

**A Descriptive Multiple Case Study of the Factors and Practices of
Sustainability in Co-Designed Virtual Exchanges**

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Abstract

Higher education institutions (HEIs) across the world have pursued internationalization policies for various reasons, including preparation of their graduates to thrive by developing their global competences. Virtual exchanges (VEs), online collaborative courses for students in geographically and culturally separate locations, have become a tool of internationalization, especially internationalization at home (IaH). The last decade has witnessed an explosion in the number of VEs and research on the subject. While this research has demonstrated the benefits of VEs for improving global competences and outlined effective VE course design, little research has explored how to sustain VEs after initial implementation.

In this thesis, I aimed to fill this gap by describing factors and practices that contribute to the sustainability of co-designed VEs. I conducted a descriptive, multiple case study consisting of six cases of long running co-designed VEs, two primary and four secondary cases, to identify sustainability factors and practices. Interviews with VE facilitators, course documentation, and institutional and national internationalization policy documentations comprised the data set. Assumptions from social constructionism informed the theoretical underpinnings of the research questions and the data collection and analysis. Categories and constructs from implementation science guided the structure of the research questions and the data analysis.

My findings indicate the central role of facilitators in VE sustainability, whether through utilizing their existing professional experience and networks or building new professional relationships and social practices. Moreover, they suggest that “flexible fidelity,” the balance between the fidelity of learning objects with adaptations to course design and institutionalization of VEs, contributed to

sustainability. The main contributions of this research are highlighting the importance of VE facilitators and their social practices in sustainability, demonstrating the application of constructs from implementation science to small-scale but complex educational programs, and showing the impact of institutional IaH policies and practices on VE sustainability.

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Author's Declaration

I declare that this thesis is my own work and has not been submitted in the same form for the award of a higher degree elsewhere nor have any sections been published elsewhere.

The word count of 49,027 conforms to the permitted maximum.

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Signature

Publications Derived from Work on the Doctoral Program

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Chapter 1 Introduction

1.1 Introduction

Higher education institutions (HEIs) across the world face pressure to ensure their graduates have both the discipline knowledge and the global skills (e.g. intercultural, language and digital competences) needed to compete in the global market and become global citizens (Harrison, 2015; Jones et al., 2015). Internationalization as a policy has shifted from an exclusive concern of prestigious HEIs to an essential aspect of all HEIs (De Wit & Altbach, 2021). Mobility, or studying at a foreign institution for a limited time, has become the gold standard to gain these global skills (Beelen & Jones, 2015). Yet even in pre-Covid times, only a small proportion of students could take advantage of mobility opportunities. The concept of internationalization at home (IaH) developed as a means to provide more students with international experiences without leaving their home campuses (Marinoni, 2019). One method advocated by IaH scholars is virtual exchanges (VEs), online courses where students from different geographical and cultural locations learn, interact, and collaborate with faculty guidance (De Wit & Altbach, 2021; Helm & Acconcia, 2019; Rubin & Guth, 2015).

VE as a pedagogy, practice, and research field evolved separately from IaH, only intersecting with IaH research and policy in the last decade due to the spread of internationalization to all HEIs and wider access to fast, reliable, and inexpensive communication technology (Dooly, 2017). VE literature has established effective course designs that increase global skills in students and has outlined common challenges in developing and implementing VEs (Chun, 2015; Çiftçi & Savaş, 2018; O'Dowd & Waire, 2009). However, discussion on the step after implementation - sustaining a VE once developed – in the VE literature is limited to recommendations at institutional or organizational levels, with little mention of sustaining individual VEs developed by faculty. Since VEs can improve students' global skills and their development requires the investment of time and resources by faculty members, it makes sense to investigate how a VE should be maintained once developed. The present research sought to address this gap by attempting to identify the factors and practices that contribute to sustaining a VE after initial implementation by examining multiple cases of long-running co-designed VEs.

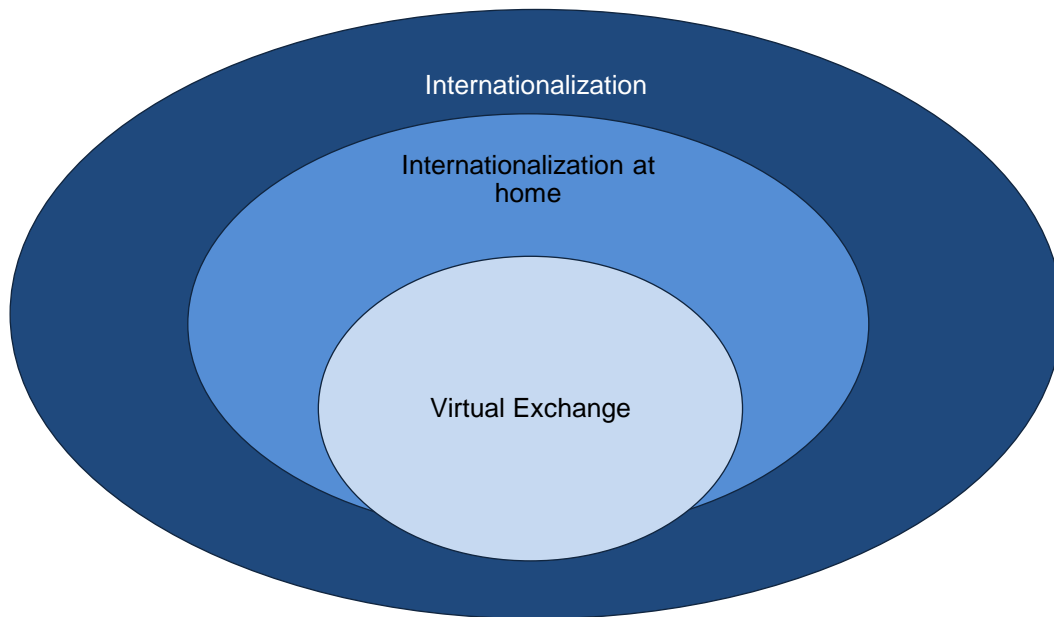


Figure 1.1.1: Nesting of VE within IaH and internationalization fields

In the rest of this introduction chapter, I contextualize this study by explaining how the VE field is nestled within the wider IaH and even wider internationalization fields (Figure 1.1.1) as well as define several essential terms and concepts. Then I describe the motivation for this thesis and define the research problem, aim, and research questions. I move onto the significance of this research and conclude with an outline of the following chapters of the thesis.

1.2 Internationalization and IaH

This research is located within the large research field and practice of internationalization in higher education. HEIs have always had a global, international character, drawing diverse student bodies together to create and transmit knowledge, starting with Nalanda University in India (3rd century BCE) and the University of Bologna, Italy (1180 AD). International education and internationalization have undergone several transformations over the millenniums (Altbach & de Wit, 2015, p. 13), with multiple researchers pointing to the start of the current period in the mid- to late-nineties, after the fall of the Soviet Union (Bedenlier et al., 2018). During this time, internationalization moved from a piece-meal, ad-hoc practice of elite institutions to a holistic, comprehensive strategy and practice pursued by all types of HEIs. Additionally, it coalesced into a wide yet distinct research field, indicated by the founding of academic journals dedicated to the subject (Bedenlier et al., 2018).

Now, after briefly establishing the historical link between internationalization and higher education, I want to define the term internationalization in HE. For this thesis, I used the commonly quoted definition written by Knight (2004, p.11), where internationalization is defined as “the process of integrating an international, intercultural or global dimension in the purpose, functions or delivery of post-secondary education”. This rich and broad field encompasses many perspectives, issues, and drives, such as economic, political, and socio-cultural ones (Lee & Stensaker, 2021). Two divergent philosophical approaches seem to drive the push for internationalization: neoliberalism and humanitarianism. From a neoliberal perspective, internationalization is a strategy to raise an HEI’s global profile, prepare graduates with global or 21st century skills to compete in the global labor market, and increase revenues, especially from international students’ tuition fees. From a humanitarian approach, internationalization is a strategy to increase global cooperation through research and knowledge creation, improve the quality of education through exposure to diverse perspectives, and prepare students to become global citizens.

Despite the seemingly incompatible aims of these two approaches to internationalization (competition versus collaboration), there appears a common thread, which is the need to prepare students for the global world through the acquisitions of a specific set of skills or competences, i.e., global skills, 21st century skills, or global competences. While each term refers to a slightly different set of skills, all three emphasize the centrality of intercultural competences (IC) for purposes of communication and collaboration and digital competences (Mercer et al., 2019; Morais & Ogden, 2011; OECD, 2018). For this thesis, I drew upon the definition for IC created by Byram (1997, p.248-249): “the ability to communicate effectively and appropriately in intercultural situations based on one’s intercultural knowledge, skills and attitudes”. As Deardorff and Jones (2012) argued in their book chapter, over the last two decades, developing students’ IC has become a primary focus of HE internationalization strategies and practices. For digital competences, I used the definition published by the European Commission (2019, p.10), which defined digital competences as involving “the confident, critical and responsible use of, and engagement with, digital technologies for learning, at work, and for participation in society”.

Achieving the desired outcomes of internationalization, including developing students’ IC and digital competences, requires concurrently employing a variety of multiple methods. The most prominent method, considered the gold standard, is the mobility of students and

faculty between institutions for short- or long-term stays or, in other words, outgoing students for study abroad programs and incoming international students (Marinoni, 2019). Increasing incoming and outgoing mobility has been the main objectives of national and transnational internationalization policies, such as the Top Global University Project in Japan and the Bologna Process in Europe. On the one hand, student mobility has steadily spread across the world, as demonstrated by a 70% increase in international students studying in an OECD country over the last decade (OECD, 2022). Programs that fund mobility, like Erasmus+ in the EU, have contributed to this rise. Yet less than five percent of HE students have an outbound mobility opportunity, limiting the impact of this internationalization method (Marinoni, 2019). The lopsided nature of mobility is another limiting factor, with most of the students flowing from the global south (Africa, Latin America, Asia) to the global north (North America, Europe, Australia), resulting in the global north's domination of internationalization processes (Altbach & Knight, 2007; Vavrus & Pekol, 2015).

In response to these limitations of mobility as a method of internationalization, leading researchers have developed the concept of IaH, the “purposeful integration of international and intercultural dimensions in formal and informal curriculum” (Beelen & Jones, 2015, p.69). IaH aims to provide all students with the opportunity to develop their global skills through international experiences while never leaving their home campus. In the last two decades, HEIs and transnational organizations have started recognizing the importance of IaH by adding it to written policy, yet there is still a lag in research on and funding for IaH (Beelen, 2015; Heffernan et al., 2019).

IaH scholars argue for cooperation between faculty and administration to implement system-wide IaH strategies with a focus on learning outcomes rather than on mobility numbers (Guimarães & Finardi, 2021; Sierra-Huedo et al., 2022). Based on my understanding of the expanding IaH literature, IaH employs three main yet overlapping pedagogical practices to turn internationalization rhetoric into active student experiences: facilitating interactions between international and home students in formal and informal activities (Spiro, 2014); internationalization of the curriculum (i.e., adding international dimensions and perspectives to the curriculum); and virtual exchange (Barbosa et al., 2020; Guimarães & Finardi, 2021). While each of these pedagogical practices requires time and resources to implement, they are more cost effective than funding student mobility.

Moreover, research has shown that IaH pedagogical practices have improved IC as much or more than study abroad (Nesdale & Todd, 2000; Soria & Troisi, 2014). HEIs with non-mobile student populations or who lack funding for mobility have increasingly embraced IaH strategies, including VEs, as a means to provide international opportunities for their student populations. Despite the potential to advanced equity in internationalization, it is essential to note that IaH, including VE, is not immune to social, economic, cultural, and historical factors that can reinforce current educational marginalization and unbalanced power relationships, especially between the Global North and Global South (Alami et al., 2022; O'Dowd, 2023)

1.2.1 Virtual exchange

This research is located specifically within the field of VE,. In parallel with and initially distinct from the emergence of the new period of internationalization, VE developed as a pedagogy, practice, and research field separately across multiple disciplines, mainly driven by bottom-up initiatives from dedicated practitioners who saw potential in this pedagogical practice to improve students' global skills. The goal of VE is to provide students the opportunity to gain global skills (Deardorff & Jones, 2012; Dooly, 2017) while studying discipline-specific content (Guimarães et al., 2019; Helm & Acconcia, 2019; Rubin, 2015). In the last decade, VE has coalesced from silos of separate pedagogy, practice, and research based on discipline into a more unified field built on collaboration and communication. The wider IaH field has embraced VE as a pedagogical practice for achieving IaH aims since VEs offer students faculty-facilitated international experiences without mobility (De Wit & Altbach, 2021, O'Dowd, 2021). Moreover, administration of HEIs, especially those involved in the internationalization process, have slowly begun to recognize the potential of VE as part of IaH strategies (Jager et al., 2021, O'Dowd, 2021)

For this thesis, I will use the term "virtual exchange" because it is an accepted umbrella term for all VE models in European policy and practice (Dooly & O'Dowd, 2012; EVOLVE, 2020). This means that even if a specific piece of research or resource uses another term to describe VEs, I will use "VE" to maintain consistency. I also employed the Erasmus sponsored EVOLVE project definition of VE: "sustained, technology-enabled, people-to-people education programs or activities in which constructive communication and interaction takes place between individuals or groups who are geographically separated

and/or from different cultural backgrounds, with the support of educators or facilitators” (EVOLVE Project Team, 2020a). Throughout this thesis, I alternate between referring to VE as a pedagogy and pedagogical practice. This choice reflects my understanding of VE as more than just a teaching practice (i.e., a method to teach a certain concept), but as an “art and science” of teaching international competences, collaboration, and other related learning objectives. Moreover, this choice of terminology reflects how leading researchers discuss VE within higher education (Dooly, 2022; Jager et al., 2021; O’Dowd, 2021).

The growing body of research on VE has mainly focused on student outcomes, barriers, and course design, with less research on the perspectives and experiences of faculty (Alvarez & Steiner, 2019; Barbosa & Ferreira-Lopes, 2021; Zak, 2021). The most commonly-mentioned student outcomes are gains in IC, language skills, and digital competences. Known barriers for VEs include language, cultural, and technological issues, which if left unaddressed can lead to inequitable outcomes and further educational marginalization (Helm, 2019). The nascent field of critical VE (CVE) highlights these inequity issues and offers possible strategies to overcome them (Hauck, 2023). Furthermore, many models of VE have been proposed based on practitioner research and experience. Numerous faculty training programs and workshops have been developed based on the above mentioned research to guide VE facilitators how to develop and implement VEs by focusing on learning outcomes and overcoming the well-known barriers (i.e., [Suny COIL Center](#) and [Core Collaborative International](#)). However, mentions of how to sustain a VE after development are limited to recommendations on how to overcome known barriers (e.g., lack of institutional support) with little empirical evidence based on successful, long-term VEs. Similarly, empirically documented facilitator experience from long-running VEs is also limited, consisting of personal reflections or hints gleaned from research focused on other topics. Implementation science, which initially arose from the healthcare field, and studies how to implement evidence-based initiatives, interventions, and programs in real life, underwent a similar imbalance. The initial focus of this field was on how to develop and implement effective practices, with little thought about how to sustain effective practices over time. Over time, implementation scholars began exploring the mechanisms of sustainability, recognizing the waste of human and capital investments if a successfully implemented practice stopped after the pilot or first iteration (Chambers et al., 2013). In recent years, numerous constructs and models for sustainability have been

developed within this field. This study employs some of these constructs to describe and understand factors that contribute to sustainability within a VE.

A successful VE is built on collaborative, intercultural relationships between all participants - including the collaboration between facilitators. In many VEs, multicultural faculty collaborate to create and facilitate a VE for their students, working within the constraints of their local HEIs to succeed. In this context, social constructionism, a theoretical framework that claims knowledge is a product of human thought and social interaction, provides a suitable lens for examining if and how the facilitator relationships and social practices contribute to the sustainability of VEs.

1.3 Motivation

The motivation for this study arose from my personal experience of facilitating a long-running VE. In the spring of 2018, my direct manager, the head of the English unit, invited me to facilitate pilot VE developed as part of an Erasmus+ project with several other Israeli and European HEIs. The VE focused on English for purposes of intercultural communications (EPIC). An additional three online courses were designed and piloted at the same time as part of the same project. Despite the whirlwind of recruiting students, communicating at (almost) all hours with my co-facilitators, and providing individual feedback to students, I enjoyed the process. After the pilot, I realized that without active advocacy for this VE within my HEI and between the partners, it would not continue. I witnessed how my own and my co-facilitators' determination and dedication led to the continuation of this VE.

Concurrently, as part of my doctoral studies, I conducted two systematic literature reviews on topics within the VE field (student IC gains from VEs and use of theoretical frameworks within VEs, respectively) and a small-scale research project on facilitators' perspectives of VEs. This research exposed me to the academic literature on VE and enabled me to identify a gap in the literature that needed filling, i.e., sustainability of VEs. My personal experience with VEs and the knowledge gained from my previous research have led me to recognize the importance of understanding VE sustainability and the lack of empirical knowledge on this subject.

1.4 Research Aims and Questions

This thesis aims to extend the knowledge about VE design to the sustainability phase by exploring the factors and practices of long-running VEs using constructs taken from implementation science with assumptions from social constructionism. To achieve this aim, this study addresses three main questions based on three sustainability categories drawn from implementation science: people; course/program design; and institutional context (2.6.2). Each main question is further divided into sub-questions, reflecting the social constructionism underpinnings of the study (3.2) and additional constructs from implementation science (2.6.2).

Research Question 1 - People: How have stakeholders impacted the sustainability of co-designed VEs?

- 1.1 How have the teaching faculty impacted the sustainability of a co-designed VE?
- 1.2 What practices have the teaching faculty workgroup developed over time? How do these impact the sustainability of a co-designed VE?
- 1.3 How have other stakeholders influenced the sustainability of a co-designed VE?
- 1.4 How have socio-cultural contexts affected the relationship and interaction between stakeholders?

Research Question 2 - Course Design: How and to what extent has course design contributed to the sustainability of a co-designed VE?

- 2.1 To what extent has course or task adaption occurred over the iterations of the same co-designed VE?
- 2.2 Have evaluation systems been developed to evaluate the benefits of the co-designed VEs? If so, what are they?
- 2.3 What course design models were used, if any, to design, develop, and maintain co-designed VEs?
- 2.4 How have socio-cultural contexts affected course and task design over the iterations of the same co-designed VE?

Research Question 3 - Organization: How and to what extent have the HEIs impacted the sustainability of co-designed VEs?

- 3.1 To what extent has the co-designed VE become institutionalized within the HEIs? If so, what practices have been institutionalized?
- 3.2 How do the course aims of a co-designed VE align with the values of the HEIs?
- 3.3 How have the institutional or national policies impacted the sustainability of a co-designed VE?

1.5 Research Contribution

This research contributes to knowledge in three areas: theory, practice, and policy. In terms of theory, this research demonstrates that constructs from implementation science are applicable for the analysis of small-scale yet complex courses or programs. The findings of this research identify the factors and practices that contribute to the sustainability of co-designed VEs, which can then be applied in practice. Finally, the findings of this study provide recommendations on how to promote VEs and IaH in general in institutional internationalization policies.

1.6 Thesis Overview

Following this chapter, this thesis includes an additional seven chapters. Chapter 2 is an argumentative literature review, which contains two main sections about VE and implementation science. The first section contextualized this study further within the VE field by providing a historical overview, outlining key assumptions I made about VEs based on the literature, and demonstrating the lack of empirical evidence on how or why long-running VEs succeed. The second section introduces implementation science and explains how constructs about sustainability can be applied to study VEs.

Chapter 3 explores the two theoretical underpinnings of this thesis: pragmatism and social constructionism. Chapter 4 explains and justifies the research design, a descriptive multiple case study, including the processes of case and data selection, data collection, and data analysis. Chapter 5 presents the findings from each individual case while Chapter 6 reports the findings from the cross-case analysis. Chapter 7 discusses the findings in conversation with the literature, therefore answering the research questions. Chapter 8 concludes the thesis by acknowledging its limitations and reflecting on the contributions of this study to knowledge, practice, and policy.

Chapter 2 Literature Review

This chapter situates this thesis within the seemingly disparate fields of virtual exchange and implementation science. The claims outlined in this argumentative literature review build on each other to define and justify the main research issue of this thesis, sustainability in co-designed VEs. First, in Section Chapter 2, I define the different types of VEs and specify why I chose to focus on co-designed VEs. Next, in Sections 2.2 and 2.3, I argue that VEs provide students with multiple benefits as a multidisciplinary pedagogical practice through a historical overview of the development of VE and a review of large-scale project reports. In Sections 2.4 and 2.5, I highlight the known challenges of implementing and sustaining VEs and recommendations for overcoming these barriers to demonstrate a lack of empirical research on how or why long-running VEs succeed. Finally, in Section 2.6, I move to a review of sustainability within implementation science to define sustainability concepts used in this thesis and justify them to analyze long-running co-designed VE.

Relevant sources for each section were identified initially through a Scopus search of keywords: telecollaboration, virtual exchange, collaborative online international learning, sustainability, and implementation science. Additionally, VE project reports published by large non-profit organizations Erasmus+ and the Stevens Initiative were located. Finally, backward and forward snowballing techniques were used to locate additional relevant articles (Badampudi et al., 2015).

It is impossible to review all the literature within the larger fields of VE and implementation science, therefore the following topics were considered outside the scope of this literature review: linguistic analysis of VE, VE design, VE evaluation, and design and implementation phases within implementation science.

2.1 Types of VEs

VEs vary according to many dimensions (size, content subject, course design, and language). However, all the courses that I classify as VE have four key components, based on this thesis's definition of VE (see Section 1.2.1) the courses are mediated by technology; 2) they have a sustained interaction between students of different cultures; 3) they have some type of collaboration (whether through in-depth discussions or project creation); and 4) are actively facilitated by educators.

Based on the literature, VEs can generally be divided along a spectrum between two main models: ready-made exchanges, and co-designed courses. Ready-made exchanges are VEs developed by non-HEI organizations that present “pre-packaged” exchanges which HEIs can integrate into pre-existing courses or offer as stand-alone courses (Helm & van der Velden, 2020). These ready-made VEs can vary in size. For example, as will be further discussed in Section 2.2.4, the GEE (Gilbertson & Cathro, 2015) and X-Culture (Taras et al., 2013) are large, competition-based, ready-made exchanges for business students, who can register independently or through their HEIs. These competitions occur at set times during the year. For humanities disciplines, organizations like Soliya offer several versions of ready-made discussion-based VEs (Lenkaitis, 2022b). While Soliya serves a large number of students like GEE and X-Cultura, it is not a competition and instead works with institutions on a one-on-one basis to arrange the VEs throughout the year.

Co-designed courses are “collaboratively designed and implemented by two or more university educators who want to integrate an international and intercultural dimension to their already existing course” (Helm & van der Velden, 2020, p.320). Co-designed courses are usually much smaller than ready-made exchanges since the exchange is usually between two or three HEIs, consisting of between 10-40 students. Although no specific statistic exists on how partners for co-designed courses meet and decide to design a VE together, a general impression from the literature is that these courses are usually bottom-up initiatives from educators who already knew each other and wanted to create a course together.

The reason I state that there is a spectrum of course models and not a binary division is that some co-designed courses receive support from outside organizations, networks, or projects, such as SUNY COIL or Erasmus+ projects, for the initial design and implementation phases. These organizations, networks, or projects provide training, support (i.e., pedagogical, technical, and financial), and course design guidelines, yet the individual educators design the VE structure, tasks, and assessments together to achieve their unique learning outcomes. Additionally, as more HEIs incorporate VEs as part of their internationalization strategies, more HEIs provide support for VE development through VE/COIL coordinators, professional development trainings, and participation in VE/COIL networks. The end product is still a unique VE that fits a specific context that was created by individual educators collaborating together. This thesis will examine co-designed

courses, both those designed independently and those created within a project or network, since sustainability of these courses is more difficult because of the smaller scale and the lack of ongoing third-party support. The next section will examine how VE pedagogy and practice historically developed across multiple disciplines.

2.2 Virtual Exchange History

In this subsection, I trace the historical development of VE as a pedagogical concept and practice with the intent to demonstrate how VEs are considered an effective pedagogical practice across academic disciplines in promoting student IC development, a necessary skill for success in today's global world. Since the invention of email in the early 1990s, VE has evolved separately in disparate disciplines (e.g., language learning, humanities and business) and/or geographical regions (e.g., the United States and Europe) (Barbosa & Ferreira-Lopes, 2021; Kelm, 1992). Each discipline and region coined a unique terminology for this practice, reflecting the academic context and objective, leading to a long list of names that describe VE or similar practices (e.g., telecollaboration, collaborative online international learning, online intercultural exchange, global virtual team, globally networked learning) (Barbosa & Ferreira-Lopes, 2021). Starting around 2016, the separate strands of VE practice and research have slowly consolidated into an internationally recognized research and professional field, as demonstrated by numerous large-scale initiatives and organizations dedicated to VE, an explosion in research papers, and the founding of an academic journal in 2018 (*The Journal of Virtual Exchange*).

2.2.1 Language Learning

Long before the inventions of emails and the Internet, language learning teachers understood the importance of communicating with native speakers outside of the classroom to improve linguistic skills, as demonstrated by the use of letter exchanges in foreign language classrooms (Johnson, 1934; Jones, 1936; Roehm, 1942). With the expansion of the Internet in the late 1980s and early 1990s, language learning teachers transitioned these exchanges to email or synchronous chats due to the rapid speed and falling cost of the Internet (Chun, 1994; Kelm, 1992; Lunde, 1990; Warschauer, 1996). By 1996, the term telecollaboration emerged to describe student language learning exchanges using the Internet (Warschauer, 1996). Early literature from this field was mainly case studies or practice reports describing the new practice so other practitioners could learn from their

experiences (and mistakes) and promote the potential benefits (Belz, 2003; Müller-Hartmann, 2000; Roberts, 2004). Moreover, this early literature focused not only on the linguistic benefits of telecollaboration, but also on the IC gained (Belz, 2003; O'Dowd & Eberbach, 2004; Roberts, 2004). Early researchers used socio-cultural perspectives to analyze miscommunication or “critical incidents” that occurred between students, demonstrating the necessity of cultural awareness for successful exchanges (Belz, 2001; O'Dowd, 2005; Ware & Kramersch, 2005).

A well-known model for telecollaboration is the Cultra program, created in 1997 by MIT and the Institut National des Telecommunications aiming to develop cultural understanding of English and French language learners while practicing their target language (Furstenberg et al., 2001). The Cultra program used a comparative approach by having students compare cultures (e.g., American and French) using technology and target languages through a series of collaborative activities. This program has grown beyond the original exchange, becoming an example of a grassroots VE that became a popular, third-party approach to VE within the language learning discipline. For example, Jiang et al. (2014) adapted the Cultra model for learning Chinese within a business context.

2.2.2 Preservice Teacher Training

The use of VE in pre-service teaching training appears in the literature in the early to mid-2010s as an offshoot of telecollaboration, since much of the early research focuses on pre-service language teachers, especially English as a foreign language (EFL) teachers (Bueno-Alastuey et al., 2018; Fuchs et al., 2012; Leh et al., 2015; Tanghe & Park, 2016). According to this early literature, the goal of VE in pre-service teacher training was for pre-service teachers to learn how to implement digital tools within their own task design and teaching as well as improving their IC.

2.2.3 Humanities

The development of VE pedagogy within humanities fields stemmed from the desire to increase students' IC and digital competences, with less emphasis on language skills. Several of the earlier examples of VE in the humanities were between English speaking students in geographically separate locations (Hurley et al., 1999; Reed & Mitchell, 2001; Zhu et al., 2005). Similar to the early VEs in the language learning field, most of the early

research from the humanities consisted of case studies and project reports detailing the course design and initial student impressions (Chang, 2004; Herrington & Tretyakov, 2005; Hurley et al., 1999; Reed & Mitchell, 2001; Zhu et al., 2005). Several researchers also used socio-cultural learning perspectives to justify the implementation of VE pedagogy and/or analyze the students' responses (Chang, 2004; Reed & Mitchell, 2001; Zhu et al., 2005)

Rubin's (2010) white paper described the development of three "collaborative online international learning" (COIL) courses within the humanities for the SUNY Center for COIL. This paper highlighted the process of selecting and training faculty to develop and implement COIL courses and included a detailed description of each course. Throughout the years, Rubin and the SUNY Center for COIL have become leaders in and advocates for COIL in the humanities, providing a pedagogical model, resources, and training for interested faculty around the world (COIL Consulting, n.d.; Rubin & Guth, 2015; SUNY COIL, n.d.). As with Cultura, the SUNY Center for COIL represents how a grassroots initiative developed into a widespread third-party approach to VE for a specific field.

In summary, despite developing within a separate academic silo, early VE research in humanities shared many similarities to the early VE research in the language learning field, such as goals of improving IC for students, dependence on case studies or practice reports, and use of socio-cultural perspectives.

2.2.4 Business and Engineering

The development of VE within business and engineering disciplines derived from the need to prepare students to work in global virtual teams that have become common in the global business and engineering workplace. While the goal of VE in business and engineering may be similar to language learning, humanities, and pre-service teacher training disciplines (e.g., improved IC and digital competences), the motivation is more from a practical, neoliberal perspective than a humanitarian, global citizen perspective. Early VE research in business and engineering contextualizes the VE pedagogy within virtual team research in general business, project management, and engineering fields, and less in business or engineering education research (Flammia et al., 2007; Gavidia et al., 2005; Hu, 2009; Starke-Meyerring & Andrews, 2006).

As with the other disciplines described in this section, the early research on VEs in business and engineering consisted of case studies and practice reports of grassroots VEs that demonstrated the potential benefits and common challenges of VEs (Pears & Daniels, 2010; Shea et al., 2011; Starke-Meyerring & Andrews, 2006; Trautrimis et al., 2016; Zaugg & Davies, 2013). This early research included more analysis of quantitative data (e.g., survey data, analysis of number of messages sent) than the other disciplines, reflecting the more quantitative research traditions of business and engineering fields.

Two large-scale competitions based on VE pedagogy have emerged within the business field: the Global Enterprise Experience (GEE) since 2004 (Gilbertson & Cathro, 2015) and X-Culture since 2010 (Taras et al., 2013). These competitions have students come together from different countries to form small teams to create a business proposal in a short period of time. The organizers of these competitions provide the content, deadlines, and mentoring and technical support. In each case, mentors for each student group have undergone a training course provided by the organization (Global Enterprise Experience, n.d.; X-Culture, n.d.). While the Cultura and COIL models started as individual courses that grew into a larger scale pedagogical model applicable to different courses, these VEs began initially at a large-scale and have continued to grow.

2.2.5 Coming Together

Since around 2015-16, VE practice and research across the academic disciplines has consolidated into one field, especially among the language learning, humanities, and pre-service teacher training fields. Although the SUNY COIL Center was established in 2008, other VE supporting organizations and projects across the world began appearing only from 2015, with the establishment of the Stevens Initiative in the United States of America (USA) (2015), UNICollaboration (2016) and Erasmus sponsored projects EVALUATE (2017-2019), EVOLVE (2018-2020), and Erasmus+ Virtual Exchange (2018-2020) in Europe (O'Dowd, 2021). In Japan, the Kansai University's Institute for Innovative Global Education was established in 2018 (Lenkaitis, 2022b). Additionally, in 2019, UNICollaboration, SUNY COIL, and other organizations began sponsoring the annual International Virtual Exchange Conference (Lenkaitis, 2022b). In Latin America, the LatAM COIL Network launched in 2020 (Lenkaitis, 2022b). These projects, organizations, and conferences provided opportunities for funding, training, networking, and research that allowed VE practitioners

and researchers to leave their discipline silos and collaborate together to advance VE research and practice. Moreover, additional initiatives developed to support the institutionalization of VEs within HEIs by focusing on training, supporting, and creating a network of international officers and senior management, such as the Erasmus+ Frames project and COILConnect website (O'Dowd, 2021). This development of large organizations and projects that serve both the VE practitioners and HEI administrators demonstrates the growth of VE from grassroots, faculty-led initiatives to a top-down, institutional driven policy.

This brief historical outline of the evolution of VE shows how this innovative, student-focused pedagogy was adopted and developed across a variety of fields with similar motivations and aims, albeit with little interaction or communication between the fields until a consolidation process began around 2016. This short historical background of the VE field is offered to contextualize the experiences of the participants in this thesis and illustrate how VE development and implementation have moved from grassroots to an institutionally led initiative.

2.3 VE Benefits

One assumption I consciously made in this thesis is that a VE, as a research-based pedagogical practice, provides multiple benefits for students. This assumption was based on large-scale, well-designed qualitative and quantitative research reports conducted by two non-profit organizations, Erasmus+ sponsored projects (Erasmus+ Virtual Exchange, EVOLVE and EVALUATE) and the Stevens Initiative, which confirmed the findings of earlier, small-scale, survey-based case studies (Baroni et al., 2019; Çiftçi & Savaş, 2018; Dooly & Vinagre, 2021; EVOLVE Project Team, 2020a; Jager et al., 2021; Stevens Initiative, 2023). Although these reports did not undergo a peer-reviewed process like journal articles, these non-profit organizations were able to conduct much larger-scale research compared to individual VE researchers.

These reports have described overall high student satisfaction from VE participation. Additionally, four main student benefits of VE have emerged: gains in intercultural, language, critical digital literacy, and transversal (i.e., skills not specific to particular disciplines) competences. Students have improved their ICs and gained confidence in working in intercultural environments (EVOLVE Project Team, 2020a; Helm & van der Velden, 2020; Stevens Initiative, 2023). Baroni et al. (2019) noted that although students

who participated in VEs had higher IC scores than the control group, it was not statistically significant. However, the Stevens Initiative report (2022) described how Soliya program participants had consistently higher IC than a comparison group and participation in longer VEs resulted in a larger effect on IC scores. Additionally, students improved their vocabulary and grammar skills and gained confidence in their foreign language skills (Baroni et al., 2019; EVOLVE Project Team, 2020a). Several reports described participants gaining transversal competences, such as empathy, flexibility, adaptability, and collaboration (EVOLVE Project Team, 2020a; Helm & van der Velden, 2020).

This evidence underpins my assumption that VE is an effective pedagogy for improving students' intercultural, language, digital and transversal competences. This assumption allowed me to expand VE research from questions of if students achieve the learning outcomes of VEs to questions about how to integrate VE pedagogy into education systems.

Moreover, VE pedagogy benefits not only students, but also facilitators by providing valuable professional development. Nissen and Kurek (2020) reported that implementing a VE enhanced teachers' transversal competences, such as flexibility and adaption skills, and improved their ability to align course design with learning outcomes.

2.4 Barriers to VE

Despite the benefits of VE as a research-based pedagogical practice, all types of VEs face well-documented barriers to overcome, highlighting the complexities in designing, implementing, and sustaining VEs. This subsection outlines these barriers to contextualize the recommendations for successful VEs and provides background on the challenges that the participants in this thesis faced. These barriers can be divided into three main categories: technological, organizational, and interpersonal. Even with increasing access to the Internet and technologies such as videoconferencing, access to technology can still be a barrier (Luo & Yang, 2018). Also, students can encounter difficulties in navigating unfamiliar technological tools, such as LMSs (learning management system), despite using others constantly, such as WhatsApp (Baroni et al., 2019; Çiftçi & Savaş, 2018).

Many organizational barriers stem from misalignment of time zones, academic schedules, numbers of students participating on each side, HEI policies on curriculum, or academic credit between partners, leading to low student registration and lack of student participation

or motivation (Hernández-Nanclares et al., 2019; Nissen & Kurek, 2020; Stevens Initiative, 2022). Others emerge during the development and implementation of the VE design, such as lack of sufficient planning time (Zak, 2021), different learning outcomes or assessments between partners (Chun, 2015; Çiftçi & Savaş, 2018), or issues with the course tasks (e.g., too many tasks or illogical task order) (Caluianu et al., 2019). Finally, many studies have shown that facilitators feel a lack of support (financial, training, or technical) or recognition from their HEIs, despite their time and energy investments (Hernández-Nanclares et al., 2019; Radjai & Hammond, 2023).

Interpersonal conflicts can occur at three levels: facilitator-facilitator, facilitator-student, and student-student. Unequal partnership between the facilitators due to differences in authority or power can lead to challenges in communication and collaboration between the facilitators (Alvarez & Steiner, 2019). This power imbalance within the facilitators' relationship can be considered another expression of the well-documented power imbalance between global north and south partnerships in the wider internationalization field (Lee & Stensaker, 2021). Student-student conflict can arise because of differences in motivation and work ethic or miscommunication stemming from differences in language proficiencies, ICs, or understanding of assignments (Baroni et al., 2019; Ruther et al., 2021). This conflict can result in superficial intercultural interaction (Liddicoat & Scarino, 2013) or reinforcement of negative stereotypes (Aristizábal & Welch, 2017; O'Dowd, 2003). Facilitators can also struggle knowing when or how to intervene during student conflicts, where inattentive facilitation can hinder students' experiences, but over-involvement prevents learning (Stevens Initiative, 2022).

The next subsection presents recommendations drawn from the literature on how to overcome or minimize these barriers when designing, implementing, and sustaining a VE.

2.5 Recommendations for VE Design and Implementation

Recommendations that emerge from VE case studies, literature reviews, and large-scale program reports focus more on designing and implementing new VEs at a course level or an institutional scale and less on the sustainability of already-established co-designed VEs. These recommendations can be organized into four categories: high quality task and course design; faculty training, support and recognition; recognition of student participation; and institutional and national support (Çiftçi & Savaş, 2018; Garcés & O'Dowd, 2020; Jager

et al., 2021; O'Dowd, 2021). The first category focuses on the facilitators' role while the last three categories highlight the HEIs' roles and the perceived importance of institutionalizing VE.

