could be the aim of the module: As it focused on developing digital competence and linking learnings through a project within one's own professional background, perhaps there was no need to engage more deeply with different culture views on digital teaching and learning. Similarly, the focus on an individual project may have narrowed the perspective to one's own context, despite also being enriched through discussion and feedback provided by international peers. Another possible reason for not voicing any new cultural insights on their teaching (all students sharing the same professional background as educators in different fields) could be the composition of the students, with a high proportion of German and Finnish (or Finland-based) participants in this run of the module. Additionally, as the content frame already used a European perspective, this may have provided all participants with some shared understanding.

One other topic that stood out was the image of the absent tutor. While the idea of the programme was to be highly flexible for students and scalable in numbers, there was a high proportion of group work and peer-learning. Tasks as well as guidance for the tasks was clearly formulated, the learning environment developed in a way that students could navigate without further help. Tutors actively facilitated the learning process by describing in short videos tasks and assessments and giving some personal advice, as well as allocating students to groups. However, the impression of the tutors as abstract entities remained. Here, the issue of "social presence" (originally coined by Short, Williams, & Christie, 1976) as the "realness" of the instructor/tutor (Kreijns, Xu, & Weidlich, 2021) and his or her teaching presence (Lowenthal, 2009) seems to be at stake. The well-known study booklets or former study letters, or, as we used in the course, articles and other texts, websites, enriched through videos, tutorials and posts in the forum were, for many, not enough to perceive the tutor as concrete, tangible and "real" vis à vis the online communication.

What do those issues mean for the further development of such programmes, or more generally: what could be done to strengthen the value of intercultural experiences from collaboration in an international classroom? And how can the social presence of tutors be supported in such environments?

Until now, the intercultural component has only been introduced as a prerequisite for the module, which could provide students with some awareness, but serves mainly as a nice-to-have. Having this in mind, it could be helpful to look more closely at guidelines and tasks and include some guiding questions for students to gain more insights from their group work into different cultural settings with a focus on both their professional and academic surroundings. Hence, to use the professional focus as well to learn more about the different teaching and learning systems and cultures. Furthermore, through working with culturally sensitive methods as the critical incident method, even more engagement with different issues, structures, and cultures could be generated between the students. In this sense, the potential of the international classroom for intercultural learning could be used in a better way.

The social presence of the tutor can, in a first step, be increased through more visibility in the classroom. This could be achieved through voluntarily synchronous weekly one-hour check up with tutors taking place in addition to the regular, mostly asynchronous communication between tutor and student. Looking specifically at learning as a social process in online settings and on social interaction, it may be useful to take an even broader stance on the entire online setting. Kreijns et al. (2021) propose looking at social interaction as being at the heart of the magic triangle of social presence, sociability, and social space: Whereas social presence comprises the person as being "real", sociability includes the capacity of the online tools and platforms "for the expression of social presence and the experience of it as well as for the emergence of a social space" (Kreijns et al., 2021, p. 3). Finally, the social space includes the relationships between all members, their values, norms, roles as well as their beliefs and "and is manifested by a sense of community" (Kreijns et al., 2021, p. 3) With this framework, it becomes possible to look at a social structure that could be further developed by pulling at each of the corners of the triangle to make the social interaction in international classrooms more supportive for students' learning and enhancing not only the social presence of tutors and students, but also the collaboration and supported respective online tools.

6 Conclusion

Within this paper, we took a closer look at the students' perspectives in international classrooms, exemplified by one module within a European Short Learning Programme (E-SLP), that addresses lifelong learners and people with professional experiences all around the world. By listening to and analysing the final reflections of our students, who are all educators in different levels of education, we mapped out themes that made their international online journey worthwhile and challenging. Finally, we discussed issues connected to the results, such as the silence around intercultural perspectives and the perceived absence of the tutors within our module, more deeply. In a final step, we showed implications for including intercultural communication and awareness in professionally oriented courses and focused on the social presence of the tutor to finally refer to the "magic triangle" of social interaction as a way to deal more deeply with how international classrooms that support virtual mobility and hence international collaboration could be realised and further developed.

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Internationalization of higher education through cross-cultural virtual simulation in teacher training

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Abstract

International education has been particularly affected by the present sanitary crisis. University students have had to suspend their mobilities, and the international collaboration has had to adapt to these sudden changes. Virtual Exchange (VE) has experienced a new fervour at universities that head for internationalization as an institutional goal. Not only does VE provide the advantage of developing subject-related skills, but also enabling skills leading to employability: intercultural communication, virtual teamwork and problem solving. The proposal we present here has adopted VE to carry out cooperative work through a virtual simulation amongst pre-service teachers, in service teachers and academics from 9 institutions worldwide.

The proposal consisted of 16 teams made up of participants (pre-service teachers, in-service teachers and academics) from Valencia (Spain), Tunis (Tunisia), Baden (Austria), Quebec (Canada), Buenos Aires (Argentina), Chicago (USA), London and Lancaster (England), and Cluj-Napoca (Romania). As part of our study, we aimed to analyse the findings of the experience through a qualitative analysis of the answers to a Likert questionnaire and some open questions. In the present article, we will focus on the Valencian pre-service teachers' perceptions regarding the intercultural communication experience, the VE and simulation to discuss educational issues in micro teams and the transversal skills gained throughout the experience. Results show that participants from Valencia found more commonalities between educational issues in the different cultures than marked differences. Cross-cultural collaboration allowed most of them become more tolerant and understanding towards different realities by working in virtual teams.

Key words: virtual exchange; intercultural communication; simulation; teacher training; employability skills.

1 Introduction

Nowadays university education is not only about teaching subjects, but also about transferring process skills. The ability to adapt to change and to constantly expand one's knowledge are increasingly being focused on, in addition to critical thinking, creativity, intercultural

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communication, and teamwork abilities (European Commission, 2020; Trautrims et al., 2016; Rudman & Kruger, 2014).
Our proposal has become a solid step to internationalization of our institution at a lower cost. Students need to be prepared to work in a globalised world, adapt to different cultural contexts as well as work with people from very varied cultural backgrounds. Mobility programs offer the possibility of having an international and intercultural experience. Although a low percentage of students have the opportunity of participating in such programs as the 2018 analysis of credit mobility by the Organization for Economic Co-operation and Development (OECD) shows, only 9.2% of EU students study abroad at another university (OECD, 2021). In spite of being considered the leading strategy for cultural immersion the international student exchange programs (Griffith University, 2011), we need to seek for alternatives that can help our students achieve the goal of becoming global citizens. Furthermore, several studies conducted by Papatsiba (2005), Paige, Fry, Stallman, Josic and Jon (2009), Stone and Petrick (2013), Potts (2015) and more recently, O'Dowd (2020), argue that physical mobility does not necessarily guarantee the development of intercultural competence and enhanced transnational identity, which are very often the goals of internationalization mobility programmes. Therefore, another way to acquire international competence and a more global mind-set is through virtual exchange on campus and within course curricula according to Beelen and Jones (2015) and O'Dowd (2020). This is known as "Internationalization at Home" (IaH) and the related concept of "Internationalisation of the Curriculum" (IoC) (De Wit, 2016; O'Dowd, 2016, 2020).

Intercultural competence is the ability to perform adequately across cultures, to think and interact appropriately, and to communicate and work with people from different cultural backgrounds. As Byram (2003) states it is crucial the acquisition of intercultural understanding and the ability to act in linguistically and culturally complex situations. According to Verzella (2018) the goal of higher education is to forge professionals who can succeed in a diverse, global, and interdependent society. As a consequence, we need to prepare our students to be linguistically competent but also teach them the intercultural communication competence. Therefore, the development of intercultural competence through collaborative exchanges has become the focus of much recent research (Vinagre, 2014).

Virtual exchange has been defined as a form of virtual mobility that, through the use of technologies, can bring an unprecedented number and diversity of people together in meaningful cross-cultural learning experiences. With a broad reach within and far beyond Europe's borders, it can bridge more important cultural divides, giving young people exposure to a variety of different world views and beliefs (Erasmus+ Virtual Exchange, 2019). Telecollaboration or VE was considered to be one of the main pillars of the intercultural turn in foreign language education (Thorne, 2006) although over the past 20 years, Virtual Exchange has been used in different fields and contexts of university education such as business studies (Osland et al, 2006; Duus & Cooray, 2014; Lindner, 2016), and has developed different models and approaches with very different learning objectives. The current situation in the context of the Covid -19 has challenged the education system worldwide and has urged teachers and educators to adapt to an online procedure of teaching unexpectedly. For this reason Virtual Exchange is acquiring a more significant position as an alternative methodological approach and as a form of inclusive mobility for students that are unable to participate in physical mobility programs due to different reasons such as high costs of travelling and living in a foreign country or socio-economic, health-related or political issues (Buchem et al., 2018).

Another aspect we would like to highlight about our study is the aim of presenting a project that can enhance the way international students interact in virtual teams. The interaction of students has crossed the physicality borders, that is to say that students are not any more limited to work with their classmates only. Technology has evolved rapidly and has given the chance to access the Internet through emails, exchange texts, images, participating in blogs, etc. and more recently having access to instant audiovisual communication through online platforms like Zoom, TEAMS, etc. The described context has caused the development of the so-called *virtual teams:* people dispersed across different regions and nations to discuss new ideas and engage in various projects in real time (Amant, 2016; Cleary & Slattery, 2016). In this sense, there is a clear distinction between a mere virtual communication assisted by a computer and a true virtual exchange. This latter refers to the engagement of groups of learners in online intercultural interactions and collaboration projects with partners from other cultural contexts or geographical locations as an integrated part of their educational programmes (O'Dowd, 2018). Virtual exchange comprises a project or task and dialogic learning. In our case, a complete simulation was conducted: briefing phase, action and debriefing phase in which research, dialogue, discussion, negotiation of viewpoints, decision-making and results found a proper virtual environment to unfold.

