Upscaling Virtual Exchange in University Education: Moving From Innovative Classroom Practice to Regional Governmental Policy

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Abstract
Virtual exchange (VE) is an educational practice that 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 programs and under the guidance of educators and/or facilitators. Despite more than 20 years of research and recent large-scale initiatives such as Erasmus+ Virtual Exchange, this approach remains relatively unknown and often misunderstood in international education. Based on the qualitative and quantitative data of an Erasmus+ KA3 European Policy Experiment, which brought together practitioners, researchers, and ministerial policy makers from five European countries and autonomous regions, this article examines the challenges involved in implanting and upscaling an innovative practice such as VE in university internationalization practices. A case study from a Spanish regional autonomy, which took part in the project, is used to highlight barriers to take-up and integration at classroom, institutional, and policy levels. The data also provide a clear illustration of how an international practice such as VE can gain recognition and support though the coordination of bottom-up and top-down initiatives.

Keywords
virtual exchange, internationalization at home, use of technology, policies/strategies—national and regional, policies/strategies—institutional

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Introduction

The field of international education has been one that has traditionally always been open to innovative educational practices. Whether it be in the areas of internationalization abroad or internationalization at home (IaH; Knight, 2008), educators and researchers have always looked for new or improved methodologies, practices, and organizational methods that would enhance and increase the international learning experiences of both students and teachers in higher education (Brennan et al., 2014; De Wit, 2016).

However, in many cases, the impact of innovation in international education (as in other areas of higher education) can be blocked at the institutional and policy-making levels due to a lack of support for, or understanding of, innovative practices. For this reason, there is a growing interest in Europe for researchers to deliver reliable evidence of the impact of innovative practices and for this evidence to form the basis of educational policy making. Davies (1999) argues that providing evidence on innovative educational practices will enable policy makers to “make well informed decisions about policies, programmes and projects by putting the best available evidence at the heart of policy development and implementation” (p. 6). This view is reflected by the European Commission (2006) who stress that long-term policies should be based on solid evidence.

One of the innovative practices of international education that is attracting growing interest among university faculty and policy makers is virtual exchange (VE). This can be defined as the engagement of groups of students in online intercultural interaction and collaboration with students from other cultural contexts or geographical locations as an integrated part of course work and under the guidance of educators and/or expert facilitators (O’Dowd, 2018; O’Dowd & Lewis, 2016). In contrast to many forms of virtual learning, which are based on the transfer of information through video lectures and online content, VE is based on student-centered, collaborative approaches to learning where knowledge and intercultural understanding are constructed through learner-to-learner interaction and negotiation. After two decades of being a small-scale practitioner-driven activity at university level, VE has recently captured the attention of policy makers and senior management in higher education as they look for effective ways to support internationalization policies and to promote the development of active global citizenship, digital skills, and intercultural competence (De Wit, 2016; PPMI & Demokratie & Dialog Youth Policy Labs, 2017).

In this article, we examine why VE has emerged as a viable component to current approaches to internationalization of the curriculum (IoC). We then report on the findings of a European Policy Experiment, which brought together researchers, educators, university senior management, and public authorities from five different European countries and autonomous regions in an initiative to provide large-scale evidence of its impact as an international learning practice and to inform educational policy based on this evidence (the Evaluating and Upscaling Telecollaborative Teacher Education [EVALUATE] group, 2019). In particular, we focus on a case study of an autonomous region in Spain that illustrates how researchers, university management, and public
authorities collaborated to upscale this internationalization activity and integrate it in educational policy at both institutional and regional levels. Based on the findings of the case study, we identify the blockers (Leask, 2015) that hinder the upscaling of VE, and we propose a set of criteria for successful implementation of VE in university education.