The first category of recommendations is based on empirical research conducted on VE task and course design. In terms of task design, Çiftçi and Savaş (2018) noted the need for high quality task design, such as scaffolding instructions to ease student understanding of the task. In terms of course design, several VE course design models exist in the VE research and practice literature. Despite some differences, these models seem to share a common set of steps that contribute to student gains in global skills, such as building trust between students through ice breakers, incorporating collaborative tasks, and including student self-reflection (Alvarez & Steiner, 2019; Guidry et al., 2020; Jiang et al., 2014; O'Dowd & Waire, 2009). Two commonly cited models for co-designed VEs are O'Dowd and Waire's (2009) three-stage Progressive Exchange Model (information exchange, comparing and analyzing cultural practices, and working on a collaboration product) and the four-step SUNY COIL model (team building, comparative discussion, collaborative project and presentation, and reflection). Doscher and Rubin (2022) combined these models and added an initial pre-VE student preparation step to their five-phase model. In their VE course design model, Alvarez and Steiner (2019) also included assessment, learning outcomes, and course evaluation considerations. However, none of the above literature discussed how to sustain a course beyond implementation.

The second and third categories of recommendations offer possible solutions to barriers faced by facilitators and students, as mentioned in Section 2.4. At the facilitator level, it is recommended that HEIs provide facilitator training on designing and implementing VEs (Beaven et al., 2021; EVOLVE Project Team, 2020b; Garcés & O'Dowd, 2020; Helm & van der Velden, 2021). Moreover, facilitators need administrative, technical and evaluation support from their HEIs (Helm & van der Velden, 2021; Stevens Initiative, 2022). Beyond receiving training, the literature suggests facilitators should be recognized for the time and effort they invest in building and running a VE, either by institutional awards, reduction of teaching load, financial incentives, or as a factor for career progression (Baroni et al., 2019; EVOLVE Project Team, 2020b; Garcés & O'Dowd, 2020). Students also need recognition of their participation in VE courses, such as integrating the VE as part of a credit-bearing course, official recognition of VE courses by HEIs, awarding internationalization badges, or

building internationalization profiles for students (Baroni et al., 2019; Çiftçi & Savaş, 2018; EVOLVE Project Team, 2020b; Helm & van der Velden, 2021; Jager et al., 2021). At the institutional and national level, the main recommendation is to integrate a VE as part of the strategic policy for internationalization, especially IaH and IoC (Baroni et al., 2019; EVOLVE Project Team, 2020b; Garcés & O'Dowd, 2020; Jager et al., 2021). On the practical level, HEIs need to allocate appropriate financial, technological, and human resources to support the facilitators and students (Helm & van der Velden, 2021; Stevens Initiative, 2023). Additionally, HEIs should increase student and faculty awareness of the benefits of VEs (Garcés & O'Dowd, 2020; Stevens Initiative, 2023). These recommendations focus on implementing VE courses at an institutional level with little focus on how to sustain individual courses.

Despite this wealth of recommendations for supporting and institutionalizing VEs, there is a dearth of empirical research on how or why long-running VEs succeed. The few research articles or practice reports I have located about long-running co-designed VEs mainly focused on subjects other than VE sustainability. Two long-running VEs for pre-service teachers appeared several times in the literature: Sadler's and Dooly's (2016) telecollaboration between US and Spanish students and Waldman et al.'s (2016, 2019) telecollaboration between German and Israeli students. However, only Sadler and Dooly wrote an article describing what they learned from the first 12 years of their VE that contributed to the success and sustainability of the course. The course remained focused on learner-centered pedagogy, but the facilitators became more active in planning the tasks and preparing and monitoring the students. Sadler and Dooly described changes they made based on student feedback and their own experiences, such as moving from a hands-off mentoring approach to one in which they prepared their students before the telecollaboration, concerning tasks, expectation for online behavior and collaboration, and cultural development. They also spent more time planning scaffolded tasks that progressed from simple to more elaborate, collaborative ones. They added student reflections and self and peer evaluations to monitor students' work. Their 2020 article on the impact of a flipped course design on learning outcomes for a long-running VE reiterated the above factors and added how the use of new technology and dedicated faculty with a strong working relationship contributed to the sustainability of their telecollaboration. Additionally, Dooly and Sadler briefly mention receiving institutional support through signed statements of

“mutual agreement of collaboration for teaching and research” (p.7), a step commonly mentioned in the literature for sustaining VEs.

The other studies I found on long-running VEs hinted at similar factors that contributed to sustainability. First, based on feedback from students and their own experiences, facilitators adapted course tasks to provide students with more scaffolding to support the challenge of working across cultures and time zones and offered more time for reflection (Caluianu et al., 2019; Fors & Lennerfors, 2020; Oswal et al., 2021; Stornaiuolo, 2016; Waldman et al., 2019). Others adjusted group size or makeup to improve student-to-student interaction (Nishio, 2023; Trautrimis et al., 2016). Second, faculty demonstrated a willingness to adapt new technology to improve student communication (Oswal et al., 2021; Stornaiuolo, 2016; Waldman et al., 2019). Facilitators reported developing a strong working relationship with their faculty partner(s) and gaining professional knowledge and experience (Baroni et al., 2019; Branch & Wernick, 2022). The importance of committed faculty for sustainability in a co-designed VE is also echoed in the EVOLVE Project Team (2020b) report, which shows the difficulty of maintaining faculty involvement in VEs if the VE initiative is institutionally driven. Finally, Brach (2022) and Waldman et al. (2019) mentioned the institutionalization of their VE, similar to Sadler and Dooly’s.

In summary, common factors for sustainability of VE can be mapped out. Yet these factors are mostly based on recommendations and hints, not on in-depth, empirical studies that examine successful, long-running VEs with a focus on sustainability. But why is the sustainability of co-designed VEs even a relevant or justifiable issue to research for the field of VE or beyond? While VEs utilize low-cost technological tools for internationalization, they are not free. HEIs and other organizations, such as Erasmus+, often provide initial funding to develop co-designed VEs. Also, faculty invest significant time and energy to develop VEs. Therefore, it is logical to understand how to maintain a co-designed VE once designed and implemented to avoid losing the investment made by faculty and others.

2.6 Sustainability

In this section, I move from discussing VEs to examining the concept of sustainability. I review two common definitions for sustainability and explain which definition best aligns with the aims of this thesis.

2.6.1 Sustainable Development

The use of the word “sustainability” has exponentially grown in published writing since 1980, according to the Google Ngram (Figure 2.6.1). In common usage today, sustainability is viewed as intrinsically linked to protecting the environment. This connotation traces back to the seminal definition of sustainable development by the Brundtland Report (1987): “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (p.16). This definition, along with the three-pillar model of sustainability (environmental, social, and economic), became the basis for the new field of sustainability science (Purvis et al., 2019). The United Nations (UN) 2030 Agenda for Sustainable Development continued the work of the Brundtland Report by defining 17 sustainable development goals, including ending poverty, providing equitable, quality lifelong education to all, and protecting the environment (United Nations, 2015). Business and project management research and policy have examined how to integrate these three pillars, especially protecting the environment, into macro-corporate planning to promote sustainability (Epstein et al., 2018).

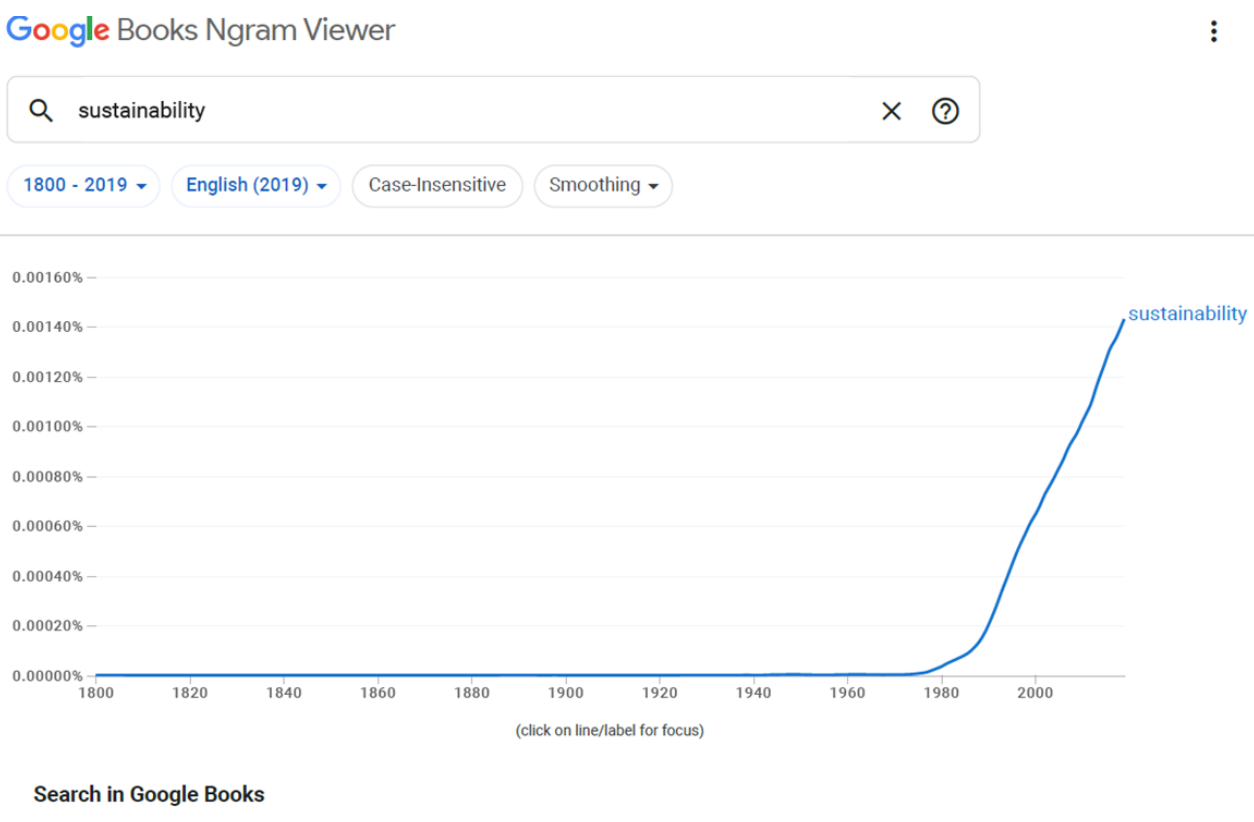


Figure 2.6.1 Google Ngram sustainability

In HE, research and policy seem to also focus on the macro level: how to integrate institutional initiatives to promote sustainable development or sustainability education that emphasizes teaching students about environmental sustainability across disciplines (Leal Filho et al., 2018; Michel, 2020). Two commonalities in the sustainability literature for business and higher education are an emphasis on the environment and a macro-level research focus (i.e., the whole corporation/business or HE institutional policy or curriculum). This emphasis on the environment and macro-scale does not align with the social aspects of VEs and the micro-scale (within the context of an HEI) that are the focus of this thesis. Therefore, I concluded that the sustainable development definition of sustainability is not appropriate for the aim this thesis which is understanding the factors and practices that contribute to the continuation of a VE.

2.6.2 Sustainability - Implementation Science

Sustainability is also used within the context of implementation science, an emerging academic field that examines how to implement evidence-based initiatives, interventions, and programs in real life. In this section, I will use the terms initiative, intervention, and program interchangeably when discussing what is being implemented and sustained, despite my acknowledgment of the differences in meaning that are stated across the literature. This simplification is because I am providing an overview of constructs from a research field that covers many disciplines, where each study has its unique focus on an intervention, initiative, program, or other similar terms. By using interchangeable terms, I nevertheless respect how each study refers to what is being implemented.

Implementation science developed from the healthcare field's struggles of translating evidence-based medicine into practice, especially in public health. For public health initiatives, more successful outcomes resulted from the combination of effective implementation and effective interventions (Albers et al., 2020). Therefore, implementation science focuses on the factors that affect the uptake and maintenance of an established and effective initiative, not on the effectiveness of the initiative (Soicher et al., 2020). Most research within this field has focused on the uptake of new initiatives, examining how to plan and implement successful initiatives, with only minor attention on how to sustain initiatives after implementation (Chambers et al., 2013). However, in recent years, more focus has been placed on sustainability due to the recognition that initiatives, even if they

initially are successfully implemented, can be a waste of human and monetary investments if they fail to be maintained (Nilsen & Birken, 2020).

Education, social work, and other social science disciplines outside of healthcare have begun applying the knowledge gained from implementation science to social interventions, programs, and reforms since they also face the challenge of closing the research-to-practice gap (Albers & Pattuwage, 2017; Soicher, 2020). Much of the education-related literature from implementation science seems focused on macro-scale changes at primary or secondary school levels, such as school-wide improvements, reforms, or changes (Hubers, 2020; Koh & Askeff-Williams, 2021), information and communication technology (ICT) implementation (Passey et al., 2016), or educational psychology (Moir, 2018; Soicher et al., 2020), instead of smaller-scale initiatives or programs, like VEs. Moreover, educational research, like public health research, has mainly focused on the initial implementation of evidence-based initiatives and less on program sustainability (Albers & Pattuwage, 2017).

In this context, sustainability refers to the practices and processes that maintain an effective intervention or program after the initial implementation phase. While sustainability has emerged in the implementation science literature as the preferred term for this concept, other common synonyms for sustainability are continuation, durability, institutionalization, sustained use, routinization, maintenance, and longitudinal or long-term survival. A commonly cited definition is “maintenance of programme activities” (Lennox et al., 2018, p.12), but this could lead to the continuation of ineffective programs or interventions that do not provide a benefit. To avoid this unwanted outcome, another phase should be added to the definition: the continuation of benefits after initial funding terminates (Lennox et al., 2018; Shediak-Rizkallah & Bone, 1998). Therefore, I define sustainability for VEs as the maintenance of course activities that continues delivering benefits after initial funding is terminated.

Lennox et al.’s (2018) systematic review of sustainability approaches in health care found 62 unique approaches to sustainability. On the one hand, this large number of sustainability approaches reflects an emerging field that is only beginning the collective academic journey of collecting and sharing research in an organized manner and is wrestling with creating commonly shared definitions, frameworks, and models. On the other hand, these numerous

sustainability frameworks and models developed over the last three decades of research attest to the dynamic, complex, and contextual nature of program implementation and sustainability (Lennox et al., 2018; Racine, 2006; Scheirer, 2005; Shediak-Rizkallah & Bone, 1998). The literature calls for more research to understand the role of context and type of intervention in implementation in general and sustainability in particular (Albers et al., 2020; Shelton et al., 2018). But in the meantime, Lennox et al. (2018, p.13) recommend that practitioners consult sustainability frameworks when “creating a sustainability method in their own setting” to prevent reinventing the wheel while also adapting the framework to a specific context.

Literature searches that combine “virtual exchanges” and “sustainability” keywords mainly result in articles about VEs incorporating sustainable development into their aims and content. For example, Lenkaitis (2022a) used the UN’s sustainable development goals as topics for a six-week VE between teacher trainees in the USA, Poland, and/or Columbia. Adefila et al. (2021, p.42) developed a new VE model, called EcoCOIL, “to promote environmental citizenship and develop multi-layered communities of practices”. EcoCOIL integrates the United Nations Educational, Scientific, and Cultural Organization’s (2017) framework for developing sustainability competencies within COIL pedagogical structure. Other VEs integrated sustainable development goals into management, computer science, and technical communication courses (Flammia, 2011; Stange & Stange, 2020; Taras et al., 2013). This growing literature on incorporating sustainable development goals as content in VEs contributes to research, practice, and fulfilling sustainable development goals, but does not provide useful knowledge for understanding the implementation science definition of sustainability within the VE context. Instead, this research demonstrates a clear gap in the VE literature on sustainability in terms of maintaining long-term virtual exchanges.

The scale of the initiatives, interventions, and programs studied in implementation science in both public health and education contexts is larger than the scale of a single VE. For example, a public health initiative would be studied across multiple locations with multiple organizations involved (the community, the health provider, and the initiative/program intermediary), reaching a large number of clients (Racine, 2006). An education initiative might study implementation of an ICT initiative at a school level, involving and affecting most of the administrative and teaching staff, the students, and the community (Koh &

Askell-Williams, 2021; Passey et al., 2016). While an institutional-level VE program or a “ready-made” VE may reach this scale, the scale of most co-designed VEs is much more modest, consisting of two to four faculty with 20-40 students in each iteration. It could be claimed the co-designed VEs are too small-scale for implementation science to be applicable. However, I argue that despite the small scale of co-designed VEs, implementation science is still a relevant way to analyze the factors contributing to the continuation of co-designed VEs for several reasons. While curriculum design models may be applicable to the development of the course content of a VE, they do not consider the organizational challenges of working between two or more HEIs. Co-designed VEs face higher levels of complexity than regular courses, more like larger-scale public health and educational initiatives because of the coordination between different HEIs, time zones, national policies, and cultures. Secondly, many VEs are designed using evidence-based course designs and practices (Dovrat, 2022), just like the interventions and initiatives in implementation science research. Finally, similarities exist between the stages of VE development mentioned in VE literature and the three initial stages in implementation science frameworks, which are exploration, preparation, and implementation (Aarons et al., 2011; Alvarez & Steiner, 2019; Guidry et al., 2020). Therefore, I followed Lennox et al.’s (2018) advice and created my own sustainability framework relevant to the VE context using relevant sustainability constructs from implementation science to analyze long-running VEs.

I have organized constructs from sustainability models and frameworks into three main categories, which echo the recommendations and hints for VE sustainability mentioned in Section 2.5: course design, people, and institutional context (see Figure 2.6.2). For each category, I will explain what each construct refers to and why it is relevant for VE sustainability. The people category has two constructs: the presence of a champion who promotes the course and the support of outside stakeholders, especially those in leadership roles (Lennox et al., 2018; Scheirer, 2005). Sustainability research in healthcare, social work, and education all underscore the importance of a program champion, a person whose commitment to and expertise of the initiative pushes the organization to sustain it (Fixsen et al., 2005; Racine, 2006; Savaya et al., 2008; Scheirer, 2005). This highlights the impact of individuals in sustaining initiatives, especially the practitioners who directly provide the service to clients, patients, or students. However, an individual champion cannot maintain

an initiative without outside support from stakeholders in leadership positions within all participating parties (i.e., healthcare organizations, third-party providers, schools, communities), who provide administrative, financial, or leadership assistance (Chambers et al., 2013; Fixsen et al., 2005; Nilsen & Birken, 2020). For VEs, the facilitators or designers may be the individual champions who also seek the support of stakeholders in various departments within their HEI to sustain the VE successfully.

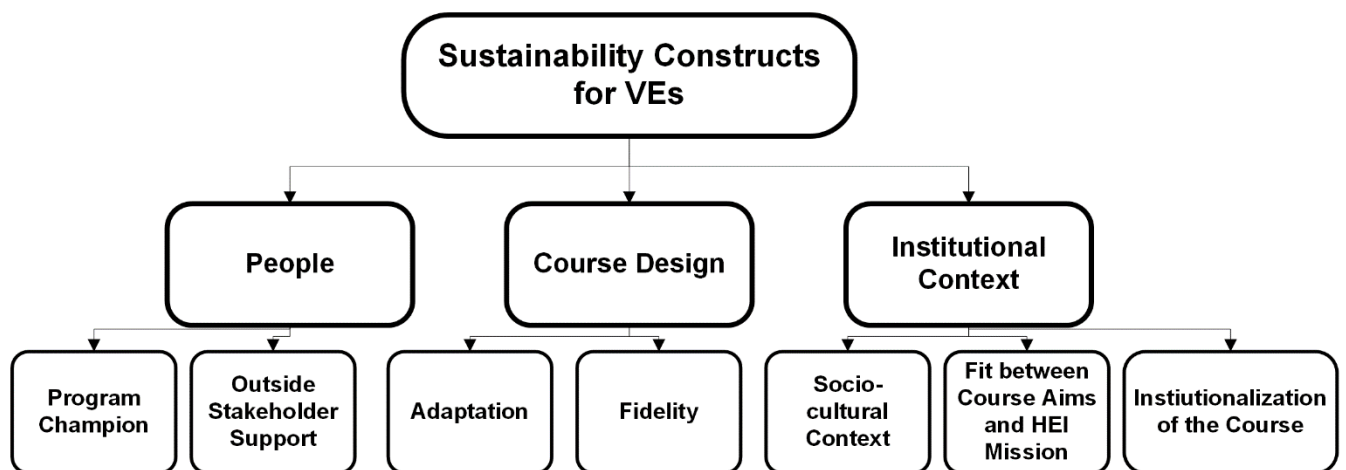


Figure 2.6.2 Sustainability constructs for VEs

For course design, there are also two main constructs that are relevant to VE sustainability: adaptation and fidelity (Moore et al., 2017; Scheirer, 2005; Stirman et al., 2012). Adaptation refers to “the degree to which an evidence-based intervention is changed to fit the setting or to improve fit to local conditions” (Shelton et al., 2018, p.57). For VE courses, adaptation could be changes in the course length, content, or technological tools to better fit students’ needs. Several researchers claim that adapting interventions to the local context increases long-term sustainment (Chambers et al., 2013; Nilsen & Birken, 2020; Passey et al., 2016; Scheirer, 2005). However, practitioners must be aware of mis-adapting the intervention, which can cause the intervention to lose effectiveness or lead to misuse (Pluye et al., 2004). Fidelity refers to “the extent in which the intervention was delivered as planned, representing the quality and integrity of the intervention” (Shelton et al., 2018, p.57). A tension exists between fidelity and adaptation: the desire to maintain the core elements of an intervention to ensure effectiveness versus the need to adapt an intervention to the local context to ensure acceptance of the intervention. Shelton et al. (2018) created the term

“flexible fidelity” to describe this balancing act, focusing on identifying and maintaining the core components of the intervention while adapting and evolving other aspects to fit the local context (Fixsen et al., 2005). For a VE, this tension may manifest between the demands to adapt content and schedules to the needs of each HEI while still maintaining effective course design sequences and fidelity of learning outcomes.

The institutional category has three interrelated constructs: the socio-cultural context of the HEIs, the fit between the course aims and the values of the HEIs, and the level of institutionalization of the course with the various HEIs (Lennox et al., 2018; Scheirer, 2005; Stirman et al., 2012). The first construct reflects the call for more research into how socio-cultural contexts impede or facilitate sustainability (Albers et al., 2020). This construct can be further divided into the impact of outer contextual factors (i.e., socio-political context, funding) and inter- or organizational-contextual factors (i.e., leadership, organizational culture, policies, staffing) on sustainability (Shelton et al., 2018; Stirman et al., 2012). For example, the national or institutional policies and culture can encourage VEs by providing funding and flexibility or hamper them by limiting funds and administrative support. The next construct, the fit between the course aims and the values of the HEIs, stems from claims in sustainability literature that programs are more likely to be sustained when there is a strong fit, or relationship, between the aims of the program and the mission of the organization (Chambers et al., 2013; Scheirer, 2005). This means the initiative reflects and promotes the values and beliefs of the organization (Pluye et al., 2004). Since a common course aim for VEs is to increase students’ IC, it would be expected that HEIs with internationalization as part of their mission would support sustaining VEs more than HEIs with internationalization as a core value. The third construct asserts that integrating a program into the existing organizational structure is key to sustainability (Nilsen & Birken, 2020; Savaya et al., 2008). This construct moves beyond the stakeholder or champion constructs because it recommends institutionalizing the VEs into existing curriculum or courses so that a VE is dependent not only on human sustainability factors but also on institutional routines. It emphasizes the importance of organizational learning in sustainability (Chambers et al., 2013), transforming a VE from a special program run by a passionate teacher into a permanent fixture of the curriculum.

In this section, I have argued that constructs from sustainability frameworks and models within implementation science are relevant to understating the sustainability of co-designed

VEs. Co-designed VEs share many of the complexities of other initiatives and programs studied by implementation science, despite the smaller size of VEs. This section outlined the constructs from sustainability literature most fitting for analyzing sustainability in co-designed VEs. These constructs formed part of the codes for data analysis, detailed in the data analysis section (Section 4.4).

Through this literature review, I have illustrated a gap in the empirical knowledge on sustaining a long-running co-designed VE and why filling this gap is essential for practice. I have also justified why applying sustainability constructs from implementation science is a relevant conceptual approach for this research.

Chapter 3 Theoretical Underpinnings

Two theoretical underpinnings have influenced my research: pragmatism and social constructionism. While these theoretical perspectives can be considered separate philosophical paradigms with different interpretations or understandings of what is truth or knowledge, I argue in this chapter that both contributed to my study in distinct but complementary ways. I will not give a historical or philosophical review or explanation of these theoretical underpinnings since this is covered extensively in existing literature (Biesta & Burbules, 2004; Weinberg, 2014), but rather highlight the aspects of pragmatism and social constructionism that underpinned my philosophical thinking and guided my methodological choices during my research journey.

Pragmatism, as a philosophical paradigm, “presents a radical departure from age-old philosophical arguments about the nature of reality [ontology] and the possibility of truth [epistemology]” (Morgan, 2014, p.1049). It moved away from the metaphysical debates about ontology and epistemology that are central to other paradigms and instead emphasized the inquiry of the human experience as the central philosophical focus, (Morgan, 2014). Since pragmatism shapes how I view educational research and practice, I structure this chapter around the central questions in pragmatism – why to do the research and how to do the research - instead of the typical philosophical debate about ontology and epistemology. These two questions inform my choice of research problem and the methodology to explore it.

In answering the pragmatic question of “how to do research”, I found that social constructionism provided the theoretical tools that guide my research questions, data collection tools, and especially data analysis.

3.1 Pragmatism: "The trail of the human serpent is thus over everything" (William James, 1907/1995, p.26)

The simplified characterization of a pragmatic approach to research is one that investigates *what works* within the real world (Cohen et al., 2013). This description initially drew me to pragmatism since my natural inclination is that educational research should contribute directly to educational practice, such as creating tools and practices for educational purposes. As I dove deeper into pragmatism philosophy beyond an “on one foot”

summary¹, I discovered three aspects that confirmed my initial interest and guided my choice of methodology and theoretical framework: views on the research itself, fallibility, and intersubjectivism.

There is truth to the simplification that pragmatic research focuses on “what works” to solve a problem. From a pragmatic perspective, if research or experiment does not provide practice tools to solve problems, it can be considered not a worthwhile pursuit. This emphasis on solving problems aligns with the goals of educational research - research *for* education, not *about* education (Biesta & Burbules, 2004, p.1). However, this expression skips to the final research stage without acknowledging several essential steps. The first step of pragmatism is identifying a unique problem to solve that matters to an individual or community and formulating a research question (Allan, 2004; Morgan, 2014). For my research, the unique problem is how to sustain a co-designed virtual exchange once developed.

The next step is selecting a research methodology and method to answer the research question. Pragmatic research does not have rigid methods or guidelines for conducting research but demands researchers to justify *why* they made certain research choices, requiring reflexivity from the researchers (Cohen et al., 2013; Morgan, 2014). One research choice is whether and how to use theory. In pragmatism, theory is viewed as a tool, not a primary goal of research (Cohen et al., 2013). If a theory contributes to solving the problem, its use is justified. Cohen (2013, 36:) wrote that in pragmatism, “Theories are to be judged by their practical utility rather than being ends in themselves; they are instruments for coping with, understanding and living with ‘reality.’ Hence a ‘good’ theory pulls its weight in its practical utility”. In Section 3.2 of this chapter, I justify my use of social constructionism as my theoretical framework, a tool that guided data collection and data analysis.

Throughout the rest of the chapters, especially in the methodological chapter, I attempt to justify each research choice.

¹ Common Jewish/Hebrew expression. From a famous Talmudic story of a man asking the great rabbi and teacher Hillel to “teach the Torah while I stand on one foot”. Hillel replied “That which is hateful to you, do not do to your fellow. That is the whole Torah, all the rest is commentary. Now, go and learn it”.

Additionally, pragmatism allows for the reality that the research process, especially data collection, does not always go smoothly. By encouraging reflection throughout the research process, pragmatism allows researchers to reconsider their initial thinking or methods and adapt to the reality in front of them (Yvonne Feilzer, 2009).

Another relevant aspect of pragmatism is the concept of fallibilism, the acceptance that what we hold true now might be in error even now or in the future (Allan, 2004). Or in other words, people, researchers, can never be certain about their knowledge (Biesta & Burbules, 2004). This stems from the belief that the universe is unfinished and what we might understand today will be different tomorrow (Allan, 2004). This idea seems relevant to the technology-enhanced learning world since technology is continually developing and advancing. What we understand as an effective learning practice with the current technology, such as videoconferencing with students across the globe, may become irrelevant in the future with newer technology, such as virtual reality. Thus, fallibilism allows us to realize that the knowledge gained and practices developed through previous research to solve problems in the past may not be suitable for current or future problems (Biesta & Burbules, 2004). Therefore, pragmatism encourages a constant reflection and reevaluation of our knowledge and problems to adapt to changes in the world. This is why I do not claim in this research to permanently solve the problem identified in this study - how to sustain co-design virtual exchanges - because, within one research study, I cannot gain complete knowledge of the situation and the perfect practice for all cases. However, I can contribute knowledge about the factors and processes that sustain co-designed VEs so that practitioners will have more practical tools to tackle this issue at this moment in time and build on the knowledge in the future. Furthermore, I can add to education research literature through demonstrating how concepts and constructs from implementation science can be applied to educational programs.

Finally, pragmatism recognizes the interrelation and inseparability of knowledge and action, of fact and value (Biesta & Burbules, 2004). The relationship between theory (knowledge) and practice (action) is viewed as cooperative and coordinated - each can inform, shape, and impact the other. Therefore, the systematic study of practices used by veteran VE facilitators can contribute to developing knowledge that future VE facilitators can implement. This view of knowledge and action emphasizes pragmatism's focus on the real world, not theoretical or ideological worlds. John Dewey, considered one of the founders of

pragmatism, viewed knowledge as built by the interaction between humans and their environment, called “transactional realism” (Biesta & Burbules, 2004). Thus, knowledge is not something to learn or uncover but is built between humans and their surroundings, whether in the physical or virtual world. Due to this interaction, social and historical contexts become critical for understanding the processes of building knowledge and forming values (Allan, 2004). Therefore, this research considers the impact of culture and intercultural interactions on processes and practices in VE.

Additionally, in pragmatism, the creation of meaning, or interpretation of knowledge, occurs during communication between people since other people are part of the environment (Biesta & Burbules, 2004). On the one hand, social practices arise through the interaction and communication between people, the process of “making something common” among people, not just in the heads of individuals (Vanderstraeten & Biesta, 2006). On the other hand, this communication process creates an “intersubjective” world among people, where different perspectives or judgments of truth can co-exist (Allan, 2004). This is relevant to this research since two or more facilitators work together to create something in common, a VE to share with their students, yet each facilitator creates their perspectives of the VE. Therefore, within one VE, there may be several interpretations of events, practices, and processes.

In summary, pragmatism, focusing on solving real-world issues through reflective research, informed my research problem and methodology choice. Moreover, the pragmatic view of theory as a tool of research provided me the freedom to choose, upon reflection and justification, the most appropriate theoretical underpinning to guide data collection and data analysis based on my research problem and context, even if the theoretical underpinning is not necessarily recognized as a pragmatic one. Therefore, I selected social construction as my theoretical underpinning to inform my data collection and analysis, which I will justify in the next section. I hope to demonstrate the pragmatism view of knowledge, including fallibilism, the intertwinement of knowledge and action, and the intersubjective nature of knowledge, is complimentary to the aspects of social constructions relevant to my research.

3.2 Social Constructionism

Regarding myself in this research as a pragmatist, and since I am attempting to understand what works within the messiness of the real world, having a clear theoretical underpinning

to guide my observations of the world offers a tool to collect, organize, and interpret the data. Due to the international and intercultural nature of VEs, where faculty and students from multi-layered contexts come together to collaborate and learn in small workgroups, social constructionism provides an appropriate lens to view and interpret the socio-cultural interactions among these multi-layered learning and teaching contexts. Social constructionism is not one specific theory but rather a galaxy from diverse writers, philosophers and researchers which is bounded by a few key assumptions (Burr, 2003; Holstein & Gubrium, 2007). As Hjelm (2014) wrote, “The simple fact that no agreement exists even among those who consider themselves ‘constructionists’ is a sign both of the diversity of the field and of a reluctance to characterize constructionism as a singular ‘theory’” (p.87). To extend the space metaphor, there are many solar systems of theories within the social constructionism galaxy, such as social practice theory (Trowler, 2019; Wenger-Trayner & Wenger-Trayner, 2015), activity theory (Engeström, 2001), socio-cultural development (Vygotsky), and the theory of structuration (Giddens, 1984). Each of these solar systems focuses on a different context (e.g., learning or businesses) or a level (e.g., an individual, a system of practice, or an organization).

For my research project, I will not use a specific solar system theory within the social constructionism galaxy since none fully aligns with my research aim of understanding sustainable co-designed VEs. For example, a VE can be analyzed as an activity system by examining the interaction between subject, object, tools, rules, workgroup, and division of labor to understand how a VE attains an outcome of sustainability. However, for my research purposes, I examined a VE from a holistic point of view without choosing a perspective of a specific subject.

Similarly, social practice theories, such as communities of practice and teaching and learning regimes, while perhaps relevant for analyzing the social practices of the VE workgroup, do not align with multiple cultural and organizational contexts of this research. These theories analyze the factors that develop and maintain social practices of communities of practice or workgroups, such as the facilitators of a VE. However, VE workgroups are small (usually two to four members). They are a type of “wormhole” in terms of connecting several HEIs yet not belonging to just one HEI, thus making it difficult to focus on the social practices of just one workgroup. The social practices developed in the VE workgroups mostly likely impact sustainability due to the centrality of the facilitators in

successful VEs, as seen in the literature review, and will be part, but not the only, focus of this research. Therefore, social practice theories can contribute to understanding the sustainability of VEs but cannot be the only theoretical underpinning. Other factors also play a part, such as course design, institutional policy and practice, and funding issues, which cannot be ignored.

Since none of the theories from the social constructionism galaxy fit my research's needs, I will take Gergen's (2015) advice and consider social constructionist ideas as tools for action where "one may pick them up and use them at will" (p.9). Therefore, three key assumptions of social constructionism influence my thinking and research design. Each of these assumptions also coincides with the aspects of pragmatism that I outline in the first section of this chapter. First, I embrace the most basic shared tenet of social constructionism: that knowledge is a product of human thought and social interaction and not only grounded in an objective, external reality (Burr, 2003). People, through their daily interactions, actively take part in producing and reproducing knowledge that constructs their world, their reality (Hjelm, 2014). While shared knowledge and experiences may be constructed through interaction, different perspectives or interpretations can emerge. Embedded into this tenet is the assumption that changing how people think and communicate about the world can lead to significant social change (Elder-Vass, 2012). Pragmatism also believes that knowledge is built through intersubjective interactions between humans. Therefore, this research will examine the knowledge the VE facilitators produced and how that construction process unfolded (Holstein & Gubrium, 2007).

There is a contentious debate in social constructionism about the nature of reality, with relativists or radicals claiming that even if objective knowledge exists, it is inaccessible to humans, leaving only subjective reality (Burr, 2003). Realists recognize that an external reality exists which underpins but is not accurately reflected in people's representations of the world (Burr, 2003; Nightingale & Cromby, 2002). I lean towards the realism side of the social constructionism galaxy. First, realists recognize the value of everyday human experience through the five senses - our material bodies sensing the material world (Hjelm, 2014). While we may develop different concepts to interpret these senses, the material senses exist, an external world exists (Elder-Vass, 2012). Recognizing that an external reality exists prevents the slippery slope of equating all people's views of the world as true and valid while at the same time acknowledging that each person constructs their

understanding of the world (Young, 2007). Realism in social construction is a balancing act - the recognition that there is no one standard of truth, especially for social phenomena, yet acknowledgment that some knowledge has more value for society because of its practical, predictive value and alignment with the values of society (Best, 2007; Gergen, 2015; Weinberg, 2014). The process of arriving at practical knowledge is through discussion, negotiation, and reflection with the recognition that not all perspectives are equal yet that openness to new alternatives can lead to progress (Gergen, 2015). This realist perspective allows the investigation into social and material processes that shape our world, such as the processes that contribute to VE sustainability (Nightingale & Cromby, 2002). It is also complementary to the pragmatic notions of fallibilism and the intersubjective nature of knowledge.

The second assumption concerns the historical and cultural specificity of knowledge (Burr, 2003). This assumption builds on the first, so not only is knowledge constructed through social interaction, but it is also impacted by the time and place it was developed. Therefore, a person's understanding of the world depends on where and when one lives. For example, understanding religion's place in public schools varies depending on the culture and time period. For many modern Israelis, having four (or more) different publicly funded school systems based on religion and level of religiosity is an unquestioned fact of living in a divisive multi-cultural, multi-religious country. For many modern Americans, the idea of publicly funded religious schools seems paradoxical. These two contradictory understandings of religion's place in public school developed because of each country's specific history and culture(s).

Before moving to the final assumption, I want to clarify what I mean by history and culture and how this impacts my study. History refers to the passage of time, be it the passage of several semesters, years, decades, or more. And even though the definition of culture is highly debated, for this research, culture refers to the shared set of "practices, rituals, institutions and material artefacts, as well as text, ideas and images" (Jay, 1984 as cited by Elder-Vass, 2012, p.38). Culture is a type of knowledge built from the repeated and shared interaction between individuals, the environment, and materials throughout time (Gergen, 2015). To be part of culture, the collective must endorse the shared practice or idea, not just individuals (Elder-Vass, 2012). The collective can refer to large groups, such as nationalities, and smaller groups, such as families or workgroups.

The interaction between history, culture, and individuals creates a never-ending spiral. On the one hand, individuals interacting together through history construct and transmit culture from one generation to another. On the other hand, culture created by previous generations influences how individuals develop their understanding of the world. Each individual participates and is influenced by multiple cultures, from smaller family, friend or work group cultures to larger religious, ethnic or national cultures, creating divergent understandings of the world (Gergen, 2015). Also, multiple historical and cultural contexts shape and influence the construction of knowledge for groups and organizations, such as an HEI (Bamber et al., 2009) or a workgroup within an HEI (Trowler, 2019). This means that knowledge is nested within multiple layers of historical-cultural context, a view shared by pragmatism (Weinberg, 2014). To understand the knowledge and practices constructed by small workgroups, such as the co-facilitators of a VE, their personal, institutional, and national historical and cultural contexts need to be recognized and examined (Wortham & Jackson, 2007). Therefore, the impact of historical and cultural context at different levels (individual facilitators, VE workgroup, and the HEIs) on VE sustainability will be considered during data collection and data analysis and is aligned with the sustainability construct of the socio-cultural context within an institution (see Section 2.6.2).