This situation is currently allowing interaction that be applied and carried out in the learning processes and therefore in higher education. Global virtual teams have been very common already in the business context and many studies have been carried out in this context (Jarvenpaa & Leidner, 1999; Kayworth & Leidner, 2015; Sarker; Ahuja; Sarker; & Kirkeby, 2014). Regarding the education context we find a research gap in the specific area of pre-service teaching and learning as few studies have been produced focusing on virtual teams (Chen, 2013). According to Amant (2016) there are some challenges that this new way of interacting present. The first one is communication, face to face communication between student from different cultural backgrounds can be challenging enough and when it comes to an online context the potential for miscommunication and misunderstanding is even larger some cultures very direct and express very clearly what they think and want while some others are rather indirect and do not say precisely what they mean so such cultural difference in communication styles might lead to frustration, misunderstandings, etc.; the second is the technology and the different tools that can be used in these interactions, these can affect the communication due to limitations a specific tool imposes, the digital literacy of the participants, etc.; the third challenge that should be highlighted is culture, cultural differences related to communication patterns, technology use, ways of thinking and approach a problem or even solving it, building trust in a diverse cultural team, the cultural influence in the way the team members speak the language, the stereotypes and cultural biases among other aspects that can influence and shape the way the virtual teams members interact.

The present Simulation +VE project provides pre-service teachers with an international and intercultural communication experience. The integration of simulation and VE presents new perspectives on the teaching degree as the pre-service teachers at the time they develop intercultural communication skills, and practice English in real contexts, they broaden their understanding of their profession in other educational contexts. An added worth-mentioning value is the opportunity the students have to interact with in-service practitioners from schools; and academics from universities, whose specialization coincide with some of the educational challenges presented in the scenario. Other relevant benefits derived from VE are the

development of employability skills, digital media literacy, critical thinking and a working experience in a diverse cultural context (O'Dowd, 2017; The EVALUATE Group, 2019; Erasmus+ Virtual Exchange, 2018).
So, why a virtual simulation? From a very organic point of view, the most significant learning comes with experimentation and the application of knowledge to real challenges (Reime et al., 2017). Technically speaking, a simulation refers to a complex activity in which participants are assigned duties and are given enough key information about a problem to carry out these duties without play-acting or inventing key facts (Jones, 2013). Simulations are appropriate for addressing issues related to education, environmental threats, sustainable economy or human rights. Through simulations, participants are involved in a reality in which they must find solutions to certain problems or situations. They must do so by doing research about the problem collected in the scenario (Angelini & García-Carbonell, 2019a; 2019b; Angelini, 2021a; 2021b; Crookall & Oxford, 1990; Duke & Greenblat, 1981; Greenblat, 1988).

In the proposal we present, the simulation has given an added value to the whole virtual exchange experience. After an initial phase of introductions and friendly chat with the participants from different universities and schools, the simulation consisted of presenting an educational scenario with several challenges that needed further improvements. The teams consisted of 5-6 members, each of them had a specific profile role they had to analyse and prepare in the briefing phase, around 3-4 weeks before the simulation action. The preparation or briefing phase normally depended on each of the participating institutions. They had to guarantee that participants would be ready by the time the simulation action had been scheduled. The added value relied on doing an in-depth research of each of the challenges presented taking into account different perspectives. That is, participants did not know the profile roles they would perform at the time they analysed the simulation scenario. In the particular case, profiles consisted of a head of the school, a pedagogical advisor, a representative of the parents' association, one or two teachers of English, and a special education teacher. This provided a worry-free mindset as the participants were aware of their preparation, and knowledge to actively interact during the simulation.

2 Methodology

The Simulation + VE experience consisted of 16 mixed teams made up of pre-service teachers, in-service teachers and academics from the following universities:

- Universidad Católica de Valencia, Spain
- Pädagogische Hochschule NÖ, Austria
- Tunis Virtual University, Tunisia
- University of Carthage, Tunisia
- North-Eastern Illinois University, Chicago, USA
- Cégep de Jonquière, Quebec, Canada
- Universitatea Babes-Bolyai, Cluj-Napoca, Romania
- Universidad Tecnológica Nacional of Buenos Aires, Argentina
- University of London, UK
- Lancaster University, UK

All teams had to participate in the simulation + VE Project 'The National School of Valtance' for four weeks (March 2021) and write a report on the experience as well as answer a questionnaire about the complete experience. Each one of the team participants had a different profile within the simulation scenario as we can observe in Table 1.

	PARTICIPANTS' NAMES	CITY	E-MAIL	PROFILE
TEAM 1	*	Valencia		1. Head of the School of Valtance
	*	Valencia		4. ValED, the Valtance English Department
	*	Tunis		2. ValPE, the Valtance Pedagogical Advisory Board
	*	Tunis		3. ValPAR, the Valtance Parent Association
	*	Lancaster		4. ValED, the Valtance English Department
	*	Cluj-Napoca		5. SerVal: Service learning
	*	Chicago, IL		6. SpEd: the Valtance Special Education
	PARTICIPANTS' NAMES	CITY	E-MAIL	PROFILE
TEAM 2	*	Valencia		1. Head of the School of Valtance
	*	Valencia		4. ValED, the Valtance English Department
	*	Tunis		2. ValPE, the Valtance Pedagogical Advisory Board
	*	Tunis		3. ValPAR, the Valtance Parent Association
	*	London		4. ValED, the Valtance English Department
	*	Cluj-Napoca		5. SerVal: Service learning

Table 1: *Example of teams participating in the Simulation+VE*

*Names of participants and their emails have been omitted for anonymity.

The simulation consisted of three phases: Briefing, VE, Debriefing.

2.1 Briefing Phase

Before the briefing phase there were several virtual meetings between the teachers, academics and facilitators in order to design the different challenges to be discussed within the scenario and to agree a working plan to later explain to their students in their own universities.
During the briefing phase the teachers and facilitators had to offer informative and formative sessions to all their students. In these sessions they would explain their students about the learning outcomes of such an intercultural experience as well as inform them about the simulation phases and procedures which was something new to all participants. They were also informed about the VE characteristics, the technological tools they were going to use during the project and they were given a planning of the synchronous and asynchronous sessions scheduled during the project. Then the simulation scenario was presented although the participants did not know the profile roles, they would perform at the time they analysed the simulation scenario. The profiles consisted of a head of the school, a pedagogical advisor, a representative of the parents' association, one or two teachers of English, and a special education teacher. The general objective as it is shown in Figure 1 was the starting point of the complete simulation:

Fig. 1: *General objective of the simulation scenario*

During this briefing phase the students were also informed about the final assessment of the project which included writing a final report and answering a questionnaire about their experience. The participants had to have a meaningful participation combining the sessions attended and the completion of the reports and the questionnaire assigned. This questionnaire is the basis for the data collection to analyse the results (see appendix).

2.2 VE + Simulation Phase

The VE took place during the month of March 2021. The different teams had a synchronous session every week through Microsoft TEAMS and the asynchronous meetings were carried out through the Linkr Education collaborative platform as much as they needed it. In addition, the One Drive platform was also used to share files and documents.
In this phase the participants had already prepared their own profiles and that meant having researched and studied their different challenges in order to be soundly prepared for discussion and negotiation with their colleagues in the team. Sixteen TEAMS sessions were created for each team to meet weekly at the same time which was 18.30 Central European Time (CET) so they participants from Canada and the USA could join with no problem as well as those from Romania and Tunisia. The sessions lasted around three hours.
The communication had to be very fluent between students and facilitators who were ensuring that there was a safe environment involving equal participation and everybody was contributing to the discussion.

The following tables show the different challenges that had to be dealt with and the profiles they were given:

The inquiries and requests for clarification are classified into:
1. Teaching methodologies in ESL- language teaching/ skills/
2. Classroom management
3. Shared teaching through lesson study
4. Literature, storytelling and drama in English

Table 2: *Simulation Challenges*

Profile 1: The Head of the National School of Valtance (a student from Valencia)
Profile 2: ESL Teachers (2 teachers from different countries)
Profile 3: Pedagogical Advisory Board (1 teacher / student from abroad)
Profile 4: Representative of the parents' association (1 student)
Profile 5: A special education teacher. (1 teacher / student)

Table 3: *Simulation Profiles*

On the one hand, every team had a facilitator who would ensure a quality discussion, so they acted as process leaders in terms of communication, creative problem-solving and self-reflection.

They guaranteed the group stayed on task that kept focused and efficient as well as productive. On the other hand, they were two coordinators of the whole simulation + VE project who were live monitoring the development of the synchronous sessions of every team. These two coordinators were also in charge of the technological functioning of the sessions, they were creating a sense of safety in online dialogue, making sure everyone understood how the technology worked and were able to communicate with each other. In addition, they were keeping track of the progress of the meetings and writing checklists of the attendants and their active participation. The coordinators were neutral as they did not contribute to the content of the discussion although they listened carefully to what every participant contributed with through active listening.

2.3 Debriefing Phase

The last phase of the project was the debriefing phase. In this final phase the reflection is essential therefore all participants in the simulation + VE had meetings and reflected about the complete experience and the learning process. This last phase was carried out firstly by each facilitator or teacher with their students from their home university and secondly by the academics, researchers and teachers all together. The objective of these meetings was to comment and share the outcomes of the experience and the learning process therefore teachers and students had the opportunity to speak and debate about the strengths and weaknesses of the Sim+VE and its application. These sessions are a forum where the participants express their perceptions about the experience (Angelini, 2021).
A qualitative analysis of the students' perceptions was conducted. For the present study pre-service teachers' feedback was first classified into initial categories (and subcategories) until saturation of the data; intercultural communication (sub-categories: cultural shock, language barriers, cultural diversity openness, etc.; collaborative work across borders (sub-categories: digital skills, international virtual teamwork, etc.); and overall perceptions of the experience.
Therefore, an online Likert questionnaire in combination with some open and closed questions, as mentioned above, was given to all participants. The questionnaire included questions regarding feedback on the VE, the intercultural exchange, working in international virtual teams, learning outcomes, etc. This information results will be presented in the next section.

