Executive Summary – The Key Findings from the EVALUATE European Policy Experiment Project on the Impact of Virtual Exchange on Initial Teacher Education.

INTRODUCTION

Evaluating and Upscaling Telecollaborative Teacher Education (EVALUATE) was a European policy experiment project funded by Erasmus+ Key Action 3 which examined the impact of virtual exchange on students and teachers of initial teacher education. The project ran from January 2017 until September 2019.

The consortium was led by the University of León, Spain, and brought together public authorities, universities, and a university network:

PUBLIC AUTHORITIES

Spanish Ministry For Education, Culture And Sport, Spain

La Junta de Castilla y León, Spain

Ministry Of Education, Portugal

Ministry Of Human Capacities, Hungary

Ministry of Science, Research and the Arts Baden-Württemberg, Germany

UNIVERSITIES

Universidad de León, Spain

Universitat Autònoma De Barcelona, Spain

Instituto Politécnico De Castelo Branco, Portugal
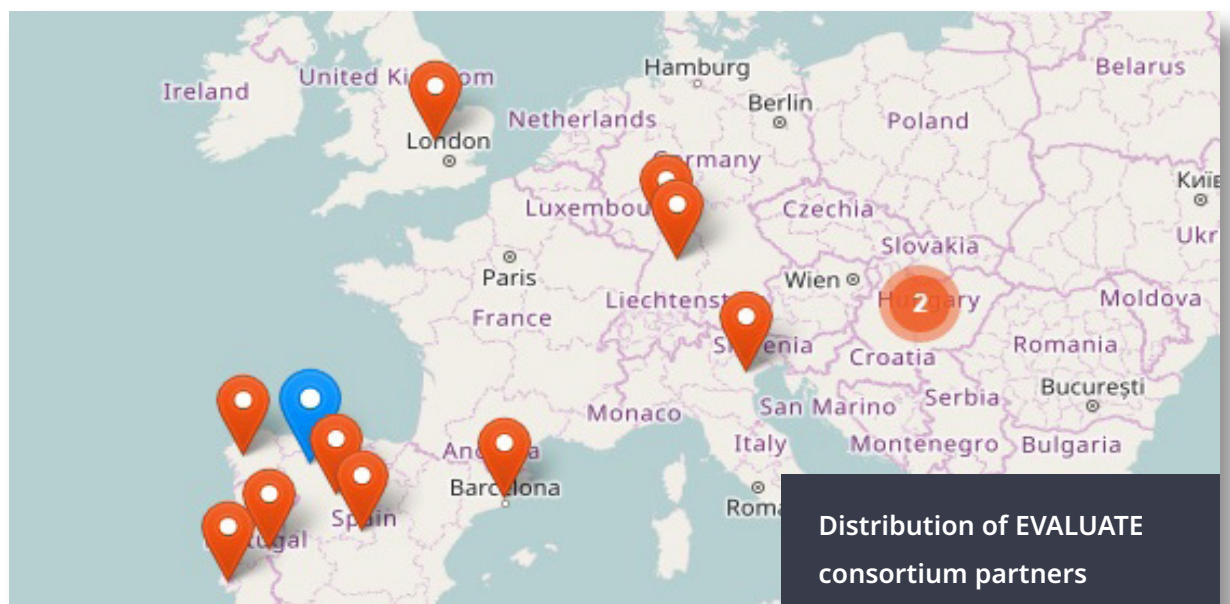
Eötvös Loránd University, Hungary

Pädagogische Hochschule Heidelberg, Germany

Università' Degli Studi Di Padova, Italy

Open University, UK

UNIVERSITY NETWORK

Compostela Group Of Universities, Spain

Distribution of EVALUATE consortium partners

AUTHORS OF THE REPORT

Alice Baroni, Melinda Dooly, Pilar Garcés García, Sarah Guth, Mirjam Hauck, Francesca Helm, Tim Lewis, Andreas Mueller-Hartmann, Robert O'Dowd, Bart Rienties, and Jekaterina Rogaten.