**Review of the Literature: VE and Its Role in Approaches to IoC**

Following the terrorist attacks across Europe in 2014, education ministers and the European Commission adopted the *declaration on promoting citizenship and the common values of freedom, tolerance, and nondiscrimination through education* on March 17, 2015. Better known as the Paris Declaration, this document called for European educational policy to support the development of civic and intercultural competences, critical thinking, and media literacy, and to promote the principles of democratic values, fundamental rights, and social inclusion. It also called for the promotion of intercultural dialogue through all forms of learning. This reflects the objectives of universities’ internationalization policies, which link the IoC to the development of global citizenship and intercultural competence (Brewer & Leask, 2012).

But how should global citizenship and the components of intercultural competence be developed in higher education contexts? Until recently, physical mobility programs such as *Erasmus+* appear to have been seen to be the key drivers of a sense of European identity and the related skills, values, and attitudes of intercultural citizenship (Helm & van der Velden, 2020; Leask, 2015). In the European context, the European Union has put great emphasis and has invested heavily in study abroad through its *Erasmus+* program and has set itself the task of achieving 20% student mobility by 2020. However, the rate of mobility currently stands at only 3.7% (European Commission/EACEA/Eurydice, 2017), and there has been a growing recognition that mobility is alone not sufficient to achieve the goals of internationalization. There are various reasons for this, which will be outlined here briefly. The first reason for moving the emphasis away from physical mobility reflects the belief that the financial costs of engaging in student mobility programs can make this an elitist and exclusionary activity, which is out of reach of many students from low-income backgrounds. Richardson (2016) argues that “. . . [m]obility tends to be socially exclusive, providing opportunities to elite students to enhance their distinctiveness from other students but remaining inaccessible to many” (p. 53). Even the European Commission (2013), which, as we have seen, has invested greatly in promoting student mobility at university level, calls on universities “. . . to ensure that the large majority of learners, the 80-90% who are not internationally mobile for either degree or credit mobility, are nonetheless able to acquire the international skills required in a globalised world” (p. 6).

A second reason for moving away from an emphasis on student mobility programs is based on growing evidence in the literature that physical mobility does not guarantee the development of intercultural competence or an enhanced transnational identity—which,
as seen above, are very often the goals of internationalization mobility programs (Paige et al., 2009). Papatsiba (2005) looked at the impact of Erasmus mobility on a cohort of French students to investigate the extent to which students’ experiences reflected the political and policy aims of the Erasmus mobility program, and she concluded that acquiring a sense of European identity “remained a somewhat random result of experiential learning” (p. 183).

Based partly on these economic and educational limitations of physical mobility, there has been a growing interest in recent years in finding ways on campus and within course curricula to develop students’ intercultural competence and expose them to international learning experiences (Beelen & Jones, 2015). This has been known by the term IaH and the related concept of IoC. This shift in focus from “mobility for some” to “international learning opportunities for all” is seen by many as not only practical but also just and democratic as it provides all students with the opportunity to develop the skills and attitudes of the global workplace and global citizenship (De Wit, 2016; Richardson, 2016). Leask (2015), in her seminal work on the issue, insists that integrating international elements in the university curriculum should not only be about preparing students for professional outcomes but also “prepare students to be ethical and responsible citizens and human beings in this globalized world” (p. 30).

VE has proven itself to have great potential for forming part of universities’ IoC policies as online intercultural collaborative projects that form part of students’ formal learning are ideal for incorporating intercultural and global elements into the curriculum. Reports have illustrated how VE can integrate authentic intercultural learning scenarios into a range of university subject areas including foreign language education (O’Dowd & Lewis, 2016), business studies (Taras et al., 2013), and across the humanities in subject areas as diverse as feminism, the diaspora, gender roles, and human rights (Schultheis Moore & Simon, 2015).