The aim of the project was to carry out a simulation dealing with educational challenges by 16 teams with mixed nationalities members. The lingua franca was English, and the team members had to research, study and discuss about the educational challenges through an assigned profile. The project not only pursued learning outcomes in the area of education but also the possibility of gaining other transversal employability skills that will be very useful in the students' future careers. Among these skills we can include: language practice, intercultural communication, critical thinking, digital skills and working in global virtual teams.
In order to find out the participants' perceptions regarding the project a Likert questionnaire was designed, in addition to four closed questions and a section of open final comments and was then shared with all of them. In the present article we focus on the results referring to the intercultural aspects, the teamwork aspects and to what extent the participants perceived they gained some of the employability skills.

3 Results

The findings presented in this section belong to pre-service teachers from the Official Postgraduate Programme for Secondary School Teachers, Universidad Católica de Valencia. The results in Figure 2 show that 65.8% of students had never participated in an academic cultural exchange project and 34.2% had some prior experience. This makes us reflect on the need to foster internationalization from the core of the subjects or programmes in higher education.

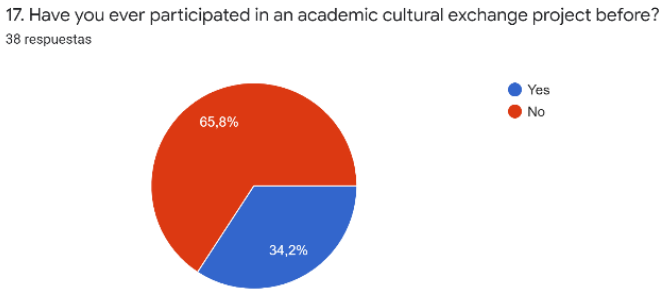

Fig. 2: *Answers to question 17: "Have you ever participated in an academic cultural exchange project before?"*

Figure 3 shows that 84.2 % of the participants had entered a dialogue with members of other cultural groups in other contexts and only 15.8 % had never had any contact with other cultural groups. This question was not specifying if the context was online or offline. These results allow us to think that that international communication is something familiar for most of the participants. However, mere communication does not necessarily entail co-working in a common project as Figures 1 and 3 reveal.

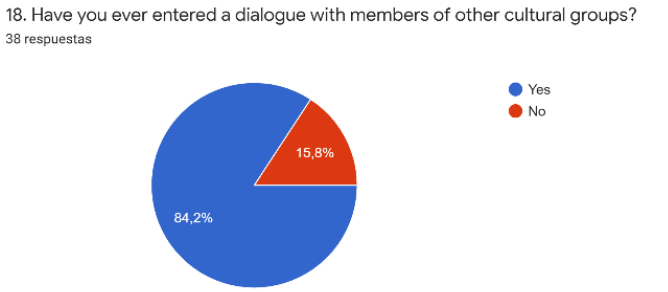

Fig. 3: *Answers to question 18: "Have you ever entered a dialogue with members of other cultural groups?"*

When asked about their participation in international virtual teams 71.1% answered that they had never worked in such teams and 28.9% answered they had participated as we can see in Figure 4.

Fig. 4: *Answers to question 19: "Have you ever worked in international virtual teams?"*

Question 20 focused on obtaining feedback on the learning outcomes for participating in the Simulation + Virtual Exchange through the Likert questionnaire. The questions were designed to obtain as much information as possible related to the intercultural communication and the global virtual teamwork. The answers show a high percentage in positive feedback in most of them.
Most participants perceived they have gained intercultural communication skills and they were able to work satisfactorily in virtual teams.

- Cultural diversity is an enriching fact (S1)
- I had always been looking forward to living an international project in which I could get to know different cultures and people from all over the world. I strongly believe it is a very fulfilling experience that now with the pandemic can be implemented more and in different areas such as e-tandem to practice the English language or any language we want and meet people from all around the world, along with their interests, cultures, way of thinking and way of living. (S2)
- From my point of view, it has been a really enriching experience. We have practised the English language, but we also have learned from other cultures and the education in different countries. It has been a great opportunity to open our minds to understand some methodologies, practises in education, etc (S4)
- I find the simulation was overall positive. I would say we were lucky to have been working with people having very different backgrounds, which made the experience more enriching for all of us. (S6)
- Some participants indicated they became more open to the other participants' ideas from abroad. We could argue that the dynamics of the project VE+ Simulation contributes to suspend prejudices and misbeliefs about other cultures In addition, the students perceived they were sufficiently prepared to participate in the simulation dialogue due to the in-depth briefing and research conducted.
- This work has also helped me to broaden my perspective on education, I have seen education in other countries and how it has affected them both positively and negatively. It has helped me to open my mind a bit more in various aspects, learn more about education not only in the subject of English and the different perspectives of different departments. (S3)
- I believe it has been a different experience, in which one can learn many things related to teaching through the contrast of the different educational systems in the world. The elements that are discussed in this type of sessions definitely help us to broaden our knowledge and encourage us to continue exploring other ways of teaching, beyond the educational system of our country. (S7)

- Sharing moments and experiences with people from other countries and cultures who are involved in education open for us a new door to knowledge. (S14)

Moreover, in spite of adjusting to the different cultural situations and people, they could defend their position for the benefit of the simulation scenario. Educational issues resulted hard to discuss at times as participants had different educational backgrounds and experience. However, in light of the common scenario, the pre-service teachers from Valencia could not only reinforce their knowledge of the topics but also expand the scope of some of them by the constructive dialogue in their teams.
Another finding is the participants' realization of the importance of teamwork in a multicultural setting.

- I am really thankful because I have been able to share ideas with people from all over the world in a virtual way. It has increased my knowledge about ESL and I have also learned to lead a team. (S8)
- The potential to participate in exchanges of this kind is undeniable. Not only do they make you reflect on your previous thoughts about a culture or about education, but also, they give you the opportunity of being aware of the importance of dominating a foreign language to communicate with your team. These exchanges definitely broaden your horizons. (S9)
- I loved this experience because my team was amazing and we tried to help ourselves as much as possible. (S11)

Only a few comments indicated the project did not contribute much to enhance the participants' intercultural communication or awareness:

- I don't think the VE helped me to be more cultural aware since I already was. (S15)
- In section 20 most answers are 'I agree to certain extent' because the specified skills were not acquired during this experiment, but during other experiences, such as living abroad, working abroad and academic exchanges. (S16)

4 Conclusion

The Simulation + Virtual Exchange project aims to provide an effective model for professional learning in an intercultural setting in teacher training degrees. The idea of creating international virtual teams that work together through a simulation scenario is in itself innovative in the pre-service education context. Conversely, this type of collaboration is more often carried out in the business education contexts, among others. The added value to the project is the combination of simulation and VE as it offers the opportunity to having an international experience and improving their employability skills in a safe simulated environment. The integration of simulation and VE presents new perspectives on the teaching degree as the pre-service teachers, at the time they develop intercultural communication teamwork skills, and practice English in real contexts, they broaden their understanding of their profession.
The participants had a specific profile to perform in an educational scenario therefore they interacted with their international counterparts discussing about education challenges using English as communication language. The improvement of their intercultural communication skills was an important objective in this project because they had to understand, respect and learn from

other cultures during the simulation. The experience was satisfactory at the whole and the feedback regarding the intercultural communication and virtual teamwork was overall positive. Participants were comfortable when working with people from other cultures in most cases and the technology was not a problem. In spite of a general positive perception, only a few students indicated that their intercultural learning was not due to their participation in the project.

We can conclude that the Simulation + VE project has proved to be a positive learning experience that can be replicated with other groups of students offering an opportunity for internationalization while at home (IaH) and a way of improving the skills required by the European Commission such as the ability to adapt to change, to develop their critical thinking, creativity, intercultural communication, and teamwork abilities. On the other hand, The Simulation + VE has proved effective for IaH at no extra cost for the participants which makes it sustainable and offers pedagogical innovation.

To finish, it would be necessary to remark that our future teachers may have a once in a lifetime chance to virtually get to know other foreign educational practitioners. This project has given them the opportunity to work on a simulation scenario with other pre-service teachers, in-service teachers, and academics. They could analyse educational practices, and build on a genuine understanding of their profession outside their local context through cross-cultural sharing and global relationships. We believe that exposing our future teachers to diverse educational realities is imperative, and this project has prompted a process of realization of all the before-mentioned benefits.

5 Implications for Practice

The practical implications of the simulation + VE project can be described as follows:

- It is a model of cooperative work for internationalization at home that encourages effectively work in international virtual teams fulfilling a dual function on the one hand the practice of the English language adapting in communication to non-native speakers and on the other hand the improvement of digital skills through the use of different communication platforms (Linkr, Microsoft TEAMS, Google Drive, etc.)
- It is a project that can serve as a model for the development of intercultural competence in future teachers by fostering cross-cultural understanding, avoiding stereotypes, and helping to be more empathetic to diverse approaches to education.
- Fostering the intercultural communication competence in future teachers will allow them to be able to implement similar projects with their own students and in turn foster intercultural competence in them.

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Appendix: Likert Questionnaire

20. In order to let us know about what you learned by participating in the SIM+ VE project, please tick what suits you best:

I totally agree

I agree

I agree to some extent

I don't agree

1. I can use technology effectively to communicate with members of other cultures.
2. I became open to other cultures
3. I learnt how to suspend prejudices and misbeliefs about other cultures.
4. I can relativize my own cultural practices and beliefs.
5. I can effectively collaborate in virtual teams.
6. I am prepared to work in an international professional project virtually
7. I improved my English language skills.
8. I am well-prepared to meet and work with people from different countries.
9. I have no problem understanding the feelings of people from other cultures.