MORE INFORMATION

research-publishing.net

THE STUDY

Virtual exchange is an educational practice which involves the engagement of groups of learners in extended periods of online intercultural interaction and collaboration with international peers as an integrated part of their educational programmes and under the guidance of educators and/ or facilitators. Virtual exchange is based on student-centred, international, and collaborative approaches to learning where knowledge and understanding are constructed through online interaction and negotiation with students from other cultures. There are various models of virtual exchange, and this study looked at the telecollaborative model which involves partner classes working under the guidance of their teachers. In the context of initial teacher education, the telecollaborative model of virtual exchange usually works in the following way:
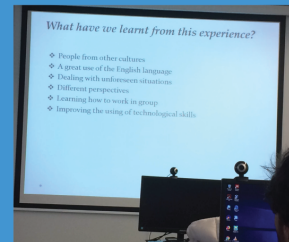
Teacher trainers from two or more different countries come into contact and develop a joint curriculum for an exchange which will be integrated into their respective courses.	**During the semester, students from the different classes work together online, discussing issues related to their curricula and collaborating to create educational materials and activities.**	**The teacher trainers guide students in their online interactions and in their reflections on this experience.**	**At the end of the exchange, students receive academic credit for their work by submitting portfolios, essays, or making presentations about their collaboration with their international partners.**

The EVALUATE project (http://www.evaluateproject.eu/) was a European policy experimentation funded by the European Commission's Erasmus+ programme (EACEA/34/2015). The aim of policy experimentations is to assess the effectiveness and potential scalability of innovative policy measures through experimental or semi-experimental approaches. This particular European policy experimentation evaluated the impact of the telecollaborative model of virtual exchange on student teachers involved in initial teacher education (also referred to as 'pre-service' education) in European countries and regions.

Between 2017-18, the project consortium worked with teacher trainers from 34 institutions of initial teacher education and organised 25 virtual exchanges which involved over 1000 student

teachers. In total, institutions of initial teacher education from 16 countries were involved. The majority of institutions were from Europe, but teacher trainers from the United States, Brazil, Israel, Turkey, Macau, and Canada also took part in the project and their institutions were included in the study. The classes of initial teacher education engaged in a period of intensive virtual exchange with partner classes in institutions in other countries based on specifically-designed tasks and content related to pedagogical digital competence as well as intercultural competence. The guiding research question for the study was:

> **Will participation in virtual exchange contribute to the development of competences which student teachers need to teach, collaborate, and innovate effectively in a digitalised and cosmopolitan world?**

The learning gains from these exchanges were analysed using qualitative and quantitative research methodologies. As regards the quantitative methodology, a pre-post-test design approach with a control group was implemented. In total, 1,018 participants were included in the overall sample set, making this, to our knowledge, the largest research study of telecollaborative virtual exchange to have been carried out to date in the context of initial teacher education. In order to achieve a more comprehensive understanding of the impact of virtual exchange in initial teacher education, qualitative data sources (in the form of reflective diaries and interviews with students, teachers and policy makers) allowed the team to achieve a comprehensive data capture and to answer those questions which were not susceptible to investigation using a classic pre-test, post-test method. To analyse the qualitative data and to help answer our research questions, qualitative content analysis was used.

Who have we worked with in our European Policy Experiment?

25 Virtual Exchanges

1000+ Students

34 Teacher Training Institutions

5 Ministries of Education

Following the research study, the consortium worked in collaboration with the public authorities to undertake actions to upscale the use of virtual exchange in teacher education across Europe. This included dissemination events with key policy decision makers as well as the introduction of virtual exchange into policy documents and systems of teacher accreditation.

SUMMARY OF THE MAIN FINDINGS

Virtual exchange develops students' intercultural, digital-pedagogical, and linguistic competences

Both students and teachers confirmed that they had found virtual exchange to be an enriching and enjoyable learning activity in their courses and that they would recommend extending its use to other courses.

- 70% of participants indicated that they had learned a lot from the virtual exchange.

- 76% believed the virtual exchanges will be useful for their future career as teachers.

- 75.2% would recommend other student-teachers to do telecollaborative virtual exchange in their courses.

The study also demonstrated that engaging students in structured online intercultural collaboration as part of their formal learning contributes to the development of students' digital-pedagogical, intercultural, and foreign language competence sets. This was confirmed in the quantitative data which showed, in comparison to the control group, steady growth in intercultural, digital-pedagogical and foreign language competence development in both rounds of virtual exchanges. Factors such as the short length of the virtual exchanges most of the participants were engaged in (four to six weeks), as well as the challenges associated with online collaboration, meant that this growth was not pronounced.