The last assumption is that knowledge is sustained by social processes (Burr, 2003). For this thesis, social processes refer to how individuals interact with each other and the material world to create, transmit and sustain knowledge. One product of social processes that sustains knowledge is social practice. Reckwitz (2002) defined practices as “routinized type of behaviour which consists of several elements, interconnected to one other: forms of bodily activities, forms of mental activities, ‘things’ and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge” (p.249). Social practices are sets of shared, unquestioned, recurring practices that comprise daily life for a group of people (Bamber et al., 2009). This also corresponds to the pragmatic view that knowledge and action are interrelated and inseparable. Each individual in a group is a “carrier” of the practice by reproducing actions according to the pattern mandated by the practice (Reckwitz, 2002). Organizations, such as HEIs, produce and transmit social practices that create organizational continuity and culture (Cunliffe, 2008). However, at the same time, social practices evolve, just like knowledge and culture, through the constant interaction between individuals and reproduction of actions (Bamber et al.,

2009). Individual workgroups within a larger organization also develop their social practices that reflect their unique context within the organization and local culture (Bamber et al., 2009). Therefore, when studying the social practices of a workgroup, like the VE co-facilitators, these practices need to be viewed as nested within and between larger layers of social practices of each department, HEI, and culture (Trowler, 2019). This study will examine the social practices of the VE workgroups and the individual facilitators with other stakeholders that contributed to the sustainability of a VE.

In this subsection, I have outlined the three assumptions from social constructionism in an attempt to “be explicit about what kind of constructionism a particular study espouses” (Hjelm, 2014, p.109). These three assumptions provided the theoretical underpinnings guiding the creation of my data collection tools and analysis of my data (see Sections 4.3 and 4.4). The complementary combination of pragmatism guiding my general research, practice perspective and methodological choice and social constructionism guiding data collection and analysis provides the theoretical underpinnings needed to consciously acknowledge and construct the assumptions influencing my pursuit to understand what factors and practices influence sustainability in a co-designed VE.

Chapter 4 Research Design

In this chapter, I first explain the rationale for my methodological choice of a multiple case study design. Then I describe my research design, focusing on data collection and data analysis methods. The chapter ends with a discussion of ethical and quality issues.

4.1 Methodology: Case Study

After defining the research problem and research questions (see Section 1.4), the next step in pragmatic educational research is selecting the appropriate methodology to answer the research questions. I chose a case study methodology for its practical versatility since it does not claim a specific philosophical or epistemological position, but rather accommodates a researcher's position to answer complex, real world research problems (Harrison et al., 2017). Like my pragmatic approach in this study, case study methodology focuses on defining research questions and then choosing the best tools to answer them. The focus is not on following a prescribed set of methods to test a hypothesis, but rather reflectively and thoughtfully documenting the process of answering questions.

The leading voices on case study methodology and research design can be divided along a positivism/constructionism/interpretive epistemology continuum (Harrison et al., 2017; Yazan, 2015). Yin (1994) and Swanborn (2010) lean towards the positivist or post-positivism end of the continuum, despite Yin claiming himself as a "realist". Both use language and techniques of positivist, quantitative research, such as "falsifying hypotheses", "replication" through use of multiple cases, and the pursuit of generalization, with an emphasis on using quantitative methods in addition to qualitative ones (Harrison et al., 2017; Yazan, 2015). On the other end of the continuum, Stake (1995) offers an interpretive/constructionism approach to case study research, emphasizing interpretive, flexible qualitative methods that should be adjusted as the study progresses (Yazan, 2015). In the middle, towards the constructionism side, is Merriam (1998), who advocates for a pragmatic constructionism approach to qualitative educational case study (Harrison et al., 2017; Yazan, 2015). Since I am a pragmatic educational researcher using a social constructionism theoretical underpinning, my approach to case study most aligns with Merriam's approach.

Despite the epistemological differences between the case study tomes, a consensus emerges about several features of case study research. First, case study research has been consistently described as an in-depth, holistic study of a bounded yet complex phenomenon within the real world, especially in the contemporary world, where the numerous variables cannot be separated from the context of the phenomenon. Second, experts recommend using case studies to answer “how” or “why” research questions across a range of topics, especially when there is little or no control over behavioral events and the focus of the study is on a contemporary phenomenon (Yin, 2009). Many case studies focus on the multiple perspectives of processes, interactions and relationships that occur within a phenomenon. Additionally, no prescribed methods exist beyond recommendations to use multiple data sources. Instead, researchers are encouraged to thoughtfully choose the methods best suited to answer the research questions and phenomenon itself within the reality of the case, with an emphasis on the qualitative methods of interviews, observations, and documentation analysis. And finally, most case study experts stress the importance of carefully planning and framing the research issues and questions and accurately documenting the research process in real time to provide improved credibility and internal validity. Yin (2009), Swanborn (2010), and Simons (2014) emphasize the need to develop a detailed research protocol that outlines all steps of the research before starting data collection, while Stake (1995) believes the course of research cannot be planned in advance, due to the exploratory and interpretive nature of case study, excepting the starting point. Merriam (1998) falls in the middle, recommending using a theoretical framework developed from literature as the frame of the study, which then guides the research problem, research questions, data collection and analysis but does not advocate for a detailed research protocol. Despite the disagreement on the amount of rigidity in planning case study research, the above-mentioned scholars allow for adapting the research design during the research process in reaction to changing circumstances or new understandings, albeit to different degrees. Yin (2009) proposes flexibility in methods in case selection based on new understandings but advises against changing the research purpose or questions. Stake (1995), on the other hand, advocates for an openness to change all aspects of the case study due to his exploratory and interpretive view on case study research.

This research embodies these above-mentioned features of case study research. VEs are a bounded, contemporary pedagogical phenomenon in the real world, since each is an academic course delivered at a specific time each year yet are complex and impossible to separate from their interconnected local contexts. The research questions ask not only what the factors and practices of sustainability in co-designed VEs are, but also how they develop. Although I am an active member in one of the cases (this will be discussed further in Section 4.7), I have no control over the phenomenon under study unless it was my own personal contribution to the VE I facilitate.

The rest of this chapter details the methods used to gather and analyze the data and ethical and quality issues. I followed the recommendations of Yin (2009) and Merriam (1998) and developed detailed research steps to conduct my data collection and analysis, based on constructs presented in Section 2.6.2 and theoretical underpinnings presented in Section 3.2. This chapter also includes descriptions of changes in my research design that occurred during the research process. While the methods of case selection changed, the main purpose and research questions remained the same.

Case study methodology also aligns with the social constructionism theoretical underpinnings of this study, since case studies take a holistic approach to a phenomenon to understand the relationships and processes that occur within it, such as socio-cultural factors (Denscombe, 2010). Although ethnography and phenomenology are methodologies aligned with this perspective, and provide in-depth understanding of complex social realities, the usual focus of these methodologies is not on a specific phenomenon, such as a VE, but rather a focus on the culture of a group or individual perspectives of a phenomenon, respectively.

Many categories of case studies exist, with each author (e.g., Merriam, Stake, Yin) devising slightly different categories (Cohen et al., 2017). Tight (2010) criticizes these numerous labels as needless attempts to justify a methodology that simply studies a particular example in-depth. However, these categories provide a shorthand method of communicating the type and purpose of the case study. For this reason, I define this study as a descriptive multiple case study, since the main purpose is to describe the factors and practices that contribute to the sustainability of multiple co-designed VEs (Cohen et al., 2017; Denscombe, 2010).

4.2 Case Criteria, Selection, and Engagement

For successful case study research, the criteria for selecting cases must be clearly defined and reflect the purpose of the study, since the case is the unit of analysis (Merriam, 1998; Yin, 1994). I chose to locate “typical” or “representative” cases of the phenomenon to examine, cases which reflect the average co-designed VE in higher education (Merriam, 1998; Swanborn, 2010). The criteria for inclusion in this study were co-designed VEs in HE that have successively run for three or more iterations and were still running at the time of data collection. The specific course content, number of students or partners, and country were not part of the selection criteria since the emphasis was on co-designed VEs, not on content or location.

I identified potential cases through a combination of key person, purposive and networking sampling techniques (Swanborn, 2010), resulting in the identification of primary and secondary cases. The distinction between primary and secondary cases was made because of differences in the availability of data sources. More data sources were available for primary cases, including interviews with faculty, syllabuses, design documentation and course and institutional websites. Secondary cases had more limited data sources, consisting of interviews with faculty and institutional websites. Despite the more limited data access, the secondary cases provided a comparison to the primary cases to highlight similarities or differences in terms of factors and practices. I collected data from secondary cases concurrently with the primary cases.

For my primary cases I used the VE I facilitated and another from the same Erasmus+ funded project because these VEs met the inclusion criteria for my study. I contacted the project manager of the Erasmus+ project as a key person to receive permission and access to project documentation and contact information of participants. The project manager encouraged my research and provided the documentation access and contact information. My course and one other had continually run since 2018 as VEs when I began data collection. The other two online courses from the project evolved to become a popular MOOC and online course offered at one HEI. Initially, I was interested in including the two non-VE courses in my study as a comparison since the differences between the models could have provided insight into sustainability factors. However, lack of responses to requests for interviews led me to drop these two non-VE courses as cases. The facilitators

of my VE and the other continuously running VE from the project responded positively to my email requests for interviews. All interviews took place on Zoom at a convenient time for the participants, after the participants signed consent forms. Additionally, the interviews were recorded using the Zoom record feature, with written and verbal consent. These two VEs developed from this Erasmus+ project became the primary cases of this study due to more accessible in-depth data, such as interviews, project documentation, course syllabus, course website and course tasks. In total, I interviewed 12 participants for the primary cases, nine from my VE course (which has eight partners) and three from the other primary case (which had three partners).

Four secondary cases were identified through purposive and networking sampling. I reached out to my personal and professional VE networks to locate additional long-running co-designed VEs with faculty facilitators who were willing to participate in this study. Potential participants were contacted by email, using my Lancaster University email account. As with the primary cases, all interviews were conducted and recorded using Zoom, with consent. Additionally, at the end of every interview (primary and secondary cases), I asked participants if they knew any other potential participants. These techniques resulted in the identification of four secondary cases that spanned the globe, for a total of nine interviews (three cases with two participants, one case with three participants).

4.3 Data collection

Multiple data sources are a key feature of case study research, with the goal of providing an in-depth, holistic picture of the phenomenon under study. The different evidence sources also contribute to the increased internal validity and reliability of the findings through data triangulation (Merriam, 1998; Yin, 1994), which is discussed further in Section 4.8. In most case studies, one or two methods of data collection are the predominant tools for answering the research questions, with others playing a supporting role (Merriam, 1998). Moreover, theoretical frameworks always guide the data collection process, whether as a fully formed theory or as unconscious, common-sense ideas of the researcher (Swanborn, 2010). In this study, the predominant data collection method is individual semi-structured interviews with co-facilitators of long-running, co-designed VEs. For all cases, additional data sources include publicly available documentation of participating HEIs' mission statements and internationalization policies. For the two primary cases, additional documentation sources

include course syllabuses, course tasks and the Erasmus+ project documentation. Table 0.1 summarizes the data collection methods used in this study.

Method	Reason for using	Linked RQs	Instrument
Interviews with faculty and stakeholders involved in co-designed VE	To explore the perceived factors, practices and processes that contribute to sustainability	1.1, 1.2, 1.3, 1.4, 2.2, 2.3, 2.4, 3.1, 3.3	See Appendix 1
Documentation analysis of course tasks from course websites	Provide evidence of changes/adaption of tasks over time as well as fidelity of VE purpose	2.1, 2.3	
Documentation analysis of participating HEIs' mission statements and/or internationalization policies (if publicly available)	Provide socio-cultural context for HEIs and evidence of fit between organizational values and VE purpose	1.4, 2.3, 3.2, 3.3	
Erasmus+ Project Documentation	To understand the development process of the primary cases	2.2, 2.3	
Documentation analysis of course syllabuses from each iteration	Comparing course changes made in each iteration demonstrates possible adaption or fidelity of the VE	2.1	

Table 0.1 Data collection methods

The following subsections describe the theoretical framework rationale for each data collection method.

4.3.1 Interviews

The social constructionism theoretical framework (see Section 3.2) that guided my data collection processes emphasizes the social creation of knowledge through social processes based in historical and cultural contexts. A primary data collection method for case studies is interviews, since interviewees supply information about the phenomenon and social processes they are involved in (Swanborn, 2010; Yin, 1994). In essence, case studies examine human affairs and are an effective source to report on these affairs are the humans involved. Through interviews, researchers can obtain the specialized information needed to understand complex, social phenomena from the interviewee's perspective. Interviews allow researchers to understand how the participants understand and create meaning from their experiences. By collecting multiple perspectives on the same phenomenon, researchers can then develop a more holistic understanding of the

phenomenon. Since the primary focus of this research is examining how social processes influence the sustainability of co-designed VEs, I chose interviews as the primary data collection tool for this study.

I chose to conduct semi-structured interviews with my participants. On the one hand, semi-structured interviews provide a guide to ensure that all the essential topics needed to answer the research questions are covered during an interview. On the other hand, they provide the flexibility to respond to the situation and context of the interview (Merriam, 1998). I developed an interview schedule with questions based on my research questions, my social constructionism theoretical framework and aspects of sustainability from implementation science (see Appendix 1: Semi-structured Interview Schedule). I tried to use simple language in the questions and avoid academic jargon. I started interviews with grand tour questions to get to know the participants and break the ice before moving to more specific but open questions (Seidman, 2013). During the interviews, I attempted to follow Seidman's advice by following up, but not interrupting. I would write down notes for follow-up questions while the participants spoke and asked the questions only after the participants finished speaking. A total of 22 interviews were conducted from May 2022 to October 2022; however, only 21 interviews were used for this thesis. One interview was not used because the participant was from the Erasmus+ project online course that transformed into a MOOC. This course was not included as a primary case.

I used the Zoom auto-transcription feature or the Microsoft (MS) Word auto-transcription feature to create the initial transcript for each interview. Afterwards, I edited the transcript on Atlas.ti by watching and listening to the recorded video. While editing, I punctuated to best reflect the meaning of the participant, corrected mis-transcribed words or phrases, and recorded non-verbal signals (i.e. laughs, long pauses) (Seidman, 2013). This editing process, though time consuming, allowed me to build a more intimate knowledge of my data and reflect on my interviewing techniques (Bazeley, 2020).

Although interviews give participants a voice to describe their experience of a phenomenon, there are limitations to the method. First, like any human interaction, the interview itself is context bound. The quality of the data gathered is the reflection of the relationship developed between the interviewer and participant during the interview (Seidman, 2013). An unsuccessful relationship may lead to lower quality of data while a successful one will

lead to new insights. I used the interview techniques described above as a method to increase the chances of creating a relationship that would lead to a data rich interview. Second, each participant may bring conscious or unconscious bias to the interview, coloring their answers (Yin, 1994). The participants in this study probably have a positive bias towards virtual exchange, since they have actively chosen to facilitate a VE multiple times, as I did myself. Third, participants may have poor recall of events or timelines, especially when remembering events that occurred in the past (Yin, 1994). To counter these limitations for the primary cases, previous syllabuses and course development documents were used to confirm the timeline of events. Finally, interview participants may have poor or inaccurate articulation, especially participants who are being interviewed in their non-native language (non-L1) (Yin, 1994). There are not many solutions to this issue beyond the recognition of the importance of language and culture on how participants think and speak (Erhard et al., 2021; Seidman, 2013). This limitation is particularly important to address in this study, since for the majority of my participants, English is not their L1 (16 out of 21). However, all the participants facilitate VEs where the lingua franca is English, indicating an ability to effectively communicate in English. Additionally, nine of the 16 non-native English participants were English teachers, which indicates a high level of English. For the two non-native English participants with lower levels of English, I sent an abridged version of the research questions to aid in their understanding of my questions.

4.3.2 Documentation

Another common source of data for case studies is documentation. The advantage of documentation is that it removes the “whims and biases” of the human researcher (Merriam, 1998, p.112; Swanborn, 2010). Since documentation, especially public records, are an ongoing record of society, they provide the institutional, cultural, and national context to the phenomenon (Merriam, 1998). In this study, publicly available institution mission statements for internationalization and national policies towards internationalization were collected to provide “clues to understanding the culture of organizations, the values underlying policies” (Simons, 2009, p.63) where the VEs occurred. The purpose of these documents was to contextualize the interviews and compare how the interviewees described their HEI institutions to the publicized mission statements. Additionally, other publicly available documentation (internationalization policies at an institution or national

level) also contributed to the understanding of the cultural and political context for each case.

For the primary cases, documentation of the course development from the Erasmus+ project in addition to the syllabuses and task directions from different iterations were collected to provide the contextual origins of the primary cases and their evolution. The goal of these documents was to complement the narrative histories provided by the interviewees.

Despite the advantages of documentation, a few limitations exist. First, publicly available documents, especially ones that provide the mission of HEIs, are carefully crafted documents that fulfill a specific purpose towards a chosen audience, so they may contain a positive bias towards the institutions or persons who constructed them (Merriam, 1998; Swanborn, 2010; Yin, 1994). In other words, they represent an ideal construct, but perhaps not reality. Moreover, documents can be edited over time, especially online, increasing bias (Yin, 1994). Bias within documentation cannot be eliminated, especially for documentation created by governments, institutions or academics who need to present a polished image to the public; but the impact on data analysis can be limited through awareness of the context in which the documents were created. Finally, there is the issue of language. For the United States's and Israel's national and institutional policies, I can read the documentation in the original language (English and Hebrew). For all other non-English speaking countries, I collected publicly available national and institutional documents published in English, which reflects a translation or summary of first language policy documents, therefore leaving questions of accurate translations that I cannot fully address. For some documents, no formal English translation could be located, so I used Google translate and secondary sources to understand the main ideas of the documents, such as the Brazilian national policy documentation. While these language issues must be acknowledged, the use of these policy documents was to understand the national and institutional context where the VEs occurred, not for an in-depth discourse analysis. Therefore, the English translation should still provide a general policy content for each country and institution.

4.4 Data Analysis

The leading authors on case study methodology are split as to when to start data analysis. Those on the constructionism/interpretive side of the epistemology continuum advocate

starting analysis during data collection, while those on the more positivism side suggest waiting till after finishing data collection (Merriam, 1998; Seidman, 2013). The analysis-as-you-go method fits more with a grounded theory approach, while the wait-till-the-end fits more with a theoretical framework approach. For this research, I chose to wait until after I collected all my data to start analysis, since I wanted to minimize the influence of the earliest interviews on my perspective of later interviews (Seidman, 2013). Also, I interviewed participants when they responded to my request, meaning I had limited control when I would finish collecting data for specific cases. Therefore, I decided to wait till I finished collecting data to start my case-by-case analysis.

Despite disagreement about when to start analysis, the literature agrees that data analysis is a recursive process that requires a continuous back and forth between data sources and emerging concepts (Bazeley, 2020; Merriam, 1998; Simons, 2009). This means moving between the data sources to allow the space to become immersed deeply within the data to draw out concepts, themes, and conclusions. However, this does not mean wanderingly aimlessly through the data hoping meaning somehow coalesces. Instead, the literature suggests developing data analysis guidelines to follow during the dynamic iterative data analysis process, thus creating a clear trail of evidence of how the findings and conclusions were reached, improving the reliability and validity of the case study.

I offer a few notes before detailing my analysis process. First, I used the program Atlas.ti for data analysis for language considerations (as some of the documentation was in Hebrew, a right-to-left written language). I am a native English speaker and I have intermediate to advanced Hebrew skills, so I understood/translated documentation written in Hebrew. Documentation (e.g., value/mission statements of HEIs) written in any other language were translated using Google translation. Second, I wrote memos in Atlas.ti throughout the data analysis process to document my process, my thoughts, and the emerging findings (Merriam, 1998).

Since this research is a multiple case study, I first conducted within case analysis and then moved to between case analysis (Merriam, 1998). The cases were situated in complex, contextual situations where each case straddled two or more HEIs and two or more distinct cultures and countries. Therefore, each case was analyzed using a “Russian doll approach”, focusing mainly on the micro level of the VE (course design and the VE

workgroup) while also considering the meso (HEIs) and macro (national policy) contextual levels (Chong & Graham, 2013, p.24). To familiarize myself with each interview of a case and to “play with the data”, I read through each interview to create a profile to summarize first impressions before embarking on detailed coding (Bazeley, 2020). Then I analyzed the data from each case using inductive methods based on the factors from implementation science outlined in Section 2.6.2 and three social constructionism assumptions listed in Section 3.2. The initial codes are presented in Figure 4.4.1. Several authors recommend using previous literature and theory to develop initial codes to connect the data to the research questions and knowledge within the field (Bazeley, 2020; Ryan & Bernard, 2003; Yin, 1994). Following this, I reviewed each case again using a deductive thematic analysis to draw out additional findings that inductive analysis did not provide, as seen in Figure 4.4.2. This use of inductive and deductive analysis reduced the risk of exemplification of my theoretical underpinnings (Ashwin, 2012).

	Name
<i>Search Entities</i>	
Name	
<ul style="list-style-type: none"> ▾ ○ <input type="checkbox"/> Implementation science <ul style="list-style-type: none"> ○ <input type="checkbox"/> Adaptation ○ <input type="checkbox"/> Champion ○ <input type="checkbox"/> Fidelity ○ <input type="checkbox"/> Institutionalization ○ <input type="checkbox"/> Internal/organizational contextual f ○ <input type="checkbox"/> Outside contextual factors ○ <input type="checkbox"/> Outside stakeholder <li style="background-color: #d9e1f2;">○ <input type="checkbox"/> Value fit ▾ ○ <input type="checkbox"/> Social constructionism <ul style="list-style-type: none"> ○ <input type="checkbox"/> Cultural knowledge ○ <input type="checkbox"/> HEI context ○ <input type="checkbox"/> Historical knowledge ○ <input type="checkbox"/> Intersubjective knowledge ○ <input type="checkbox"/> National context ○ <input type="checkbox"/> Personal context ○ <input type="checkbox"/> Social practices 	<ul style="list-style-type: none"> ▾ ○ <input type="checkbox"/> Emergent Codes 1.1.23 <ul style="list-style-type: none"> ● <input type="checkbox"/> a. Barriars ● <input type="checkbox"/> b. Marketing ● <input type="checkbox"/> c. Additional VE courses ● <input type="checkbox"/> d. Student buy-in ● <input type="checkbox"/> e. 1st contact ● <input type="checkbox"/> f. 1st impression ▾ ○ <input type="checkbox"/> Implementation science <ul style="list-style-type: none"> ● <input type="checkbox"/> Adaptation ● <input type="checkbox"/> Champion ● <input type="checkbox"/> Fidelity ● <input type="checkbox"/> Institutionalization ● <input type="checkbox"/> Internal/organizational contextual factors ● <input type="checkbox"/> Outside contextual factors ● <input type="checkbox"/> Outside stakeholder ● <input type="checkbox"/> Value fit ▾ ○ <input type="checkbox"/> Policy codes <ul style="list-style-type: none"> ● <input type="checkbox"/> Funding ● <input type="checkbox"/> General Internationalization Policy ● <input type="checkbox"/> Gold Standard ▸ ● <input type="checkbox"/> HEI Size ▸ ● <input type="checkbox"/> HEI Type ● <input type="checkbox"/> IaH ● <input type="checkbox"/> interesting but don't know what to do with it ● <input type="checkbox"/> Vision ▾ ○ <input type="checkbox"/> Social constructionism <ul style="list-style-type: none"> ● <input type="checkbox"/> Cultural knowledge ● <input type="checkbox"/> HEI context ● <input type="checkbox"/> Historical knowledge ● <input type="checkbox"/> Intersubjective knowledge ● <input type="checkbox"/> National context ● <input type="checkbox"/> Personal context ● <input type="checkbox"/> Social practices ▾ ○ <input type="checkbox"/> Syllabus codes <ul style="list-style-type: none"> ○ <input type="checkbox"/> 1. collaborative asynchronous tasks ○ <input type="checkbox"/> 2. collaborative Synchronous tasks ○ <input type="checkbox"/> 3. Individual task ○ <input type="checkbox"/> 4. interactive asynchronous tasks

Figure 4.4.1: Initial codes

Figure 4.4.2: Second round of coding, emergent codes, and policy codes

After analyzing the data of one individual case, I wrote up the findings for the same case before moving to the next case. First, to assist my understanding of the multiple layers of context affecting each case, I wrote short country, institution, and participant profiles (see Appendix 2: Participant Profiles). Then I organized my findings for each case according to the categories of sustainability constructs used to create my main three research questions (people, course design, and organization). After I analyzed and reported the findings for each case, I then compared the cases against each other to find common themes and factors between the cases. To do this, I compared each subcategory across all cases to see if there were any similarities or reasons for differences between the cases. When needed, I returned to the data to confirm my understanding. After I finished comparing each subsection, I wrote up my findings before moving to the next subsection.

4.5 Data Management Conventions

A crucial part of case study research design is developing transparent data management conventions to organize the large amounts of data collected (Bazeley, 2020). Organized data increases the reliability of the study and eases the data analysis process (Yin, 1994). For this project, I stored all data and files related to this thesis on my Lancaster OneDrive for security reasons. All interview recordings from Zoom were immediately downloaded to the Lancaster OneDrive and then deleted from my Zoom account. I created a system to identify cases, participants, and documentation. I assigned pseudonyms to all participants to, on the one hand, protect anonymity as much as possible, but, on the other hand, add a sense of humanity and narrative beyond a code when reporting the findings (see Table 0.2). A password protected master case file organized all the identifying codes, pseudonyms, and identifications throughout the research process. Similarly, I used a password protected project on Atlas.ti to analyze the findings.

PC1	PC2	SC1	SC2	SC3	SC4
English for International Purposes (EPIC)	Entrepreneurship	EFL pre-service teachers	International relationships	Advanced Italian/English	Intermediate Italian/English
PC1-1 Ariella (Israel)	PC2-1 Anna (Israel)	SC1-1 Gloria (Poland)	SC2-1 Tiffany (Brazil)	SC3-1 Sandy (Italy)	SC4-1 Jane (Italy)
PC1-2 Michal (Israel)	PC2-2 Karen (France)	SC1-2 Aaron (Germany)	SC2-2 Theresa (USA)	SC3-2 Charlette (USA)	SC4-2 Ashely (USA)
PC1-3 Lior (Israel)	PC2-3 Melissa (England)		SC2-3 Charles (Brazil)		
PC1-4 David (Israel)					
PC1-5 Daniella (Israel)					
PC1-6 Brad (Poland)					
PC1-7 Stacy (Japan)					
PC1-8 Cathy (Brazil)					
PC1-9 Cleo (Italy)					

Table 0.2: Case codes and participants' pseudonyms

4.6 Ethical Considerations

This research received ethical approval from the Lancaster University Faculty of Arts and Social Science and Management School Ethics Committee. Two main ethical considerations affected this research: the desire to protect the anonymity of participants; and issues of insider research. While the ultimate goal for researchers is to deliver complete anonymity for the participants, this is practically impossible, especially with research conducted within the researcher's workplace. As Mercer (2007) noted, an increasing number of PhD candidates are part-time students who conduct studies within their own workplace. This describes parts of my research, since my primary case is drawn from a VE that I participate in. Moreover, the rest of the cases were located using my personal network. Thus, people within my own circle or the VE field could potentially identify participants or HEIs, despite my best efforts to anonymize my sources. To protect my participants to the best of my ability, every participant and HEI was given a pseudonym and

only relevant characteristics for the study are included. Location information is limited to country and type of area (i.e. rural, urban), but not the location within the particular country.

4.7 Insider-Outsider Continuum

The second ethical consideration for this study is my positionality as a researcher. While I have detailed my theoretical perspectives for this research in Chapter 2, I need to discuss my positionality in relationship to my participants and the VEs under study, especially within the insider/outsider research debate, since I am an active facilitator in one of the primary cases. Holmes recommends that in social science “novice researchers should consider how they perceive the concept of insider-outsiderness - as a continuum a dichotomy, and take this into account” (2020, p.7).

I view insider-outsiderness as a continuum between extreme insiderness (i.e., a full member of specific groups based on social status) and extreme outsiderness (i.e., non-member) (Mercer, 2007). Moreover, this continuum is not a single straight line, but a multidimensional, intersectional continuum that reflects innate demographics (i.e., gender, ethnicity), the historical and cultural context of research, power relations, research topic and more (Mercer, 2007; Rabe, 2003). A researcher’s place along this continuum can also be fluid during the research process, depending on the researcher’s relationship with each participant or case (Rabe, 2003). McNess et al. (2015) claim that international and comparative education “researchers are both inside and outside the learning environment, and inside and outside the phenomena under investigation” (McNess et al., 2015, p.311). As a researcher of VE, who is also a practitioner within one of the primary cases, I experienced this insider-outsider tension and fluidity throughout my research process. In many instances, I found myself simultaneously an insider with a participant on one dimension but an outsider on another (Holmes, 2020). The following reflection on four parts of my personal identity illustrate four prominent insider-outsider dimensions (i.e., power, language, profession, and research) I shifted among, depending on the participant and case.

First of all, as previously stated, I have co-facilitated a VE since 2018. This VE is one of the primary cases for this research, since it offered an opportunity for rich data collection. I had an equal power status with the participants from this primary case; there were no formalized power differences. We made decisions and developed materials together equally for our

VE. However, in comparison to the other participants from other cases, my relationships with the participants from this primary case were close, professional ones instead of that of a stranger. Even though power relationships are commonly mentioned in insider-outsider literature, I purposefully chose the phrase personal connection to describe this dimension (Mercer, 2007; Rabe, 2003). Therefore, I moved along a dimension of personal connection instead of a power dimension throughout my research.

I am a native speaker of English who teaches English as a foreign language (EFL) to students in higher education. I fully or partially share these demographic aspects of my identity with some of my participants. Some participants are both native English speakers and teach EFL. Some are only native English speakers but teach another subject. Others teach EFL but are non-native English speakers. Therefore, I move along these two dimensions of insiderness depending on the participant. English language ability is an important consideration because it affects how well a participant can understand my questions and communicate their ideas, feelings and experiences (Yin, 1994). The teaching discipline affected the shared professional knowledge I had with the participants, such as terminology, concepts, and learning outcomes.

Finally, I was a novice researcher working towards my PhD. As I conducted my interviews, I realized I was moving along another dimension of the insider-outsider continuum – that of research. Some of my participants were researchers within the field of virtual exchange and internationalization, thus sharing similar academic and research backgrounds and vocabulary. Others were researchers but in different fields, so we shared the language of research, but not field-specific vocabulary. And still others were teachers who neither conducted research nor had a research background. Therefore, they did not share the language or perspective of research with me.

4.8 Quality Issues

All researchers are concerned in demonstrating the validity and reliability of their results, to ensure their findings make sense because of rigorous research design. This is especially important in applied research fields, like education, where practitioners use research findings to intervene in people's lives (Merriam, 1998). However, debates ensue on how best to define and demonstrate validity and reliability in qualitative research. Many researchers call for new terminology, concepts and definitions, since validity and reliability

are concepts taken from quantitative, positivistic research (Cohen et al., 2017). The literature on qualitative methods has yet and may never come to consensus on precise terminology to address issues of research quality, in part due to the myriad of qualitative methodologies. For researchers to successfully navigate the issues of demonstrating validity and reliability, Cohen et al. (2017) recommend locating discussions “of validity within the research paradigm that is being used” (p.246). As mentioned in Section Chapter 4, my approach to case study most closely aligns with Merriam (1998). Therefore, I adapted the three issues of research quality outlined by Merriam (1998) for case study research (i.e., internal validity, reliability, and external validity) to structure my discussion on research quality issues.

4.8.1 Internal Validity

Merriam defines internal validity in educational case study research as dealing “with the question of how research findings match reality” (p.201). As a pragmatic educational researcher, I recognize that there is no one objective reality, rather multiple perspectives on reality. My job as a case study researcher is to understand and present a holistic understanding of the complexities of the studied phenomenon, representing the multiple perspectives of those involved in facilitating a co-designed VE. To enhance the internal validity of findings, I applied two main strategies: triangulation and clarification of the researcher’s bias.

Triangulation is a popular method to enhance validity and can be applied to many aspects of the research design. This research included triangulation of data sources and data analysis. By using multiple sources of data (i.e., multiple interviews and documentation for each case), findings that emerge from one source or perspective can be compared to the other to confirm or challenge details (Merriam, 1998). Moreover, the concepts from two separate theoretical frameworks (i.e., social constructionism and implementation science) were used during data analysis as another form of triangulation, to prevent exemplification of theory (Tight, 2004). If the use of different analytical techniques leads to similar results, the internal validity increases (Ryan & Bernard, 2003). If the different analytical techniques lead to conflicting or unrelated results, this provides the opportunity to assess the meaning of outliers or assess rival explanations (Cohen et al., 2017).

In qualitative research, a human, the researcher, is the primary data collection instrument and interpreter of data. As such, the researcher's own perspective and context influences the interpretation and reporting of the data. Claiming researcher neutrality or denying the impact of a researcher's own biases is unrealistic and, in fact, against the subjective nature of qualitative research. Instead, qualitative researchers need to explicitly acknowledge their own inherent biases and define how their values and emotions impact their research (Simons, 2009). By clarifying one's worldview and theoretical orientations at the outset, a reader of the research can follow and understand the decisions and judgments made throughout the process (Ryan & Bernard, 2003). Throughout this thesis, I have explicitly stated how theoretical underpinnings influenced all parts of the research design, including the research questions, methodology, data collection tools and data analysis. The previous discussion (see Section 4.7) on the fluidity of my position along different dimensions of the insider-outsider continuum within this research further elucidate my position in relation to this research.

4.8.2 Reliability

Reliability in positivistic, quantitative traditions refers to the ability of research tools to replicate the same result across time and populations (Cohen et al., 2017). This definition does not align with the subjective nature of qualitative research, which acknowledges the existence of multiple perspectives of the same phenomenon and the impact of time and context on experiences. Moreover, since the researcher in qualitative research is also the research instrument, different researchers may arrive at different but valid results from the same data because of their different perspectives and approaches. Instead of reliability in the positivistic sense, qualitative researchers have focused on demonstrating the fit between the data collected and the results researched, or in other words, can the reader depend on the results being consistent with the data collected (Cohen et al., 2017; Merriam, 1998). In this sense, reliability in qualitative research is more about the internal consistency and dependability of results than on the replicability of the results.

Merriam (1998) suggests three strategies to ensure dependability and consistency in qualitative case study research: clarifying the researcher's position; triangulation; and providing an audit trail. Explanations of a researcher's position and theoretical approaches aid a reader's understanding of how the researcher arrived at the results from the data.

Triangulation of data sources and analysis strengthen results by providing more than one source of evidence for the result (Swanborn, 2010). Providing an audit trail means extensively documenting the steps taken in the research process so that an outsider observer can follow how the conclusions were reached (Bazeley, 2020; Yin, 2015). A solid chain of evidence assists “the reader to understand how and why you interpreted the data in a particular way” (Bazeley, 2020, p.148). For this study, my audit trail includes Chapter 3, my theoretical underpinnings, which explains the assumptions I made and my position, and Chapter 4 this methodology chapter, in which I described how and when data were collected and analyzed.

4.8.3 External Validity

External validity, also known as generalization, refers to the extent that the results of a study can be applied to other situations. Positivistic, quantitative science research, which strives for universal laws that remain constant over time and place, aims for results that can be applied directly to similar situations, with control over all variables (Lincoln & Guba, 2009). This concept of generalization does not align with the realities of social science, especially qualitative research, and is unrealistic, unattainable, and even undesirable. Qualitative case study research is the holistic study of a specific phenomenon in a real-life context, where the variables are not in control by the researcher, and many remain unknown. The goal is not universal laws (as in science) but an in-depth understanding of “particular knowledge” of a context-bounded phenomenon (Lincoln & Guba, 2009). However, it would be incorrect to say that external validity is irrelevant to qualitative research. Instead, as with the previously mentioned concepts of internal validity and reliability, the concept of external validity needs to be adapted to the characteristics and aims of qualitative research.

Several other terms have been suggested to describe external validity in qualitative research, i.e., working hypothesis, naturalistic generalization and transferability, each with its own nuanced meaning (Cohen et al., 2017; Merriam, 1998). The concept of transferability best aligns with the aims of this study, to understand the processes, factors, and practices that contribute to sustainability of a co-designed virtual exchange. The basis for transferability is the concept of “the force of example”, that within every particular example there is a kernel of universal truth that can be applied to similar phenomena in

different contexts (Bazeley, 2020; Flyvbjerg, 2006). Just as in art and literature, where consumers/readers simultaneously encounter foreign experiences and contexts from their own, yet come away identifying elements that apply to their life, readers of case studies can compare their situation to the case and identify components that fit their context (Merriam, 1998; Simons, 2009).

To increase transferability, this study employed two main strategies: rich thick description and a multiple case design. Providing detailed descriptions of each case allows readers to identify the elements of the case that best match their own and determine which findings can be transferred to their context (Merriam, 1998). Rich, thick description also allows the reader to follow the researcher's path to the findings and draw their own conclusions. Multiple cases increase the transferability of the findings by demonstrating their consistency across more than one context within the study (Simons, 2014). If the findings apply to the multiple cases within the study, it may be easier for readers to apply the findings to other contexts outside the study.

This study does not claim that my findings can be fully generalized to other situations or contribute to a universal theory. Instead, I claim that my findings contribute to the growing literature on virtual exchange and that readers may identify with aspects of my findings and transfer and adapt them to their own contexts.