10. I can change/adapt my behaviour to suit different cultural situations and people.
11. I know the ways in which cultures around the world are different.
12. Cultural differences between team members are usually not significant enough to worry about.
13. I want to do international work as part of my career.
14. I cannot learn about other cultures before I learn about my own culture.
15. Because cultural diversity is just a fact of life, calling attention to cultural differences is unnecessary and potentially divisive.
16. I have skills that allow me to work effectively with people who define problems differently than I do.
17. Would you be prepared to design and implement a VE for your own students?
18. Would you be prepared to design a simulation and implement it through a VE in collaboration with colleagues from abroad?

What is missing? What is gained? Experiences of virtual collaboration in EU projects

Eva Cendon*, Carme Royo** & Julie Wietrich**

Abstract

The ultra-rapid digitalisation and the virtualisation of collaboration that came with the Covid-19 pandemic affects existing collaborations in all imaginable fields, with EU projects being no exception. Drawing on the experiences of experts from EU projects with this situation, the paper presents findings from a study on how digitally based collaboration between organizations actually can work, what hindrances exist and what chances lie therein. The study has its origin in the Erasmus+ project The ONE Meeting Project that explores virtual collaboration in transnational projects by adopting a Design Thinking approach. The first stage of this approach included consultations with almost 40 project managers from European projects all across Europe, collecting their views on and experiences with the ongoing digitalisation within transnational project work. The data was analysed using thematic analysis, seeking to identify patterns concerning gains and losses through virtual collaboration. Based on our findings, we discuss underlying issues and provide some implications for practice, and conclude with an outlook on our next steps in research.

Key words: EU projects, project management, project phases, virtual collaboration, Design Thinking.

1 Introduction and Context

The ONE Meeting Project is an Erasmus+ initiative, funded under the Key Activity 2 (KA2) Call in 2020 (Strategic Partnerships for Higher Education) developed from December 2020 until November 2022. The ONE consortium is formed by seven partners from seven different countries (i.e., Germany, Belgium, United Kingdom, Ireland, Italy, Spain, Finland), and includes four universities, two business partners and one association. The project is coordinated by FernUniversität in Hagen (Germany) in close collaboration with EUCEN – the European University Continuing Education Network (Belgium).

The ONE project intends to explore virtual possibilities of collaboration when designing or working on EU-funded transnational projects, and raise awareness about how virtual collaboration can substitute face-to-face meetings but also face-to-face work in general. The absence of face-to-

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face interaction translates into cutting on travelling activities, which can contribute to reducing EU projects' environmental impact. While a small partnership like the ONE Meeting Project consortium would meet probably 4 times during its lifespan (i.e., 4 trips x 7 partners = 28 trips if only one member of staff travels from each organisation), the ONE Meeting Project will only meet once (i.e., 7 trips). This reduction of face-to-face meetings translates into a 75% reduction in travelling.

Developing the ability to work online can be also useful and helps us to be prepared for unforeseen situations that can oblige us to work from home or stay in our own countries. We all have experienced the fast adaptation that Covid-19 has imposed on everyone. But other disruptive future events (such as petrol shortage, weather unpredicted changes, illnesses and many other situations) could benefit from the experience of 'being prepared whatever happens'.

The ONE Meeting Project aims at strengthening the ability of actors within EU projects to engage in productive virtual collaboration. It also seeks to increase environmental knowledge and virtual communication/collaboration competences of Higher Education leaders and staff (Kearney, 2021). The main target groups of ONE are European project managers and project officers. But Higher Education leaders and their stakeholders can also benefit from the results from this project if they know how to adapt the tools to their own needs.

The ONE Meeting Project is developing a practical set of tools and resources that will help individuals working in EU-funded projects both to design and to develop projects in a sustainable and agile way. The three intellectual outputs of the project are (The ONE project, 2021):

- The Business Case for ONE Meeting Projects in Europe: A high-profile report that explores the environmental issues relating to transnational travel and presents solutions.
- The ONE Meeting Project Virtual Toolkit: An easy-to-use collection of virtual tools categorised according to the needs of transnational projects.
- The All-You-Need-To-Know Guide to Running ONE Meeting Projects: A practical guide presenting a step-by-step strategy for converting projects into a 'ONE meeting only' format.

The ONE project adopted a Design Thinking approach as a methodology. Design Thinking can be conceptualized as mindset, and as process, both on macro and on micro level (Brenner, Uebernickel, & Abrell, 2016). It is a person-centred approach that facilitates the development of creative and innovative solutions to sometimes wicked problems. The flexible and iterative process ensures an agile navigation through the project (see Figure 1 below).

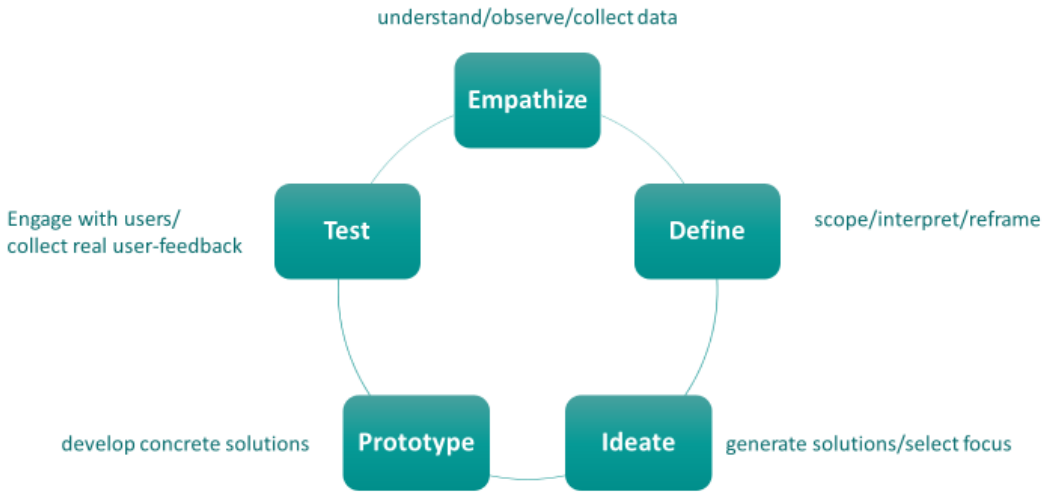

Figure 1: *Design Thinking Circle*

A Design Thinking process follows 5 stages (Interaction Design Foundation, n.d.): (1) Empathize, (2) Define, (3) Ideate, (4) Prototype, and (5) Test.
In the first stage (1) Empathize, that puts the focus on the user, we seek to better understand the context and the issues of the user by observing and collecting data.
In stage (2) Define, the collected data and observations are used to reframe the way we think about our users. By scoping and interpreting, we create a problem statement that best reflects the challenges that affect our users.
With a better understanding of the users and a clear definition of their challenges, the stage (3) Ideate, aims to generate as many possible solutions as possible.
Stage (4) Prototype seeks to prototype and assess possible solutions in a quick iterative process and is followed by (5) Testing, the selected prototype with real users. Their feedback could lead back to stage (4) Prototype or even to stage (1) Emphasize to get even a deeper understanding of user and context.
In this contribution, we present our findings from stages (1) and (2) of the Design Thinking process, which consists of (1) empathizing with our target groups through consultations and (2) identifying challenges and successful strategies for virtual teamwork and digital collaboration based on analysis of the collected data.

2 Methodology and Collection of Data

Using Design Thinking as methodology the objective of stage (1) was to gain a better understanding of our target groups. For this purpose, each partner identified experts, who are experienced in handling EU projects and who would act as co-creators within our project and help us understand the users of the project's outcomes. As common frame for the consultation we jointly developed a questionnaire that was used by all seven partners for data collection. Therein, we wanted to learn about the challenges, success stories, and tools that these experts are using

for virtual collaboration within EU projects. The three questions were structured along the different phases of EU projects, as Table 1 shows.

	Challenges *What is the most challenging when it comes to virtual collaboration in EU projects?*	**Success histories** *What is key to successful virtual teamwork? Please share with us your success stories*	**Tools used** *Which tools do you like to use for successful digital collaboration?*
Proposal preparation			
Project planning and preparation			
Project management/ implementation			
Content development			
Dissemination			
Exploitation			
Quality			
Evaluation			
Impact			
Would you like to comment on any aspects we did not consider relevant?			

Table 1: *ONE consultation questionnaire*

Assuming that people involved in many different projects are busy, we proposed for data collection the questionnaire either to be filled in by the consulted experts themselves or to be used as a basis for an interview conducted by the ONE Meeting Project partners. In practice, numerous ways of consultation were used: written feedback (alone or as a group work), virtual meetings but also phone calls (due to time constraints of some of our experts). For most of our partners, this way of data collection was an important step to better understand the ways our potential users deal with virtual collaboration and at the same time to start a dialogue with other experts on reflecting constraints and chances of virtual collaboration in EU projects.

Exploiting our networks and connections, we got feedback from 38 experts from 18 countries. Beyond the geographical spread of our own partnership with Finland, Ireland, United Kingdom, Germany, Belgium, Italy and Spain we reached experts from the following countries: Austria, Croatia, Cyprus, France, Greece, Lithuania, Poland, Portugal, Sweden, Switzerland, the Netherlands. All experts are working in the education sector within different institutions, half of them in Higher Education Institutions (HEIs), one third in Non-Governmental Organisations (NGOs) and the rest in small and medium enterprises (SMEs) or public institutions. Within their institutions, those experts have positions as CEOs, project managers, project officers and professors; so, all of them are working in strategic or strategically important positions. All of them have had from five up to 30 years of experience in EU projects in different roles. The vast majority of these experts are involved in project management, a few in administration and evaluation of projects.