> *I think it is a great experience as you get to share your ideas with people from other cultures who have different life experiences so you learn from each other. Now that the world is globalised it is important that we learn how to collaborate with people from other countries* **(Student of virtual exchange).**

However, the qualitative data provided more nuanced insights into how virtual exchange contributes to initial teacher education. Some of the most significant findings include the following:

- students reported that participation in virtual exchange led to increased knowledge of how to use technology in the classroom for international collaboration;

> " *I learned a lot with this experience. It was different from any other activity that I have done. It help[ed] me [with] my communication skills, in the practice of the second language, team work, learning about the education in a different culture and more* **(Student of virtual exchange).**

- for many students who come from homogenous backgrounds, virtual exchange was often students' first serious engagement with members of other cultures;

- following their experiences of virtual exchange, students reported increased confidence in working in international and intercultural contexts;

- in facing and overcoming challenges, students developed teamwork and problem solving skills; and

> " *I believe that the course has expanded my perspectives about teaching and made them become more solid and clearer than before. It was certainly an eye-opening learning experience that shaped my character as a teacher and taught me how to incorporate technology and cultures in English teaching* **(Student of virtual exchange).**

- students confirmed that they improved their foreign language vocabulary and pragmatic competence.

> " *At the end of the exchange the reaction was very positive because the students said they had learned a lot from their partners and that was, for me, very satisfying. Because I realised that the students had understood the essence of what we wanted to develop in this project – which is put yourself in the position of the other, understand them and, many times, give way. They also told me that they had learned the contents of the course better because their international partners had helped them see the contents from another point of view. And they learned how other people work* **(Teacher of virtual exchange).**

Virtual exchange acts as a driver for innovation and international learning in the university classroom

The results of the European policy experiment confirmed that virtual exchange is at its most effective when it forces learners and teachers to step away from their accustomed learning and teaching approaches and brings them to engage in linguistic, intercultural, and technological learning experiences which they would not usually be confronted with in their day-to-day learning.

The qualitative study of intercultural learning outcomes, for example, revealed that virtual exchange best enhanced students' intercultural competence when the participants were confronted with a range of collaborative hurdles and challenges which required them to find creative ways to collaborate and communicate successfully with their international partners. The impact of virtual exchange was seen to be particularly significant on students who came from homogeneous backgrounds and who were not accustomed to interacting and

> *I've learned to overcome my fear of not being understood by the people from different countries. I tried to formulate my utterances as clearly as possible, and it worked. At first I was scared, but then not really. Our communication was great!* **(Student of virtual exchange).**

collaborating with members of other cultures. For these students, it was important to be exposed to and to be engaged with different perspectives from their own. Virtual exchange was an important step in raising their curiosity and openness towards others, and gave many of them the confidence and motivation to seek more opportunities to engage with difference and further develop their intercultural sensitivity.

> *It is strange at first because you can tell that your virtual partners have a different way of doing things and this is unsettling. However, as time goes by, this helps you to concentrate a lot better and to look for answers and solutions that both sides are happy with. At the same time you also make use of English and get the feeling that you have learned about aspects of another culture that you didn't know before* **(Student of virtual exchange).**

The study of digital-pedagogical competence also reflected the value of virtual exchange in pushing students to experiment with new communication technologies, and to then reflect critically on how these technologies can be used in innovative ways in educational contexts. The study on foreign language development demonstrated how virtual exchange contributes to students' ability to interact and understand others. Significantly, students also reported large

gains related to confidence in using the foreign language. As in the case of intercultural learning, this appeared to be due to the fact that, for many undergraduate students coming from homogenous backgrounds, this was the first experience they had of using a foreign language (in most cases, English) to communicate with speakers of other languages. While foreign language education may be a common element in most initial teacher education programmes across Europe, students have little opportunity to use their foreign languages in any form of authentic context unless they engage in periods of physical mobility. Virtual exchange was seen as offering low-cost, classroom-based preparation for physical mobility and also as a motivator for students to engage in physical mobility in the future.