Chapter 5 Findings – Individual Case Analysis

In this chapter, I present the individual case findings that address the overall research problem of this study: how to sustain co-designed virtual exchanges once developed. The two primary cases are presented first, then followed by the four secondary ones, each according to the three main research questions, which were based on the sustainability construct categories of people, course design and institutional context (see Sections 1.4 and 2.6.2). In the people sections, I demonstrate how various stakeholders (facilitators, students, and administrators) influenced sustainability by using the social constructionism concepts of social practices and the impact of culture (see Section 3.2) and the implementation constructs of champions and supportive outside stakeholders. The first people subsection provides relevant background on the participating facilitators and their HEIs. The following subsections then trace how the facilitators, students, and administrators contributed to VE sustainability. In the course design sections, I depict how a balance of fidelity and adaptation (see Section 2.6.2) in course design contributed to sustainability. In the institutional context section, I present the results of the documentation analysis of national internationalization policies and the participating HEIs' mission statements and international/internationalization documents or policies (see Section 4.3.2). Then, I examine how the HEI organization impacts the sustainability of each case. The following texts summarize the evidence gathered from the data analysis of participant interviews, course documentation, and institutional and national internationalization policy documentation (see Sections 4.3 and 4.4)

The two primary cases (PC1-EPIC and PC2-Entrepreneurship) were developed by an Erasmus+ project involving 15 European and Israeli HEIs whose goal was to advance internationalization in Israeli colleges by building an innovative technological infrastructure through partnership with more experienced European partners from 2015-2018. The project included ten work packages. Work Package 3, the “development and delivery of international online curriculum,” resulted in the creation of four international online/virtual courses, including the two primary cases.

5.1 EPIC VE

The EPIC VE was an eight-week EFL course that aimed to improve students' professional and academic English. In each iteration, between four to eight HEIs worldwide participated.

5.1.1 People

5.1.1.1 Joining the Workgroup

In Table 0.3, I present details about the facilitators, their HEIs, and how the EPIC VE was offered to provide background and context for the remaining findings. I then highlight the different ways each one joined the EPIC VE.

The facilitators joined EPIC through friendly professional connections. Additionally, three founding members successfully passed EPIC to a new facilitator within their individual HEI, a vital element of sustainability. David and Ariella were recruited by their colleagues to join the Erasmus+ project because they were among the few English-speaking faculty willing to participate in an international project. Michal asked to join the Erasmus+ project because she heard about the project from Ariella and personally knew the Erasmus+ project manager within her college. The rest of the facilitators were asked to join by personal requests from administrators (Cleo, Cathy, Brad, and Lior) or facilitators in the course (Daniella and Stacy). The workgroup warmly received new members and provided support to understand how EPIC ran. The following quote from Daniella figuratively summarizes the staff changes in EPIC:

and it's, not even the same teachers every semester, but it's just like... it's just like an evolving organism that sometimes changes clothes for the summer, changes clothes for the winter, but it's the same organism that's alive and kicking and breathing... So, it's the very, very good dynamics it is a work in progress, all the time. It's never a finished product, there's always room for somebody to bring in something new.

Name	Years in HEI	Previous International Experience	HEI Code	Type of HEI	How VE was offered	Weight of VE tasks with the course	Student population	Active/Inactive*
Ariella	17	Yes	PC1 Israel A	Rural public college	Embedded in a CEFR B2 level English Course	60-70% of final grade	8,000	Inactive
Daniella	30+	Yes					8,000	Active
David	30+	Yes	PC1 Israel B	Urban periphery teacher training college	Embedded in a CEFR B2 level English Course	50% of final grade	3,000-4,000	Inactive
Lior	13	Yes					3,000-4,000	Active
Michal	20	Yes	PC1/4 Israel C	Urban public college	Embedded in a CEFR B2 level English Course	50% of final grade	4,600	Active
Cleo	14	Yes	PC1-SC2/3 Italy	Urban private university – multiple campuses	Elective course for EFL degree students	100% of course, credit towards international certificate	36,000	Inactive
Brad	29	Yes	PC1 Poland	Public urban university	Mandatory course, part of tourism track	100% of course	17,500	Active
Stacy	9	Yes	PC1 Japan	Public urban university	Embedded in elective English discussion course	N/A	20,000	Active
Cathy	11	Yes	PC1/SC2 Brazil	Small public technical college in minor urban area – part of a larger chain of technical colleges (Brazil Technical College System – BTCS)	Embedded in mandatory English course	50% of final grade	1,000	Active

*Actively or inactively facilitating at the time of data collection

Table 0.3 Summary of PC1 facilitators and their HEIs

5.1.1.2 Workgroup Social Practices

The facilitators described two main workgroup social practices that contributed to the sustainability of the EPIC VE: the friendly nature of communication that eased collaboration and the development of a shared set of social practices for preparing and running each iteration.

Seven facilitators cited the friendly and cooperative nature of the workgroup as a major reason for the sustainability of the course. Brad called his fellow facilitators his “EPIC friends” and enjoyed how respectful the workgroup was towards each other, saying, “the level of a person’s culture, so how well behaved that person is in all those exchanges”. Stacy also commented on how the workgroup culture contributed to her desire to continue, saying, “The people... involved in the exchange are all, like you know, similar mindset, I want to say, like they’re very kind of open and friendly. And so, I think that made it easier for me to join”. Michal commented, “I also enjoyed working with this particular group of really, really nice people, so I enjoyed coming back”. Even David and Ariella, who left the EPIC course, indicated that the workgroup contributed to its sustainability. David said, “Once you have a team... you can work together, stick with it”. Ariella stated succinctly, “It is the team”.

The Erasmus+ project established this communication style in face-to-face meetings, Skype calls, and emails. Ariella spoke about having “an excellent group, I mean, as far as communication goes... it was a healthy kind of communication, we could talk about everything and anything”. David concurred with her, stating, “I remember great joy working together”. The Erasmus+ evaluation document echoes these sentiments by stating, “hours and hours spent working together, listening to each other... though time-consuming, this process was described as being hugely beneficial”.

The positive communication style continued throughout all the iterations. The communication tools shifted from email and Skype to WhatsApp for instant, real time-based discussions, and Zoom for pre-course preparations. Daniella claimed, “there was an excellent dynamic there from day one”, and Lior echoed this when he stated, “the people are wonderful, so it’s a very cooperative and very helpful and very communicative”. Cathy, the facilitator who most recently joined the workgroup,

said the other facilitators “were very welcoming, and it was really nice. I felt like I knew everybody for a long time”.

On the one hand, Daniella, Stacy, Cleo, Cathy, and Michal emphasized the democratic nature of communication and decision-making and how it contributed to their enjoyment of facilitating the VE. On the other hand, Daniella, Cleo, and Stacy mentioned that when first joining the group, they felt more like a “satellite”, observing from the outside with the “older” group members leading. Daniella illustrated this by saying, “I did not voice any opinions in the first two cohorts, and then I became more active, and right now I feel very comfortable being active and making suggestions”. Daniella and Cleo became central figures in the EPIC course who supported new members. For example, when Cathy described her introduction to the course and the workgroup, she exclaimed, “they were very welcoming. Daniella is the best”. This process of moving from a satellite to a central group member demonstrates an element of sustainability in the EPIC social practices, the ability of new facilitators to become active workgroup members due to the friendly, communicative workgroup culture.

None of the facilitators mentioned communication conflicts caused by the disparate cultural backgrounds of the facilitators. Daniella and Cleo explicitly mentioned the cultural awareness of the facilitators when communicating, with Daniella saying everyone was “just so aware of multicultural issues... it’s just become second nature to us”. However, cultural and national factors affected the students’ relationships and organizational aspects of EPIC, as discussed later in 5.1.1.4.

Regarding working together, a set of shared social practices in preparing and running each EPIC was established (see Figure 5.1.1), with the friendly collaborative communication style of the workgroup as one of the main social practices in each step. Before each iteration, the workgroup met on Zoom to set the schedule, discuss any changes to course tasks, and allot tasks to prepare the course (e.g., changing due dates on the LMS and creating student groups).

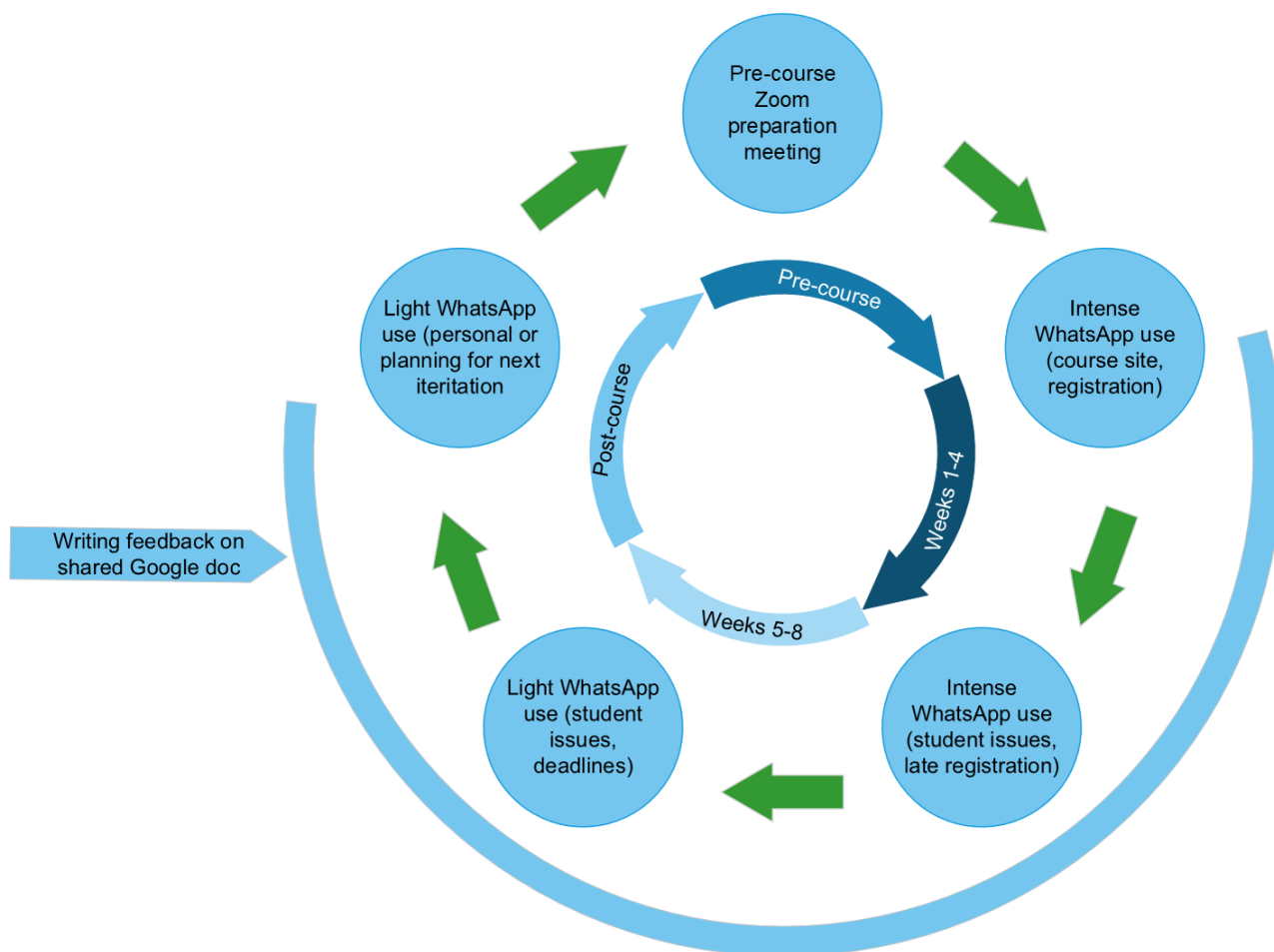


Figure 5.1.1: PC1 EPIC workgroup social practices

The following quote from Brad illustrates the cooperative nature of these preparation meetings and explains why Brad enjoyed working with this workgroup:

So, we just set up a meeting and we just start, you know, pointing out what needs to be done and we just started doing it. Revising, updating, all of us together in the same moments, okay, without dividing who does what, okay. So, we're just a team of, you know, people without specific roles, like you're the manager, you're the subordinate, and this is why I like it, so I have no boss here. I've got bosses everywhere else, but I have no boss here.

The preparation meetings were also a place to discuss complex issues, such as how to handle language ability gaps between students. Each person could offer an

opinion and react to others' views in a respectful manner before the group decided together. The following quote from Lior illustrates this process:

Uh, because usually when we when we meet and the people bring up options, different options, it's always in terms of 'OK, so this is optional. What do you think? What does everybody think?' It's like a very democratic kind of process with the [super] majority of people, you know, in the end and not just the [simple] majority, OK?... Yeah, yeah, I think it's a complicated process, but in the end, I always felt that it's like democratic and accepting and... I still feel like that my voice is heard. And yeah, and so it's makes the environment, a good environment to work in, yeah?

Next, the workgroup communicated about the planning details, student issues, and other unexpected issues through WhatsApp. As Brad said, "We wouldn't be able to do it without WhatsApp". Through WhatsApp, the facilitators negotiated solutions to the different crises that arose in each iteration in real time to provide equitable treatment of their students, contributing to the success of the VE. The WhatsApp group was also used to share personal information, which seemed to contribute to the facilitators' group bonding process. As Cleo reported, "That's part of the bonding process, and it's amazing. So, we see a lot of flowers.... we share a lot of weather reports or a holiday reports or yeah... free time reports".

Towards the middle and end of each iteration, the communication between the facilitators slowed since "everybody's busy with their other courses, and everything is running smoothly" (Daniella). The facilitators maintained a shared Google doc to write down any feedback they noticed during the semester, such as unclear directions, changes to rubrics, or improvements to tasks that were then discussed during the preparation meeting of the following iteration.

5.1.1.3 Individual Social Practices

Six out of the seven current facilitators also outlined social practices that they undertook within their home HEI to recruit, prepare, and mentor their home students (see Figure 5.1.2), which seemed to contribute to the sustainability of the VE within each HEI by ensuring student registration, success, and satisfaction and easing the

facilitators' workloads while maintaining professional satisfaction. While the steps of the social practices are identical, the practices themselves varied due to differences in HEI structures and student body needs. The first step was student recruitment. Brad, Michal, and Cathy arranged at their HEI that the EPIC course was a required English course for specific academic tracks, making recruitment automatic. In contrast, Daniella, Lior, and Cleo proactively recruited students using different methods. For example, Cleo advertised in her regular courses during the first week of the semester. Lior personally recruited strong students based on recommendations from other English teachers at his college. Daniella advertised through different marketing channels at her college and then held informational meetings with registered students to ensure they had the ability and motivation to complete the course.

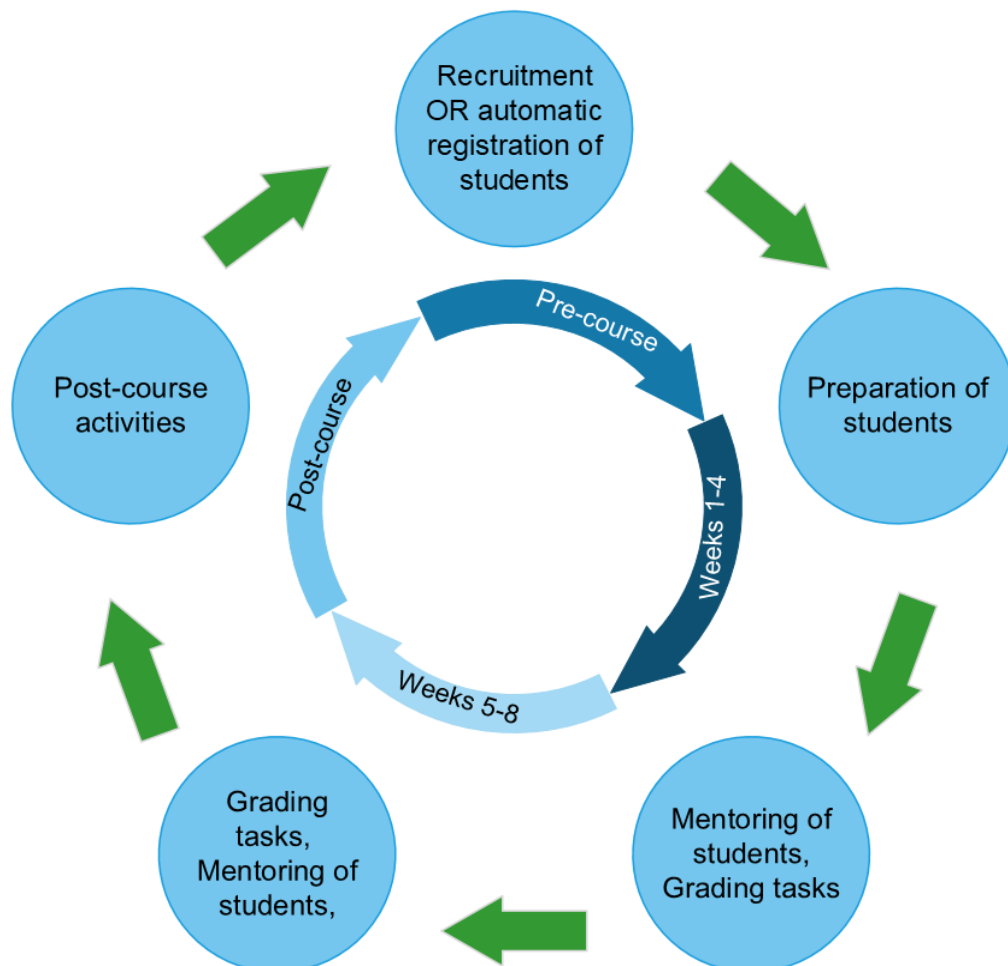


Figure 5.1.2 PC1 EPIC individual social practices

Daniella and Lior mentioned how their marketing practices had evolved over the various iterations, an example of adaptation within social practices. For example, in early iterations, Lior sent all eligible students an explanation video and a survey to elicit interest. However, Lior concluded that “the video explanations and the survey didn’t help a lot” because the students did not watch the video. Therefore, Lior moved to his current focused marketing strategy. Daniella moved from interviewing each potential student to informational meetings because “it’s just not sustainable, and it’s not feasible”.

The next step was preparing students for the EPIC course. Michal, Daniella, Cathy, Lior, and Stacy dedicated a few face-to-face meetings with their students before the EPIC course commenced to explain the course and the course site, discuss intercultural competencies and international teamwork, and register the students to the LMS. For example, Daniella had her students complete the first task in class, which was writing a short paragraph about themselves on a Padlet. She went around the class and provided feedback but tried “to stick to their original as much as possible precisely to boost their confidence”. Brad met his students once in a face-to-face lesson at the beginning of EPIC to explain the course and opened a class WhatsApp group for further communication.

Afterwards, the facilitators monitored, mentored, and provided feedback and grades to their home and international students to ensure that most students would successfully complete the course. Michal, Daniella, Brad, and Cleo did not meet their home students face-to-face during the EPIC course to allow them to work independently on the units with their international groups. However, they monitored their home students and assigned international students digitally on the LMS. If a student or group did not complete a task or failed to communicate with their group, the facilitators initiated contact with the student through the LMS and email. Daniella and Brad also created a WhatsApp group for their home students to discuss “any issues that may come up” and provided one-on-one support for students through WhatsApp and Zoom meetings. Lior offered office hours to students who wanted extra help completing the EPIC tasks.

Stacy and Cathy met regularly with their home students during the EPIC course. Both used some class time to review task directions, have students share their experiences working with an international group, and work on the tasks. For example, Cathy met with her students four times a week. Two out of the four lessons she dedicated to EPIC, explaining the week's tasks in-depth (sometimes in Portuguese to ensure understanding) and allowing students to complete the tasks in class because many of her students did not have time outside of class.

Facilitators provided in-depth, individualized, written feedback on English production tasks and a numerical grade during the course. Although this feedback was valuable to the students, it was time intensive because each facilitator grades 10 to 30 students each. As Michal said, "They're time-consuming [grading the assignments], the checking, the reviewing of the students' presentations and elevator pitches and writing and all that. That takes a lot, a lot of time, so I guess that's one reason why I only give it once a year". Cleo also commented about the time-consuming nature of grading. In the fall of 2021, she "found myself saying 'Oh, I can't go on any longer with this number of tasks to mark'" when the number of production tasks had increased from three to four. For spring 2022, the facilitators adjusted the number of tasks requiring feedback to reduce the workload for students and facilitators, an adaption made with the understanding that students and facilitators would only continue participating in EPIC if the workload was manageable.

After the students finished all the course tasks and the facilitators graded them, EPIC ended. The Israeli facilitators, Cathy and Stacy, returned to teaching internal material. EPIC was a standalone course for Cleo and Brad; thus, the end of EPIC marked the end of their interaction with their home students.

Several facilitators also mentioned that they gained valuable professional development through participating in EPIC, an example of knowledge construction through social interaction. This professional development also contributed to their dedication and desire to continue the EPIC VE. For example, when describing his time building the course during the Erasmus+ sponsored project, David said, "We were learning as we did. It was a great learning experience". Cleo echoed this sentiment when she said, "The experience of designing the course was a huge

course of virtual course design for me, myself. So, I at least learned a lot for free”. Michal mentioned the professional development she gained from facilitating the EPIC course the most. As the English unit head of PC1-Israel-C, Michal integrated tasks and technology from EPIC VE to the other English courses. Finally, the EPIC facilitators gained critical online teaching skills that helped them navigate the rapid transition to emergency remote teaching during the COVID-19 pandemic. In the following quote, Ariella described how the faculty who facilitated the EPIC course and the other courses developed during the Erasmus+-sponsored project became the digital teaching experts on her campus:

especially the moment when we switched to online teaching, we were a group of teachers who were excellent. That was a very clear path. We were the go-to people on campus. We knew how to deliver... design and deliver an online course. Now, it was major, significant.

5.1.1.4 Students

A key to the sustainability of the EPIC VE seemed to be the facilitators' beliefs that it benefited their students. In the interview transcripts for the EPIC VE, “student” was the second most frequent word in the interview transcripts, behind “course”, reflecting the facilitators' beliefs that students would gain from a course with an authentic and required need to use English for communicative purposes. Seven facilitators described the positive experiences and skills their students acquired from participating in the EPIC course. For instance, Michal's students had reported using one of the task products, an elevator pitch, in actual job interviews, and Lior described receiving “very excited feedback. They say they acquire friends sometimes... it gives them also like a bigger picture of the world”.

Despite these positive outcomes, all the facilitators mentioned challenges students faced during the course, such as low motivation due to the online, self-study nature of the EPIC course and low language competencies. Lior explained that EPIC “requires a lot of discipline from students, self-discipline”. Over the iterations, the facilitators developed a different supportive environment compared to in-class courses to counteract low student motivation and promote active participation and successful completion. Cleo stated, “You need a lot of [chuckles] a lot of teacher

presence". The active teacher presence included continually encouraging their home students in face-to-face classes and all students through digital communications. Ariella summarized this process by saying, "There's a lot of facilitation slash babysitting going on with students".

Furthermore, four facilitators described how culture and national contexts exacerbated these motivational and language challenges, requiring extra mentoring. For instance, the Brazilian students from PC1-Brazil were less reliable, motivated, and willing to meet at odd hours to complete group tasks because of free tuition (i.e., no financial penalty for dropping the course), limited time outside of class due to work obligations, and lower English levels. Cathy attempted to overcome these motivational issues using two main methods. First, she embedded the EPIC VE into courses for students who needed English for future jobs (e.g., foreign trade or Internet technology) to increase intrinsic motivation. Similarly, Michal embedded EPIC into an English course for information system students because these students "mostly want to integrate into high-tech companies of all sorts", which require high spoken English levels.

Furthermore, Cathy devoted half her class-time to completing the individual tasks and group task preparation. She "divided the instructions in very small parts. And each slide was explaining what each step that they had to do" to prevent students from feeling overwhelmed at the lengthy English instructions on the course website. Likewise, Stacy dedicated class-time with her Japanese students for step-by-step explanations and task completion to overcome these motivational and language issues.

Lior and Daniella attempted to overcome these challenges through their recruitment process (see Section 5.1.1.3) and through constant communication with students.

5.1.1.5 Champions and Outside Stakeholders

The sustainability of the EPIC course partly seemed to stem from the facilitators championing the course within and beyond their institutions. Brad, Michal, and Cleo campaigned for the EPIC VE within their institutions by negotiating favorable conditions. For example, Michal negotiated a 25-student limit instead of the standard

30. Brad convinced his dean to include it as a stand-alone, mandatory course in the English for tourism track instead of an extra elective course. Stacy championed the course through her efforts to navigate administrative layers at her Japanese HEI to receive official approval for the course.

David and Ariella, the two founding members who ceased teaching EPIC, were early champions and continued promoting the course after leaving. David championed the focus on communication and task-based pedagogy during the Erasmus+ project. Furthermore, David promoted the course in academic conferences, even after leaving the course. Due to his promotional efforts, David recruited Brad's HEI and another HEI in Austria to participate. Ariella passed the EPIC course to Daniella partly due to her desire "to spread the news [of VEs] among my colleagues." As head of academic internationalization, Ariella established an institutional partnership with PC1-Brazil, leading to Cathy joining the course.

Outside stakeholders in positions of authority within each HEI also seemed to contribute to the development and sustainability of EPIC through their support of the facilitators and the course. As mentioned in Section 5.1.1.1, higher-level academic administrators recruited Cleo, Cathy, and Brad to join the EPIC course, indicating these administrators' desires to advance internationalization initiatives within their HEI. Moreover, Cleo's and David's direct academic administrators recruited teachers to replace them when they stopped teaching the EPIC course. Brad's department head requested that if Brad wanted to stop facilitating EPIC, he should "let her know in advance of at least one semester because she needs to find a replacement for me". Daniella's unit head helped advertise and recruit students for the course. These actions of mid-to-high-level administrators demonstrate their belief in the value of EPIC for students and the HEI.

5.1.2 Course Design

5.1.2.1 Fidelity

Regarding fidelity, the facilitators were dedicated to a student-centered pedagogical approach emphasizing communication over accuracy. The founding Erasmus+ project workgroup arrived at this approach during the planning stages after a lot of

“discussion, analysis, meetings, Skyping... hours and hours spent working together” (cited from Erasmus+ documentation). David claimed that he “convinced the rest of the group” about the importance of this “communication at the expense of accuracy” approach.

The course objective in the syllabus remained the same throughout all iterations: “to enhance students’ practical language skills for today’s global professional and academic environment”. This reflected the workgroup’s balancing act of meeting the academic requirements (i.e., Israel’s academic English requirement) and providing students with tools to function effectively in the job market. Additionally, the number of units (five) and the topics of the units (getting to know you, your dream job, academic listening, academic reading, academic presentations) remained consistent from the second iteration onwards. The facilitators, by maintaining the same course objective and units, demonstrated their dedication to the original motivation for developing the EPIC VE, improving students’ communicative language skills.

Moreover, David, Ariella, and Cleo described using the same design principle - scaffolded task-based learning – despite using different terminology. David characterized designing the course with “a lot of scaffolding... presented easily in chunks”. Ariella depicted the course materials as “super tidy and neat... we mapped out every single detail in the course”. Cleo described how the workgroup decided that a “task-based set of content” best suited the communicative purposes of the course, with a “central task plus number of preparatory tasks” for each unit.

The facilitators who later joined the course described positive impressions of the course objective and topics. For example, Daniella said the course was “amazingly practical. I thought ‘my God, why isn’t every course like this?’” Brad said he immediately liked the syllabus because it “involves all the foreign language skills practically”. These reactions demonstrated the new facilitators’ beliefs in the quality of the course design, hinting that the fidelity of the course design is a possible feature of sustainability.

5.1.2.2 Adaptation

Regarding adaptation, the facilitators modified course tasks throughout the iterations in response to student feedback and emerging technology. The tasks transitioned gradually from smaller graded individual and asynchronous group tasks to larger graded synchronous group ones. This transition reflected the emergence of reliable synchronous communication tools. David mentioned the desire to include more speaking tasks in the first iterations but the failure to find effective and accepted technological tools. He said, "I was thinking a lot about... making this into speaking. It's very hard to do... all kinds of ideas, but basically, it devolved into personal WhatsApp". However, COVID-19 introduced videoconferencing tools to HE on a large scale. The facilitators running the sixth iteration in fall 2020 utilized students' newfound familiarity with videoconferencing tools by replacing two asynchronous group tasks with two synchronous ones. Daniella and Cleo described this change as a way to distinguish EPIC from other online courses, with Cleo saying, "And so we decided to transform the course into something that was ummm a bit of ahead of all the other courses that students were taking, which were inevitably online due to the pandemic". Moreover, in spring 2021, a graded individual task where students created a resumé using a digital tool was replaced with a graded collaborative synchronous task where students conducted job interviews, resulting in three synchronous graded tasks.

Alongside the major task revisions described above, the facilitators continually made more minor adaptations based on notes recorded on a shared Google doc during each iteration and formal and informal facilitator and student feedback. These more minor adaptations included editing directions for clarity, changing a source, or adding more resources. Daniella noted, "We're always learning from our experiences because we have... we write them down as we go along".

The last two iterations used for this thesis also changed the unit order to utilize the new synchronous group tasks for team building. The listening unit, which included the least amount of preparation, was moved before the job and academic presentation units to provide students more time to build a workgroup relationship through a lower stake synchronous interaction starting in spring 2022. In fall 2022,

the academic reading unit, containing only individual tasks, was moved to either the beginning or end of the VE, depending on the needs of each HEI. This change provided more scheduling flexibility, allowing collaboration between HEIs with misaligned academic schedules.

In summary, the major and minor adaptations to the course design moved the course tasks closer to fulfilling the unchanging course objective of providing students the opportunity to gain practical, communicative English skills through interactions. This balance between adaptation of course tasks to better meet the needs of students and faculty and fidelity to the course objectives seems to contribute to the sustainability of the EPIC VE.

5.1.3 Institutional Context

5.1.3.1 National and Institutional Profiles: Documentation Analysis Results

Table 0.4 outlines if national internationalization policies existed in the countries represented by the HEIs in PC1 and if these policies included mentions of IAH or funding. The table also includes details about each HEI, including the HEI's mission and internal internationalization policies

Country	National Policy for Internationalization in HE*	laH in Policy	laH Funding	HEI	HEI size and Type	Mission	HEI Internationalization policy	laH in Policy or practice
Israel	Yes	Yes	Yes	PC1 Israel A	Mid-size rural public college	Provide high quality academic education to the local population so graduates can contribute culturally, economically, and socially to the region and country	No	Yes
				PC1 Israel B	Mid-size rural teacher training college	Train multicultural teachers to close the cultural and achievement gaps in their communities and contribute to building a multicultural society for the benefit of their local communities	No	Yes
				PC1 Israel C	Mid-urban public college	Serve as a bridge between the diverse population in Israel through the concept of “New Academia”: experiential learning, applied research and social responsibility	No	Yes – EMI only
Italy	Yes	No	No	PC1 Italy	Large private Catholic university – multiple campuses	Cultivate the whole person of each student through academic excellence and Christian values, to contribute to solving the problems of society and culture on a national, European, and global level	Yes	Yes
Poland	Yes	No	No	PC1 Poland	Large urban public university	Increasing international visibility of the university and developing the internal infrastructure to increase the quality of internationalization	Yes	Yes
Japan	Yes	EMI only	No	PC1 Japan	Large urban private university	Educate the whole person, valuing humanity as well as knowledge and skills	Yes	No
Brazil	No	No	No	PC1/SC2 Brazil	Small public technical college in minor urban area – part of a larger chain of technical colleges (BTCS)	Train competent and ethical professionals for the Technological, social, and economic development of the local community	No	Yes

Table 0.4 Summary of PC1 EPIC national and institutional internationalization policies

Israel is the only country where the national internationalization policy directly mentioned IaH for students and allocated funding for colleges (i.e., mid-size HEIs that only offer bachelor's and master's degrees) with little to no international programs or students. This policy's impact is evidenced by the mention of VE on PC1-Israel A's and B's websites. An additional reform from 2018-2023 pivoted the English requirements in Israel from an exclusive focus on reading comprehension for academic purposes to teaching English for international communication and academic purposes, based on the Common European Framework of Reference for Languages (CEFR). This reform affected the Israeli HEIs by providing financial incentives and mandates to offer courses focused on English for communication, like a VE. Finally, all three Israeli colleges have more locally than globally focused missions. Nevertheless, the EPIC VE's learning objective (see Section 5.1.2.1) aligned with PC1-Israel-B mission's emphasis on multiculturalism and PC1-Israel-C's mission's emphasis on experiential learning.

Italy, Poland, and Japan had national internationalization policies for HEI that focused on mobility, with little to no mention of IaH. The emphasis on incoming and outgoing mobility was evident in the internationalization policies of PC1-Italy, Poland, and Japan. These three HEIs were much larger than the Israeli HEIs and already had established international mobility programs. Moreover, these HEIs' missions focused either on cultivating the "whole person" (PC1-Italy and PC1-Japan) and/or creating an impact on the global scale (PC1-Italy and PC1-Poland). Only PC1-Italy's website mentioned IaH as part of its internationalization center, which was dedicated to research, training, and policy analysis of all types of internationalization.

Brazil was the only country that lacked an internationalization policy for HEI at the undergraduate level but did have national policies focusing on international collaborations at the graduate level. PC1-Brazil's mission focused on serving the local community like the Israeli colleges; however, it differed because it was a technical college, not an academic one, and it was part of a larger system of technical colleges, BTCS. PC1-Brazil did not mention internationalization on its website nor did the EPIC VE's learning objectives align with its mission.

5.1.3.2 Institutional Support

Most facilitators had institutional support for the EPIC VE, contributing to various degrees of institutionalization. Each HEI's path to institutionalization was unique due to the complex intersection of national policy, HEI values, and individual champions. In Israel, all the HEIs have somewhat institutionalized the EPIC course. The national internationalization policy (see Table 5.2) motivated the Israeli HEIs to value the EPIC course as an example of internationalization at their college. Michal described the course as "a feather in the college's cap".

Additionally, each Israeli HEI had an administrative champion who contributed to the institutionalization of the course. PC1-Israel-A college seemed to provide the most senior-level institutional administrative support for IaH initiatives, including the EPIC VE, by creating Ariella's position as head of academic internationalization and approving a reduction in Daniella's teaching hours (fewer hours but the same salary) so she could facilitate EPIC and another VE and provide support to additional VEs. This teaching hours reduction was an acknowledgment from the college of the extra time and effort VE facilitation demands from faculty. From her position, Ariella promoted the development and sustainability of VEs in the college by providing administrative and pedagogical support to VEs. The college website displayed her efforts by marketing the VEs offered by various departments, including the EPIC VE. Additionally, the English unit head, Daniella's direct manager, supported the EPIC course, contributing to its sustainability. Ariella said, "We're at the stage with this course that... it's not a sort of on a personal basis. It's not if... Daniella will walk away the whole thing would collapse. We would bring someone else, and they would be happy to [facilitate]".

PC1-Israel-B and PC1-Israel-C did not seem to have the same senior-level administration support as PC1-Israel-A but did have mid-level management support from the head of the English unit. Lior described how his head of unit ensured the course continued after David left and provided support during the recruitment process. He expressed concern that his head of unit was leaving soon by saying, "I don't know how things will be after R, you know, is replaced by somebody else. And let's see how things change". As mentioned earlier, Michal was the English unit head

at her college, which gave her more freedom to decide how to integrate the course into existing English courses.

Despite being one of the newer members of the EPIC workgroup, Cathy easily integrated the EPIC VE into her regular English course because of institutional support. First, a VE coordinator served all the BTCS campuses, with the explicit job of creating new VE courses and supporting existing ones. This VE coordinator offered Cathy the opportunity to facilitate EPIC. Additionally, Cathy described the administration on her campus as flexible and willing to adopt new ideas if it would benefit the students by saying, “if you are doing something even if it’s not exactly what is in the syllabus but if it’s something that the student will take advantage from... they [the administration] are okay with this”. However, Cathy mentioned that administrations at other campuses within the system were more rigid, making it more difficult to implement VEs.

Cleo, Brad, and Stacy worked at large universities, in contrast to the smaller, local colleges of the other facilitators, although Cleo worked at a smaller, more locally focused campus of three campuses that constituted her larger university. Based on these universities’ websites, their internationalization efforts focused on recruiting international students through their course and degree offerings in English. PC1-Italy’s English website stated, “Physical mobility will remain one of PC1-Italy’s core actions over the next seven years”. The first two strategic goals from PC1-Poland’s internationalization strategy for 2022-2027 emphasized a desire to recruit even more international students than the current 10% of the student body. PC1-Italy and PC1-Poland actively participated in Erasmus+ exchanges, initiatives, and programs, with PC1-Italy publishing its commitment to Erasmus+ exchanges on its website. Brad mentioned that his faculty was involved in 10 different Erasmus+ programs. PC1-Japan’s internationalization strategy included 24 projects divided into four categories—however, none of the projects referred to IaH or VE.

Since these three universities had the infrastructure to attract and support international students, VEs and IaH seemed to play a less vital role in internationalization compared to the Israeli colleges and PC1-Brazil, which lacked the ability to recruit and support international students at the time of data collection.

However, since these universities promoted internationalization, Cleo, Brad, and Stacy received different degrees of support from their administration, with Cleo and Brad succeeding in institutionalizing the course.

For Cleo, the EPIC course started as an optional course that replaced a second-year oral examination as an incentive for student participation. However, Cleo disliked the inequality between students who studied for the oral examination and those who participated in the EPIC VE. She also was concerned about the lack of official recognition of the EPIC course by PC1-Italy. After working many years with the university administration and her department head, starting in the 2021-2022 academic year, the EPIC VE appeared on the official English degree course list as an optional four-credit course instead of an unofficial replacement for the oral examination. This change reduced the number of Italian students (from an average of 30 Italian students to seven). However, the official recognition and integration of the course into the English department at PC1-Italy was important to Cleo. In contrast, Brad “negotiated a good deal years ago and just it is automatic that each year I got one group during the summer semester... [and] one group during the winter semester” despite working in a top-down university structure.