For analysing the data, we employed a thematic analysis approach (Braun & Clarke, 2006; 2020). Following the six steps of thematic analysis, after familiarizing with the data we generated initial codes and clustered them to themes. In a first step, we followed a predefined codebook using the structure of the questionnaire. As this led solely to the summarizing of questions (challenges, success stories, tools, and general themes), we engaged in a next loop into the material for open coding. Taking the steps in projects as frame for structuring, but simplifying the quite detailed

phases into broader ones, we were able to arrive from codes to two overarching themes as the most outstanding poles within our data, each with five subs-themes along the different project phases.

Our joint process of analysis has been a sensitive one because although we are coming from different positions and institutions – as a professor at a university, as a CEO and a project officer in an NGO – we all have (partly long-time) experiences as project managers in EU projects. Hence, it has been even more important to frequently reflect our role within this research. That is why we did first single loops of analysis and met then for joint loops of analysis, thereby also reflecting our role as researchers.

3 Findings of our Research

Two overarching themes concerning virtual collaboration stand out from the consultation. They can be conceptualised as "multi-faceted crystals" (Braun & Clarke, 2020, p. 13): the first theme considers virtual collaboration as 'second best' with face-to-face collaboration remaining the best option, while the second theme considers virtual collaboration as a real opportunity to boost collaboration in EU projects and work more efficiently. Each theme has been structured by sub-themes following the key phases and aspects of an EU project's development:

- the proposal preparation phase and partner search;
- the project planning phase, which aims at securing a common understanding of the project's objectives;
- daily project management, which consists in daily communication and exchanges between project partners;
- project implementation which relies on partners' engagement to achieve planned results;
- and finally, the dissemination of the project's results.

3.1 Virtual collaboration as 'second best'

Virtual collaboration is still considered by many EU project experts as a constraint and a temporary solution to substitute face-to-face meetings. These experts consider collaboration as based by essence on personal relationships. To them, the core of an EU project relies on face-to-face transnational meetings and collaboration. Based on our analysis, we allocated the following sub-themes to "virtual collaboration as 'second best'" along the different project phases (see Figure 2).

Figure 2: *Theme 1: Virtual collaboration as 'second best' with sub-themes*

In the first step of a project's development, **proposal preparation**, experts rely on personal contacts to build a consortium. In their view, virtual collaboration limits networking opportunities and therefore possibilities to find new partners, as the following statement shows: "New partners and their onboarding is a challenge, informal exchange is missing" (E17). It also limits innovation and creativity. Experts do not have the skills and resources to work collaboratively in a remote setting. They are using well-known digital tools to share documents and communicate but do not look for alternatives to bring collaboration any further.

After the project has been approved by the funding institution, the project starts by a **planning phase** which consists in building a common understanding of the project to ensure a smooth implementation in accordance with planned objectives. Here, for the experts, project planning relies on human relationships to build trust, develop team spirit and engage in a creative dynamic to achieve project's objectives. The kick-off meeting is the perfect opportunity to achieve these goals. In a virtual context, collaboration does not allow the development of a real team spirit, and results in superficial knowledge of each other. One expert elaborates on this: "With new partners, teambuilding is critical. Before the pandemic, at a TPM [Transnational Partner Meeting] [...] we cooked together [...]. Each partner contributed to this dinner a recipe for a specialty from their country. Replicating this in an online setting is challenging" (E11).

The lack of face-to face-meetings can create a distance between project partners and generate difficulties in **project management and implementation**, with little online engagement, slow responses, differences in pace, low levels of cooperation and delays. According to project experts, therefore the face-to-face meeting is crucial: "Missing personal contact makes collaboration and commitment to the project goal more difficult" (E12). They explain that "it can be difficult to understand the context, specific concerns and way of working of the partners without meeting them in person and visiting their environments" (E24). Even if online meetings are opportunities to communicate directly and immediately with each other, they cannot fully overcome the challenges of virtual collaboration because they generate digital fatigue and difficulties to focus: "It is difficult to focus during short online meetings, while it is easier to do so during a full-day face-to-face meetings dedicated to one project" (E19). Moreover, specialised skills and more time are necessary to make the most of online meetings and boost creativity.

Finally, the **dissemination** of project's outcomes and the project's impact are hindered by the lack of networking opportunities in online settings, and the difficulty to reach target groups, especially since the offer of online events and conferences has increased drastically: "to compile the outcomes for f2f events as flyer that you could give to somebody and talk about is not possible. How to do that differently?" (E17). Experts also mentioned the fact that "digital dissemination requires real skills that not all partners have in-house" (E4).

3.2 Virtual collaboration as an opportunity to boost collaboration

In a second theme, other EU project experts embraced digitalisation as a real opportunity to work more effectively and to boost collaboration. Not only they are willing to share how digitalisation improved their work habits, but they also express their want to adopt virtual or hybrid working modes permanently, and to keep learning from them (see Figure 3).

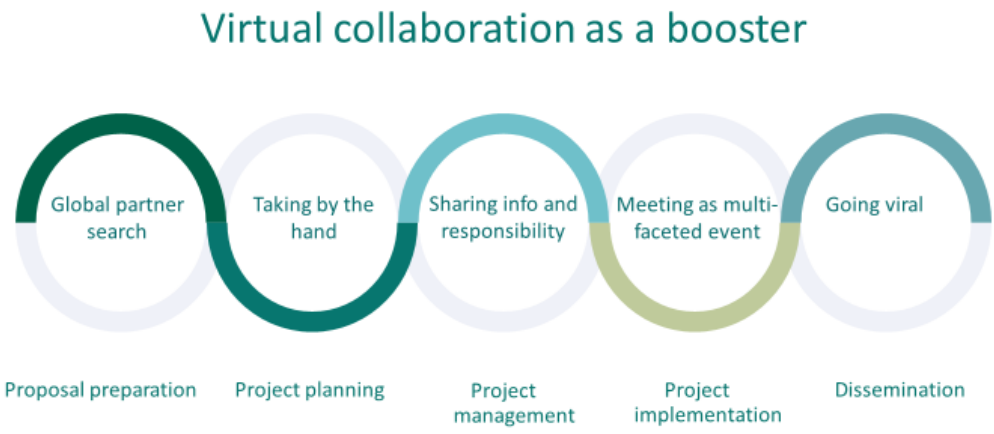

Figure 3: *Theme 2: Virtual collaboration as a booster with sub-themes*

In the **proposal preparation** phase, virtual settings offer project experts many opportunities and immediate access to various stakeholders all over the world. Experts can especially benefit from several online platforms and social media groups to meet potential partners outside their existing networks in a global partner search. Digitalisation moreover offers opportunities to share and collect information instantly, but also to co-create as digital solutions and online tools developed and spread rapidly during and after the pandemic. Collaborative and creative tools for brainstorming can be particularly useful to develop new ideas in the proposal preparation phase. Experts for instance recommend "work[ing] with online canvas boards to make sure work packages relate to each other, avoid overlap [and] creating a common view on the aims of the envisioned project" (E27).

As far as **project planning** is concerned, experts generally agree that getting to know each other and agreeing on a common understanding of the project is key to effective project planning and implementation. In a virtual context, experts take advantage of digital solutions to 'take partners by the hand'. They organise "preliminary bilateral meetings" (E24) to build personal relationships and understand each other's context better. Bilateral meetings can indeed be a good opportunity to clarify partners' expectations. Experts also recommend "taking time to create bonds between partners" during online full partners meetings, "for example thanks to icebreaking exercises" (E4).

In addition, brainstorming or creative tools – such as Miro or Jamboard – can be used "to clarify common aims of the project and create a common vision" (E24).

In further steps of **project management and implementation**, digitalisation can be considered as a strength since it allows regular sharing of information and well-structured communication, keeping all partners informed and engaged by email, through project management platforms, or via online meetings: "regular virtual meetings can raise quality, clarifying expectations, keeping the outcomes upfront and making problems easier to spot and deal with" (E4). Meetings can be seen as multi-faceted events thanks to the use of facilitation techniques to motivate partners, reduce disengagement and digital fatigue, and overall to work more efficiently and creatively. For example, alternating between online and offline work or using creative facilitation techniques can be the ideal options to make sure all partners remain focused and proactive.

Finally, online settings can also be real opportunities in the last phase of a project's development, **dissemination**, since they facilitate access to stakeholders all over the globe and could allow a project to 'go viral'. For example, experts recommend the use of "virtual delivery tools such as Ted Ed† that give access to a wider network of users" (E4). They also recognise the benefits of social media channels and websites which enable a significant reach for the exploitation of project outputs.

4 Discussion and Implications for Practice

As our results show, virtual collaboration can be seen both as a constraint, challenging effective collaboration in the realisation of EU project, and as an opportunity to boost collaboration, work more effectively as a team and achieve greater objectives. Those two routes are at the endpoints of a spectrum that includes many other possibilities, serving different needs and being subject to specific preferences: virtual collaboration can be used in combination with other modes of working together in transnational teams.

Looking at our findings from a broader perspective, some issues stand out and need further consideration in regard to gains and losses or in regard to virtual collaboration that need to be dealt with. First of all, as European projects are about getting to know partners from different cultural contexts more closely, having a joint enterprise, and engaging in mutual exchange, **personal and social aspects** are important features that need to be taken into account. Especially for new-comers or less experienced partners, the informal exchange is of high relevance, as it adds to finding one's way in this specific 'community of practice' by getting to know the shared repertoire of concepts, symbol and rituals (Wenger, 1998). Colleagues want to talk informally, have private conversations. These conversations are not only important for a 'warming up' or getting to know each other and build trust, but often lead to innovative ideas for proceeding with the project or even developing new ideas for future projects and future collaboration. This issue needs to be thought through quite thoroughly, with regard to how and where such spaces of informal exchange can be provided in a (mostly) virtual collaboration situation.