A large body of research stemming from 20 years of practice has also demonstrated how VE can have positive learning outcomes in areas such as digital competence (the EVALUATE group, 2019) and soft skills, which are key for the global workplace (O’Dowd, 2019). There is also ample evidence that VE can be very effective for developing aspects of intercultural competence. For example, Taras et al. (2013) evaluated the effectiveness of global virtual student collaboration projects in international management education in a large-scale research study. The authors looked at the development of students’ cultural intelligence during their exchanges, and they found that students had developed significantly in this area. Guth and Helm (2017) reported on a study of the impact on students of participation in eight collaborative online international learning (COIL) VEs between the United States and the Middle East and North Africa (MENA) region, and found positive impact in terms of students’ expanding their knowledge and understanding of their subject content, and more generally, knowledge about another culture. However, despite evidence of its effectiveness, VE remains a relatively peripheral activity in European higher education (O’Dowd, 2016) and is still often confused with other forms of virtual mobility and online learning by both faculty and senior management (Jager et al., 2019). It is interesting to explore to
what extent the barriers to the upscaling of VE may reflect many of the challenges that other aspects of IoC have also encountered. Leask (2015) identifies three different types of “blockers” that act as obstacles to staff engagement in IoC. These are “cultural blockers,” which stem from the values, beliefs, and dominant ways of thinking in the discipline; “institutional blockers,” which relate to how a university is organized; and “personal blockers,” which are related to attitudes, willingness, and commitment of key stakeholders (pp. 107–108).

In the following section, we report on a large-scale European research study, which, among its various objectives, set out to identify the barriers to integrating and upscaling the use of VE in European higher education and to work with public authorities from different autonomous regions and countries to overcome these challenges.

**Research Study**

**Context**

The case study reported here stemmed from the Erasmus+ KA3 project *EVALUATE* that was a European Policy Experimentation funded by the European Commission’s Erasmus+ program (EACEA/34/2015). The aim of policy experimentations is to assess the effectiveness and potential scalability of innovative policy measures through experimental or semiexperimental approaches and then, if successful, to upscale their use across European education. This particular European policy experimentation evaluated the impact of a class-to-class model of VE on student teachers involved in initial teacher education in European countries and regions. Significantly, apart from the team of researchers who came from nine different European universities, the consortium also included representatives of the ministries of education of Portugal, Spain, and Hungary, as well as the autonomous regions of Castilla y León (Spain) and Baden Württemberg (Germany).

Between 2017 and 2018, the project consortium worked with teacher trainers from 34 institutions of initial teacher education, and organized 25 VEs that involved more than 1,000 student teachers. In total, institutions of initial teacher education from 16 countries were involved. The classes of initial teacher education engaged in a period of intensive VE 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. These exchanges lasted for one academic semester. The learning gains from these exchanges were then analyzed using qualitative and quantitative research methodologies to establish whether participation in VE would contribute to student teachers’ linguistic, intercultural, and digital–pedagogical competences.

The findings of the study confirmed the positive impact of VE on the development of students’ intercultural, foreign language, and digital competences (the EVALUATE group, 2019). However, the study also looked at two further areas. First, the consortium carried out an in-depth study of the teacher trainers who had engaged their students in the exchanges to assess the impact of this activity and to identify the socioinstitutional challenges that they encountered during the exchanges. Second, the
consortium also worked in collaboration with the public authorities to undertake actions to upscale the use of VE in teacher education across Europe.

**Research Questions**

The case study reported here stems from this initiative to upscale VE in higher education, that is, to move VE from being an international learning activity championed by pioneers and local innovators to being a more “normalised” (Chambers & Bax, 2006) and widespread activity in higher education in the region’s universities. In particular, we aimed to identify the barriers that were slowing the uptake of VE in European higher education and then to actively take steps to overcome these barriers by working with senior management at university and policy-making levels to take particular steps. To get a more nuanced picture of how VE can be upscaled in university education, we focus here on one particular educational context—that of universities in the Spanish autonomous region of Castilla y León. The three particular questions that were attended to in the study are the following:

**Research Question 1:** What institutional barriers and challenges do university faculty encounter when running their VE? And, what solutions do they propose to overcome these problems?