> *At the first time, I was a bit afraid because I did not know how this worked. However, after the first contact, I had the necessity of knowing more about their culture and the way their [sic] study in their country, because, as we know, not all the schools and colleges have the same methodology. Now, it is a pity that this experience is almost over, but I hope I could participate in another telecollaboration soon* **(Student of virtual exchange).**

Similarly to their students, teachers found that virtual exchange had forced them to go further in their teaching and had obliged them to be more innovative in their classrooms, introducing more participative teaching strategies. It had also led them to explore other international learning opportunities, including new physical mobility agreements and student visits.

> *I would like to invite the two teachers from Holland to come and teach here in my faculty and organise a workshop for the other teachers in the faculties – and invite students to come and talk about their experiences. Because I think this would be suitable not only for students of languages but also or students of other faculties* **(Teacher of virtual exchange).**

Virtual exchange is a complex learning activity which requires integration into a formal educational framework as well as guidance from educators

While virtual exchange may be both popular and effective, evidence emerged from all datasets that engaging students in online intercultural collaboration projects is a challenge for both students and teachers, and that the activity required careful preparation, integration into students' classes, and being considered in their course evaluation procedures. The intercultural study highlighted the importance of providing students with support so that they will engage with difference on more than merely a superficial level, while the study on digital-pedagogical competences underlined the

> " *I learned that... I should have allocated class time to do exchange projects. I regretfully did not integrate the exchange into my classes – only for clarifying assignments* **(Teacher of virtual exchange).**

importance, not only of engaging students in online communication using different digital tools, but also of giving them the opportunity to reflect, under the guidance of their teachers, on the affordances of these tools and how they could be applied in their own teaching contexts in the future. Teachers also spoke about many difficulties related to organisation, technologies, and student resistance which they needed to overcome as they ran their exchanges.

> *The exchange was integrated into both partners' course classes. The chosen theme was according to the objectives of our two courses. In all classes, a period of time was always reserved to ask questions about the tasks, to comment on the exchanges, and for the students to carry out their interactions with their partners* **(Teacher of virtual exchange).**

To deal adequately with these challenges, the teachers interviewed in our study recognised that integrating the exchanges into their classes and providing some form

> *We have acted as mediators in the exchange and that was a very satisfactory task. Speaking from [sic] myself, I could see how my students changed their perspectives when sharing with the class their concerns about the communication with their partners. And I think the role of the teacher is very important here* **(Teacher of virtual exchange).**

of academic recognition for students' work were vital. They also pointed out that organising and running such a complex activity also requires a great deal of time and work on their own behalf and that institutions should find ways to recognise this work in the same way that other academic activity is recognised.

> *That's what they are doing with everything nowadays, with all the other extra things that we do, ...including it as part of the teaching load, even if it's just very little, like half a credit. And that might encourage some other teachers, because it is time consuming* **(Teacher of virtual exchange).**

The success of virtual exchange depends on person to person engagement

The importance of establishing fluid and respectful working relationships between partner teachers and between students and their international partners should not be taken for granted by educators and programme designers as they establish virtual exchanges in their institutions. While educators may tend to focus on the logistics of the exchanges and the pedagogical tasks which students will work on together, our data across the different studies has served as a reminder of the importance of providing opportunities for teachers and students to establish good working relationships together. Students and teachers need to get to know their partners as real people,

> " *What I noticed was that the students would have really appreciated a live, oral communication between the students. Because everything was asynchronous. And that was a problem. Because when you read a text, it sounds cold. But when you hear someone saying something [it], it creates a more personal connection. So one of the things which we missed is that there were no personal relationships created. It was more like a work agreement and there was a lack of trust* (Teacher of virtual exchange).*

not merely as anonymous names and avatars on a computer screen, nor as representatives of national cultures. These issues can be addressed through training of teachers and students on intercultural awareness and the facilitation of intercultural encounters, and in the design and implementation of virtual exchanges. This has to be attended to in virtual exchange programme design and through the introduction of Erasmus+ virtual exchanges into university programmes.