Stacy faced the most organizational barriers, possibly because she was recruited on a personal level alone, with no institutional partnership or support like the other facilitators. Stacy also described the difficulty of navigating the Japanese hierarchal institutional bureaucracy by saying she had to “write a letter and appeal for it and, like, you know... make a case for it, and it had to go through several different like rounds of approval to get in”, a process that took several months. Her administration also approved embedding the EPIC course into a standard elective rather than a required course like Stacy originally wanted. She could neither market the EPIC course nor mention it in the course title. Instead, it was listed as one of many “English communication elective” courses. Stacy mentioned that this reflected a desire to standardize courses within her Japanese institution. Despite these institutional barriers to approval, Stacy felt her institution and current deputy director were flexible in finding a way to fit the course into the existing structure because it was considered a “super global” university in Japan. Stacy described this paradox by

calling the EPIC course “semi-official because I’ve gotten approval to do it, but it’s not something that the university will endorse”.

All the facilitators, except for Stacy, believed that the EPIC course would continue at their institution even if they stopped participating to various degrees of certainty. PC1-Israel-A and PC1-Italy had already changed facilitators successfully and had institutional administrators committed to continuing the course. Brad was in a comparable situation. Michal and Lior were more hesitant about finding a replacement, especially Lior, with a forthcoming change in the English unit head. Michal had staff members who could replace her, but she “needs the people who would be good for EPIC to do other things” at that point in time. Stacy stated that the EPIC course “would end with my participation”, mainly because of the “semi-official” course status and the precarious nature of academic employment in Japan. The employment instability and pressure to publish reduced faculty motivation to “invest so much in developing something that’s kind of just unique to one kind of university” (Stacy). Therefore, Stacy did not feel other teachers would be willing to take over EPIC if she left.

5.2 Entrepreneurship Hackathon

The Entrepreneurship hackathon is a one-week hackathon providing students with hands-on experience in the entrepreneurship process. During the Erasmus+ project, six HEIs (four Israeli HEIs, including PC1/4 Israeli C, and two European HEIs, PC2 France and PC2 UK) developed and piloted the course with 16 students in spring 2017 and was fully implemented with 180 students from the same six HEIs in fall 2017. Afterwards, only Anna, Karen, and Melissa continued offering the Entrepreneurship hackathon yearly in the fall.

5.2.1 People

5.2.1.1 Joining the Workgroup

In Table 0.5, I present details about the facilitators, their HEIs, and how the Entrepreneurship hackathon was offered to provide background and context for the remaining findings. I then highlight the different ways each one joined the hackathon.

Name	Years in HEI	Previous International Experience	HEI Code	Type of HEI	How VE was offered	Weight of VE tasks with the course	Student population	Active/ Inactive*
Anna	9	Yes	PC1/2 Israel C	Urban public college	Embedded in one of Anna's courses,	25% of final grade	4,600	Active
Karen	16	Yes	PC2-2 France	Small graduate management school within large public university – multiple campuses	Mandatory, stand-alone course in business management MA program	100% of course	1,600	Inactive
Melissa	30	Yes	PC2 UK	Public urban university	Embedded in corporate responsibility and ethics course	30-40% of final grade	24,700	Active

*Actively or inactively facilitating at the time of data collection

Table 0.5: Summary of PC2 facilitators and their HEIs

Anna, Karen, and Melissa joined the Erasmus+ project because they were personally asked by the Erasmus+ coordinator at their institution due to their academic background and availability, indicating the importance of a professional social network for becoming involved in a VE.

Additionally, Karen and Melissa personally recruited two new facilitators who joined the hackathon later. One facilitator replaced Karen during her 2021-2022 sabbatical and the other co-taught with Melissa since the hackathon was embedded in his management course. According to Melissa, “he is gradually taking it over... I’m around, I do co-teach a couple of sessions with them, but he’s running it now”. While the new facilitators received support and guidance from Anna, Melissa, and Karen, they did not seem to form a close personal relationship with the original members. Despite this lack of personal connection, the ability of the original facilitators to successfully pass the hackathon to new facilitators within their individual HEI seems to be a crucial element of the hackathon’s sustainability.

5.2.1.2 Workgroup Social Practices

The facilitators described two central workgroup social practices that contributed to the sustainability of the Entrepreneurship hackathon: specific traits that built their professional relationships and eased collaboration, and the development of a shared set of social practices in preparing and running each iteration.

All three facilitators spoke about the facilitator workgroup’s collaborative and friendly nature. Karen stated they had “a very good relation” and that “it is not a teacher group. Now it’s a friend group”. Melissa said, “It’s a very warm relationship. I think they’re super”. Anna and Melissa emphasized that the relationship grew over time, moving from a strictly professional relationship to a personal one as well. Melissa explained that for projects “to stick past the grant phase requires cordial relationships [with] attempts to find things to do together and so on”. Anna mentioned that they “have developed our, you know, our communication and our, you know, personal contact as well”. The positive relationship was a reason that facilitators chose to continue every year. Melissa continued because she liked “working with these very nice people and other institutions”. Karen stated, “We want also to continue

because... we like to work with each other”. Additionally, all three facilitators mentioned that they were slowly collaborating on research, demonstrating another dimension of their professional/personal relationship.

Additionally, the facilitator mentioned the need to be flexible and open-minded to make a VE successful and sustainable. Anna described a “rule of thumb” that if there was an institutional limitation, the group must accept and work around it, such as PC2-England requiring students to work in pairs. Melissa mentioned how all the facilitators had “all been reasonably flexible in how we approach it [the hackathon]... We were flexible about the timings, the start dates, all this sort of thing”. Karen mentioned learning to be more open-minded to ideas from colleagues, which she saw as an essential skill for collaboration.

Regarding working together, the facilitators fell into a set of workgroup social practices in preparing and running each hackathon, highlighting the collaborative manner of planning and decision-making that occurred before and during each iteration (see Figure 5.2.1). The practices included a clear division of labor. Karen was responsible for maintaining the LMS site, including creating the student teams; Melissa edited the content and summarized the feedback since she was the native English speaker, and Anna was the hackathon leader, running the launch. All three shared the responsibility for updating content and recruiting industry reviewers.

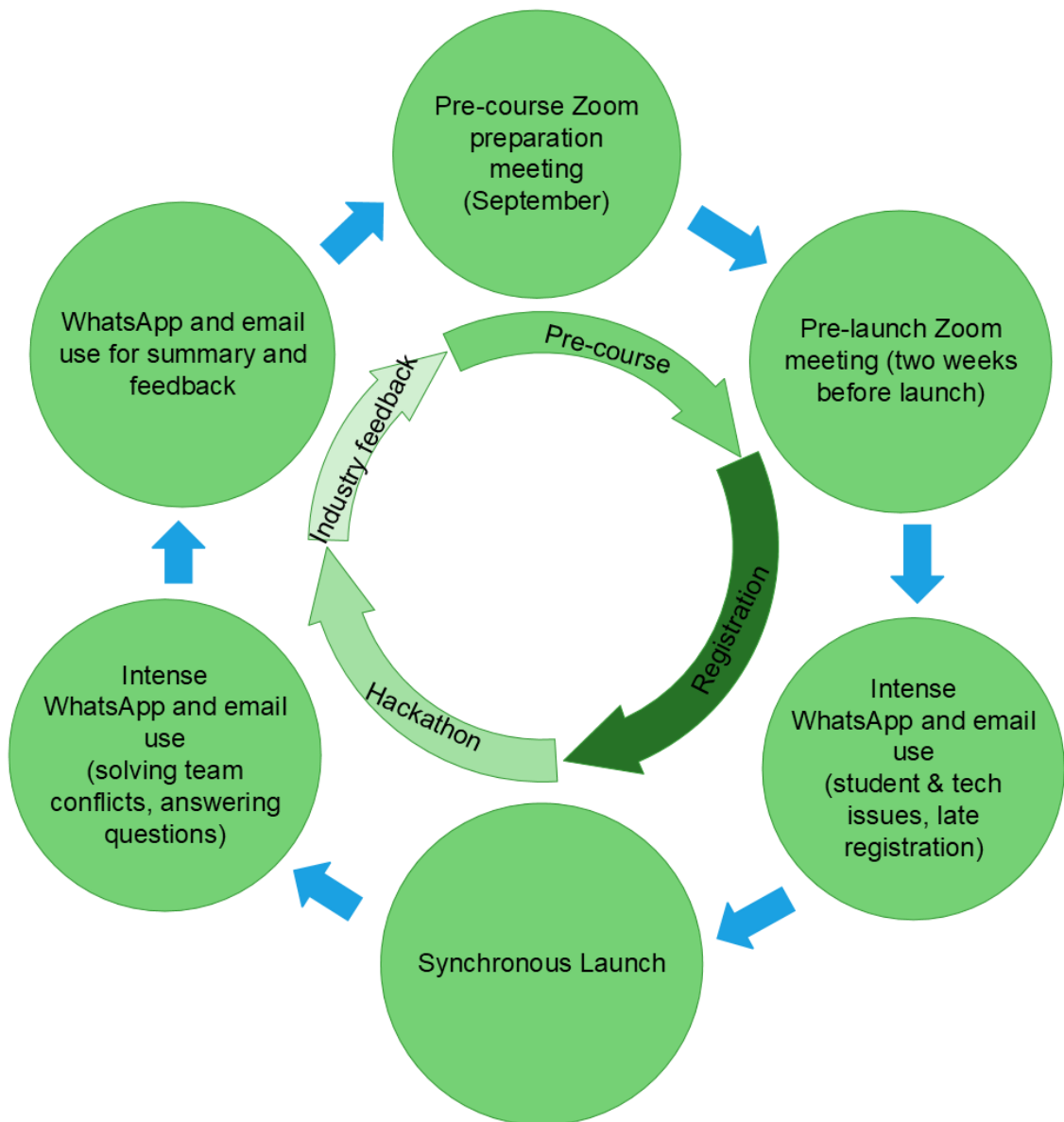


Figure 5.2.1 PC2 Hackathon workgroup social practices

Before each iteration, the facilitators met on Zoom in September to set the schedule, including the date for the synchronous launch. This task demanded flexibility since they needed to work around misaligned academic calendars (France and England start their semester in August/September, Israel in October) and holidays. Karen states, “In Israel, there are always holiday days”. In this meeting, the facilitators also incorporated feedback from the last iteration and decided on tweaks to the challenge, supporting content, course design, or course site. About two weeks before the launch, they met again on Zoom “to catch up, to see if we have challenges in recruiting industry reviewers” (Anna). Next was the registration period,

where students registered on the hackathon site hosted on PC2 France's LMS. This process began a period of intense asynchronous communication between the facilitators since students "have all kinds of problems in registration, during the registration process, so we talk every day, and we have these challenges" (Anna). Melissa described that during the registration period, "there's a lot of chasing and kerfuffle around getting them to do that [register on the LMS]".

After registration, Anna hosted the synchronous launch. This launch was considered vital because the students "can see one another online and realize that there are really people out there who they're going to be working with" (Melissa). During the hackathon, the facilitators were in constant asynchronous contact to solve team conflicts and answer questions. During this period, Anna said, "We have a highly active WhatsApp group. We handle clashes with teams". After the students submitted their pitch presentation, the facilitators sent the pitches to industry experts for review. Because the hackathon usually ended right before the Christmas holiday in Europe, the facilitators exchanged emails with feedback about the hackathon to save for the next iteration. Melissa explained, "We don't actually usually meet afterwards, but we correspond and make sure everybody survived with their hair still on their heads". There was minimal professional communication during the rest of the year, rather more personal "happy holiday" type messages.

These social practices made each iteration easier to run since the facilitators knew what to do and expect each time and were open to continuously learning from each iteration.

5.2.1.3 Individual Social Practices

The three facilitators also outlined individual social practices that they undertook within their home HEI to schedule the course and prepare and mentor their home students (see Figure 5.2.2), which seemed to contribute to the sustainability of the VE within each HEI by ensuring student success and satisfaction. While the steps of these social practices were similar, the practices themselves differed based on each HEI structure and the needs of each student body. Since the hackathon was mandatory for all students, the facilitators never worried about student recruitment. Therefore, the first step was scheduling the hackathon within their institution. Each

year, Anna chose to embed the hackathon in her course, which best aligned with the hackathon schedule. Melissa embedded the hackathon within a colleague’s course on corporate responsibility and ethics since Melissa’s position did not include teaching responsibilities. For Karen, the hackathon was a stand-alone course. When the dates were set for the hackathon, Karen would go to the secretary and say, “Yes, I have the date and now we will frozen [freeze] some date, it’s for the hackathon”, thus blocking off the time for the hackathon in her students’ schedule.

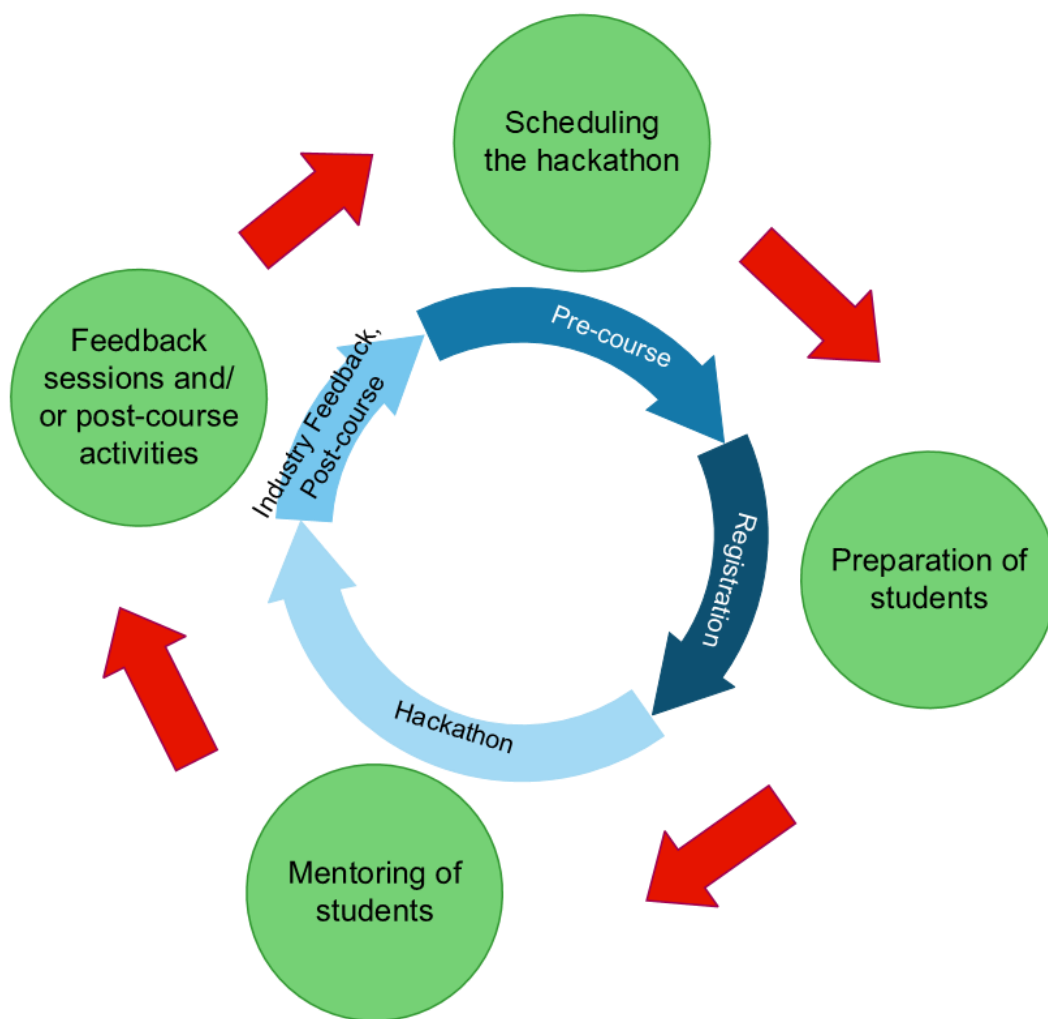


Figure 5.2.2 Entrepreneurship hackathon individual social practices

Next, the facilitators prepared their students for the hackathon using different practices. Anna discussed the hackathon with her students during class ahead of time to “try to bridge clashes that they might have” when working virtually in international teams. Before the hackathon, Melissa’s colleague dedicated a class

session on the UN sustainable development goals, so students understood the challenge and why it was of interest. Karen met with her home students originally face-to-face but moved to videoconferencing during the pandemic to explain “the general topic of the course, the schedule, what they have to do, and I explained them that they have to be in contact with their teammates”.

During the hackathon, each facilitator monitored and supported their home students, answering questions and solving problems. After the hackathon ended, each facilitator concluded the hackathon experience with their students uniquely. For example, Karen held a session with her students after the hackathon to hear their feedback and to “explain exactly what they have learned”. Melissa’s students continued to develop the idea and present it in class. Anna continued with the rest of her course content.

5.2.1.4 Students

A key to the sustainability of the Entrepreneurship hackathon seemed to be the facilitators’ beliefs that it benefited their students. “Student” was the third most frequent word in the interview transcripts, behind “know” and “course”. This fact reflects the facilitators’ beliefs that students would learn how to overcome the challenges of virtually working on a multi-cultural, multi-national team, which mirrored an actual workplace, and their dedication to their students. Melissa reinforced this sentiment by saying, “I think that [the hackathon] stands them in good stead later on when they go into a workplace, and they suddenly have to work that way”. Karen described how the hackathon is “an incredible experience” for the students and how, through reflection during the feedback session, the students understand “the totality of the project, and it’s clearly a great experience each year”.

However, the facilitators described student challenges that stemmed from students’ difficulties adapting to the hackathon’s student-centered, experiential learning pedagogy that simulated real-world teamwork in the workforce, where the students had to actively schedule and manage their work instead of passively receiving knowledge from their lecturer. Regarding communication and managing schedules, Anna mentioned that “a lot of them had challenges with language and with time zones and clashes of how they see the world... all kinds of challenges”. Melissa

explained that her students “recognize that it’s very challenging, and they sort of complain about it”. The facilitators support their students in overcoming these challenges through the adaptations made in the course design (see Section 5.2.2.2), preparation practices, and constant monitoring and mentoring during the hackathon (see Section 5.2.1.3). The following quote from Karen summarizes how she explained the experiential nature of the course to her students to prepare them to overcome the expected challenges:

The other things I explained, but they have difficulties in understanding me as the first level... it won’t be a traditional... course with things to learn and things to write in a final exam... It will be more an experience, a life experience. Because you will meet some other students from other university with other way of doing, of thinking, of living and you have to fit with that, to organize yourself. Sometimes it will be easy, sometimes it won’t be easy. We can help if there are some difficulties, but it’s an experience. It’s not a course. And in this experience, we, as teacher, are not, uh the depositor of knowledge. We are going to construct our knowledge, our collective knowledge, but it’s very difficult for students to understand that at the beginning.

5.2.1.5 Champions and Outside Stakeholders

The facilitators championed the hackathon because they believed in its value for students, which seemed to contribute to its sustainability. Moreover, the facilitators’ administration positions with their respective HEI gave them the authority and relationships to effectively champion integrating the hackathon into the curriculum with little to no difficulty. For example, Anna, as the head of the entrepreneurship track, could choose which course to embed the hackathon in. Additionally, at the time of the interview, the Erasmus+ project manager still worked at Anna’s college, so she would also support the hackathon if Anna left. Anna stated, “I will push to continue with that [hackathon] because it’s a shame not to”, even if she could not facilitate.

As the head of enterprise education within the learning and teaching enhancement center, Melissa had professional relationships with departments and lecturers across the university. Through these connections, she found a lecturer willing to embed the hackathon within his course. When describing the process of finding a partner, Melissa said, “you know, going through these sort of... trying to find the people who would actually make it happen and so... was, as you say, an investment which we needed to do”.

Karen, as the dean of the master’s degree in banking, had a strong professional relationship with the dean of the management school, which allowed her to successfully petition this dean to “give me one schedule, one part of the program, and we changed the name of the course... it was a finance course, and it was replaced by entrepreneurship”.

5.2.2 Course Design

5.2.2.1 Fidelity

Regarding fidelity, the hackathon’s learning objectives (see Table 0.6) and basic course design (see Figure 5.2.3) remained the same throughout all the iterations despite undergoing significant changes during the course development process. The topic of entrepreneurship arose early in the design process, but the pedagogical approach evolved from a teacher-centered transmission approach to a student-centered, active learning hackathon. Despite contradicting details within the data sources on how the workgroup arrived at the hackathon idea, all the evidence concurred that a hackathon design was agreed upon as a workgroup. Presentation slides written by Anna and Melissa hinted at this transition by describing an initial desire to create 20-30 learning units, but a review of resources (e.g., time and workgroup turnover) prompted a pivot to a hackathon design. These slides included the finalized learning objectives (see Table 0.6). In their interviews, Anna, Karen, and Melissa mentioned similar learning objectives, emphasizing giving “students the opportunity to work virtually, internationally in a team... to develop skills for innovation in a global context” (Melissa). This course design process demonstrates the need for discussions and resource considerations during the design process to produce a sustainable design. By investing time in developing learning objectives

and a course design aligned with students' needs and facilitators' resources, the Entrepreneurship workgroup created realistic and practical learning objectives and a course design that served as the core of the hackathon.

Final Learning Objectives
<i>The course is designed to help you to</i>
Feel comfortable seeing yourself as a potential entrepreneur
Understand what entrepreneurs do
Be able to enter into an ideation process and come up with solutions to real problems
Work in a virtual team
Pitch an idea

Table 0.6: PC2 Entrepreneurship hackathon learning objectives

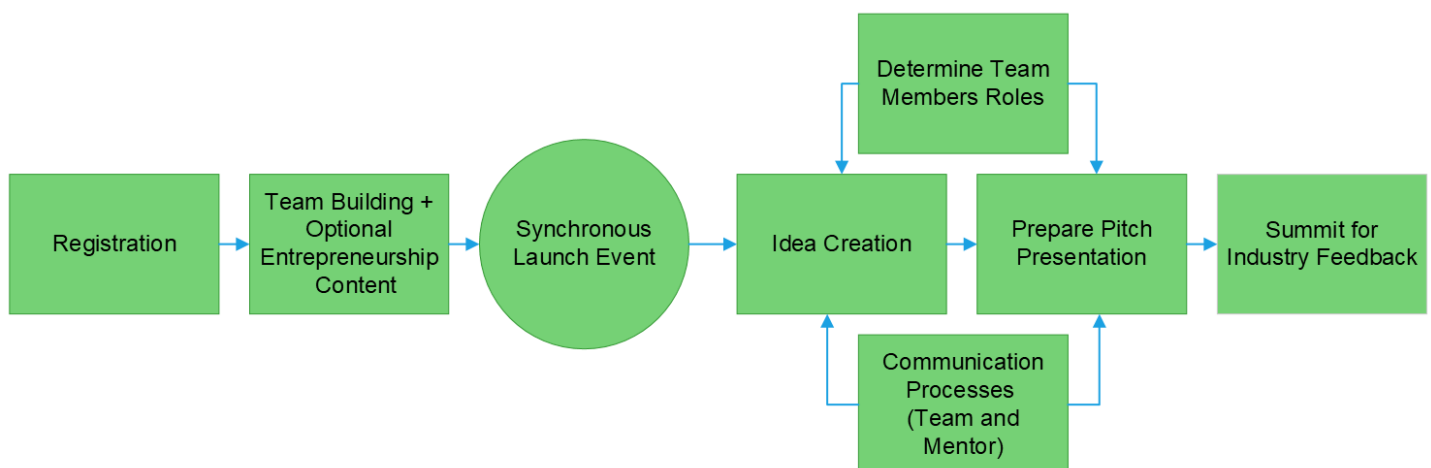


Figure 5.2.3: PC2 Entrepreneurship hackathon course design

According to three facilitators, the core steps of the Entrepreneurship hackathon have remained unchanged (shown in Figure 5.2.3). First, before the hackathon began, students engaged in team-building activities and asynchronous material on entrepreneurship. Then, a synchronous meeting between all the students and facilitators launched the hackathon, and students began working together to choose and develop an idea into a Microsoft (MS) PowerPoint pitch. Finally, the MS PowerPoint pitches were sent to industry experts for feedback.

5.2.2.2 Adaptation

Regarding adaptation, the means of communication between students and facilitators, hackathon's length, requirements, and content were modified throughout the iterations based on student and facilitator feedback and experience. Melissa summarized these changes as "more fiddling with things to try to make them clearer for the students or improve the materials a bit than it is making any substantial changes". For example, the facilitators changed how they communicated the hackathon directions to the students. In the pilot, the facilitators decided to have only written, online communication, scheduling times for each facilitator to be available on a forum to answer student questions synchronously. However, students did not utilize this forum. Instead, they asked their home facilitator. Karen described how the facilitators "were very disappointed because of the idea of the forum was quite hard to organized". In the next iteration, the facilitators added a synchronous launch on a videoconferencing platform to commence and explain the hackathon. Anna described how "it brings energy to the project" despite the difficulty in coordinating across three HEIs. This synchronous launch has become an integral part of every iteration.

After the first two iterations, the facilitators lengthened the hackathon from a three-day weekend to a full workweek. The asynchronous nature of the work and the misaligned holy days between the countries (Israel on Saturdays, France and the UK on Sundays) made it difficult for students to collaborate in only three days. As Karen stated, "The problem of Shabbat seems to be too big". Lengthening the hackathon eased communication.

In terms of requirements, originally the hackathon was a voluntary, non-graded assignment for the UK students while it was a mandatory graded assignment for the Israeli and French ones. This difference led to disparate motivation and engagement levels among the students, hindering their ability to collaborate. From the second iteration, the hackathon became a mandatory graded assignment with similar weight for all. Each institution differed in how they made it mandatory, with Anna and Melissa embedding the hackathon as an assignment and Karen offering it as a stand-alone course.

Based on student feedback about the struggle to work with unknown people, the facilitators added more team-building activities (e.g., choosing a team name and creating a team manifesto) the week before the hackathon. Karen mentioned that this was the first major change to a task in the hackathon. Melissa described these activities as “hurdles” with the goal to “slow them down a bit and to try to get them to meet one another a little bit more socially before they go into the task itself”.

Furthermore, the initial asynchronous content on entrepreneurship moved from an obligatory to an optional part of the course. This change occurred because of students’ background knowledge differences. The French and British students were from general management programs without a focus on entrepreneurship, while Anna’s students were from an entrepreneurship track.

For most of the iterations, the hackathon topic was sustainable cities, the UN Sustainable Goal 11. However, during COVID-19, the facilitators changed the challenge to health solutions in response to the global crisis. Additionally, the facilitators tweaked the content of the hackathon each year. As Anna said, “We also add content every year a little bit; we change the content”.

5.2.3 Institutional Context

5.2.3.1 National and Institutional Profiles: Documentation Analysis Results

Table 0.7 outlines if national internationalization policies existed in the countries represented by the HEIs in PC2 and if these policies included mentions of IAH or funding. The table also includes details about each HEI, including the HEI’s mission and internal internationalization policies. Israel is the only country where the national internationalization policy explicitly mentioned IAH for students and allocated funding. French HEI internationalization policies focused almost exclusively on incoming mobility, while the UK’s policies emphasized inbound and outbound mobility and increasing education exports (i.e., selling its educational programs and systems to other countries).

The hackathon’s learning objectives (see Table 0.6) aligned with PC2 France’s mission of providing students with business competencies and PC2 UK’s value of

entrepreneurship. The student-centered, active learning pedagogy of the hackathon aligned with PC1-Israel-C's concepts of experiential learning and applied research.

Country	HEI internationalization national policy for undergraduates	laH in national policy	laH funding	HEI	Size and type	HEI Mission	HEI internationalization policy	laH in policy or practice
Israel	Yes	Yes	Yes	PC1 Israel C	Mid-urban public college	Serve as a bridge between the diverse population in Israel through the concept of “New Academia”: experiential learning, applied research and social responsibility	No	Yes – EMI only
France	Yes	No	No	PC2 France	Small graduate management school within large public university – multiple campuses	Train its diverse student body in double competences in management and business, especially students transiting from careers in science to business or management	Yes	Yes
United Kingdom	Yes	No	No	PC2 UK	Large urban public university	Enhance students’ chances for a successful career and strengthen its impact on local industry, policies, and professions through the emphasis on four values: inclusivity, innovation, Ambition, and entrepreneurship.	No	No

Table 0.7: Summary of PC2 Entrepreneurship national and institutional internationalization policies

5.2.3.2 Institutional Support

The Entrepreneurship hackathon was institutionalized to various degrees in each HEI. Moreover, as mentioned in Section 5.2.1.5, the facilitators' administrative roles contributed to the sustainability and institutionalization of the hackathon. Of the three HEIs, only PC2 France formally institutionalized the hackathon within the curriculum by offering it as a mandatory, stand-alone course for the MA banking program, a curriculum change advocated by Karen. When accreditors visited PC2-France, they were impressed with the international nature of the hackathon. Because of this positive impression, Karen claimed that "clearly, today, it's not possible to avoid this course". The hackathon, with the aim to simulate virtual teamwork, aligned with PC2-France's mission to train students transitioning from science and engineering careers in business and management competencies.

The hackathon in PC1/4-Israel C and PC2-UK was not formally institutionalized with the curriculum but rather embedded as an assignment within a course at the discretion of the course lecturer. However, Anna and Melissa felt their institutions supported the hackathon despite the lack of formal institutionalization. Anna described the support of her dean and the international relations department head. Additionally, in spring 2022, Anna facilitated the same hackathon with HEIs from the US, Dubai, and Australia, with partnerships created through informal connections made at a conference and formal partnership agreements. As an experiential learning experience, the hackathon also aligned with PC1/4 Israel C's value of experiential learning to build bridges between diverse populations.

When asked what her HEI thought about the hackathon, Melissa explained, "They're interested in it from an innovation perspective that it's... and from the way that it can provide somebody with an international experience". She stated that her HEI has facilitated similar activities, especially in the business school. Furthermore, Melissa felt the other lecturer would continue with the hackathon even if she left and that she would also try to find someone else to continue it. She stated, "It's important that initiatives like this aren't just one person thick". Nevertheless, Melissa also discussed the need to "let go" of initiatives or projects like the hackathon, despite the investment, if they are not working anymore. Finally, the hackathon aligned with PC2

UK's value of entrepreneurship and providing students with future skills, such as virtually working on diverse international teams.

5.3 TELF VE

The TELF VE is a semester-long digital EFL task design course for pre-service TEFL teachers with the aim of providing online task design practice. Gloria and Aaron, who designed and developed this VE, have facilitated it since 2011.

5.3.1 People

5.3.1.1 Joining the Workgroup

In Section 5.3.1, I present details about the facilitators, their HEIs, and how the TEFL VE was offered to provide background and context for the remaining findings. I then highlight the different ways each one joined the TEFL VE.

Aaron and Gloria met through their involvement in international projects sponsored by Erasmus+, indicating the importance of these projects for building professional relationships. They first worked together in a four-way exchange in 2009, in which Gloria described how she “was a difficult partner” since she was new to VE and her students were not ready for the subject material while the other facilitators were VE veterans. Gloria learned from this difficult experience and maintained her interest in VEs.

In 2011, they met again at an Erasmus+ project, which they credit for deepening their relationship through in-person meetings. Aaron explained that “we met a lot in these Erasmus+ exchanges... I think this plays into having this very strong relationship as a professional partner.” During this project, they ran a workshop together on VE, where they realized they had “teaching chemistry” and were “similar as teachers in terms of values, of teaching styles” (Gloria). After the workshop, Aaron suggested Gloria facilitate with him the TEFL VE. Gloria’s and Aaron’s story demonstrates how larger, international projects sponsored by outside organizations provide opportunities for faculty to form professional connections needed to initiate VEs.

Name	Years in HEI	Previous international experience	HEI code	Type of HEI	How VE was offered	Weight of VE tasks with the course	Student population	Active/Inactive*
Gloria	24	Yes	SC1 Poland	Medium-sized regional public university	Embedded in first semester of a seminar in TEFL	100% for 1 st semester	7500	Active
Aaron	25	Yes	SC1 Germany	Medium-sized public university of education in a minor urban area	TELF course for undergraduates	100% of course	4700	Active

*Actively or inactively facilitating at the time of data collection

Table 0.8: Summary of SC1 TELF Facilitators and their HEIs

5.3.1.2 Workgroup Social Practices

Gloria and Aaron described two central workgroup social practices that contributed to the sustainability of the TEFL VE: their strong professional relationship and a shared set of social practices in preparing and running each iteration.

Regarding their working relationship, both displayed respect and warmth for each other personally and professionally. Gloria described how “it’s been a great privilege to be able to work with him all the years”. Aaron stated, “I love working with Gloria”. During the interview, he unconsciously used “we” instead of “I” when describing his experience, saying “I realized I’m talking ‘we’ but... well, um, let’s talk ‘I’.” This usage of “we” seems to demonstrate the strength of their relationship since Aaron felt they shared the same opinions about their experience. Moreover, Gloria described learning from Aaron, demonstrating her respect for his expertise. In the following quote, Gloria explains how she learned to view mistakes as learning opportunities from Aaron:

And he is also a very cheerful and optimistic person... which also translates into professional situations is, I think one of the biggest lessons I’ve learned from him. Because in my educational content, we are very much error oriented... And by working with Aaron, I started to realize that all those things when my students screw up are fantastic learning opportunities for them. And now it sounds obvious but at some point, it was like a discovery to me. But I learned to see these issues also as a learning opportunity for me as a teacher.

Effective communication seemed to be a key to their successful working relationship, with Gloria stating that communication was “one of the strengths of our collaboration”. The main communication channels were email and synchronous communication when their students worked together during class. Gloria stated, “I think we are quite traditional. Ummmm, well, most of communication is being via emails”. When the course was held in computer laboratories, Gloria and Aaron communicated synchronously in writing using Google Docs “about them [the students], about tasks, about problems and issues and what communicating new

ideas” (Gloria). Since COVID-19, the TEFL VE moved to a videoconferencing tool, allowing Gloria and Aaron to orally discuss issues in the main room while students worked in groups in separate rooms.

Cultural differences did not seem to impact Gloria’s and Aaron’s relationship, despite both mentioning how negative stereotypes about Germany exist in Gloria’s area of Poland due to the painful history of German conquests of Poland. Gloria explained that one of their early conversations was open about “our cultures and various, like, sentiments that our nations may have”. Aaron said Gloria “was very open in terms of... yeah intercultural learning or transcultural learning”.

Regarding working together, Gloria and Aaron developed a set of workgroup social practices in preparing and running each iteration, which highlights the collaborative nature of their working relationship (see Section 5.3.1.1). These practices included a clear division of labor based on each other’s expertise. Gloria was responsible for technological tools, and Aaron for task development. Aaron stated that Gloria was “sort of the specialist on our little team in terms of technology”. Gloria noted that even if Aaron was not convinced about a tool, “he always trusts me with these choices”. Gloria said, “Aaron is usually the person who initiates changes in terms of tasks... so I’m always very happy to follow these ideas”. This labor division eased Gloria’s and Aaron’s workload for each iteration since they split the workload and relied on the other to do their share.

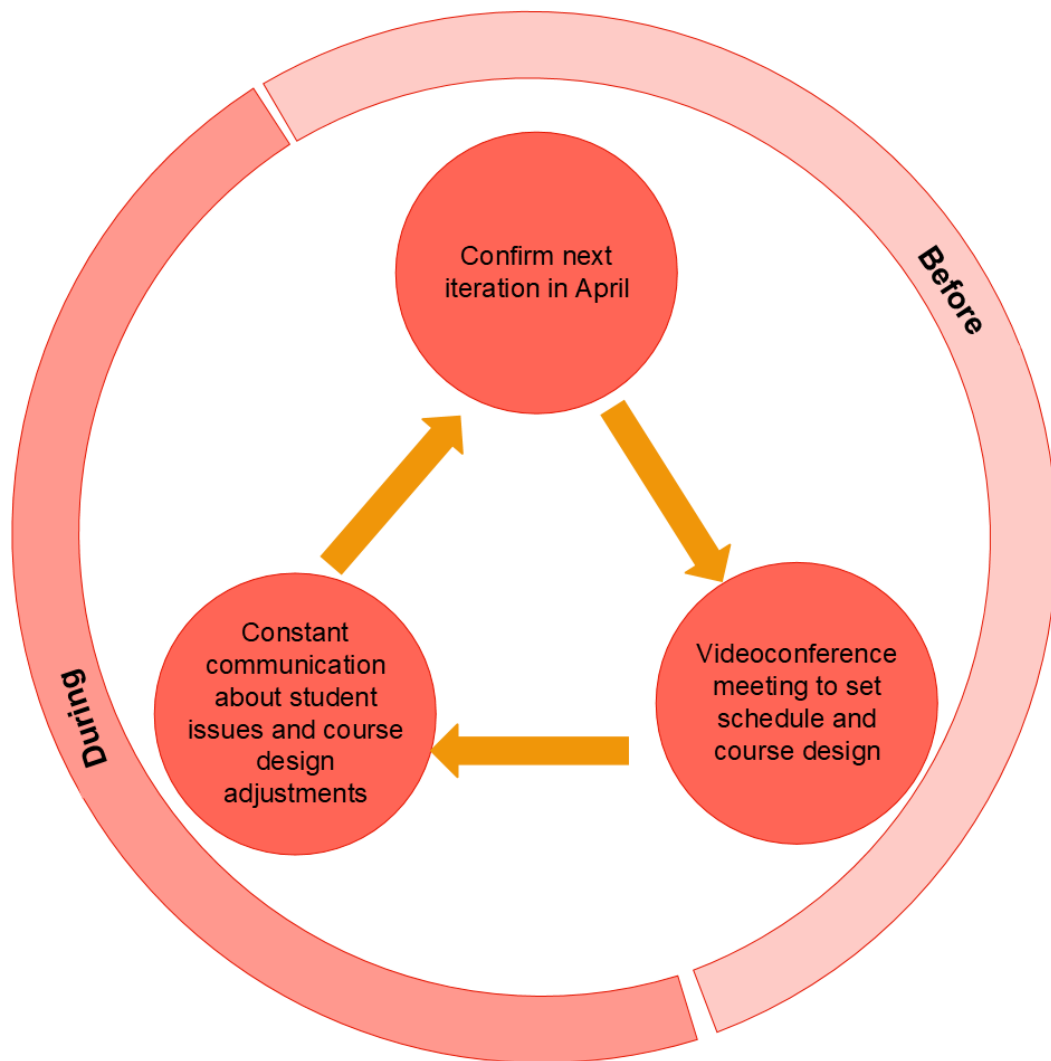


Figure 5.3.1: SC1 TEFL workgroup social

The first step was confirming another iteration of the TEFL VE. Aaron’s HEI would plan the next academic year earlier than Gloria’s HEI, so Aaron, in late April, would ask Gloria if she wanted to run the VE again. As Aaron exclaimed, “And so far, she has always said yes, which is great”. When the fall semester had begun, they would have a videoconference meeting to align their schedules to determine which days their classes would work synchronously together. Then, they would follow their established “timeline for the different [three] phases” (Aaron) for the synchronous meetings. During each iteration, they would adjust the course design (e.g., adding extra relationship-building tasks or providing extra time for a task) to address any issues. Aaron explained, “But then we really go day by day and that’s really nice with

Gloria because she can and is willing or also wants to it that way”. Neither discussed how each iteration closed beyond the third phase of the collaborative group project.