**Research Question 2:** What steps were university senior management able to take to promote the uptake of VE in their institutions?

**Research Question 3:** What steps were policy makers at public authority (ministerial) level able to undertake to increase the uptake of VE in their regions?

**Research Method**

A case study approach (Ashley, 2017) was taken here to provide insight into how VE affected across three different levels of university education—faculty, university management, and ministerial—in one particular educational context. As teachers’ working contexts and the roles of university management and educational ministries can differ greatly from one European country to another, it was felt that focusing on the impact of VE on one particular region would be beneficial within the larger context of the EVALUATE project. Data were collected from various sources depending on the research question and the particular cohort under investigation.

To answer Research Question 1, qualitative content analysis was used (Zhang & Wildemuth, 2009). This is a widely used qualitative research technique, which goes beyond merely counting words, and instead carries out the subjective interpretation of the content of text data through the process of identifying themes or patterns and systematically classifying them through the use of codes.

The research team contacted teacher trainers from EVALUATE who had taken part in the project and invited them to participate in either written (interview questions answered through email) or online and/or face-to-face interviews. Interviews with a total of 11 different teachers in three higher education institutions were collected.
oral interviews were then transcribed and uploaded into the NVivo data analysis platform. As the interviews were carried out by more than one researcher, a basic interview guide, consisting of six key questions, was used to ensure consistency of treatment and to allow for comparability of answers.

When all the interviews had been completed, the data were transcribed and the transcriptions, along with any written interview responses, were transferred into a shared NVivo data analysis platform. Following this, the transcripts were reviewed repeatedly by two researchers to select relevant text fragments and assign preliminary codes. The codes were exemplified with key text fragments. This is a common approach to qualitative content analysis as described by Hsieh and Shannon (2005).

To ensure coder reliability, the two researchers first individually coded and recoded the data before exchanging their thematic codes for corroboration. After exchanging their initial thematic codes, categories were either subsumed or new categories created through grouping of text fragments with similar codes. These new codes were then revised once more to ensure they adequately corresponded with the key text fragments and to consolidate the major emergent themes stemming from the data (Cho & Lee, 2014).

The profile of the teachers who took part in the study reflected the overall profile of the teachers participating in the EVALUATE exchanges. These were teacher trainers from faculties of education and they were also novice telecollaborators—this was the first time they had organized a VE in their classes.

To answer Research Question 2 and to understand how university senior management could support the uptake of VE in their institutions, the consortium engaged in a series of online and face-to-face interviews with three vice rectors of internationalization to explore the barriers that they perceived from a management perspective and also the options they had available to them to promote VE. These interviews followed a “guided interview” approach (Cohen et al., 2011), which meant that although topics and issues were specified in advance, the interviewer decided the sequence of the questions as the interviews developed. These interviews were then coded inductively according to the main barriers and options for upscaling, which the informants had identified. Although the number of participants in this part of the study was quite low, it did involve representatives from more than half of the number of public universities in this region.

Finally, for Research Question 3, we worked with our project partners at the regional government of EVALUATE to identify policy measures and initiatives that could increase the uptake of VE in the region. We did this through carrying out a series of five meetings with two high-level members of the ministry with responsibility for university education. In these meetings, we carried out a review of their current policy objectives, elicited their thoughts and reactions to the outcomes of the main EVALUATE study, and asked them to outline whether and how they could use these in their future policies and initiatives. Although these meetings were not recorded, extensive notes were taken and the ministerial representatives later provided documents outlining how they intended to use the project outcomes in their work.
Results

Research Question 1

Interview data revealed that immersing themselves and their students in VE projects clearly provided teacher trainers in EVALUATE with opportunities to innovate their teaching and expand their professional practices. However, educators also encountered a series of barriers and challenges as they began to integrate online international collaboration with other teachers into their academic practice. Each of these will now be looked at briefly.