In our data, students regularly pointed out that the task-based focus of the exchanges and the

> " *I think that I've developed my speaking and communicative skills during our video conferences and chats, where the main idea was not to show off about our language competences, but to be understood and efficient in our work* (Student of virtual exchange).*

text-based nature of the communication had led to a feeling that their collaborations were depersonalised and that they lacked the feeling of interacting with 'real people'. They often overcame this barrier by using communication tools which they used regularly in their everyday lives such as WhatsApp and Messenger to communicate with their partners, while teachers also reported that regular videoconferencing

had helped students to establish good working relationships together. Thanks to videoconferencing, one teacher explained that "they [the students] saw each other as 'flesh and bone people' and contributed to giving the students a sense of who their partners were". Videoconferencing was also

> *The reason why it works so well is definitely the relationship between [his partner] and me. For this telecollaboration we spent an awful lot of time together. We basically mailed at least once a day and we are very close as regards the preparations and everything. We got to know each other very well. It's a very personal relationship and that helps a lot* **(Teacher of virtual exchange).**

considered key by students when it came to successful language learning. In exchanges where students did not have an opportunity to interact with their partners in live video interactions, their evaluation of their foreign language development was often quite low.

What was the case for the students was also seen to be true for the teachers as they strove to develop good working relationships with their partner teachers. Successful teacher partnerships were seen to stem from firstly having had the opportunity to get to know each other in a face-to-face context or via videoconference before the exchange and, secondly, by maintaining regular contact via email or videoconferencing with the partner teacher during the exchange itself.

The growth of virtual exchange depends on the provision of increased training and support from institutions and educational decision makers

Our European policy experiment has demonstrated that virtual exchange is a powerful learning tool which gives students and teachers the opportunity to access innovative international learning opportunities, but we have also seen that it is a challenging and complex activity which requires educators to develop an array of organisational, pedagogical, and intercultural skill sets in order to implement these exchanges successfully. For this reason, institutions of initial teacher education and educational authorities at regional, national, and European levels must be willing to support the process in different ways. First of all, this can be achieved through the provision of funding for online and offline teacher training and for short periods of physical mobility which will enable teachers to meet and plan with partners. Second, decision makers must ensure that teachers are provided with the time and technological infrastructure necessary to follow training and to develop and implement their online international projects. Finally, a recognition of the workload and innovative character of virtual exchange should be reflected in national and institutional teacher evaluation systems, calls for projects, and policy documentation.

> " *[Teachers need] a recognition of what we are doing. I believe teachers get motivated when what they do is valued. And this can be valued by giving them recognition for their work* (Teacher of virtual exchange).

> " *Teachers will need to have provided with special time for planning and time to develop virtual exchange. They will need much more time. Virtual exchange (as any form of collaboration) is really important for learning, but it takes more time than individual work* (Teacher of virtual exchange).

Virtual exchange can prove to be an important part of internationalisation at home and a potent complement to physical mobility, but it requires that teachers are trained, that their additional workload is recognised, and that their institutions have the necessary institutional, technological, and administrative support necessary to carry out exchanges.

Recommendations: how can we support virtual exchange and extend its use in initial teacher education?

Based on the findings of our study, we would make the following recommendations:

HIGHER EDUCATION INSTITUTIONS CAN...

- increase the number of teacher-training programmes for staff through collaboration with the Erasmus+ Virtual Exchange programme;

- offer teachers extra credit or time release for carrying out virtual exchange in their classes;

- mention participation in virtual exchange in students' European Diploma Supplement;

- award students credits for participating in virtual exchange; and

- make virtual exchange part of their internationalisation at home strategy.

REGIONAL AND NATIONAL MINISTERIAL AUTHORITIES CAN...

- provide funding for training programmes on virtual exchange for teacher educators in their countries/regions;

- incorporate virtual exchange into the public authorities' projects and initiatives;

- mention and recommend virtual exchange in public authorities' publications and strategy papers; and

- promote virtual exchange to counterparts in other regions/countries and to other educational decision makers in the European Union.

THE EUROPEAN UNION AND ERASMUS+ CAN...

- raise awareness of virtual exchange as a valid part of universities' internationalisation policies;

- encourage the use of virtual exchange in the Erasmus Charter for Higher Education applications;

- provide funding for virtual exchange training workshops and 'planning visits' for teachers to meet and work with their partner teachers;

- increase funding for projects and research initiatives related to the activity; and

- provide specific activities of Erasmus+ Virtual Exchange dedicated to initial teacher education.