† TED-Ed is an online education platform that supports learning and helps disseminating innovative ideas in teaching and learning: https://ed.ted.com/

A second issue is **intercultural experience and *en passant* acquaintances**. Delving into different cultural contexts, being at different locations, getting an understanding of the context, of specific customs, rituals and conventions – especially in a project as ours, that is about building strategic partnerships – getting to know new partners and experiencing them in their specific locations is of high relevance to building partnerships. It is a chance of getting in touch with interesting people *en passant*, during or after meetings without being formally set or arranged beforehand. How can this be facilitated via virtual collaboration and virtual meetings?

A third topic that stands out is **communication and social presence** within virtual collaboration. How a person appears as 'real' in computer-mediated communication and how interpersonal relationships in this setting can be built has been researched and discussed already since some decades (see for an overview Kreijns, Xu, & Weidlich, 2021; Lowenthal, 2009). However, the ways of communicating and hence becoming more 'real' is not only about computer-mediated interaction, but also about project steering and project management, as project management is mostly supported via platforms and includes at least some regular communication via e-mail or other electronic messenger tools with all partners. Hence, communication and social presence is of high relevance both for project management and for building relationships within the whole partnership.

The fourth issue is about **allocation of time and exclusiveness** for virtual collaboration and in particular online meetings. Virtual collaboration, as has become clear within our results, is effortful. It needs time; for preparation beforehand, for exclusive and focused participation, and reflection afterwards. Due to arrival and homeward journey in no time, time allocated to collaboration gets condensed and reduced to the online event, with having other duties and meetings before and after and even in-between. More than in face-to-face meetings, online meetings allure to working parallel on other issues, not being exclusively focused on the meeting. Virtual collaboration via online meetings, also needs time to focus, to pause, to reflect. And simultaneously, those being responsible for hosting the virtual meeting, need to allocate even more time for preparing it in an appropriate way, both didactically and technically.

Closely connected to matters of time is the fifth issue, **digital and zoom fatigue** and how to find ways of dealing with it. Digital fatigue as a state where people are exhausted and disengaged by the permanent use of digital tools (Adlka, 2019), or by having endless and non-stop virtual meetings – also known as "zoom fatigue" (Brennan, 2020) – can jeopardize virtual collaboration. So, even if there are multiple was of creatively dealing with Zoom, new, innovative ways of combining and alternating online and offline collaboration need to be found even if no face-to-face meeting is possible.

5 Conclusion and Outlook

In this article we provided insights in an Erasmus+ project, The ONE Meeting Project that seeks to explore virtual collaboration within transnational projects while supporting experts involved in EU projects in different functions in finding new ways of dealing with (mostly) virtual collaboration due to disruptive events and situations (as the Covid-19 pandemic at the time of writing this contribution) but also in adopting a greener and more sustainable approach towards transnational collaboration. Our findings from a first consultation with experienced EU project experts that

focused on benefits and detriments show that there are at least two ways of approaching virtual collaboration within EU projects: virtual collaboration as second best in relation to face-to face collaboration and virtual collaboration as opportunity for boosting and possibly transforming collaboration.

As our aim in the ONE Meeting Project is to test and use virtual collaboration as central mode of working together in transnational EU-funded projects, our findings have some limitations. Whereas in our first consultation we received much feedback on possible ways of perceiving virtual collaboration within EU projects, there is still a need to focus more on the specific needs of the different functions and perspectives within these projects. As most of our co-creators in the consultation were people working strategically in EU projects (assumingly in a managing role for the most part), we need to find out more about specific needs and tasks of persons in other roles within such projects. Therefore, in a next step we are planning to move back to stage (1) of the Design Thinking process for a second consultation with colleagues involved in our project and beyond. We will focus on the different staff roles within EU projects – managers, researchers/teachers, administrative staff, and technical staff – and ask for their specific tasks and needs. From this second consultation, together with the findings presented in this article, we will be able to develop distinct routes for virtual collaboration between the two poles developed and along the different phases of a project. These routes will be elaborated in the ONE Guide presenting a step-by-step strategy to allow any EU project expert to find the best way to adapt his or her practice to current challenges. In this way we hope to contribute with our ONE resources to learn and embrace virtual collaboration. Reflecting our own experiences and challenges in testing virtual collaboration, it must be considered that virtual collaboration is an 'investment': it needs time and dedication to be exploited at its maximum. Yet, it can be extremely helpful to overcome some of the challenges of face-to-face meetings (e.g., time consuming, lack of communication between meetings, difficulties to understand each other) but also more global ones, as of pandemic or environmental kind.

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International Academic Mobility: The Perspective of Early Career Researchers

Paraskevi Topali* & Fabian Krengel**‡

With the Early Career Researcher Panel, a discussion space was opened in order to collate experiences and opinions of colleagues involved in various forms of international academic mobility.

Introductory comments by Fabian Krengel:

International academic mobility as a topic is very dear to me. In both of my current positions – as a research assistant for Teaching English as a Foreign Language and as a coordinator for the DAAD project BEST Exchange – I focus on providing more opportunities for international learning experiences for pre-service teachers in higher education and, by extension, their students. With the help of virtual exchange (VE) projects such as the *Virtual Exchange for Global Education in Foreign Language Teaching* course (Krengel, 2021a; 2021b) and our annual *BEST Exchange Summer School* we strive to support the institutionalization of international mobility for pre-service teachers in higher education.

It is important to consider that even before the COVID-19 pandemic, only a minority of students participated in international academic mobility, with only about 10% of students attaining credits towards their university degrees from study abroad programs in both Europe and the United States (De Wit, 2016, p.72; Eurydice, 2020). However, our VE offerings do not only strive to offer international experiences to students who may not have the time, funding, or opportunities for international mobility. We also seek to provide structured and guided exchange projects in which academic staff act as mentors and offer guided reflection to ensure that students are prepared for and can reflect on their international experiences throughout a given project.

1 What are your experiences with academic mobility prior and during Covid-19?

Paraskevi Topali: Among the key opportunities that academia offers is the possibility of spending a period of your time abroad with learning or training purposes. Personally, I have experienced in total six academic mobilities, before and during Covid-19, and although each one is always a unique case itself, one cannot deny the impact that the Covid-19 pandemic has on such events. During the pre-covid era, I conducted mobilities both for teaching and studying during my bachelor and masters' studies. Concretely, and within the possibilities of Erasmus+ program, in 2013 I

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studied at the University College Ghent (Belgium) for a five-month period, and I worked as a teacher assistant in 2015 at an international school in Spain and in 2016 at a primary school in Finland. Additionally, in 2017 I conducted a research stay at GSIC-EMIC lab in Spain, a mobility that set the basis for my following research career. This variety of roles gave me the opportunity to appreciate the different cultures, the different educational systems, and the different interpersonal relationships at the visited countries. My interaction with locals and students from other countries greatly benefitted my interpersonal and language skills, enriched my knowledge, and got me out of my comfort zone.

During the pandemic period, I conducted two academic mobilities at the University of Tartu (Estonia) and the University of Duisburg-Essen (Germany), both with research purposes. Such stays, as the previous, offered opportunities of exploring cultural aspects, yet they have been conditioned by the pandemic affecting mainly the social life in after-work conditions. For instance, I had limited possibilities for traveling even within the country. Nevertheless, I was privileged enough that the university community was still active with face-to-face interactions, so we did not work remotely, a fact that helped the interactions with my colleagues. Additionally, the academic connections established during the research mobility in Estonia offered me the opportunity for the next mobility in Germany.

Fabian Krengel: Before the pandemic, I was lucky to experience extended mobility experiences in the United States and in Norway. From August 2015 to May 2016, I studied and worked as a teaching assistant at the University of Colorado at Boulder, and from August to December 2018 I worked as an assistant teacher at a school in Norway through the Erasmus+ program. While organizing and funding these mobilities was a long and expensive process – in part due to high costs of living that could not be adequately covered by the respective stipends – both stays proved to offer professional, cultural, linguistic, and personal learning experiences. As a researcher that focuses on foreign language teaching, living, studying, and working abroad provided ample opportunities for immersion in authentic target language communication, both with native speakers and in lingua franca settings. Likewise, shared experiences in class and as a part of sports teams, hiking clubs, and other communities offered opportunities for cultural learning, especially as new environments forced me to leave my comfort zone and reconsider preconceived notions repeatedly – for example when a fellow hiking club member who brought his gun on a trip turned out to be a big supporter of Democratic Socialist Bernie Sanders.

Throughout the pandemic, conducting VE projects with institutions in Brazil, Chile, Israel, Sweden, and Turkey allowed me to engage with a large number of students and international colleagues from the comfort of my (home) office. In particular, the fact that my colleagues and I were required to (tele-)collaborate intensively for months to align our goals, schedules, and contents for our joint projects naturally fostered a close connection. Even though I still have not had the chance to meet any of them in person, I still consider them friends. In terms of cultural learning, numerous hours spent negotiating meanings reminded me to be careful when taking specific understandings for granted. For example, halfway through our second project we realized that our definition of “learning activity” diverged which ultimately led to tensions within our transnational student teams as they had come to different understandings as to the scope of their tasks.

2 What are the challenges and possibilities of international academic mobility for early career researchers?

Paraskevi Topali: As Saint Augustine said, "*The world is a book, and those who do not travel read only a page*". Compared to other kinds of professions, academia offers the possibility to visit different research centres and universities worldwide and gain unique experiences personally and professionally through traveling.
Brandenburg, Berghoff and Taboadela (2014) considered the academic mobilities as the means to discover the world, to explore new aspects, to challenge oneself but also to evolve; it is an experience which strengthens self-confidence and self-determination. At the same time, the interactions with people from other cultures positively affect one's adaptability, communication, and intercultural skills which are required in research positions and projects. Apart from the self-development, an international academic mobility contributes significantly to the employability skills. In fact, the created connections and the expansion of the social network elaborate job opportunities and collaborations (e.g., evaluate the contributions of my PhD).
As a main obstacle for conducting a mobility can be considered the lack of financial support based on the demands of the receiving country, and the lack of resources for practical needs, such as accommodation proposals, bureaucratic issues, etc. Apart from the financial constraints, many researchers may have other kinds of commitments, such as family issues, that challenge the conduction of an academic mobility. However, and despite the challenges that may hinder the decision of conducting an international mobility, I find that the benefits of having experiences like those mentioned above are more than the obstacles for an early researcher.