5.3.1.3 Individual Social Practices

Gloria and Aaron mentioned only a few individual social practices, unique to each facilitator’s institutional context or personality, for preparing students and tasks for the VE. Gloria prepared her students by giving them “a little bit of a pep talk” before the exchange, while Aaron did not mention any special preparation steps for his students. The aim of the “pep talk” was to explain the significance of the opportunity to communicate with students from another university and provide background on task-based learning since this teaching style was less common in Poland. Gloria also mentioned how she would “never know how many students will join my course till the very last moment,” while Aaron knew much earlier due to institutional differences in student registration. Finally, Aaron discussed their distinctive styles in preparing materials/tasks for the exchange. Aaron noted that while he was a last-minute worker, Gloria was “a late-night worker and she’s also very late-late-minute worker”. However, Aaron emphasized that even if he did not receive the material the night before, “the next day, when we have the class, it will be there. Always”. Therefore, despite their distinctive styles, they relied on each other.

5.3.1.4 Students

A key to the sustainability of the TELF VE seemed to be the facilitators’ beliefs that it benefited their students. The word “student” was the most common in the two interview transcripts, indicating the facilitators’ beliefs that the TEFL VE, as an experiential learning pedagogy, provided students with first-hand knowledge of learning in a complex digital environment while improving their English skills. Aaron declared that “this [VE is] one of the most productive learning environments for students to learn about online [teaching]”. Gloria believed her MA students “cannot start writing their MA theses without having experienced or having developed a new perspective on education”. Moreover, they believed their students “profit from this for the classroom later” (Aaron) by becoming better teachers who could weigh the affordances and challenges of online learning and VEs. Aaron provided an anecdotal

example of a former student whose eighth-grade students improved their English from participating in a VE with American students.

However, Gloria and Aaron learned during the first few iterations that they needed to actively prepare students for the VE and facilitate student relationship building to overcome two main cultural differences: disparate pedagogical knowledge and negative stereotypes built on a painful shared history. First, German students were more comfortable with task-based assignments in the VE than the Polish students. The German students experienced task-based pedagogy from the beginning of their degree, so they already “have this ingrained... when they come to these virtual exchanges” (Aaron), while the Polish educational system was a “very skill-oriented approach... Students are not given very much agency in the learning” (Gloria). To overcome this imbalance, Gloria provided her students with a background in task-based learning before the VE (see Section 5.3.1.3). Moreover, Aaron directly spoke with his students about the differences in educational background and how they would need to help their Polish partners understand how to design task-based learning activities.

Secondly, as mentioned in Section 5.3.1.2, many Polish students held a negative bias towards the German students because of the bitter history between the two countries. To help the students dismantle these stereotypes, Gloria and Aaron, in the first phase of the VE, “facilitate this process of getting to know each other”, including culture-based tasks so the students could establish trust in their groups (Aaron). This ‘getting to know you’ process was the most stressful for Gloria and Aaron because the cultural differences could lead to group dynamic challenges. Aaron noted the need to balance letting students encounter problems and experience overcoming them independently and intervening so the problems would not escalate. He stated that in almost every iteration, “we get to the point where we have to intervene as teachers”. Gloria and Aaron reported success in facilitating student relationships, with Gloria stating that her Polish students realized that the German students were “fantastic young people”. Aaron’s students reported that the reflection activities within the VE helped them understand that each group worked differently and “find out where it [the VE] worked and where it didn’t work and what didn’t work”.

5.3.1.5 Champions and Outside Stakeholders

The facilitators were the main champions of the TEFL VE since they saw its value for their students and enjoyed their partnership. Gloria also received support from her dean, saying he “climbs that [administrative] ladder for me” in terms of aligning the course schedule with Aaron’s course and securing computer laboratories. This support occurred because of her professional relationship with the dean, not because of institutional policy or decisions. Aaron did not mention other champions or outside stakeholders supporting the TEFL VE.

5.3.2 Course Design

5.3.2.1 Fidelity

Regarding fidelity, the learning objectives and the main steps of the course design have remained consistent since the first iteration. The shared objective was to have students develop online language learning tasks. Aaron stated, “from my perspective, they need to learn how to design tasks for these environments [digital/virtual] for students”. For Gloria, a primary goal for the TEFL VE was language practice for her students since, although they were studying TEFL at the MA level, they still were uncertain about their language competence.

From the beginning, the TEFL was a synchronous exchange, where Gloria and Aaron concurrently scheduled their courses so their students could work synchronously through the task sequences. The course design was based on the three steps of VE design developed by O’Dowd and Klippel (2006): ice breaker, comparison task and collaboration task (see Figure 5.3.2). The following quote by Aaron describes how they implemented the three steps:

And so, it was clear to us, I think, that our students need to get to know each other... where they established common basis in terms of a group, in terms of learning about each other’s cultural educational background before they then move into looking more in detail into certain issues of their specific cultural background in relation to the specific topic that we have in mind. In this case, task designed for specific learner groups... And then you know, making this more

complex, with a third phase where there's more negotiation, deeper negotiation, in terms of a more complex task design and also integration of more technical tools... So that's sort of the journey we would like them to go through.

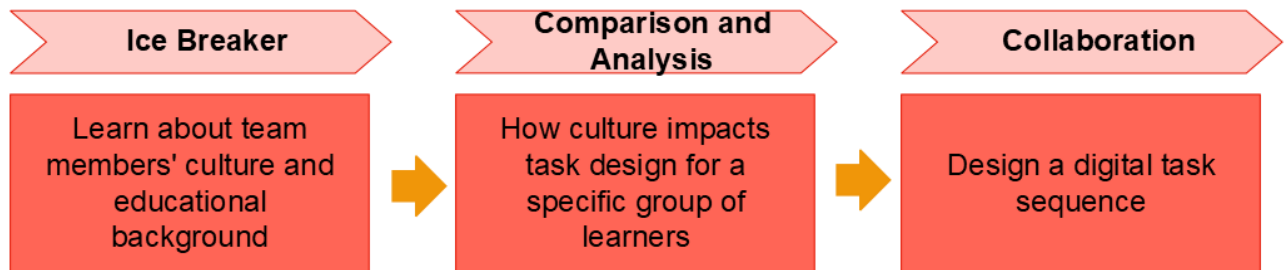


Figure 5.3.2: SC1 TEFL course design

5.3.2.2 Adaptation

Gloria and Aaron described three types of adaptations to the course design: technological tools, tasks, and flexibility within each iteration. Gloria stated, “Many changes reflect the changes in the technology in the technology landscape... We’ve been changing platforms, as well, depending on what was needed”. For example, they switched from a website creation tool to a free LMS for students to present their final collaboration, a digital task sequence. Gloria found the LMS more practical for the students since it would be part of their future work. Moreover, they switched from hosting the course on an institutional LMS to a free one to avoid dependency on their institution for student enrollment. Finally, they transitioned from facilitating in a computer laboratory, with students communicating synchronously through writing tools (discussion forums, Google Docs), to a videoconferencing tool that allowed oral synchronous communication.

Gloria and Aaron continually modified the tasks within the three steps of their VE. Aaron said, “It might sound like as we do the same exchange every time, just like that. It is not that way”. Through the iterations, they added more tasks focused on cultural exchange and integrated more reflective tasks throughout the VE so students could understand their teamwork process, especially when problems occurred. They also adapted the tasks to each iteration’s circumstances and student

makeup. Finally, Aaron explained that “we always rework our task instructions” because they strove to balance the specificity and length of instructions.

Both emphasized the need for flexibility during each iteration so they could modify tasks to address their students’ needs. Gloria said, “Sometimes, we, like, implement some additional interventions in the form of additional tasks, because we, for example, can see that something is happening in the group, and we need to vent out negative emotions”. Aaron described that the course design “was more open, so we could really then step away, also from our plan and say, ‘okay this didn’t work this well, let’s give it another week’”.

5.3.3 Institutional Context

5.3.3.1 National and Institutional Profiles: Documentation Analysis Results

Table 0.9 outlines if national internationalization policies existed in Germany and Poland and if these policies included mentions of IAHE or funding. The table also includes details about each HEI, including the HEI’s mission and internal internationalization policies.

Poland and Germany had national policies that focused on improving the higher education quality and science through internationalization. Germany’s policy is explicitly about the internationalization of HE, while internationalization is only one of many aspects of the Polish policy. Both countries focus almost exclusively on mobility. The only mention of IAHE or VE is in the German Academic Exchange Service (DAAD) strategy, an influential independent association of German HEIs and their student bodies, as a means to gain meaningful international and intercultural experience.

The TEFL VE’s learning objectives and course tasks (see Sections 5.3.2.1 and 5.3.2.2) aligned with SC1-Germany’s mission of integrating theoretical pedagogical knowledge and subject-specific skills through practice but are not reflected in SC1-Poland’s mission.

Country	HEI internationalization national policy	laH in national policy	laH funding	HEI	HEI size and type	HEI mission	HEI internationalization policy	laH in policy or practice
Poland	Yes	No	No	SC1-Poland	Medium-sized regional public university	Enhance the economic and social development of the local region through educating its students and commercializing research	Yes	Yes
Germany	Yes	National policy - No German Academic Exchange Service (DAAD) - Yes	No	SC1 Germany	Medium-sized public university of education in a minor urban area	Promote excellence in educational research and teacher training, with a focus on preparing teachers for elementary, secondary, and special education. The teacher training curriculum intertwines theoretical pedagogical knowledge, subject-specific skills, and practice	Yes	Yes

Table 0.9: Summary of SC1 TEFL national and institutional internationalization policies

5.3.3.2 Institutional Support

On the one hand, Gloria and Aaron received little support from their HEIs. Only recently did Gloria's HEI recognize the value of the TEFL VE and her VE research because of new international collaboration criteria in the Polish accreditation process. Otherwise, she described her institution as old-fashioned and traditional, where she was the only professor running a VE. Aaron described how his HEI focused on face-to-face international exchanges and how "they still haven't realized the potential of this [VE]". He mentioned that VE was becoming popular in Germany as a teaching practice and research subject, but not yet at his institution. The lack of interest in VE could also be seen within both HEIs' internationalization policies, which promote and emphasize face-to-face exchanges.

On the other hand, Gloria and Aaron experienced few administrative or academic barriers in running their VE, which seemed to contribute to its sustainability. For example, Aaron stated, "I can teach the way I want" due to the academic freedom within the German university system. Gloria also had flexibility in her curriculum. Gloria also mentioned that "neither of us needs any particular consent from our authorities to work on an external platform", therefore allowing them to choose the best technology for their purposes and granting them independence in managing the tools instead of depending on an IT department.

5.4 Culture VE

The Culture VE is a discussion-based VE on culture between USA and Brazilian students, designed to provide students with authentic intercultural experiences. Since 2020, the Culture VE has run in the fall and spring semesters.

5.4.1 People

5.4.1.1 Facilitators' Profiles and Joining the Workgroup

In Table 0.10, I present details about the facilitators, their HEIs, and how the Culture VE was offered to provide background and context for the remaining findings. I then highlight the different ways each one joined the Culture VE.

Name	Years in HEI	Previous International Experience	HEI Code	Type of HEI	How VE was offered	Weight of VE tasks with the course	Student population	Active/ Inactive*
Theresa	13	Yes	SC2 USA	Large urban public university	Embedded in the “Global Viewpoints” course, a mandatory course for the global certificate	Credit bearing – N/A the percentage of final grade	44,597	Active
Tiffany	15	Yes	PC1/SC2 Brazil	Small public technical college in minor urban area – part of a larger chain of technical colleges (BTCS)	Credit bearing elective course on environmental management	100% of final grade	1,000	Active
Charles	25	Yes	SC2 Brazil		Embedded in a mandatory organization behavior or general administration course	30% of the final grade	N/A	Active

*Actively or inactively facilitating at the time of data collection

Table 0.10: Summary of SC2 Culture facilitators and their HEIs

5.4.1.2 Workgroup Social Practices

The facilitators described two main workgroup social practices that contributed to the sustainability of the Culture VE: friendly, culturally aware, professional relationships between facilitators that eased collaboration; and the development of a shared set of social practices in preparing and running each iteration.

All three facilitators described having friendly and open working relationships. Since the partnership has a hub and spoke structure, the communication was bilaterally between each Brazilian facilitator, Theresa (the partnership coordinator) and their USA partner, with no communication between Brazilian facilitators. The main communication methods were videoconferencing meetings, WhatsApp, and email.

Tiffany, who had worked with three different USA facilitators, stated that “I like a lot the teachers from Florida... [they] give me all this support”. Charles explained how pleasantly shocked he was that his partner was open to his suggestions. He continued by saying “I think communication is very important and be open and flexible is essential in this kind of project”. Theresa mentioned the importance of building a personal relationship alongside the professional one to sustain the partnership and move beyond a transaction relationship. For example, she exchanged happy holiday messages with the VE coordinator and her partner. The following quote explains her philosophy on developing her partnerships and demonstrates how she viewed her partnership as a model for her students:

So I think the most important things that we talked about when we started new partnership is we talked about ourselves, because maybe it's a personal philosophy, or maybe it's just a cultural thing for them as well as us, but we feel like... because we are trying to get our students to exchange more than just... the transaction... more than have a transactional relationship we need to also practice that. So, we tend to talk more about ourselves, sort of what our philosophies are, we talk about our experiences, personal and professional. We also talk about our programs, and what the objective of our courses are. So, we would explain to them what the certificates does, why are we doing this partnership, what have we

done in the past and then what are some things that can be changed and something that cannot be changed.

The facilitators displayed an awareness of how cultural differences affected their partnership, especially regarding a power imbalance favoring SC2-USA. First, SC2-USA had a more rigid syllabus and scheduling requirements, meaning the VE was designed to meet these requirements. Furthermore, Theresa was the course coordinator and leader because, as the SC2-USA facilitator, she had more power in the relationship since her primary job responsibilities were to promote internationalization through the global certificate, including the Culture VE, while Charles and Tiffany voluntarily facilitated. Tiffany appreciated Theresa coordinating the VE because compared to her USA counterparts, Brazilian lecturers “work a little longer, and three or four universities”, leaving little time for details. On the one hand, Charles expressed surprise that his USA partner respected his opinion and was willing to adapt his suggestions due to the Brazilian stereotype about Americans “as a kind of people that always want to, you know, have reason and control the things”. On the other hand, the following quote from Charles displayed his awareness that the Brazilian side had less power and needed to purposefully maintain a positive relationship:

I really do my best in each edition to really try not to lose the project or not to lose my partner, because I think it's the really easier for an American professor to find another partner than it is for me, as a Brazilian professor. And so, I think all of us that work with COIL project have this kind of things in mind. We really need to do our best to keep our partners and to keep these things going and to give this opportunity to them to the students.

Tiffany, Theresa, and Charles mentioned how the multicultural background of the American facilitators contributed to effective communication. While Theresa and the two other facilitators from SC2-USA worked in America, they were from India, Turkey, and Israel. Charles felt that “there are some points that match very well between Brazilian and Indian culture”. In the following quote, Theresa described how her and her facilitators' international backgrounds and the Southern USA culture made it easier to communicate:

I am from India, my colleague who does the other partnership is from Turkey, so culturally the jump for us was not very hard, honestly. And also, and the southern culture is also pretty much like a little a little more relaxed in many ways in the US, so in terms of making the jump from the way we would communicate and they communicate has not been that big.

Regarding working together, a set of workgroup social practices in preparing and running each Culture VE iteration emerged from the three interviews, consisting of three main steps (see Figure 5.4.1). First, Theresa, as the coordinator, would initiate contact with all the Brazilian partners to coordinate schedules. Then, the Brazilian and American partners from each spoke would communicate via videoconference or emails to finalize the course details and review any issues from the previous iteration before the new one began. Tiffany described talking “about the calendar, schedules, holidays and resolve about this schedule”. Charles explained that besides deciding on the schedule, they would also “discuss some problems that we had in the former editions, how to try to deal if these kinds of things happen again.”

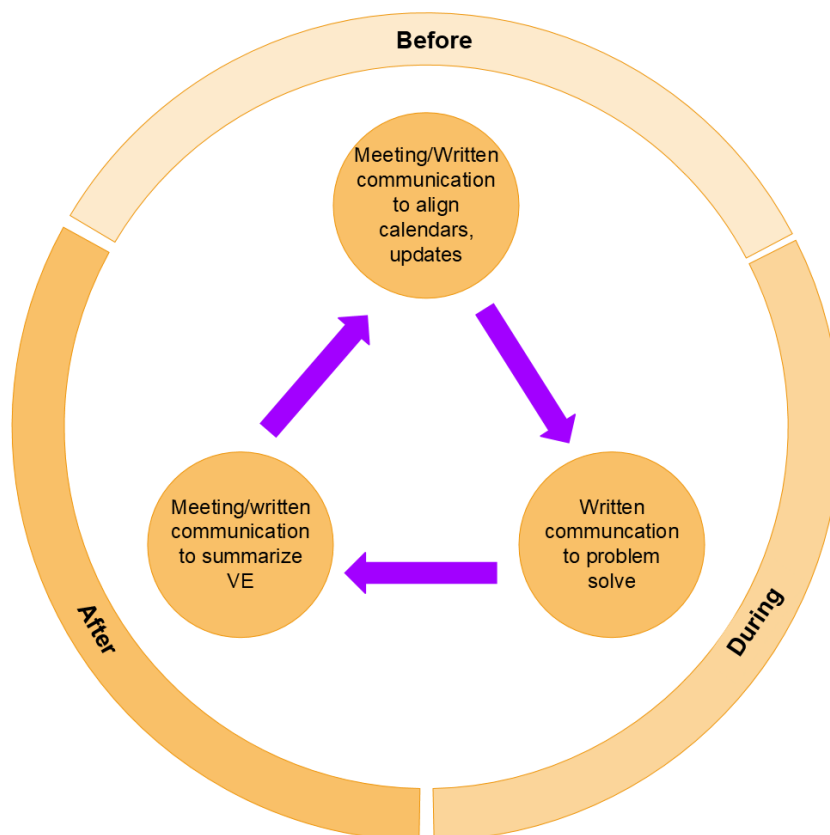


Figure 5.4.1: SC2 Culture workgroup social practices

Theresa and Charles mentioned the next step, frequent communication throughout each iteration, “a mix of troubleshooting to just general updates to more frequent check-ins” (Theresa). Charles explained that the frequency of these communications depended on the number of challenges the students faced. Charles said, “If you have more problems, we have, you know, weekly meetings, but if everything is fine, we meet, you know, once a month”. Then, after the VE finished, Charles described having a final meeting to summarize the experience.

5.4.1.3 Students

A key to the sustainability of the Culture VE seemed to be the facilitators’ beliefs that it benefited their students. The word “student” was the most common in the three interview transcripts by more than double the second most common word (student=189, project=79), indicating the facilitators’ focus on students. Charles reinforced this by declaring, “The students will be always in first place”.

However, the facilitators also described student tensions stemming from language and cultural differences. All the facilitators mentioned the large language gap since most American students did not speak Portuguese, and many Brazilian students had “not a good knowledge of English and no other language” (Tiffany). The students overcame this gap by using technology (e.g., Google Translate) or relying on friends and family who spoke English, Portuguese, or Spanish. The facilitators helped the students manage the language gap by increasing the group size from two to four so the Brazilian students could support each other (see Section 5.4.2.2).

Regarding the cultural gap, Theresa explained that while “culture does show up in the way we [the facilitators] talk and associate with each other... I feel like our students struggle with it more”. The American students were usually younger, 17-18 years old, and had more free time, yet struggled with flexibility because they were used to a structured learning schedule. The Brazilian students were older, usually 20-23 years old, and worked full-time during the day and studied in the evening, leaving less time to meet. Tiffany and Theresa explained how the facilitators held in-class conversations with their home students about these cultural differences to help students become more flexible and understand each other. Tiffany stated, “She [the

American facilitator] talked with the students in Florida about this difference [in working and studying], and I talk with my students about this”.

Charles also discussed cultural differences in communication styles. He explained that Brazilians first want to build a personal relationship, then do the work, while Americans “wants to do the work and maybe after, in the end, let’s be friends”. The Brazilian students also expected quick replies to messages; otherwise, they “think that is something wrong”. To help the students overcome this issue, Charles asked his partners to discuss this difference in communication style with their American students so they would understand the importance of building a personal relationship along with the working one.

5.4.1.4 Champions and Outside Stakeholders

The central champions of the Culture VE were the facilitators themselves, especially Theresa, because of her leadership position within the partnership and at SC2-USA. Other administrators from both HEIs also supported the Culture VE, contributing to its sustainability. For example, the BTCS VE coordinator played a vital role in forming the partnership and recruiting Brazilian facilitators “that sort of complimented the approach we had, as well as complemented the disciplines that my colleague and I was trained in” (Theresa). The Center for Global Engagement director at SC2-USA readily approved the partnership with BTCS but otherwise was not involved. Theresa said, “All we had to do was talk with the director of our center [for approval of the VE], who basically went like this: ‘Sounds like a brilliant idea’”.

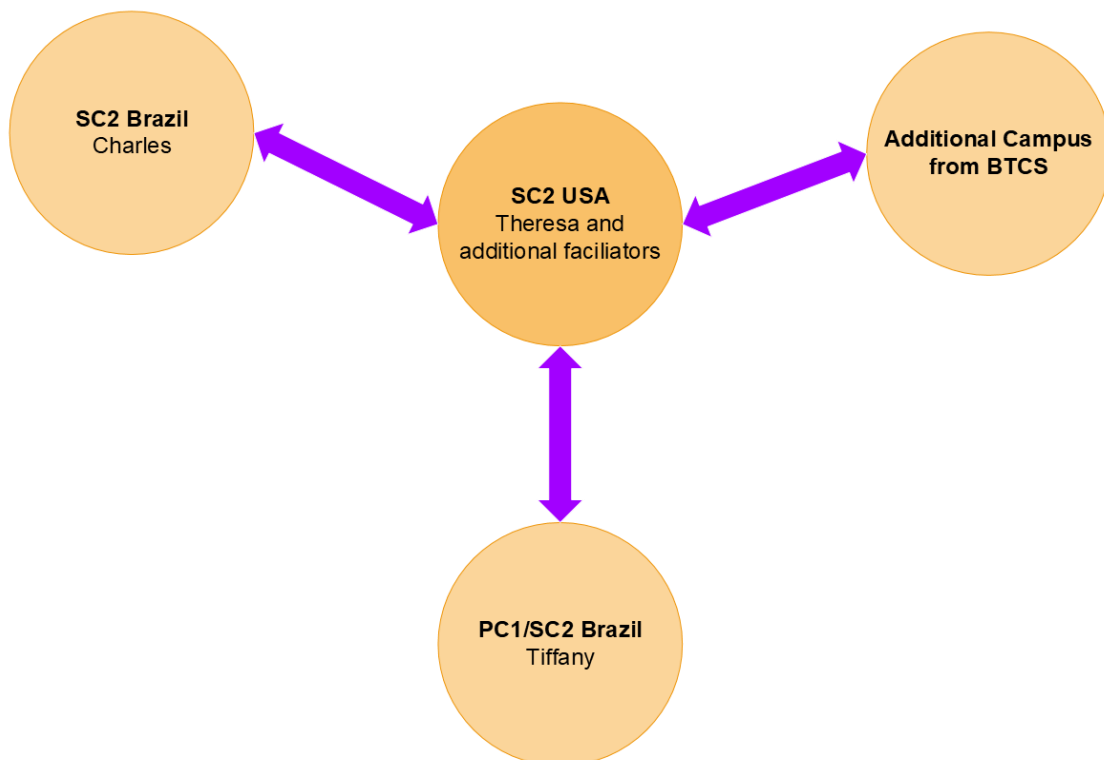
The only staff changes in the Culture VE occurred with the American facilitators. For a few iterations, Theresa hired an adjunct lecturer to teach a section of the global certificate course, who then worked with Tiffany. Also, at the time of the interviews, Theresa’s colleague left SC2-USA for a new position, creating a need for a new facilitator. While Charles expressed no desire to stop facilitating the Culture VE, he believed that together with his program coordinator, they would “find together another professor that could keep it”. Theresa explained that if she left, the continuation of the partnership would depend on her replacement but that the VE was “embedded in the global citizenship certificate sufficiently that any future faculty will see the benefit of this partnership”.

5.4.2 Course Design

5.4.2.1 Fidelity

Regarding fidelity, the primary learning objective and course design have remained unchanged since the first Culture VE iteration in 2020 for each facilitator interviewed. For Theresa, the primary learning objective was for her students to practice IC and learn how non-American students live, interact, and behave. For Tiffany and Charles, it was for the students “to have an international experience” (Charles) and “improving the English language” (Tiffany) because their students’ financial and geographical situations limited opportunities to travel abroad or meet English speakers within Brazil.

From the start, the partnership structure between SC2-USA and the BTCS was a hub and spoke model, with SC2 USA and Theresa as the hub, coordinating the logistics and developing the content in collaboration with each spoke, the three BTCS campuses (see Figure 5.4.25.4.2). The course design remained the same through all iterations (see Figure 5.4.3), consisting of four synchronous



5.4.2: SC2 Culture partnership structure

videoconferences conversations guided by discussion questions between teams of American and Brazilian students and the creation of a collaborative video.



Figure 5.4.3: SC2 Culture course design

Although the discussion questions differed between the spokes, the questions within each spoke remained consistent since the first iteration. Tiffany stated, “The questions that the students must answer the script are the same”. Charles declared that “we have almost no change” because “they [Theresa and her colleague at SC USA] both had developed this set of questions that I thought it was, you know, perfect”.

5.4.2.2 Individual Social Practices

Only a few individual social practices emerged from the interviews with Charles and Theresa about how they prepared their students to participate in the Culture VE. Tiffany did not mention any in her interview; however, this may have been due to a language barrier. Before and during the VE, Theresa and her fellow SC2 USA facilitators taught their students academic theories on intercultural communication and relationships, which students could then experience first hand through the VE. Charles also taught other aspects of organizational behaviors beyond culture before, during, and after the VE, which the discussion questions complimented. During the VE, every week or two, he would dedicate 20-30 minutes of his 140-minute class time “to check if they are having some problems or something like this”.

Tiffany and Charles mentioned gaining English language skills because they participated in the Culture VE, which seemed to motivate them to continue facilitating. Tiffany explained that one motivation for participating was “because my training my language”. Charles said, “I improved my ability to speak English”. Additionally, Charles learned from his partner in his other long-term VE that: “There

is no organization without problems, so what professors and students need to learn is deal with problems”. This message became Charles’s approach to his VE and one he passed on to his students.

5.4.2.3 Adaptation

Theresa and her SC2-USA colleague wrote the discussion questions but adapted them according to the Brazilian partners’ needs, resulting in a unique set of questions for each spoke. For example, Tiffany’s students discussed culture and the environment because her course was about environmental management, while Charles’s students discussed culture based on Hofstede’s dimensions of culture since his courses were about management.

Tiffany, Theresa, and Charles mentioned making three additional minor course design adaptations based on their experience and student feedback. Theresa mentioned reducing the number of recommended questions per conversation from 20 to 10 because the facilitators noticed the students felt pressure to discuss every question despite reassurances. Tiffany and Theresa discussed adjusting due dates or assignments based on difficulties aligning the HEIs’ calendars. Tiffany stated, “Sometimes we change the calendar”. Theresa said, “We have made changes in terms of assignments or deadlines based on the schedules, but the structure of our course at least has not fundamentally changed”. Charles mentioned switching from pairs (one Brazilian and one American) to groups of four (two Brazilians and two Americans) to overcome language issues since his students “felt more comfortable” speaking English with another Brazilian in the group.

5.4.3 Institutional Context

5.4.3.1 National and Institutional Profiles: Documentation Analysis Results

As seen in Table 0.11, neither the USA nor Brazil had national internationalization policies. This may be a reflection of education federalism traditions in both countries, where states, and in Brazil also municipalities, control decisions over policy and curriculum for higher education, therefore limiting the role of the federal government in creating national policy for higher education. However, the USA Federal Department of State and Education issued a joint statement supporting international

education. Moreover, the Culture VE's learning objectives did not seem to directly align with overall missions of each HEI.

Country	HEI internationalization national policy	laH in national policy	laH funding	HEI	HEI size and type	HEI mission	HEI internationalization policy	laH in policy or practice
USA	No national policy, joint statement from Department of State and Education supporting international education	No	No	SC2 USA	Large urban public university	Expand and disseminate knowledge across a variety of academic disciplines while maintaining a liberal arts tradition	Yes	Yes
Brazil	No	No	No	PC1/SC2 Brazil SC2 Brazil	Small public technical colleges in minor urban area – part of a larger chain of technical colleges (BTCS)	Train competent and ethical professionals for the technological, social, and economic development of the local community Advance high-quality public vocational education that meets the labor and society demands of the local area through partnerships with local industry	No	Yes

Table 0.11: Summary of SC2 Culture national and institutional internationalization policies

5.4.3.2 Institutional Support

SC2 USA and the BTCS had institutional structures and policies that supported internationalization and VE development, which seemed to contribute to the sustainability of the Culture VE. The BTCS created the VE coordinator position to promote and support the development and facilitation of VEs across the BTCS campuses, demonstrating an institutional commitment to VE and IaH. SC2 USA included the internationalization of the campus as part of their strategic planning. Theresa explained that the goal of internationalizing the campus “was also about building a community... such that the students who are not able to study abroad can also engage with internationalization”. The SC2 USA website advertised a commitment to “fostering an on-campus learning environment that provides all students with the opportunity to develop global awareness through academic and co-curricular experiences”.

Furthermore, each HEI had a mix of institutional flexibility and rigidity that seemed to impact the sustainability of the Culture VE. Theresa described how SC2 USA had a decentralized structure for developing programs, allowing programs and courses such as the Culture VE to “organically grow from the bottom up” without too many institutional barriers. On the other hand, the strict syllabus and scheduling requirements of SC2 USA allowed less flexibility to adjust the course design in response to students’ needs during each iteration. At the BTCS campuses, the course sequence in each program was defined, and students had no choice in their courses. Charles viewed this as a “good point” since the students “see each other every day”, making it easier to work together to prepare for their meetings with American students. This also ensured participation if the Culture VE was embedded into a mandatory course. Despite the rigid program schedule, the Brazilian facilitators had more flexibility during the course and with their syllabus, allowing them to embed the VE easily into different courses and adjust the course design during each iteration. For example, Charles embedded the Culture VE into his general administration course in the first semester and his organizational behavior in the second semester.

5.5 Immigration VE

The Immigration VE was a seven-week bilingual (Italian and English) exchange held in the spring that explored culture through immigration issues.

5.5.1 People

5.5.1.1 Joining the Workgroup

In Table 0.12, I present details about the facilitators, their HEIs, and how the Immigration VE was offered to provide background and context for the remaining findings. I then highlight the different ways each one joined the Immigration VE.

Senior administrators recruited Charlotte and Sandy to become involved in the Immigration VE, albeit at separate times. The associate provost for global engagement at SC3/4-USA, whom Charlotte knew socially and admired as a colleague, recruited her to apply for the global learning experience program that incentivized faculty to develop VEs for a global certificate. Charlotte was accepted to the program, which required a two-week online course on intercultural skills and a detailed course syllabus to receive funding for three years. To finish the program, Charlotte searched for a VE partner by emailing the modern language departments of Italian universities. The department head at PC1/SC3-4 Italy was the only one to respond positively and excitedly. Together, they created the Immigration VE and facilitated it for one year. Then, Sandy replaced her department head. Although Sandy and Charlotte identified others in their departments who could replace them in the future, neither seemed very inclined to give it up at that time. Sandy said that the VE “is something which I’ve been doing for myself” as part of her lifelong learning. Charlotte stated that she did not “foresee it [staff change] happening in the near future”.

Name	Years in HEI	Previous International Experience	HEI Code	Type of HEI	How VE was offered	Weight of VE tasks with the course	Student population	Active/ Inactive*
Sandy	16	Yes	PC1-SC2/3 Italy	Urban private university – multiple campuses	Elective course for EFL degree students	100% of course, credit towards international certificate	36,000	Active
Charlotte	17	Yes	SC3/4-USA	Large urban private university	Advanced Italian elective course	100% of course	20,900	Active

*Actively or inactively facilitating at the time of data collection

Table 0.12: Summary of SC3 Immigration facilitators and their HEIs

5.5.1.2 Workgroup Social Practices

Charlotte and Sandy described two main workgroup social practices that contributed to the sustainability of the Immigration VE: their strong professional relationship built on a shared passion as teachers and a shared set of social practices in preparing and running each iteration.

Regarding their professional relationship, both expressed excitement about working together and warmth towards the other. Charlotte described having a “spark” with her original partner and with Sandy, which eased the facilitation of the VE. She stated, “You need to be excited about this [facilitating a VE]... because it’s a lot of work”. Sandy echoed this sentiment when she mentioned that the success of a VE is a function of the “teacher’s commitment and teacher’s passion, because... we spent a lot of time trying to keep students’ interest alive”. Charlotte explained that she “found a new friend, and it’s absolutely not what I was looking for but that’s the perk”.

The main communication methods were videoconferencing meetings, WhatsApp, and emails. Sandy described them as being “constantly in touch via WhatsApp, via email”. Charlotte stated they communicated through “synchronous calls, and then primarily emails, lots of emails in the picture”.

On the one hand, both recognized and respected an unbalanced power dynamic in the working relationship, with Charlotte as the leader who set the course design since the VE was a SC3-4 USA initiative. Sandy explained, “My partner at SC3-4 USA mostly takes the lead”. Charlotte recognized that Sandy “inherited a structure” but believed that Sandy “bought in[to] the structure”. On the other hand, they described a collaborative way of making decisions, where each could bring a “proposal” (Sandy) or “idea” (Charlotte) to discuss during a meeting.

Regarding working together, Charlotte and Sandy described a set of shared social practices in preparing and running each iteration (see Figure 5.5.1), which highlighted the collaborative nature of their working relationship. In September, they would have a preliminary Skype call to align their academic calendars and set the dates for the VE. Then, around December, they would meet again on Skype to “edit our sources” (Charlotte) and “discuss whether there is something we want to

change, we want to adjust, want to improve” (Sandy). Also, Charlotte would inform Sandy of the final number of USA students participating so Sandy could recruit her students. They would have a videoconference meeting before the start of the course “just to make sure everything is okay on the admin side” (Sandy). Then, they would register the students before the course to solve the inevitable technical issues. During the VE, they would meet weekly to discuss students’ progress and communicate via email constantly. After the end, they had a debriefing session to summarize the exchange and decide if they would continue for another iteration. Charlotte described that “as soon as it’s over, Sandy and I look at each other, into the eyes, ‘Are we committing to another time? YES, next year’”.

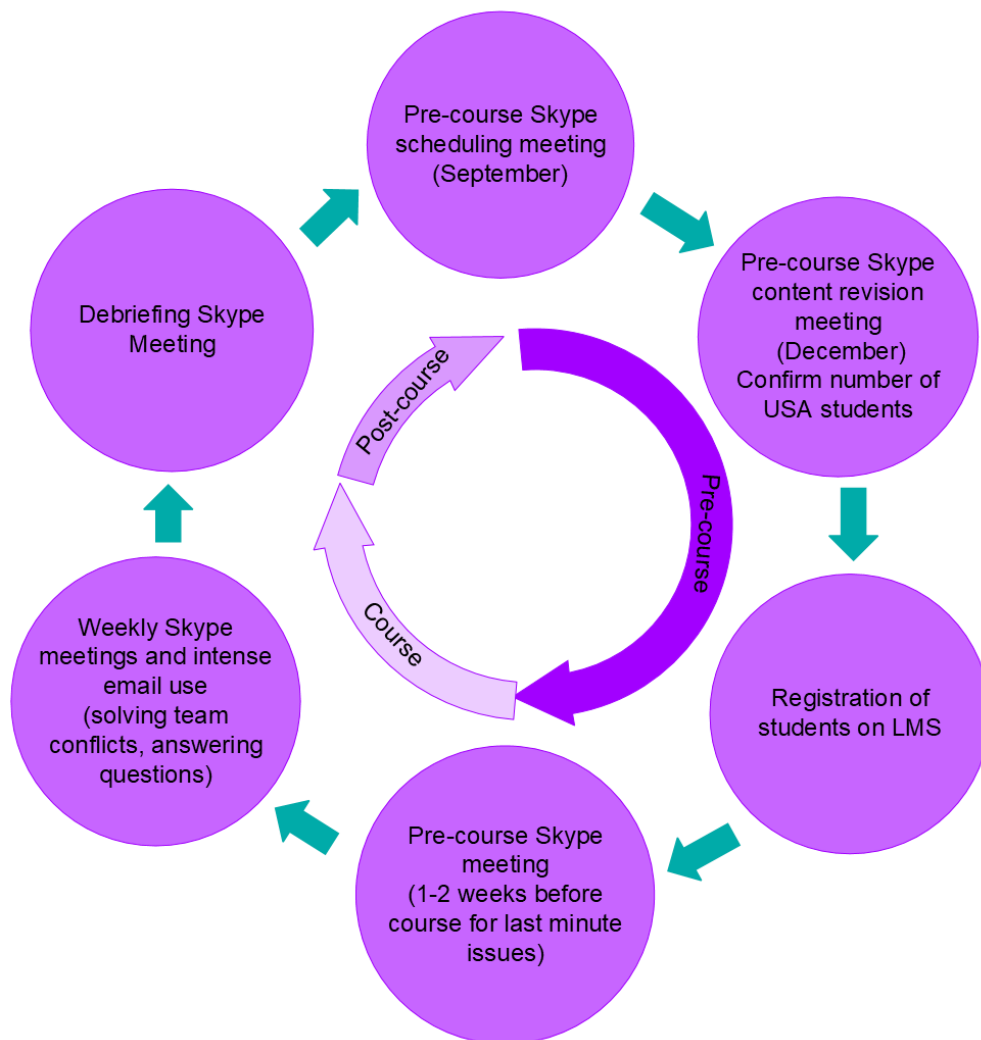


Figure 5.5.1: SC3 Immigration workgroup social practices

5.5.1.3 Individual Social Practices

Charlotte and Sandy mentioned only a few individual social practices for preparing students and tasks for the VE, which stemmed from how the Immigration VE was offered at each HEI and from technical issues. Only Sandy had to recruit students actively. She advertised during the first lesson of her regular fall courses and through the international relations office. Students could indicate their interest in participating by completing a form on Sandy's LMS page. Afterwards, Sandy interviewed the potential students to determine their commitment to the course. She accepts around one-third of the applicants yearly, saying that "priority is given to students who've never been abroad". On the technical side, Charlotte managed the VE LMS, revising the course site every iteration, solving registration issues, and communicating between the Italian students and the SC3-4 USA IT department. Charlotte stated that she "often function as the point person for students in Italy who can't sign up well, can't create their account".