An important challenge that teacher trainers were continuously confronted with was developing the pedagogical know-how necessary to establish and run a VE project. The idea of running a course that is based on interaction and collaboration with students from classrooms in other countries is complex and requires knowledge of how to design telecollaborative tasks, how to set up and facilitate platforms for their students’ online interactions, how to mentor episodes of online intercultural communication, how to successfully combine online and offline stages of projects, and, finally, how to integrate the exchange into the course syllabus (O’Dowd, 2015). To support them in their initiative, the teacher trainers were provided with a training manual, pre-designed tasks, training workshops (both physical and virtual), and mentors who guided them through the exchange process. Nevertheless, maximizing the collaborative nature of this educational practice and increasing the effectiveness of the online interactions were often reported as a major challenge by the informants. One informant reported exasperation at the lack of success in engaging her students in online collaboration:

The problem was that they didn’t work well in groups. I don’t know why: if it was my students fault, their fault, or just they didn’t . . . In some cases; some of them were luckier than others or they were able to manage the situation better or, I don’t know.

Another reported a lack of clarity about how to make the exchanges as effective as possible for her students:

I kept thinking about . . . how to include language development. To avoid chatting and get real interactions. I kept thinking about that. How can I move the students beyond? . . . it may look great but are they actually learning anything? How can I get to some kind of knowledge construction?

Many of the informants also expressed regret at how they had integrated the exchanges into their courses. For example, one informant reflected on their experiences in the following way:

I learned (1) that I must understand my partner teacher’s population (2) create more motivation for the whole exchange among students (3) allocate in class time to do exchange projects. I regretfully did not integrate the exchange into my classes—only for
clarifying assignments. We did bring up issues that I addressed with my partner teacher, but much of this was done via emails between my students and me and then WhatsApps/emails with my partner teacher.

Based on these experiences, teachers mentioned the need for their institutions to provide more training—both short-term (as in “get-started-quick” workshops) and longer, continued education courses.

When teacher trainers spoke about the role played by their institutions in the VE, there was a mixed set of responses. Various practitioners reported that their heads of department had expressed interest in the exchange and others mentioned how the projects had been reviewed and recognized by their faculties’ scientific committees. One colleague spoke about how she had been awarded a teaching excellence grant, thanks to her work on the project. Others mentioned how their departments anticipated that their experiences using VE would lead to more teachers taking up this activity: “They have been both interested and supportive. I have been asked to give a short report on the project at a department meeting.”

However, many others felt less institutional support. Some were critical of the lack of technical support and facilities that their institutions provided. For example, one teacher complained “Like for example the infrastructure is not very supportive, for example, we don’t have reliable Wi-Fi, the computer room is terrible . . . ,” whereas another explained “. . . the videoconference facilities and resources didn’t work out. Next time, I will also know better what I will need and I will make my needs clearer to our services.” This teacher offers helpful insight for creating a better understanding between teachers and their institutions as regard to previewing and ensuring that technology requirements are in place prior to the VE.

An interesting reflection that emerged from the teacher interviews was the importance contributed to the fact that these VEs were not carried out by isolated “innovators” but rather as part of a larger group and within the context of a large-scale Erasmus+ initiative. Doing so seems to have encouraged department and faculty decision makers and technical staff to pay more attention to the activity. One teacher described her institution’s reaction this way:

Well, in my building, for example, the people in charge . . . they were very kind, which is very strange [laughing] mostly because I sold the [Virtual Exchange project], . . . “we have this Erasmus with the [partner country], we don’t want to be just like . . .” . . . they gave me a good classroom, we had good conditions, things were working, and they were more or less pretty good. They are not normally but they were very good.