Fabian Krengel: Whether or not early career researchers are motivated to engage in international academic mobility, several reasons are likely to further keep them from doing so: universities may lack fitting partner institutions that offer a formalized path to mobility programs that align with the goals of a given researcher; researchers themselves may lack the time, money, and general capacity to engage in mobility, for example when academic calendars fail to align or when their local study program is too densely-scheduled and demanding. Similarly, care tasks and family commitments can make it impossible to leave for an extended period.
As for opportunities, I want to focus on the potential of academic collaboration. On the one hand, working with my co-teachers on VE projects allowed us to make our individual workloads more manageable by sharing tasks and results. For example, since three of us need to work with transcripts of student interaction for our own research we reduced our individual workload by dividing the transcription responsibilities. On the other hand, physical mobility and VE can foster the creation of communities of practice that can act as effective support networks. Throughout the pandemic, I met with colleagues in recurring meetings and at international (virtual) conferences, which allowed me to receive feedback on our projects and to share and receive solutions we had found to common problems, for example when discussing specific icebreaker activities that proved successful in getting our students to engage with international peers on a personal level during a video call.

3 What would you recommend the administrators in charge of organizing a mobility and to early career researchers that would like to do it?

Paraskevi Topali: What is often missing from the administrative perspective regards a solid structure, so that the researcher -being in the phase of planning or conducting a research mobility- feels assisted on a practical, financial, or even psychological level. The researchers should be able to reach all the information and support both from the sending and from the receiving institution. The role of mentors is another aspect that should be better promoted, to guide not only the researchers but also the supervisors of the researchers in mobilities in order to be better prepared to facilitate the received researchers and direct them in the new cultural and educational context.

Additionally, what I also strongly recommend regards a good communication of the opportunities for conducting an academic mobility. Academic mobilities should be seen as tools for improving the future of the early career researchers on a personal and a professional level, and the university staff should promote such a message through webinars and related talks. Furthermore, universities should offer different possibilities of academic mobilities respecting researchers' needs and personal commitments. Since for many PhD programs the conduction of an academic mobility is compulsory, flexible solutions should be offered, such as the possibility of virtual academic mobilities that could suit certain cases better.
When it comes to early career researchers willing to have an international academic mobility, my main suggestion involves the exposure of the researchers in international contexts, such as conferences, research summer schools or seminars, where there is a space of interaction. This exposure can happen in virtual settings as well to be more affordable with researchers to become more familiar with the international environments. Finally, the lack of foreign language skills is considered among the most common concerns of researchers. Yet, language skills can be improved though a daily practice in a new environment and small self-preparations always help.

Fabian Krengel: To those in charge of organizing academic mobility, I recommend two specific steps: For one, motivated researchers should be given the time and support to build working relationships with international partners. As a grassroots approach, these partnerships are opportunities for growth. In our case, two out of six project partners have already contributed to new collaborative endeavours – such as conference talks and workshops – while three others have committed to new projects in the future. On a larger scale, serious attempts at institutionalization of academic mobility need to focus on aligning curricula and academic calendars to identify – and widen – windows of opportunity for meaningful collaboration and mobility. For example, key constraints of our VE projects were that our winter term only had an overlap of five to seven weeks with our partners in Sweden, Chile, and Brazil.

4 How do you envision future international academic mobility for early careers researchers? What are the potentials and challenges of digitalization?

Paraskevi Topali: Given my personal experiences, an academic mobility should be seen as a key part of an academic career, considering all the benefits it comes along with. To establish such a viewpoint, future academic mobilities should strive for sustainability. Under the Covid-19 outbreak, academic mobilities, which used to be face-to-face, went unstable. Yet, technological advancements and, mainly digitalization, offer new remote experiences. In terms of the sustainable dimension, the future mobilities should support well-designed opportunities for virtual events as well, with the aim not of replaying the face-to-face practices but to offer flexible chances of interaction, dialogue and virtual collaboration.

Digitalization reflects to a phenomenon, in terms of the impact that it has on the interpersonal relationships, and a method, referring to the technologies and tools applied for supporting new settings. In both ways, the cultivation of *e-skills*, in a personal, social, and work dimension, is a current need.

Digitalization in association with international academic mobilities comes along with a lot of potential, both considering the skills developed by the researchers in accordance with the society's needs, and the tools applied which offer flexible opportunities for interaction and collaboration. Digitalization can support blended or remote learning settings, which in the case of mobilities open opportunities for building meaningful relationships and experiences on a virtual level.

Among the main challenges of digitalization, we can find the lack of resources and the poor preparation of the technological settings, the access barrier and the lack of expertise and digital literacy (Schmidt & Tang, 2020). To overcome some of such issues there could be effective: a) trainings for a better preparation of the personnel to sustain such technological initiatives and b) creation of open and adaptable resources compliant in different contexts and easily shared among the networks.

Fabian Krengel: I firmly believe that international academic mobility should have a hybrid future. While physical mobility programs need to return and grow, they should also benefit from the affordances of digitalization. For example, students and researchers engaged in extended mobility may be given regular opportunities for synchronous and asynchronous exchange with mentors at their home institutions and peers to provide them with frameworks for continuous reflection of their learning experiences.

As for digital exchange, my experience has shown me that virtual contacts are still real contacts with real people, but that the quality of these connections depends in large parts on the specific implementation of a VE – be it the tools in use or the pedagogic framework (see, for example, O'Dowd, 2019): If VE participants are not given a chance to "break the ice" and get comfortable with being uncomfortable by leaving their comfort zone – e.g., with the help of trained mentors – the potentials of VE remain untapped.

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Designing a complex learning environment for virtual mobility

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Abstract

Virtual Mobility has received great attention in recent years, already before pandemic and its uptake has increased notably due to COVID-19. Virtual Mobility has been suggested to emerge as a rich learning experience for which the activity carried out by students can be supported by designing the epistemological, social and physical contexts. Skill development is an important outcome in Virtual Mobility and research has suggested the impact on a set of seven skills and related knowledge. For this reason, it is necessary to improve learning design and support and scaffold students learning by designing in key elements. In the workshop held at the *International Academic Mobility in a (Post) COVID-19 World. Spanish and German Perspectives* a discussion among participants concluded with relevant suggestions for designing a complex learning environment for Virtual Mobility, such as the need to focus on skills development, to balance the influence of the unknown and uncertain context with familiar tasks and the possibilities of common safe social environments.

Key words: Virtual Mobility, learning design, complex learning environment, Higher Education.

1 Introduction

The Activity-Centred Analysis & Design (ACAD) framework suggests that learning emerges from the interaction of learners with the diverse elements that can be designed: the social context, the physical set and the epistemic background (Goodyear et al., 2021). Foreseeing learning outcomes out of the emerging activity from the design decisions seems an optimal hypothesis for Virtual Mobility (VM) as from the novelty of the relationships among new peers, the physical context and the joint curriculum between international partners, unpredictable and powerful learning might be expected.

In the workshop held at the *International Academic Mobility in a (Post) COVID-19 World. Spanish and German Perspectives,* a challenging conversation among researchers and practitioners about how to design for Virtual Mobility took place on 18th June 2021. The workshop addressed, along with the ACAD framework, the learners' skills developed in VM, which can be considered both as intended outcomes for learning and part of the epistemic background.

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Virtual Mobility (VM) offers a complex learning environment in which learners can develop various skills and competences. Virtual Mobility learner skills have been identified in the following set of skills, with definitions from Rajagopal et al. (2020):

1. Intercultural skills & attitudes: The student acquires cultural knowledge and a better understanding of cultural perspectives, including understanding of own cultural identity, that the student enhances and demonstrates cultural understanding and can apply intercultural awareness in culturally challenging circumstances.
2. Networked learning: The student is able to use digital networks in/for learning and communication in international contexts or environments and is able to tackle complex, ambiguous and ill-defined issues and situations in (emerging or existing) social networks.
3. Active self-regulated learner skills: The student is able to self-regulate own learning process, can reflect on learning experience and one's own progress and can demonstrate that he/she has the agency of one's own learning.
4. Media and digital literacy: The student is able to use resources effectively to learn, can assess the quality of resources and demonstrates "learner control".
5. Autonomy-driven learning: The student self directs, and regulates own learning process, independently chooses in what mode or context to study, what tools to (learn to) use and how to organize the learning process.
6. Interactive and collaborative learning in an authentic international environment: The student develops teamwork skills, collaborates with peers across disciplines and contexts, acquiring new international learning experiences and interacting with authentic international tools, systems and resources in a foreign language.
7. Open-Mindedness: The student is tolerant to others, has an open attitude towards others, demonstrates willingness to improve knowledge (of foreign languages) and demonstrates self-confidence in interaction with peers and teachers.

In recent research, Tur et al. (2021) observed that in a joint project between Higher Education students from Italy and Spain, skills perceived as mostly developed in a VM context were open mindedness, intercultural skills and attitude, autonomy-driven learning, media and digital literacy, and active self- regulated learning.

To design VM experiences that are aimed at addressing these skills, Rajagopal et al. (2020) suggested a model with 4 elements, building on the ACAD framework (Goodyear et al., 2021): VM context, task and support, roles and responsibilities and, materials and spaces. The following table summarises this close relationship:

Table 1. Elements for VM design based on the ACAD framework

	Elements
Virtual mobility Context (Epistemic design)	Partner teachers. Partner institutions Level of education and Educational programme. Intended learning outcomes in terms of learners' skills
Task and support (Epistemic and social design)	Tasks students. Tasks teacher. Support for students. Support for teachers. Support for staff.