Another individual social practice was that each facilitator had to report their students' participation in the Immigrant VE to their respective international relation/global learning departments every iteration. Each department awarded the other HEI students an international certificate for completing the VE. Charlotte also had a debriefing meeting with the global learning experience department every year.

Finally, both facilitators felt they gained professionally by participating in the Immigration VE. Sandy described that "each year, I learned something new... It is lifelong learning". Charlotte mentioned that "every time you reach out with something new, you get these wonderful surprises", such as new colleagues and friends. As mentioned in Section 5.5.1.1, Charlotte had to take a course on IC before designing the Immigration VE. Afterwards, she "filled in the shoes of the expert on intercultural communication in later editions".

5.5.1.4 Students

Charlotte and Sandy demonstrated a strong belief in the benefit of the Immigration VE for their students, which seems to be a key to sustainability. For instance, "student" was the most common word in the two interview transcripts by almost

double the second most common word (student=209, course=112), demonstrating the facilitators' focus on students. Charlotte expressed her commitment to the students by saying they “put students at the center because we did it for them”. This belief was reinforced by the positive feedback they received from their students. Sandy stated that students “always gave very, very positive feedback”. Charlotte said, “Most of the students say [the VE is] the best thing they’ve ever done”.

Sandy and Charlotte reported minor challenges and cultural differences between their students, such as motivation levels or how students presented themselves, with each mentioning a different behavior. However, neither described any actions they took as facilitators to overcome these differences or challenges. They described these differences more as a note of interest and less as a challenge they needed to help the students overcome.

5.5.2 Course Design

5.5.2.1 Fidelity

Regarding fidelity, the learning objectives, learning environment, topic, and course design have remained consistent since the first iteration in 2016. From the beginning, the Immigration VE's learning objective was to provide students an authentic opportunity to practice their target language (Italian or English) and “truly collaborate with someone who lives a very different experience from yours” (Charlotte). The learning environment on the LMS was bilingual from the start, so “students of both cohorts could scaffold the knowledge in the target language, in L2 through their L1”. The topic of multicultural identities and immigration was chosen because it was “a hot topic in both countries” and it also reflected many of the students' experiences whose L1 was not English or Italian.

The course design, a mix of synchronous and asynchronous meetings and activities, has stayed the same since the first iteration (see Figure 5.5.2). First, students participated in ice breaker activities, followed by comparison and analysis activities and vocabulary-building exercises in both languages and concluded with a peer-edited essay and a synchronous videoconferencing call between the classes. The students worked in pairs. The number of students depended on how many American

students registered for Charlotte’s advanced Italian course. Usually, the number was small, around eight students, because “Italian, as a foreign language, is not very popular in the United States” (Sandy).

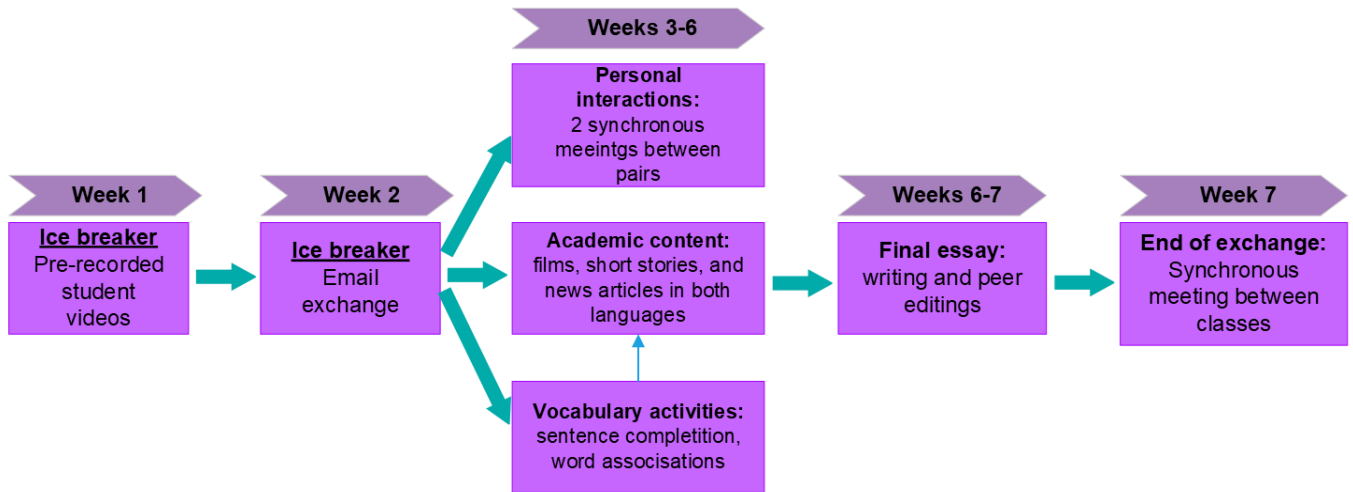


Figure 5.5.2: SC3 Immigration course design

5.5.2.2 Adaptation

Regarding adaptation, Charlotte and Sandy described updating the source material to reflect current events. Sandy stated, “We try each year to adjust the reading material to, I mean, what’s going on around us, but keeping our main topic in mind”. Charlotte said, “Generally, we revamp the journalistic sources every year”. For example, during the COVID-19 pandemic, they found journalistic sources about the impact of the pandemic on immigration. In 2022, they focused on Ukraine war refugees since it was a major news event that affected each side differently.

5.5.3 Institutional Context

5.5.3.1 National and Institutional Profiles: Documentation Analysis Results

Table 0.13 outlines if national internationalization policies existed in Italy and the USA and if these policies included mentions of IAH or funding. The table also includes details about each HEI, including the HEI’s mission and internal internationalization policies.

The tradition of educational federalism in the USA promotes states and local authorities in developing educational policy while limiting the federal government role in educational policy. Therefore, the USA does not have a national internationalization policy, although the USA Federal Department of State and Education issued a joint statement supporting international education. Italy has a national HEI internationalization policy focused on incoming and outgoing mobility, with no mention of IaH.

However, both HEIs involved in SC3 explicitly mention IaH and VE on their websites. The internationalization center section of PC1-SC3/4 Italy's website mentioned IaH. The global engagement section of SC3-4 USA's website detailed a commitment to provide international opportunities for students to become active members in an interconnected world, as well as information for study abroad, international students, and IaH opportunities. SC3-4 USA offers a global certificate that students can complete in addition to their regular degree requirements. Furthermore, the Immigration VE's learning objectives and course design aligned with SC3-4 USA's mission of providing real-world experience and PC1-SC3/4's emphasis of solving problems at a global level.

Country	HEI international-ization national policy	laH in national policy	laH funding	HEI	HEI size and type	HEI mission	HEI international-ization policy	laH in policy or practice
USA	No national policy, joint statement from Department of State and Education supporting international education	No	No	SC3/4-USA	Large urban private Catholic university	Prepare students to be successful in their chosen path and contribute to societal transformations through academic excellence, real-world experience, and community engagement	Yes	Yes
Italy	Yes	No	No	PC1-SC3/4 Italy	Large private Catholic university – multiple campuses	Cultivate the whole person of each student through academic excellence and Christian values, to contribute to solving the problems of society and culture on a national, European, and global level	Yes	Yes

Table 0.13: Summary of SC3/4 national and institutional internationalization policies

5.5.3.2 Institutional Support

SC3-4 USA and PC1/SC3-4 Italy had institutional structures and policies supporting internationalization and VE development, specifically international departments (a global engagement office and internationalization center), which embodied their institutional values. Charlotte stated, “We have a great department of, you know, for SC3-4 USA’s internationalization”. Charlotte described several methods of how the global engagement office supported the sustainability of the Immigration VE. First, this office ran the global learning experiences program (see Section 5.5.1.1), which provided funding and a two-week professional development course for faculty interested in developing VEs that would count towards the global certificate for students. To receive the funding, Charlotte described completing an in-depth application, including “partnering institutional information, a detailed description of the proposed activities, include any specific delivery deliverables... it was, I mean, a pretty extensive application, which frankly helps you think through what you want to do”. The funding paid for physical visits between the facilitators, which “funded [the department head’s] first visit to the US and my first visit to PC1/SC3-4 Italy and then Sandy’s visit here and one more visit that I did” (Charlotte). Sandy described her visit to SC3-4 USA before taking over the exchange as allowing her to “have a big picture of the whole project, so the location of the university, the students involved and so things like that”. Moreover, the global engagement office collected feedback about the VE through a student questionnaire and an in-person meeting with Charlotte at the end of every iteration.

Similarly, the internationalization center at PC1/SC3-4 Italy offered a global certificate to students who participated in international courses like the Immigration VE. It also assisted Sandy in advertising the VE and collected feedback through a questionnaire. However, it did not offer funding; PC1/SC3-4 Italy did not pay Sandy for facilitating the Immigration VE. Sandy stated, “I run it for free, in the sense that I’m not paid for this”.

5.6 Italian/English VE

The Italian/English was a bilingual (Italian and English) exchange focused on developing students' cultural awareness and language skills.

5.6.1 People

5.6.1.1 Joining the workgroup

In Table 0.14, I present details about the facilitators, their HEIs, and how the Italian/English VE was offered to provide background and context for the remaining findings. I then highlight the different ways each one joined the VE.

Ashely created the Italian/English VE when asked by Charlotte to maintain the connection with PC1/SC3-4 Italy for a year when Charlotte could not teach. Jane joined this VE when she replaced her department head as the Italian facilitator in 2020.

5.6.1.2 Workgroup social practices

Ashley and Jane described two central workgroup social practices that contributed to the sustainability of the Immigration VE: a positive but professional relationship, and a shared set of social practices in preparing and running each iteration.

Regarding their professional relationship, they described each other as “nice” and only had positive comments about working with each other. However, each recognized that Ashely was the leader since the structure was dictated by Ashely's curriculum and students' needs. Jane stated, “It's a good relationship. Sometimes I feel that I don't put in as much as she does, but that's because I realize that this, for her students, it's part of their course, whereas for my students, it's a simple... an extra”. Ashely said that Jane “is a very nice person, I think she is sometimes overwhelmed by the project, she has too many things to look after and partly she's less present to her students about the project than me.” Moreover, Ashely would use “I”, not “we”, when describing the change process, indicating that she was in charge of the VE. For example, when explaining how many academic quarters to run the VE, she said, “This is another, umm, a decision that I made.” The main communication methods were videoconferencing meetings, WhatsApp, and emails.

Name	Years in HEI	Previous International Experience	HEI Code	Type of HEI	How VE was offered	Weight of VE tasks with the course	Student population	Active/Inactive*
Jane	15	Yes	PC1-SC2/3 Italy	Urban private university – multiple campuses	Elective course for EFL degree students	100% of course, credit towards international certificate	36,000	Active
Ashely	14	Yes	SC3/4-USA	Large urban private university	Intermediate Italian elective course	Part of course grade	20,900	Active

*Actively or inactively facilitating at the time of data collection

Table 0.14: Summary of SC4 facilitators and their HEIs

Regarding working together, both described a set of shared social practices in preparing and running each iteration (see Figure 5.6.1). Before each iteration, they communicated asynchronously, either by email or WhatsApp, about the schedule and the number of students in Ashely’s class so Jane could recruit the same number of Italian students. Moreover, they would meet on Zoom right before the first Zoom meeting between the classes to pair the students and finalize the schedule and the conversation questions. Jane described discussing “the structure, the skeleton, who we’re going to mix with who”. During the VE, they would constantly communicate via WhatsApp and email. Next, they would meet again synchronously right before the last Zoom meeting between the students. Finally, they reported their students’ participation to the global learning experience department and the international relations departments, respectively, every iteration.

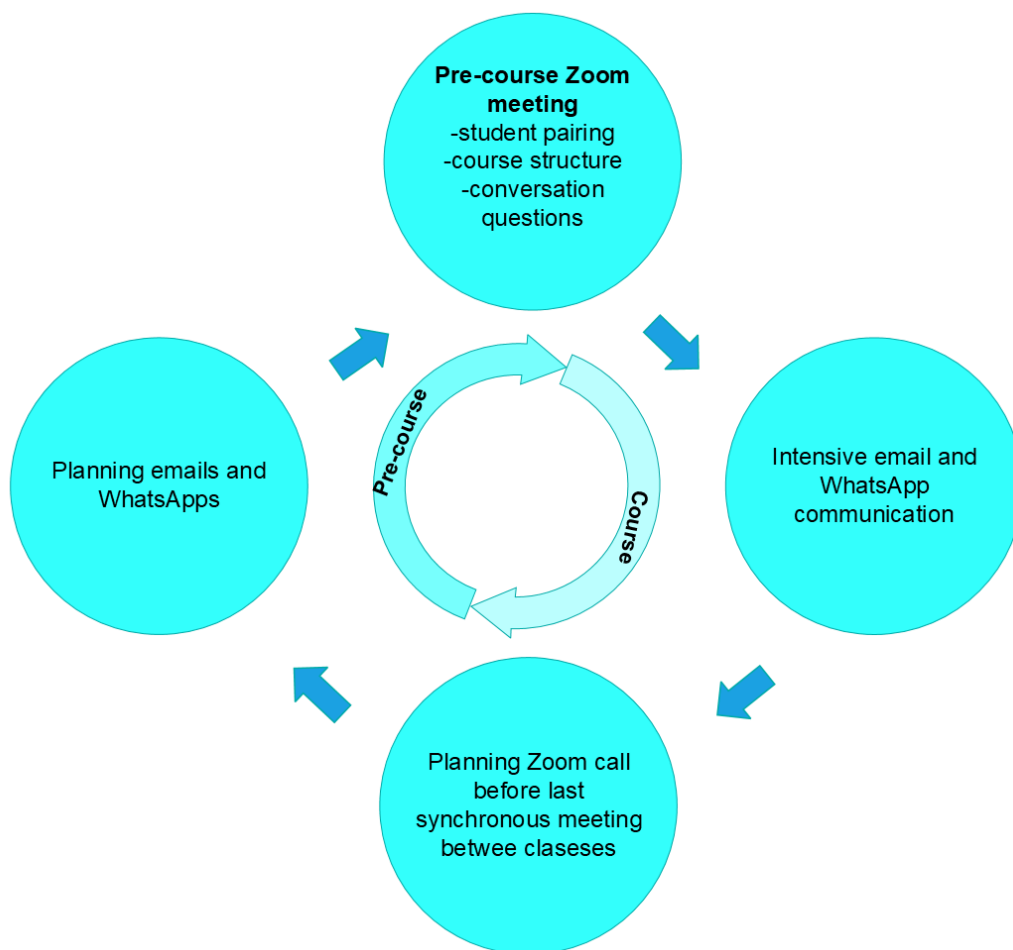


Figure 5.6.1: SC4 Italian/English workgroup social practices

5.6.1.3 Individual Social Practices

Ashely and Jane mentioned a few different individual social practices for preparing students and tasks for the VE. These differences stemmed from how each HEI offered the Italian/English VE. Only Jane actively recruited students, which she did by talking with students from her other courses about the benefits of participating in the VE. While the students did receive credit towards the international certificate, Jane did not “mention it either in the promotion of the project; I want them to do it for themselves and not for the credit”.

Furthermore, Ashely and Jane differed in the amount of contact with their home students. Since the VE was part of Ashely’s intermediate Italian course, where she had weekly contact with mostly the same students throughout the academic year, she built a good rapport with them. She also required her students to write a reflection after each conversation, either in English or Italian. At the end of each iteration, she held a final feedback session to find out “what worked, what didn’t work” so she could address the issues in the next iteration. Ashely also emailed the Italian students at the beginning of the VE to “explain the project and fix the date of the Zoom meeting together”. Sometimes, she met only with the Italian students on Zoom to review the information for the VE.

On the other hand, Jane had little interaction with her Italian students. Jane explained, “I do very little preparation with the [Italian] students”. On average, she held two virtual meetings with her students, at the beginning and middle, to “check out how they’re getting on”. She also organized an online forum for ongoing virtual communication with her students during the VE.

5.6.1.4 Students

Ashely and Jane demonstrated a strong belief that the Italian/English VE benefited their students, which seems to be a key to sustainability. The word “student” was the most common in the two interview transcripts by more than double the second most common word (student=160, project=61), demonstrating the facilitators’ focus on students. Jane summarized this belief by stating, “I believe wholeheartedly in this

type of exchange”. Ashely said, “I think it’s a greatest experience for them”. The facilitators perceived that their highly motivated students experienced increased target language proficiency, confidence, and exposure to a new culture through the VE. However, neither Ashely nor Jane discussed any challenges they needed to overcome to help their students succeed in the VE. Instead, they noted the language improvements and cultural discoveries with interest and excitement.

5.6.1.5 Outside Stakeholders

Ashely and Jane were the prominent champions of the Italian/English VE because they believed in the benefits for their students. Additionally, the program and department heads encouraged this VE by initially recruiting Ashely and Jane to develop and sustain the VE and partnership between the two HEIs. At the time of the interviews, these administrations were still aware that Ashely and Jane were sustaining the Italian/English VE despite not being directly involved. Ashely explained that she thought Charlotte “trusts that it is happening. So, I go on with my job”.

5.6.2 Course Design

5.6.2.1 Fidelity

Regarding fidelity, Jane and Ashely shared the same learning objective for the Italian/English VE since its conception; for students to gain linguistically and culturally through peer interaction. Jane stated, “The underlying aim, apart from getting them to speak, obviously in the language, is for them to just gradually discover the cultural differences”. In the following quote, Ashely explained her objective for the VE and her teaching in general:

So if and... at the end of two we the two years, if my student, if they have finally the idea that they are not the norm, but there are many norms, or that um, they need to be aware that the culture is much more than uh, I don’t know, food festival, but it’s really uh the unconscious way of perceiving themselves. I feel that I have done something that is important, behind the language.

5.6.2.2 Adaptation

Regarding adaption, the course design has changed significantly since the first iteration as Ashely gained more experience with VE pedagogy. When Ashely first developed the Italian/English VE, she used an E-tandem format, which included three to four synchronous conversations between student pairs, half in Italian, half in English, “because this was introduced to me as the easiest way to start”. After the first year, Ashely lengthened the exchange to six weeks and added a collaborative project to meet her HEI’s global learning experience requirements. Additionally, Ashely fluctuated between offering the Italian/English VE for two or three quarters each academic year because of her attempt to find the balance of providing her students the opportunity to speak with Italian students with not overloading them with work “so they can have the fun and come out of it without feeling that this is something they have to do”.

Furthermore, Jane and Ashely described constantly adapting the tasks, with Jane describing the Italian/English VE as “structured but it’s a work in progress all the time, I think”. For example, the conversation topics changed each iteration depending on what Ashely was teaching in her Italian course. Also, Ashely ruminated on the never-ending process of writing discussion questions by saying how she reflected on “how I formulate the question in a way that they can feel free to say whatever they want, but they are also invited to go a little bit deeper, and this is so hard. I don’t have this solution”. Since becoming a global learning experience, Jane and Ashely also changed the final project each iteration. For instance, they mentioned students writing a pamphlet about each city or creating a reflection video together.

Finally, Ashely mentioned constantly trying to find a shared digital platform to host instructions, materials, and videos but never discovering an appropriate one. She joked that she “should be the animator” of what she was looking for. In the end, the students mostly used WhatsApp to conduct their synchronous conversations.

5.6.3 Institutional Context

5.6.3.1 National and Institutional Profiles: Documentation Analysis Results

See Section 5.5.3.1.

5.6.3.2 Institutional Support

Jane and Ashely briefly mentioned receiving support from the same two international departments for their VE as Charlotte and Sandy from SC3 (see Section 5.5.3.2). Jane mentioned reporting to her international office so her students could earn credits toward the international certificate. Ashely said, “This office of the global learning environment, uh, they strongly support it [the VE]”. Jane did not mention any other support besides being recruited by her department head. Despite Ashely having Charlotte’s support, the foreign language department, where the Italian program was located, provided little input or support for the VE.

Chapter 6 Findings – Cross Case Analysis

In this chapter, I present the findings of the cross-case analysis. This chapter follows the same structure as the findings for each individual case: people, course design, and institutional context. The aim is to illustrate similarities and differences between the cases.

6.1 People

In this section, I explain how the various people involved in the VE contributed to the sustainability through cultural and social relationships and experience and social practices.

6.1.1 Facilitators' Backgrounds

The facilitators had worked an average of 18 years in HEI, ranging from nine to 30 years. Also, the majority worked at the same HEI for most of their HEI career, meaning the facilitators had enough time to gain teaching experience and build professional relationships. Additionally, all but one facilitator had significant international experience or exposure, whether through being a language teacher, living or moving to a different country, or working in an international industry (see Table 0.15). These previous international experiences seemed to prepare the facilitators to work successfully and effectively in the complex intercultural space of a VE.

Type of Previous International Experience	Facilitators
Foreign language teacher	Ariella, Michal, Lior, David, Daniella, Brad, Stacy, Cathy, Cleo, Gloria, Aaron, Sandy, Charlotte, Jane, Ashely
Living abroad	David, Daniella, Stacy, Theresa, Charlotte, Jane, Ashley
International research/industry	Anna, Karen, Theresa, Tiffany, Charles
None	Melissa

Table 0.15 Previous international experience

6.1.2 Facilitators - Joining the Workgroup

All the facilitators joined their VE by one or a combination of two methods: professional networks or international academic activities (i.e., projects or conferences), demonstrating the importance of professional networks for becoming involved in VEs. Some facilitators were recruited by administrators, such as Anna or Charlotte, while others were recruited by peers at different institutions, such as Stacy and Brad. PC1, PC2, SC1 and SC2 all began because of connections made during Erasmus+ projects or academic conferences.

6.1.3 Workgroup Social Practices

In all cases, two main types of workgroup social practices emerged: warm, professional communication; and a set of social practices for preparing and running each iteration. The facilitators from all the cases expressed appreciation for the friendly, professional relationships they had with their co-facilitators. None mentioned culture affecting their communication, but several mentioned cultural differences affecting student relationships. In two cases, PC2 and SC1, this professional relationship moved beyond teaching to research collaborations.

Some cases (PC1, PC2, and SC1) displayed a more democratic, flat hierarchy among the co-facilitators, where each facilitator had an equal voice in decision making processes. Other cases (SC2, SC3, and SC4) had more hierarchical relationships, with the ultimate deciding on power lying with the USA facilitator whose HEI provided the initial funding.

Although the specific set of social practices for preparing and running each VE differed due to contextual, pedagogical, and discipline considerations, some similarities emerged. All cases had an initial step(s) consisting of communication to plan and update the VE before the start of the next iteration, with the number and type of communication (i.e., videoconferencing, emails, WhatsApps) depending on each context. Those cases that used a shared LMS (e.g., PC1, PC2, SC1, SC3) also had a registration step. Next, all cases experienced an intense period of communication to solve student issues during the first stages of the VE. Except for SC4, all the cases also included a debriefing/summary step.

6.1.4 Individual Social Practices

The most variety in social practices appeared in the individual social practices each facilitator developed to sustain the VE within their own HEI context. One major influence on individual social practices was how the VE was offered at each HEI. If the course was a mandatory course or part of one, the facilitators did not need to worry about recruiting students (e.g., Anna from PC2). However, if the VE was offered as an elective course or embedded in one, the facilitators had to actively recruit students (e.g., Daniella from PC1), whether through advertisement or student outreach. Furthermore, how the course was offered – mandatory, elective, embedded in a face-to-face course or completely online - affected how the facilitators prepared their students for the VE and how they provided support throughout. The facilitators who seemed to prepare their students the most for the VE (e.g., Claudia from PC1 or Ashely from SC4) had more regular synchronous contact with their students and felt their students had lower language skills going into the exchange and therefore needed more support.

Another finding that I choose to present in the individual social practices section is how facilitating a VE contributed to the facilitators' professional development as teachers. I chose to categorize professional development as an individual social practice because the individual facilitator gained knowledge through the social interaction with their co-facilitator(s) and students. While not all the facilitators mentioned this social practice, those who did emphasized the important lessons and skills they learned, such as Gloria learning the importance of learning from mistakes or Michal gaining the online teaching skills to guide her English unit through the transition to emergency remote online teaching during COVID-19.

6.1.5 Students

All the facilitators passionately believed in the benefits of their VE for their students. The focus on the students was clear from the word count of the transcripts, with “student” being the most or second most common word in all the interview transcripts. While the exact benefits varied among the VEs due to differences in the learning objectives, in general the facilitators saw their VEs as a way for students to gain IC and language skills in addition to more discipline specific skills.

Language ability gaps and culturally influenced behavioral differences were the most common student challenges the facilitators mentioned. Several facilitators described how cultural differences caused miscommunication between some of their students, despite the same or similar differences not affecting the facilitators' communication between themselves (e.g., PC1 and SC1). While the culturally influenced behavior varied according to context (e.g., American students' discomfort with a flexible schedule or Polish students' negative stereotypes of German students), facilitators in four of the six cases (PC1, PC2, SC1, and SC2) developed tasks and methods over the iterations to help students overcome these language and cultural gaps. While the tasks and methods differed, the intent to support students in overcoming and learning from the complexity and challenges of international collaboration remained the same.

6.1.6 Champions and Outside Stakeholders

In all the cases, the facilitators themselves, whether former or current ones, were the main champions of their VE within each individual HEI. This demonstrates that passionate facilitators were an essential element to sustaining a VE.

The HEIs that had the highest levels of institutionalization of the VEs also had support from higher level academic administrators. In some cases, the facilitators used their own administrative positions to institutionalize their VE to various degrees, such as Michal from PC1 and Karen from PC2. In other cases, the HEI had developed administrative positions with the aim of promoting internationalization, including IaH and VE, such as Ariella's position and BTCS VE coordinator. These internationalization administrators provided the logistical support within the HEI for the VEs. Finally, strong, friendly professional relationships with direct administrators who were also passionate about internationalization seemed to contribute to some degree of institutionalization or sustainability, such as Brad and Daniella.

6.2 Course Design

In this section, I present the course design characteristics that seemed to contribute to the sustainability of the cases, again focusing on the balance between fidelity and adaptation.

6.2.1 Fidelity

On the one hand, each VE had features that remained unchanged throughout the iterations, which seemed to anchor the course and the facilitators. The most prominent example is learning objectives. All cases maintained clear learning objective(s) from inception that aligned with the facilitators' beliefs in what students needed to learn and therefore guided their course design. Additionally, all but PC1 and SC4 maintained the same or similar shared course structure, containing the consecutive steps of team building tasks, group tasks, and a final collaborative task. While PC1 and SC4 underwent the most significant course structure changes, aspects of their original course structure remained. Moreover, the course structure for PC1 and SC4 evolved to align with the three steps mentioned above. For PC1, the unit topics remained unchanged even though the order of and tasks within the units changed to encourage team building. For SC4, the basic concept of bilingual conversations remained, even though the VE was lengthened and a collaborative project was added.

6.2.2 Adaptation

On the other hand, all the cases displayed a variety of course design adaptations, with an emphasis on schedule and task design flexibility. The most changes were made based on feedback and experience, with the goal of easing course logistics and workload for students and facilitators so they could attain the unwavering learning objectives. Table 0.16 details the types of adaptations among the cases with examples. The most common were scheduling changes, whether changing the order of units, lengthening the VE, or flexibility with due dates. Another common adaptation was adjusting tasks, including creating new tasks to attain the same learning objectives, improving instructions, new topics for the same tasks, and updating sources. A final adaptation was the willingness to try new and improved technology tools, such as videoconferencing, to better serve the learning objectives.

Adaptation category	Sub-category	Individual Cases	Example
Schedule changes	Lengthen	PC2	Adding more days to the VE to provide students more time to collaborate
	Order of units/tasks	PC1	
	Flexibility with due dates	SC1, SC2	
Task adjustments	New tasks	PC1, SC1, SC4	Creating new tasks to encourage team-building
	Improved instructions	PC1, SC1, SC2, SC4	
	New topics for tasks	PC2, SC3, SC4	Updating topics to reflect current events
	Updating sources	PC2, SC3	
New technology		PC1, PC2, SC1, SC4	Moving from asynchronous written communication (e.g., forums) to synchronous oral communication (e.g., videoconferencing)

Table 0.16: Adaptations categories

6.3 Institutional Context

6.3.1 National and Institutional Profiles: Documentation Analysis Results

National policy supporting IaH and VE was missing in all countries except for Israel. If national policy on internationalization existed, the emphasis, including funding, was on mobility. This emphasis on mobility, in turn, was found within all the institutional internationalization policies. Overall, national policy on internationalization did not seem to affect the sustainability, especially the institutionalization, of the case VEs.

Additionally, while some of the VE's learning objectives aligned with the individual HEI's missions, this alignment did not seem to contribute to the sustainability of each VEs. For instance, SC1's learning objective aligned with SC1-Germany's mission of integrating theory, subject specific skills, and practice into teaching training, but was not institutionalized. On the other hand, SC2's learning objective did not directly support SC2-USA's mission but the Culture VE was highly institutionalized there.

6.3.2 Institutional Support

Regarding how the institutions as organizations influenced the sustainability of the VEs, three main factors emerged from the cases: the level of support from the international department; the level of institutionalization of the VE within the curriculum; and the combination of institutional flexibility and rigidity. The facilitators who received the most institutional support (i.e., administrative support and/or funding) seemed to have strong international departments with an administrator dedicated to all types of internationalization (PC1/4-Israel-A, SC2-USA, PC1/SC3-4-Italy, SC3/4-USA). Moreover, while the facilitators (Cathy, Charles, and Theresa) from the BTCS did not mention an international department, they did mention the importance of the BTCS VE coordinator in initiating and supporting their VEs.

Each HEI institutionalized the VE to differing degrees. A higher degree of institutionalization (i.e., a mandatory course or part of a course) seemed to contribute to sustainability because it reduced issues of low registration, low student motivation, or staff turnover. When the VE was highly institutionalized, the administrators were described as more committed to finding another facilitator if the original one needed to leave. The facilitators who described the lowest degree of institutionalization (Stacy, Gloria, and Aaron) also felt that the VE would end if they stopped facilitating.

The final institutional factor was the level of flexibility and rigidity within each HEI's syllabuses, scheduling, and administrative hierarchy. Some facilitators had more flexibility within their course syllabus, where they could more easily embed the VE within an existing course and/or make adjustments throughout the VE (e.g., Cathy, Gloria), while others had stricter syllabus requirements (e.g., Theresa, Charlotte, and Ashely) which shaped the VE course design and limited the ability to adjust during the VE. Other HEIs had more rigid scheduling requirements, such as the BTCS campuses and PC1-Japan, which limited when the VEs could be offered, while other HEIs had more freedom with scheduling, allowing the facilitators to choose when to offer the VE. More rigid and hierarchical administrative structure created barriers to receiving approval to run a VE (e.g., Stacy) or to institutionalize the VE (e.g., Gloria), unless there was an administrative champion (e.g., Brad). More flexibility and loose administrative structures allowed for bottom-up VE initiatives, such as SC2-USA.

Most of the HEIs displayed a combination of flexibility and rigidity due to contextual factors, such as SC2-USA being rigid on course syllabus but more flexible on scheduling and administrative hierarchy, or PC1/PC2-Brazil being flexible on course syllabus and administrative hierarchy but strict on scheduling.

Chapter 7 Discussion

This thesis examined what factors and practices influenced sustainability in a co-designed VE using a descriptive multiple case study. The core purpose of this chapter is to present how this study's findings, in conversation with the literature (see Chapter 2), address the research questions and contribute to knowledge. To organize my discussion, I continue to utilize the three categories of people, course design, and institutional context. In each section, I briefly reference the research questions, review the relevant findings, and explain how, in context with the existing literature, these findings answer the research questions. I end by discussing how the various categories and constructs intersect to influence sustainability. To aid this discussion, I present a model that illustrates the complex interactions.

7.1 People

In this section, I focus on answering the first research question, how stakeholders have impacted the sustainability of co-designed VE, and its three sub-questions.

The first sub-question was how the teaching faculty (i.e., the facilitators) impacted the sustainability of a co-designed VE. As presented in the findings (see Sections 6.1.1, 6.1.2, 6.1.3, and 6.1.4), their impact was felt in multiple ways. First, the facilitators brought an average 18 years or more HE teaching experience to each VE. Through their long teaching careers, the facilitators built professional relationships within and outside of their HEIs that led to opportunities to develop or join their VE. Afterwards, many of the facilitators utilized these professional relationships to champion for the VE's continuation within and outside their HEIs, either through efforts to institutionalize the VE, receive favorable conditions to embed the VE into existing courses, or recruit new institutions to the VE.

Secondly, all the facilitators had previous international experiences, whether living abroad, studying abroad, or participation in professional international activities. These previous experiences seemed to have developed the facilitators' IC skills, which contributed to the development of respectful, culturally sensitive communication between facilitators in each case. This finding seems to support the idea of faculty mobility (e.g., residencies at other HEIs, international collaboration) as

a method of professional development that contributes to internationalization and IaH processes (Beelen, 2017; Brewer & Leask, 2012). However, empirical evidence on the impacts of international experience on academic faculty's IC seems to be lacking. On the other hand, empirical evidence for the positive effects of international experiences on IC exists in the robust literature on effects of study abroad experiences for students. For example, Genkova and Kruse (2020) found that students who study abroad had higher cultural intelligence and more active problem-solving abilities. Although the facilitators' experiences seem to strength the claim that international experiences improve IC, more research is needed to validate this connection between facilitators' previous international experiences and successful intercultural collaboration.

Finally, the facilitators were the main champions of their VEs within their HEIs through their promotion of and advocacy for the continuation of their VEs. Moreover, their established professional positions and relationships with administrators seemed to increase the effectiveness of their advocacy since they either had the power themselves to institutionalize the VE or they received support from these administrators. These efforts led to various degrees of institutionalization at the HEIs. This finding corresponds with several implementation science studies (see Section 2.6.2) that found that the presence of a champion who promotes the program within an organization, especially to leadership, increases the sustainability of the program (Racine, 2006; Scheirer, 2005). Additionally, this finding reinforces the EVOLVE project report (EVOLVE Project Team, 2020b) recommendation that successful VEs need committed faculty members. Therefore, dedicated facilitators who are willing to champion their VE from the bottom up within their HEI seem to be a main factor in the sustainability of a VE. This finding also contributes to existing literature on the importance of a champion for the sustainability of a project by highlighting the importance of the champion's professional relationships to administration.

The second sub-question asked what practices developed among the teaching faculty and how these impacted the sustainability of co-designed VEs. As described in Sections 6.1.3 and 6.1.4, the two main practices developed were workgroup and individual social practices. All the cases displayed friendly, professional relationships between the facilitators, creating a strong workgroup environment. These

relationships seemed to add to their enjoyment of facilitating the course and create a sense of personal obligation to each other to continue the VE. As mentioned in the literature review (see Section 2.5), Dooly and Sadler (2020) cited their strong working relationship as a factor for their decades-long VE partnership. This strong working relationship seemed to be an important factor in the sustainability of the VEs, especially in the creation and maintenance of the workgroup social practices.

Nevertheless, it should be noted that despite these friendly, professional relationships, three of the secondary cases displayed unbalanced power relationships between the partners, with the American HEIs as the leader. This reflects the inequality issues highlighted by CVE, including the imbalance of power between the Global North and South (Hauck, 2023).

Additionally, each VE facilitator group developed a set of workgroup social practices for running and implementing the VE. These practices seemed to ease the facilitation of the VE and reduce the facilitators' workload after the first iteration because each member knew what to expect and what their workload would be. These practices also seemed to aid in the transmission of knowledge about the VE to new facilitators. Since similarities existed between the different workgroup social practices, it is possible, therefore, to develop a model of effective VE workgroup social practices (see Figure 7.1.1) that could be used in VE faculty training to encourage the conscious development of these practices in new VEs or existing VEs. In the literature reviewed for this thesis, no mention of facilitator social practices appeared.