Similarly, in a different interview, one teacher explained the importance of various members of her institution taking part in the EVALUATE program:

I tried to get them to bring the press to our faculty years ago to show them how we were doing synchronous communication but they weren’t interested. But now, because there are more of us, they are rehabilitating the language lab so we can do telecollaboration in
These findings would suggest that for VE to take root and become a recognized practice in departments and faculties of higher education, it is not sufficient for isolated innovators to begin using the activity in their classes. Instead, the experiences of the practitioners underscore the notion that senior management will pay more attention to these activities when they are carried out within the context of external programs such as EVALUATE or Erasmus+ Virtual Exchange and when more than one teacher at the institution is involved in the initiative.

When teacher educators were asked what steps could be taken to promote VE more as a pedagogical tool in initial teacher education, some interesting proposals were made. First, a large number of practitioners identified the importance of awarding academic recognition for teachers who undertake exchanges in their classes. The respondents constantly referred to the time that the organization of VEs requires, and they called for their institutions to award recognition of this extra work in the form, for example, of a reduction in teaching hours.

[We 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.

Another teacher suggested that VE be included among the many academic activities, which lead to a reduction in teaching time:

. . . 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 . . .

As regard to recommendations for regional and national ministries, it was striking to see the general lack of awareness among teacher trainers as to how decision makers at these levels could actually contribute to or influence the promotion of VE in initial teacher education. Those who did respond to this question made suggestions related to including VE in the curriculum for primary and secondary schools and that this would have a knock-on effect of making the activity more relevant in initial teacher education as well. Others suggested that the ministries should use their influence to shape the curriculum in initial teacher education institutions to give more emphasis to online learning in general.

In summary, the interviews with teachers from this region who engaged their students in VE revealed that to upscale VE in higher education in this region, they believed that senior management and policy makers needed to undertake several measures. These included providing ongoing training and support for teachers and high-quality technological installations. They also recommended providing forms of recognition of the extra workload that VE involves. This could come in the form of a
reduction in teaching load, for example. Finally, they recommended that VE was likely to have more impact and more prestige when integrated into formal programs and initiatives.

This echoes the findings of Brewer and Leask (2012), who report that focusing on faculty development, rewards, and recognition is vital to encourage faculty to internationalize their curricula. It would also suggest that in the case of VE, it is institutional blockers as opposed to cultural or personal blockers that most hinder the uptake of VE from the faculty perspective.

Research Question 2

Based on the findings from the interviews reported in the previous section, the project consortium engaged with the three vice rectors of the universities in this region who had participated in the project. The goal here was not only to make the university management aware of the benefits of VE but also to inform them of the challenges that the teachers at these institutions had experienced and the subsequent recommendations that they had made.

The vice rectors of the universities reacted with interest to the concept of VE as well as to the EVALUATE research study as they considered that the initiative could make an important contribution to the IaH initiatives, which were being given such importance in the Spanish higher education system at the time. Current levels of outgoing international mobility in Spain are relatively positive when compared with the international average (European Commission, 2015), but there is a broad awareness that a much greater number of students need to be provided with international learning experiences as part of their education. As a result, the Spanish Conference of Rectors has established a working group dedicated to IaH, and this has led to a series of workshops and events on this theme.

As a result, the three universities involved in the project undertook steps to promote and upscale VE in their home institutions. One step was to provide further training events for their faculty which were specifically dedicated to VE. These training programs involved general introductions to VE and its benefits for both students and staff and also opportunities to become involved in professional networks dedicated to this activity such as UNICollaboration.org and Erasmus+ Virtual Exchange. This was a clear response to the requests by teachers for more sustained training and support, which was reported in the previous section. One of the participating universities in the region also hosted a special event on VE and its role on international at home for the Spanish Conference of Rectors.

Following the requests for greater recognition of the increased workload that VE involves for teachers, one of the universities also introduced a regulation in 2019, which stated that any teacher who carried out a VE in their teaching would receive a reduction in their teaching load to the value of 0.25 European Credit Transfer System (ECTS) credits for each of the VEs that they undertook. This was considered a major step by the consortium as it signified an official recognition at university management level for the educational value and related workload of undertaking such projects.
As for students, this particular university also introduced a program that awarded students extra points in their international mobility applications as well as two ECTS credits if they took part in a specially designed “pre-mobility” VE program, which engaged the Spanish students in structured online interaction with peers in universities in Ireland and the United States.