Roles and responsibilities (Social design)	Student's roles. Teacher's roles. Student's responsibilities. Student characteristics. Teacher characteristics.
Materials and spaces (Set design)	Materials. Technical environment. Places. Times. Institutional embedding. Student-created artefacts.

In the previously mentioned experience between student teachers from Italy and Spain, the ACAD framework was also used to analyse the design of the pedagogical experience. The elements were considered as follows:

	Elements
Virtual mobility Context (Epistemic design)	The main outcomes were considered as the skill development for their future teaching careers
Task and support (Epistemic and social design)	The task was supported with a weekly planning guideline of the recommended agreements to be achieved in order to develop the joint submission. Students were asked to submit a joint project in which they were pretending to be teachers in a European project designing a collaborative online educational experience for Primary Education.
Roles and responsibilities (Social design)	Teachers prepared international teams and shared the motivational role by communicating with students on a weekly basis in order to suggest further stages.
Materials and spaces (Set design)	Students were introduced to open practices and were asked to submit their work as an Open Educational Resource (OER). However, the most challenging element was to introduce an ethical networking site in which students could network synchronously.

2 Workshop Development

The first part of the workshop was aimed at engaging the audience in conversation to exchange ideas on all the elements of the design model. With a collaborative board, the audience was asked to brainstorm about relevant practices in each of the four elements (see Figure 1). To

promote reflection and participation, each element was introduced with some questions and comments. So, the joint discussion was structured with the following comments and open questions:

- Virtual mobility context. Which skills from the OpenVM framework are we aiming to develop with our learning design?
- Task and support. VM has been related to transformational learning (Rajagopal & Mateusen, 2021), which needs teachers' support and scaffolding in order to engage in self-reflective processes. What are the key questions for students to trigger reflection?
- Roles and responsibilities. In order to scaffold students' tasks, some recommendations can be given such as: suggesting schedules that orientate the different work steps, and in particular, clear instructions for different participation at different levels: individual level, local level and international level.
- Materials and spaces. Joint event and networks are highly recommended (Poce et al., 2020) where to give the opportunity to students to meet and share synchronous discussions, and social networks to use for asynchronous discussion. In the current times of critical approaches to social platforms, it is highly recommended to look for ethical platforms. How can social networks be safe spaces for VM?

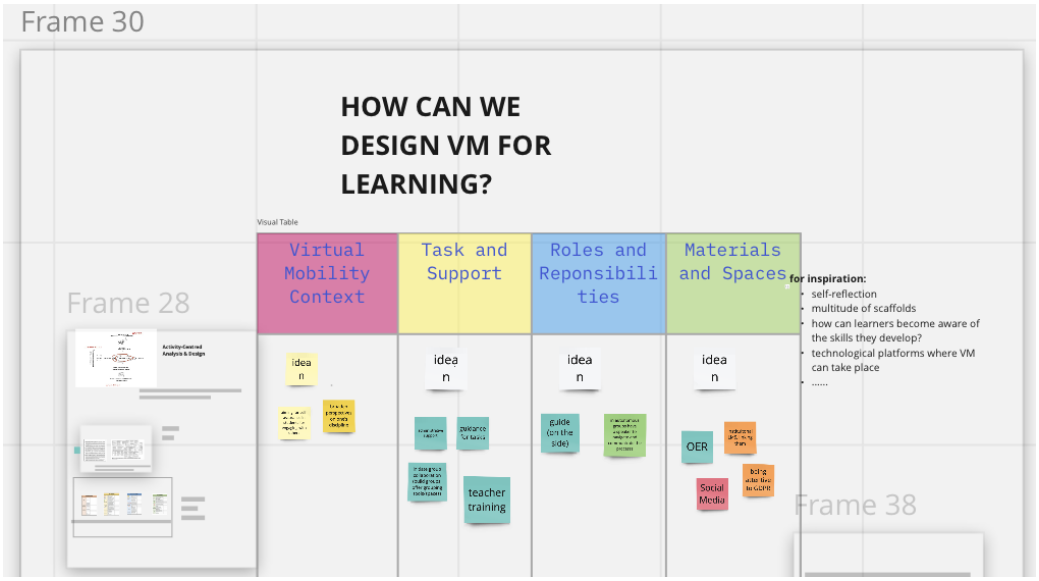

Figure 1: *Template for the brainstorming task as the first part of the workshop*

In the second part of the workshop, participants were asked to team up in small groups to discuss and design, if possible, a joint international project. For this task, the workshop preparation included:

- A common collaborative board which grouped all templates for the different groups. In order that participants could edit the board without being obliged to register in the platform some trash emails were previously created.
- A template in a collaborative board, in which some blank spaces were included following the very well-known graphical model by Goodyear et al. (2021).
- The template included some visuals and links to foundational work which could be referred to, if necessary, during the task time.

Also, groups were asked to choose between two options for students' assignments. These were:

- A common joint work by students to be submitted in their national context.
- A joint lesson regarding certain topic but separate submission in their national contexts.

The following figure illustrates the material offered to participants:

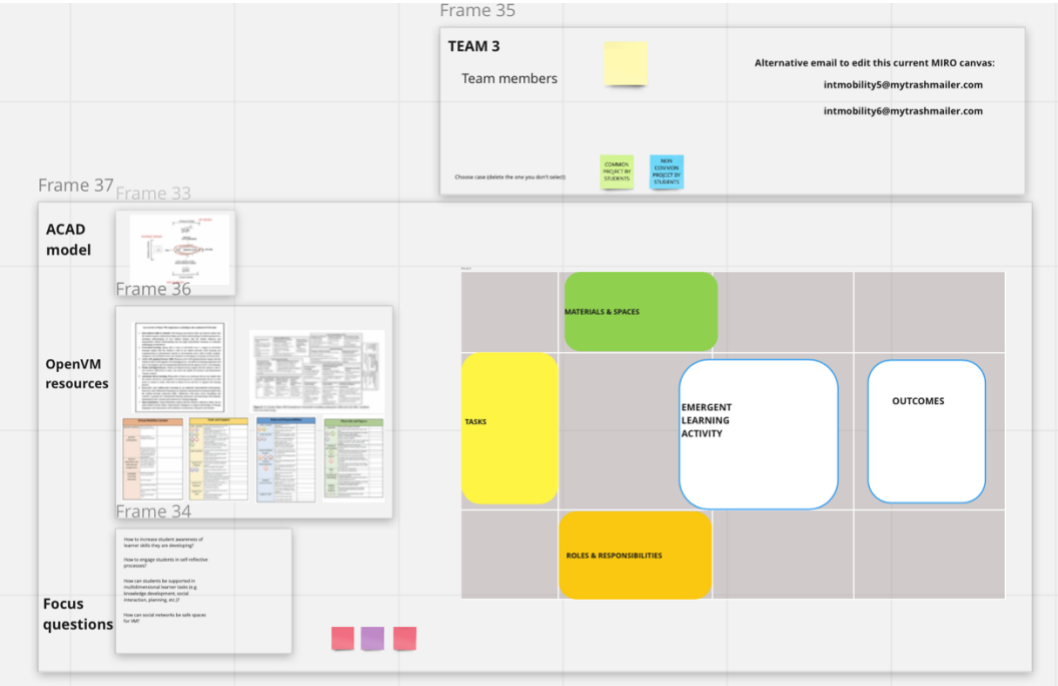

Figure 2: *Example of the template created for group work in the workshop*

3 Results

The workshop brought up several interesting reflections on Virtual Mobility and the challenges of designing effective VM projects. During the session the following comments were discussed among participants:

- VM context: the potential of VM for expanding and deepening student experiences at traditional universities was appreciated by the participants, as well as the possibility to address learner skills.
- Task and support: A VM design where a joint project would be submitted as the only product for all national groups, showed the most value for our participants. The workshop audience highly appreciated the potential of VM to create a learning environment that is familiar (e.g., group work with joint product) but also challenging (e.g., international student group) which requires a need from students to be very flexible to adapt to the uncertainty of the development. The teachers in the group saw the challenges in advising them appropriately in this.
- Roles and responsibilities: The participants focused on the challenges of dividing work between students and taking up responsibility to report, to connect to fellow international students, etc. Here too, it was discussed what are the expectations from students and the possibilities to give guidance.

- Materials and spaces: The challenge here was the need to share common social and safe spaces for the work development in asynchronous ways along with other for synchronous tasks.

Participants also valued the use of the ACAD framework to grapple with the complexity of the VM space, as well as the other instruments to guide design of VM environments.

4 Conclusion

VM has experienced a notorious uptake during recent years, and although before pandemic it had already received increasing attention (Kahn & Misiaszek, 2019), the COVID19 lockdown reaffirmed its valuable contribution for the internationalization of education from home (International Association of Universities, 2020). The workshop reiterated that many affordances have been observed in VM for higher education as possibilities for internationalization, inclusion and democratization, educational innovation (Rajagopal et al., 2020; Tur & Buchem, 2021). Regarding innovative designs, VM can also be relevant because new international teams for joint learning designs and curriculum development may eventually challenge institutional curricula towards more diversity in its epistemological and methodological approaches, as Tur and Buchem (2021) have argued. The results of the workshop also brought to the fore the need to discuss learning design in more granular terms, and consider how to support confidence and social interaction, which is in alignment of the literature review findings on students' engagement in VM by Bedenlier and Marín (2020). Also, the complexity of advising and supporting students in a range of different and diverse tasks in VM was stated by multiple participants.

5 Implications for Practice

- Consider the goals of your learning design. Which skills are you proposing to develop, and how will you do this?
- Use the ACAD framework to understand your learning designs: which underlying thought processes are revealed?
- Balance the uncertainty of the context of VM by giving guidance and adding familiar tasks.
- Offer common social spaces that support students' collaborative work.
- In designing VM, you are designing a complex learning environment. Find ways to evaluate your design with colleagues and students.

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