The fact that other universities in the region have not introduced similar recognition for teachers and students involved in VE reflects the challenges that remain. In one of the interviews, one of the vice rectors suggested that this was due to a continued lack of understanding among management of the potential of VE:

Mainly I believe it is due to the lack of understanding of what it [VE] involves. In general, people seem to think that this is an activity only suited to foreign language education and it hasn’t been applied sufficiently to other areas. We need to provide more training and more promotion of the activity so that people will recognise its potential.

This would suggest that “cultural blockers” (Leask, 2015, p. 106)—in the form of dominant ways of viewing how this activity works—have also been influential in slowing its uptake across institutions.

**Research Question 3**

Having identified the barriers to upscaling VE and having then seen how university senior management can take concrete steps to support the development of VE at the institutional level through the provision of training and recognition mechanisms, the EVALUATE consortium then worked with the public authorities in Castilla y León to explore how they could upscale VE at a regional policy level.

At the regional ministerial level, the autonomous region of Castilla y León was represented by the regional government’s *Direction General for Universities and Research*. This office had responsibility for the coordination and organization of university degrees as well as the support to enhance excellence in the universities of the region of Castilla y León. The representatives of this public authority had expressed an interest in VE and in the EVALUATE initiative as they considered that it could serve to promote and strengthen various priority policy initiatives including initial teacher education as well as digitalization in education. Both of these areas had been highlighted as key priorities of the Direction General in their policy documentation.

However, the ministry did point out various barriers that they themselves encountered when it came to upscaling innovative measures such as VE. For example, the director general for universities pointed out that higher education institutions have a great deal of autonomy when it came to curricula development and it would, therefore, be difficult to impose new methodologies from above. She explained that the regional government could not impose policies on curriculum design as these were stated on a national level, but the regional government was entitled to encourage the use of digital
instruments by signing agreements with the public higher education institutions. This would suggest that institutional blockers were again key to slowing the uptake of VE. However, in this particular case, the blocker went beyond how “a university organizes itself” (Leask, 2015, p. 106), and involved how higher education in that region as a whole was organized.

Despite these perceived limitations, following the presentation of the EVALUATE results to the public authorities, the Direction General took various steps to raise awareness of VE and promote its use in the public universities of the region. For example, for the implementation of VE as a methodology to improve and foster the use of online technologies in the classroom, two of the general directorates of the Ministry of Education of the regional government, the Directorate General for Universities and Research and the Directorate General for Innovation and Equity, coordinated a strategic plan with a twofold aim: first, to integrate the training of preservice teachers in the use of digital learning technologies and resources, and, second, to achieve the implementation of this methodology in some primary and secondary education centers of Castilla y and León.

Regarding the first objective, the ministry’s Council of Education signed an agreement with the four public universities of the region to start a project for the training of students of initial teacher education in the use of digital learning technologies and resources. The main purpose of the project was to train preservice teachers to use online technologies in teaching, confidently and critically, to use online technologies for professional cooperation and communication, and to use tools for creating e-content. The theme and the outcomes of EVALUATE were seen as ideally suited for contributing to this project and the resulting course content included a special section on telecollaboration and VE in teaching and learning. Evidence that the ministry’s interest in VE came directly from the findings of this project can be seen, in that, the findings of our report on teaching faculty were presented to the project’s working group in its first meeting and were incorporated into the final recommendations the group presented to the Spanish Ministry of Education.

The ministry also used the information and findings of EVALUATE as a basis for a second initiative involving the establishment of a network of VE between students in the autonomous region and students in Mexico and Colombia. These VEs were to take place in Spanish but were based on intercultural exchange between students of Spain and these Latin American countries. VE was used to enhance intercultural awareness using story telling as part of the collaborative projects.

In summary, the Ministry of Education reported that they considered the benefits of using VE in specific action plans and projects, such as the ones stated above, were related to its contribution to the internationalization of primary and secondary centers, the development of rural education, the provision of digitalization training for preservice and in-service teachers, and also the opportunities it offered for coordinated activities between primary and secondary teachers and the faculties of education and of the universities in the region.
Conclusion

This article reported on an initiative that brought together researchers, university senior management, and regional government policy makers in an attempt to demonstrate the value of an innovative international learning practice and to consequently promote and upscale its use in university education. VE has been shown in the research literature to have great potential for developing students’ linguistic, intercultural, and digital competences, and it clearly fits in the educational policy priority of providing international learning experiences for students who are not physically mobile (De Wit, 2016; European Commission/EACEA/Eurydice, 2017). However, to move beyond being an isolated, practitioner-driven activity, VE should become part of university educational policy at both institutional and government levels (O’Dowd, 2016). The case study reported here provides one practical example of how researchers and institutions strove to achieve this aim by informing policy design through practitioners’ insights and by taking concrete steps to recognize students’ and teachers’ work as they engage in this innovative international activity. The case study also revealed a number of “blockers” to the uptake of VE at the different levels of university education. Referring to the three categories of blockers identified by Leask (2015), there appears to have been more institutional blockers than from the cultural and personal categories. However, it is important to recognize that the issue of stakeholders’ personal characteristics and attitudes was not investigated in depth and we are, therefore, not in a position to dismiss their impact on the uptake of this methodology.

Working from these findings, Figure 1 below outlines the criteria for successful implementation of VE, which we believe could serve as guidance for university management and policy makers when promoting VE in university education. It is important to consider that some of the actions described at departmental/faculty level here may correspond to the institutional level in some educational contexts.

Two other significant conclusions emerge from the study. First, it is interesting to note how policy makers and university management did not necessarily limit their use of VE to the area of initial teacher education—which was the area of education that the research project had focused on. Instead, the university had used the concept for promoting physical exchange, and the regional ministry of education had taken the activity and applied it to secondary school initiatives.

Second, it is also important to highlight how external funding acted as a catalyst for change to take place at practitioner, institutional, and ministerial levels. Although the concession of this project did not provide funding directly to institutions to undertake change in their internationalization policies, the fact that VE had received recognition from the European Commission as an activity worthy of investigation meant that this had raised the interest not only of practitioners but also of decision makers who enabled the activity to go beyond a bottom-up innovative activity. The importance of the project for both senior management and policy makers is evidenced in the regular references they made to the project in speeches and announcements made at public events and official meetings. For example, the minister of education for the autonomous region made specific reference to the project in a speech at one of the regional universities (Rey, 2017).
To conclude, it is important to recognize that this case study has been based on a relatively small-scale cohort of faculty, senior management, and ministerial members, and some of the conclusions that we draw from this case study may not be generalizable to other regions or countries where VE is being introduced where the relationships between faculty, university management, and ministry may differ. Nevertheless, we argue that it can be seen as an example of how different levels of

Figure 1. Criteria for successful implementation of virtual exchange.

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stakeholders can undertake to promote and integrate this innovative teaching practice into university education.

**Authors’ Note**

The views reflected in this presentation are the authors’ alone and the commission cannot be held responsible for any use that may be made of the information contained therein.

**Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

**Funding**

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The research reported in this article was supported by the project Evaluating and Upscaling Telecollaborative Teacher Education (EVALUATE; 582934-EPP-1-2016-2-ES-EPPKA3-PI-POLICY). This project is funded by Erasmus+ Key Action 3 (EACEA No 34/2015): European policy experimentations in the fields of education, training, and youth led by high-level public authorities.

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