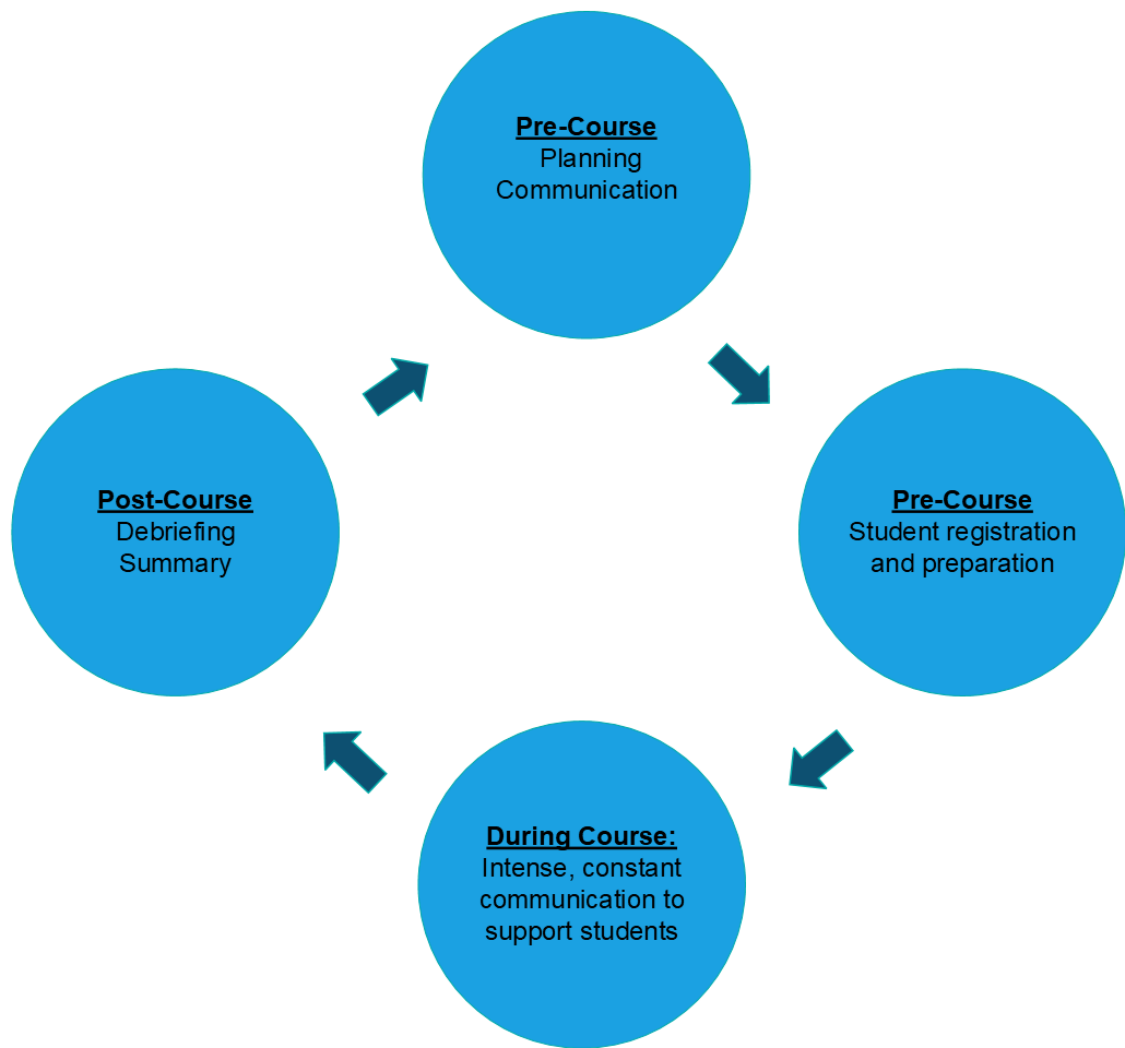


Figure 7.1.1: VE workgroup social practices model

Each individual facilitator developed their own unique social practices within their HEI to sustain the VE, adjusting to the demands and challenges of each local context. These individual social practices seem to be a response to overcome common VE barriers (see Section 2.4), such as recruiting students to ensure even numbers or preparing students to work in intercultural teams to minimize student-student conflict. This finding demonstrates how the local content of each facilitator and HEI must be taken into consideration when sustaining a VE.

Moreover, several facilitators mentioned they gained professional skills and knowledge through facilitating a VE. This learning experience seemed to provide intrinsic motivation for faculty to continue facilitating the VE in order to apply their new skills and understanding or pass the VE onto another colleague so they could

benefit from the experience. This finding supports previous research, such as Baroni et al.'s (2019) finding that the facilitators of teacher-training VEs gained professional skills such as digital skills and new pedagogical ideas. Similarly, Branch and Wernick (2022) mentioned in their practice report that facilitators learned new teaching methodologies and improved their ability to teach online through their facilitation of a VE over three iterations. By understanding the benefits for the facilitators, not just the students, HEIs can better promote participation in VE initiatives among their academic faculty.

The third sub-question asked how other stakeholders influenced the sustainability of co-designed VEs. Two main groups of stakeholders that influenced the sustainability of these VEs were students and administrators. Students influenced the VEs' sustainability by being the main focus of the facilitators. In every VE, the facilitators held a firm belief in the pedagogical benefits of the VE for their students (see Section 6.1.5). This belief seemed to motivate the facilitators to become champions for sustaining the VE, despite challenges. The facilitators' beliefs in the benefits of VE for students echoes the benefits outlined in the literature review (see Section 2.3).

Mid to high-level administrators were key to institutionalizing the VEs in the individual cases. Institutionalizing VEs, to any degree, contributed to their sustainability, especially when passing the VE to a new facilitator within an HEI. It is important to note that close professional relationships of the facilitators with their administrators seemed to increase the chances or ease the process of institutionalization. This finding supports the recommendation for administrative support found in the VE research reports (Helm & van der Velden, 2021; Stevens Initiative, 2022).

Furthermore, several studies in implementation research emphasize the importance of leadership support in sustaining projects, beyond champions (Chambers et al., 2013; Fixsen et al., 2005). This finding contributes to the existing literature by showing how strong professional relationships between facilitators and leadership allowed the facilitators to successfully champion for administrative support (i.e., institutionalization). Therefore, it is not just the act of championing, but championing using existing professional relationships that seemed to make the most impact.

The last sub-question asked how socio-cultural contexts affected relationships and interaction between the stakeholders. This research found that socio-cultural contexts did not seem to affect the relationships between facilitators within each VE workgroup; they all successfully developed working relationships without any socio-cultural challenges. This finding perhaps hints that the facilitators already had high IC and other necessary competences for facilitating VEs (O'Dowd, 2015).

However, several facilitators mentioned how socio-cultural context led to conflict between students, a common interpersonal challenge in VEs (see Section 2.4). If left unresolved, these student conflicts can lead to further educational marginalization instead of advancing internationalization aims (Helm, 2019). In response, the facilitators developed various pedagogical methods to prevent or overcome these challenges. These pedagogical methods seemed to contribute to sustainability by improving the experience for students. While the facilitators did not mention having professional development training about VEs or CVE, they used the methods recommended by the literature to bridge socio-cultural gaps, such as developing introductory tasks that used low-bandwidth technologies and active mentoring strategies (Çiftçi & Savaş, 2018; Hauck, 2023; O'Dowd et al., 2019). Although the facilitators over several iterations found ways to manage student-student conflict, initial faculty training on how to mentor students, including those from underrepresented populations, could have shortened the learning process, which supports the call for more faculty training on developing and implementing VE in an equitable manner (Alami et al., 2022; Beaven et al., 2021). Additionally, this finding answers in a small way Alber et al.'s (2017) call for more research on how socio-cultural contexts affect sustainability.

In summary, stakeholders seemed to greatly affect VE sustainability, with the facilitators having a large impact. Warm professional relationships, workgroup practices, and localized individual social practices all contributed to sustainability. Also, the facilitators' administrative positions and professional connections with administrators impacted the institutionalization of the VE, which seems to be a key to sustainability. Facilitators' beliefs in the benefits of VE for students also contributed to their dedication and motivation for running the VE. And finally, student challenges in cross-cultural exchanges in a foreign language seemed to inspire the facilitators to

develop pedagogical methods to help students overcome these challenges so they could learn and gain from the experience.

7.2 Course Design

In this section, I focus on answering the second research question, how and to what extent has course design contributed to the sustainability of a co-designed VE, and its four sub-questions.

The first sub-question asked to what extent had course or task adaption occurred over the iterations of the same co-designed VE. All the cases displayed “flexible fidelity”, the balancing act of maintaining core components of the course while adapting and evolving to fit the local and historical context (Shelton et al., 2018). The largest adaptations occurred with course schedules and task designs (see Table 0.16) as a response to feedback and experience, while the main learning objectives or general course structure stayed the same over the iterations. Dooly and Sadler (2020), though not using the same terminology, described experiencing a similar “flexible fidelity” in their long-term VE, with learning objectives remaining constant but their task design becoming more scaffolded over the iterations. The move towards more scaffolding and explicit instructions for tasks experienced in most of the cases reflect the current recommendations for VE task design: high quality, scaffolded tasks that can be adjusted according to the immediate needs of the students (Çiftçi & Savaş, 2018; Waldman et al., 2019). Moreover, in several cases, new technology was adopted for the VE that better aligned with the learning objectives, reflecting the experiences of long-term virtual exchanges found in the literature (Oswal et al., 2021; Stornaiuolo, 2016). In summary, the flexible fidelity displayed by all the cases seemed to contribute directly to the sustainability of each VE. This supports the claims of implementation science that adapting interventions (i.e., VEs) to local contexts increases long-term sustainment (Chambers et al., 2013).

The second sub-question asked if evaluation systems were developed to evaluate the benefits of the co-designed VE. The findings showed that no systematic practices were developed to formally evaluate the VEs. Only SC3 and SC4 mentioned a formal evaluation, which was a general feedback form for all VEs offered at the HEIs. Otherwise, the feedback gathered was informal, from

conversations with students and the facilitators' own experiences. In the VE literature reviewed, only Alvarez and Steiner (2019) mentioned evaluation as part of VE course design; the other models (see Section 2.5) end with collaboration or reflective activities. The facilitators' experiences of collecting mainly informal evaluation are similar to Sadler and Dooly's experience in running a long-term VE. This finding does not nullify recommendations or a need for evaluations of VE; it seems to reflect the reality where evaluation is sometimes an afterthought, not the focus.

The third sub-question examined which, if any, course design models were used to design, develop, or maintain a co-designed VEs. Although only SC1 mentioned using a specific model in their design process, the rest of the VEs eventually evolved to include common steps in VE course design models (see Section 2.5), such as team building activities, group tasks, and collaborative tasks. Several facilitators also included a preparation step, as endorsed by Doscher and Rubin (2022). Many adaptations made across the cases, such as updating task design and adopting new technology, better aligned the VEs' course structures to the suggested VE models by adding more team building tasks, collaborative tasks, or easing synchronous and asynchronous communication. This finding contributes to the growing evidence that validates the VE models presented in the literature, especially O'Dowd and Waire's (2009) and Doscher and Rubin's models (2022).

The last sub-question asked how socio-cultural contexts affected the course and task design over the iteration of the same co-designed VE. This study provided very limited evidence to answer this question. Facilitators from PC2 and SC1 described overcoming differences in content knowledge caused by differences in academic focus within an academic field (e.g., corporate business versus entrepreneurship within the business field). Likewise, facilitators from PC1, SC3, and SC4 discussed the need to overcome differences in language skills. Although far from decisive, the data collected in this study hints that these differences stemmed both from national socio-cultural factors and institutional socio-cultural factors.

In short, course design seemed to significantly contribute to the sustainability of co-designed VEs through flexible fidelity and replication, intended or not, of recommended VE course design models. The facilitators displayed flexible fidelity by

remaining faithful to their initial learning objectives and course structure while adapting course schedules, tasks, and new technology based on informal feedback, which allowed the VEs to better meet the needs of the students. The emergence of three common course structure steps in all the VEs (i.e., team building, group tasks, and a final collaborative task) could support the effectiveness of the models that include these steps. On the other hand, it could be the exemplification of theory within the VE field, where practitioners and researchers apply a theory and focus on the results that prove the theory (Ashwin, 2012). This could be a possibility, since all the cases involved had at least one facilitator or HEI actively involved in the IaH/VE field, whether through research, participation in an international project, or an institutional globalization/internationalization office focused on IaH. However, I argue that these findings are a step towards validating these models, not exemplifying them, since most of the facilitators mentioned incorporating more team building tasks based on their experiences and felt the quality of the students' experience improved.

However, formal evaluation of the VEs themselves was lacking. Also, there were small hints of national and institutional socio-cultural factors influencing course design, but more research would be needed to explore this aspect.

7.3 Institutional Context

In this section, I focus on answering the third research question, how and to what extent HEIs impacted the sustainability of co-designed VE, and its four sub-questions.

The first sub-question asked to what extent has the co-designed VE become institutionalized within the HEIs and if so, what practices have been institutionalized. The degree of institutionalization ranged from none to designating the VE as a mandatory course or part of one. Within each case, the level of institutionalization differed between the HEIs, depending on local contexts. As explained in Section 6.3.2, higher levels of institutionalization contributed to sustainability by overcoming common VE challenges, such as low student registration and motivation (see Section 2.4), which positively impacted student motivation and participation. Additionally, high levels of institutionalization seemed to oblige a HEI to find a new

facilitator when the previous one left. This finding supports the VE recommendations described in Section 2.5 that argue for providing academic credit to students as a method for recognizing their participation in VEs (Baroni et al., 2019). Furthermore, the long-running VEs identified in the literature also had high levels of institutionalization of the VE at one or more of the participating HEIs (Branch & Wernick, 2022; Waldman et al., 2019). However, none of these studies mentioned if institutionalization contributed to successful facilitator handover.

Moreover, this finding strengthened the argument from implementation science literature that one factor to a program's sustainability is its integration into the organization's other programs and services (Nilsen & Birken, 2020). By integrating a new program (i.e., a VE) into other programs (i.e., mandatory courses or curriculum), it transforms the VE beyond the passion project of one teacher (i.e., Aaron and Gloria) to a permanent part of the HEI (i.e., PC1-Israel-A) (Chambers et al., 2013). This finding also demonstrates how concepts from healthcare implementation science can be adapted to education, and more specially, to the VE field.

The second sub-question asked how the course aims of a co-designed VE align with the values of the HEIs. While there were a few instances where a VE's learning objectives aligned with a HEI's stated values, this alignment did not seem to contribute to institutionalization and therefore to the sustainability of the VEs. This question was formed based on implementation science literature that suggests a higher likelihood of sustainability when a program aligns with the core mission of the organization (Scheirer, 2005). This study does not support this construct within HEI and VE fields. Perhaps the lack of correlation stems from the size of an individual VE course within a HEI, where even a small HEI offers a hundred courses. Also, the other findings of this study demonstrate the large impact of social relationships (see Section Chapter 6) on the sustainability of the VE. Perhaps the more abstract, non-social aspect of learning objectives and HEI missions contribute to the lack of relevance. However, all of these ideas are speculation and would require more research, which at this point, I would not recommend since there are other potential research areas revealed in this thesis that would provide more of a practical benefit for the VE field.

The last sub-question posed the question of how national or institutional policies impacted the sustainability of a co-designed VE. No evidence was found that national policies contributed to the sustainability of VEs, since all the national policies on internationalization of HE, if existing at all, focused mainly on mobility as the driver of internationalization, with little to no consideration of IaH or VE. While this thesis found no evidence of the impact of national policies on sustainability, it does not rule out the possible impact if there were changes to national policies to encourage IaH or VEs specifically. Garces and O'Dowd (2020) argued for the coordination of bottom up and top-down initiatives to promote the implementation of VEs, based on a case study in a Spanish regional autonomy. They outlined how practitioners, academic departments, HEIs, and local governments could promote VE implementation. In this case study, the Spanish regional government created a strategic plan and projects to promote the use of VEs in HEIs within the region. This is an example of how an outside stakeholder to a HEI, in this case a regional government, can actively promote a VE.

The emphasis on mobility, in turn, seemed to trickle down to the institutional policies on internationalization. However, in contrast to national policies, the findings of this study indicate that institutional policies of internationalization seemed to impact the sustainability of the VEs to some extent. The HEIs that had both internationalization policies and practices had higher levels of institutionalization of the VEs that contributed to sustainability. Here, I consider policies to be written documents outlining an HEI's goals and plans for promoting internationalization, while practice I consider to be programs, offices, or individuals within the HEI that provide financial, pedagogical or administration support for internationalization. While the VE literature (see Section 2.5) promotes the integration of VE into institutional and national policy and practice, focus remains on implementing VE as pedagogical practice within multiple courses with little consideration for the sustainability of VEs afterwards. This finding supports these recommendations within the literature but also adds to them by highlighting the importance of written policies and active practices with HEIs not just for implementing but sustaining co-designed VEs.

Beyond the direct answers to three sub-questions, another institutional factor seemed to contribute to the sustainability of co-designed VEs: the implementation construct of the socio-cultural context of the HEI (see Section 2.6.2), especially the degree of flexibility or rigidity. Interestingly, each HEI displayed a mix of flexibility and rigidity within the institutional aspects of curriculum, scheduling, and administration, all of which can be considered inter-organization factors (Shelton et al, 2018). Rigidity in curriculum or scheduling, while creating challenges to overcome in course and task design, did not seem to negatively affect the sustainability of the VEs. Rigidity in administrative structure, however, seemed to negatively affect sustainability by limiting or preventing the institutionalization of the co-designed VE. Therefore, while it is unrealistic to call for a culture change within an institution for the purpose of promoting VE sustainability, facilitators and other VE champions, by understanding their institutional culture (flexible or rigid), can anticipate potential challenges caused by this culture (e.g., number of hierarchal layers to navigate) and then plan accordingly to overcome them.

In summary, HEIs have impacted the sustainability of co-designed VEs most directly through the institutionalization of the VEs. Higher levels of institutionalization seemed to increase the sustainability of the VE. Moreover, institutional policies and practices promoting IaH or VEs increased the chances of institutionalization, even in HEIs with rigid administration culture. National policy and alignment between a VE's course learning objectives and a HEI's value or mission did not seem to impact the sustainability of the co-designed VE.

7.4 Seeing the Galaxy and Beyond

In the methodology Section Chapter 4, I argued a co-designed VE is a bounded yet complex phenomenon in the real world that cannot be easily broken down into separate variables, thereby justifying my choice of a case study methodology. However, I chose to organize my findings and discussions in a structured manner that did divide the complex phenomenon of a VE into three large categories (i.e., people, course design, and institutional context), each with their own substructure, to ease the presentation of data and create alignment between my research questions, case findings, and my discussion. Until now, I have answered each research

question and examined each category and aspect separately in relation to the literature. If I stop here, I am like the famous idiom, one who “cannot see the forest for the trees”, or if you want to adapt this idiom to my space theme from the theoretical chapter (see Section 3.2), “cannot see the galaxy for the stars”. However, in this section, I now take a step back to look at how all of the different findings from the categories interrelate to influence the sustainability of co-designed VE. In other words, I move from discussing/looking at the individual trees/stars to viewing the whole forest/galaxy.

Figure 7.4.1 shows a model I created based on my findings to show how the various categories and constructs interact to influence sustainability. Although the three main categories remain, constructs from each category influence other categories.

Facilitators and institutional culture influence all categories, demonstrating the important role both play in the sustainability of VEs. Surprisingly, the local and national culture did not seem to play a significant role in the sustainability of VEs. Facilitators played a key role in developing and sustaining the social practices that eased the facilitation of the VE, creating and adapting the course design of the VE to best meet their students’ needs and the learning objectives, and advocating for the institutionalization of the VE through their relationships with administrators.

Institutional culture can influence the individual social practices facilitators develop to sustain the VE by determining elements of the course design through scheduling or curriculum requirements and affect the institutionalization of the VE.

Overall, this model highlights the need for both bottom-up (facilitators) champions and top-down (HEI policy and practice) initiative and support. The recommendations for VE initiatives from the literature highlight the need for both these levels, but do not relate to them in terms of the importance of relationships, the impact of culture, or sustainability. Although the literature emphasizes the role HEIs play in institutionalizing VEs, there is little mention of how institutional culture influences course design or social practices of facilitators. This study demonstrates that institutional culture shapes VE course design and facilitators’ individual social practices through rigidity or flexibility of curriculum requirements, schedules, and other policies and regulations.

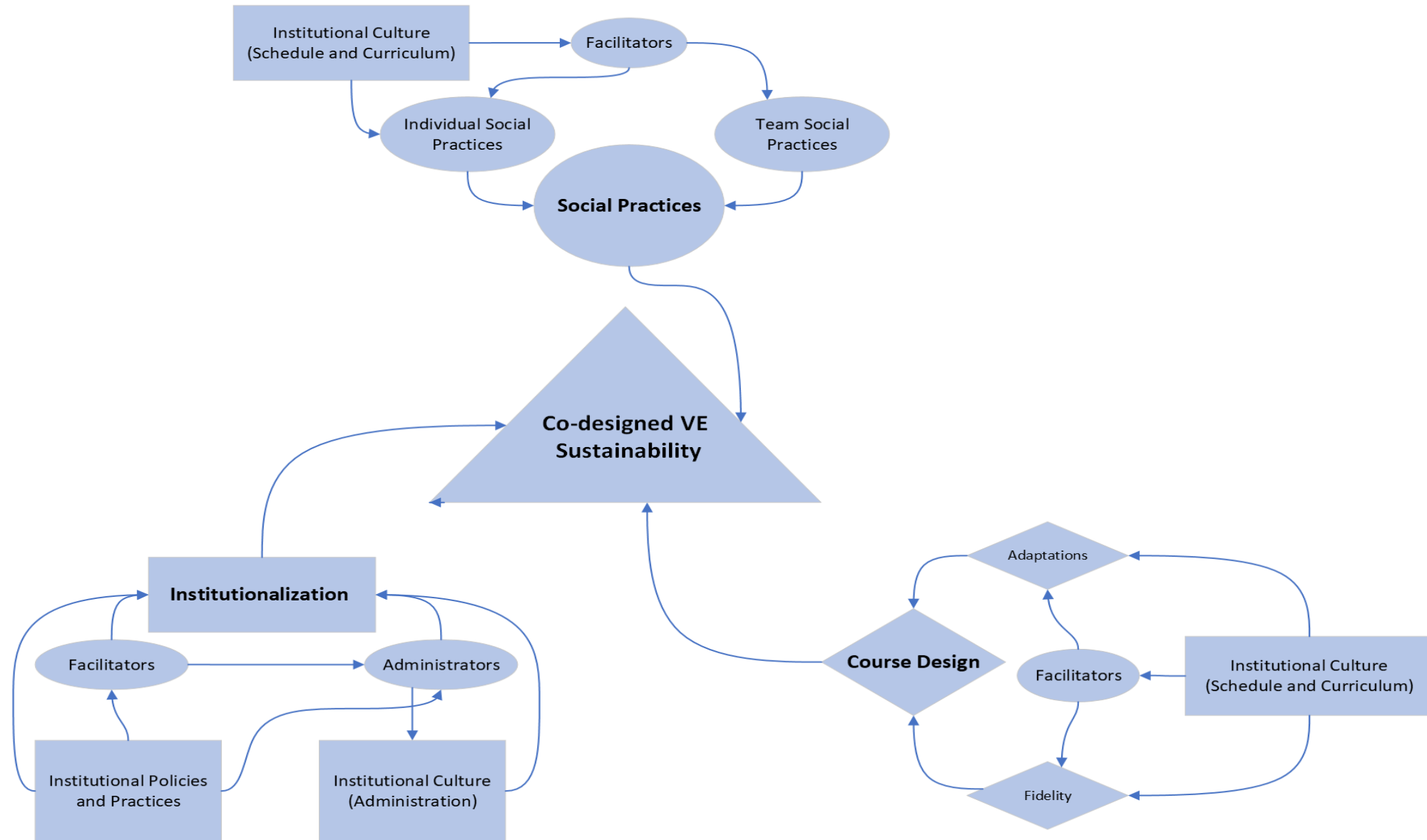


Figure 7.4.1 Model of sustainability factors for co-designed

In these last paragraphs of the discussion, I will extend my space theme one last time by zooming out beyond the single galaxy of my research to the education universe to contextualize how my findings expand methodological and theoretical approaches for other educational and internationalization researchers. While the findings from the unique galaxy of my research (i.e., the six primary and secondary cases) may be transferable to other contexts (see 4.8.3), I do not claim generalizability of these findings. Nevertheless, the methodological and theoretical approaches I developed in this research can be applied to study other galaxies (i.e., other educational courses, projects, and activities) within the education universe. My choice of pragmatism as my main theoretical underpinning guided my research to explicitly answer the questions of why I did the research (i.e., to extend knowledge on how to sustain co-designed VEs) and how I did the research (i.e., multiple case study using social constructionism and implementation science as theoretical tools). Other researchers can similarly adapt pragmatism to frame their thinking about their research.

This thesis has demonstrated the viability of a multiple case study design with explicit theoretical underpinnings as a means of exploring questions about VEs. This methodology provided a balance of rich, thick findings found in single case studies with the ability to compare across cases to find similarities and differences that can be explored in further research. The combination of social constructionism assumptions and sustainability constructs from implementation science extended theoretical approaches in VE, internationalization and educational research. This novel combination created the backbone of this research, aligning my research questions, data analysis, and presentation of my findings while reducing the risk of exemplification of the theoretical underpinnings because of the use of two different but complementary theoretical underpinnings. Moreover, I have demonstrated how constructs from an unrelated research field, implementation science, can be successfully applied to VE research in particular, and internationalization and educational research in general. Other researchers can adapt these methodological and theoretical approaches to research on VEs and other educational or international programs and activities.

Chapter 8 Conclusion

In this chapter, I draw my thesis to a close, starting with a review of my research objective and approach then moving on to examine the extent I was able to answer my research questions. Then I reflect on the study's limitations. Next, I outline the contribution of my study to knowledge. Finally, I end with some final points.

8.1 Research Objective and Process

This thesis sought to contribute to the burgeoning VE literature by examining factors and practices that contribute to the sustainability of co-designed VEs, an area lacking empirical knowledge. In Chapter 1, I presented my motivations for pursuing this study and I located the role of VE within the field of internationalization, specifically IaH. In Chapter 2, I argued that previous research on VE has demonstrated the benefits of VE participation for students, which justifies the investment of time and funding to implement VEs. I also demonstrated the lack of empirical research on sustainability of VEs after implementation, justifying the need for this thesis. Furthermore, I introduced categories and constructs taken from the field of implementation science which guided the structure of this thesis. In Chapter 3, I presented the social constructionism theoretical framework that guided this thesis alongside implementation science. In alignment with my social constructionism theoretical framework and my pragmatic approach to research, I chose a descriptive multi-case study research design (Chapter 4), gathering data from multiple sources, including interviews with VE facilitators, course documentation, and national and institutional policy documentation. I presented the findings for each case in Chapter 5 and the findings from the cross-case analysis in Chapter 6. In Chapter 7, I discussed how my findings, in conversation with the literature, answered the research questions.

8.2 Research Findings and Suggestions for Future Research

The three main research questions, developed based on the implementation science categories of people, course design, and institutional context, attempted to address the main aim of this thesis, to understand the factors and practices that contribute to sustainability of co-designed VEs. Each main research question was divided into

three to four sub-questions, based on assumptions from social constructionism and constructs from implementation science. Table 0.17 summarizes this research's findings, as discussed in detail in Chapters 5-7.

Some of the research questions and sub-questions have been answered more thoroughly than others. Since this thesis studies a complex, messy phenomenon in the real world, it is impossible to untangle all the findings to address the highly structured research questions separately. Instead, here I will discuss the findings according to their empirical strength and which question(s) they address. The three following findings have the strongest evidence from the data, meaning data from all cases and interviews and/or at least two data sources. First, this study has shown various ways the facilitators contributed to VE sustainability, including being passionate VE champions (RQ1.1), developing social practices (RQ1.2), having strong professional relationships with administrators (RQ 1.1), focusing on the benefit for their students (RQ1.3), and adapting course design and tasks (RQ2.1). Much previous VE research focused on the impact of VE on students, not facilitators. These findings demonstrate the importance of researching the role of facilitators in VEs, not just students. Future research should gather more cases to confirm or dispute these findings, analyze the social practices of facilitators more in-depth, or focus on the facilitator-student relationship.

Moreover, all the cases demonstrated flexible fidelity, the balance between fidelity of learning objectives with the adaptation of course tasks and schedules and adoption of new technology (RQ2.1). Future research could analyze course documentation (VE or other course types) over several iterations using this and other constructs from implementation science to better understand the design process and valid current design models.

Finally, this study provides strong evidence for the importance of institutionalization of VEs in sustainability (RQ3.1) and how local context (RQ3.4), including the role of the facilitators (RQ1.1), influences the degree of institutionalization.

Main Research Question	Sub-question	Findings
RQ1 People	RQ1.1 Impact of teaching facilitators	<ul style="list-style-type: none"> • Significant HE teaching/professional experience • Built strong professional relationships with administrators • Previous international experiences • Champions of their VEs within their HEI • Friendly, professional facilitator relationships
	RQ1.2 Processes and practices developed by facilitators	<ul style="list-style-type: none"> • Development of workgroup social practices for running and implementing a VE (see Figure 7.1.1) • Development of individual social practices • Professional development
	RQ1.3 Impact of other stakeholders	<ul style="list-style-type: none"> • Students are the main motivation for facilitators' commitment to VE • Mid- to high-level administrators are key to institutionalizing VEs
	RQ1.4 Impact of socio-cultural contexts stakeholders' relationships and interactions	<ul style="list-style-type: none"> • No evidence of impact on facilitators' relationships • Socio-cultural conflicts occurred between students
RQ2 Course Design	RQ2.1 Extent of course or task adaptation	<ul style="list-style-type: none"> • “flexible fidelity” found in all cases <ul style="list-style-type: none"> ○ fidelity to learning objectives and overall course structure ○ adaption of tasks, and schedule ○ adaptation of new technology
	RQ2.2 Development of evaluation systems	<ul style="list-style-type: none"> • No formal, systematic processes for evaluation • Mainly informal feedback
	RQ2.3 Course design models	<ul style="list-style-type: none"> • Each VE independently evolved to include common steps in accepted VE course design models
	RQ2.4 Impact of socio-cultural contexts on course and task design	<ul style="list-style-type: none"> • Limited evidence of impact • Gaps in discipline knowledge • Gaps in language skills

Main Research Question	Sub-question	Findings
RQ3 Institutional Context	RQ3.1 Extent of institutionalization within HEIs	<ul style="list-style-type: none"> • Range of institutionalization of VEs • Degree of institutionalization depended on local contexts
	RQ3.2 Alignment of course aims with HEIs' values	<ul style="list-style-type: none"> • Few instances of alignment • Alignment does not seem to contribute to institutionalization or sustainability
	RQ3.3 Impact of national and institutional policies	<ul style="list-style-type: none"> • No evidence for national policies impacting sustainability • Institutional policies and practices seemed to impact sustainability of VE
	RQ3.4 Impact of socio-cultural context*	<ul style="list-style-type: none"> • Degree of flexibility or rigidity within the HEI affected sustainability <ul style="list-style-type: none"> ○ Rigidity in scheduling or curriculum seemed to have little impact ○ Rigidity in administrative structure negatively impacted institutionalization

* emerged from the findings, not an original research question

Table 0.17: Summary of findings

The set of findings presented as follows has gathered evidence from data from all cases, yet not from all the interviews or from details only briefly discussed in the interviews. Mid-level administrators seemed to have a positive impact on VE sustainability, including advocating and assisting in VE institutionalization, but not all the HEIs in the cases had such an administrator present (RQ1.3 and RQ3.1). Future research could interview these administrators about their role in and opinion about VEs. Also, institutional culture and institutional internationalization policies seemed to impact sustainability (RQ3.3), but more research focused specifically on analyzing institutional culture and policies is needed.

Five sub-questions (RQs 1.4, 2.2, 2.4, 3.2, and 3.3) were minimally answered by the findings, due to lack of evidence. In the rest of this section, I explain why some of these questions are worth pursuing further, while others are not. For example, the impact of socio-cultural contexts on stakeholders (RQ1.4) should be pursued further, especially to understand if facilitators already possess the IC skills they want to develop in their students. This could be done by having VE facilitators take IC questionnaires alongside their students. The lack of formal evaluation systems (RQ2.2) should be explored, to understand why this happens and how to effectively encourage formal evaluation, since empirical evidence of the impact of VE is critical in supporting sustainability.

While this study did not find any evidence for national policies impacting the sustainability of VEs, this does not negate national policies as a tool for shaping policy and practice at an institutional level. The lack of evidence in this study could be a case of “too early to tell”, since the national policies reviewed for this thesis still emphasize mobility as a tool for internationalization, with little to no mention of internationalization at home or VE. This emphasis on mobility may change as cries for environmentally sustainable internationalization and IaH grow. This is an area of policy research that might be better to investigate at the level of IaH rather than individual VEs.

RQ3.2 on the impact of alignment of course aims with HEIs’ values on sustainability did not have any support from the findings. This is an area of research that does not

seem to be worth pursuing further, due to the lack of findings and the relatively small scale of a single VE in comparison to the full course load offered at any one HEI.

8.3 Limitations

This study faced a number of limitations, as do all research projects. Section 4.8 contains a discussion on the strategies I applied to increase the research quality of my study, specifically on internal validity, reliability and external validity. Despite employing these strategies, it is impossible to overcome all limitations. The main limitation of my study is the predominance of the facilitators' interviews in the findings. A critical component of case study research is the use of multiple perspectives on the phenomenon under study. On the one hand, the facilitators from each case provided multiple perspectives on the same phenomenon (i.e., their shared VE) because of the diversity of local contexts. On the other hand, there were similarities in their perspectives since each was an individual implementing and running the VE. While the first-person perspectives of administrators or students on the VEs could have contributed to a fuller understanding, the amount of time required, and data produced would have been unmanageable for a single researcher with limited time.

Moreover, while I collected a variety of documentation (course syllabuses, tasks, internationalization policies) for triangulation purposes, I faced some limitations. First, I was only able to collect syllabuses and task directions from the two primary cases, leading to less triangulation on the findings concerning course design. Secondly, I only had access to publicly available English language documents on internationalization. As mentioned in Section 4.3.2, publicly available documents are meticulously written for specific purposes and audiences, representing an ideal, not necessarily reality. Access to internal policy documents or communications of the HEIs on internationalization could have provided a more accurate picture, but access to these documents was unavailable during this study.

Language is another limitation. All the interviews were conducted in English, despite English being the mother tongue for only 5 out of 21 participants. Although I took steps to reduce the impact of language through sending my research questions ahead of time and establishing an encouraging and respectful interview environment,

the impact of language differences remained. Also, language limitations in the documentation search and analysis must be recognized. While official English translations of national and institutional documents were available, the fact remains that the documents were originally written in a different language. Also, in a few cases, I relied on Google translate to read the national and institutional documents that did not have formal English translations. Ideally, in future research that analyzes policy documentation in various languages, the research team would include speakers of each language to carry out the analysis.

Another limitation is the method of case selection. The cases used in this study were identified through my personal and professional network, not in a systematic or randomized way. This was a pragmatic choice. I cannot claim that these cases are representative of co-designed VEs. It might be argued that this case selection method decreased the transferability of the findings, since they represent cases within my personal orbit and are not as reflective as randomly chosen cases may have been. However, as I argued in Section 4.8.3, transferability means that every case or example has a kernel of truth that can be applied in different situations. Therefore, by providing rich, thick description of six cases that include HEIs from around the global, despite the selection method, still provided plenty of opportunities for each reader to identify nuggets of truths for their own context.

8.4 Contributions

After reviewing this study's findings, discussing the extent that I succeeded in answering my research questions, and reflecting on this study's limitations, I now move to summarize this study's contribution to knowledge. To do so, I highlight contributions to literature and practice, research approaches, and policy.

8.4.1 Contributions to Literature and Practice

In this section, I reflect on findings that contribute simultaneously to VE literature and practice, a logical combination since the VE field is a praxis of research and practice. First, this study contributes to VE literature by demonstrating the importance of personal relationships (e.g., among the facilitators in a VE and between facilitators and administrators) in sustaining co-designed VEs. An additional contribution is the

model for workgroup social practices (see Figure 7.1.1), which shows the importance of understanding how facilitators work together, not just students. This model can be used in VE facilitator training to help future facilitators construct their own workflow already in the design and implementation phases. This could potentially reduce conflicts between partners by clearly outlining the expected workloads, communication points, and deadlines.

A further contribution to literature and practice is the role of flexible fidelity in the sustainability of VEs, showing the importance of having clear learning objectives as a guide throughout the iterations while adapting tasks, schedules, and technology to better address the needs of students. This concept can also be integrated into VE facilitator training to encourage facilitators to clarify their learning objectives early in the design process so it will guide them during the design, implementation, and sustainment phases. Moreover, flexible fidelity can emphasize to new facilitators the dynamic implementation and sustainability practices that require adaptation and flexibility.

8.4.2 Contributions to Research Approaches

This study contributes to research approaches in education in two distinct but related ways. First, I narrowed the problem space within the VE field by identifying the need to explore the issue of sustainability in an empirical manner. The issue of sustainability should not be confined to VE but should be explored in other programs at the micro, meso, and macro levels of educational organizations. Secondly, this thesis extends methodological and theoretical approaches in VE research. In terms of methodological approaches, this research demonstrates how a multiple-case study design guided by a complex but explicit theoretical approach can produce reliable and transferable findings within the VE field. In terms of theoretical approaches, the novel combination of assumptions from social constructionism and concepts and constructs from implementation science can be applied to other educational settings to map and analyze sustainability factors and practices. Other researchers can apply these methodological and theoretical approaches to other complex albeit micro- or meso-scale educational courses, programs, and activities within larger organizations.

8.4.3 Contribution to Policy

This study makes a modest contribution to policy by highlighting the importance of institutional IaH policies in supporting and institutionalizing VE. Additionally, it shows the importance of applying policy in practice by having administrators actively advocating for and assisting VEs.

8.5 Final Points

Inspired by my own professional growth through running a VE and literature reviews I conducted as part of my own coursework; I chose to focus on the sustainability of VEs. Importantly, through deep dives into IaH and VE literature and the interviews with research participants, I found both belief in and evidence of IC, dialogue, and collaboration as tools for creating a better world for students and beyond. This research has provided me with hope during the last four years that have contained too many periods of chaos, uncertainty, and even anger and hatred. This research confirmed for me the importance of VE as a pedagogy and practice to teach this and future generations how to communicate and collaborate across cultures and languages.

Appendix 1: Semi-structured Interview Schedule

General questions/Grand tour questions

- General demographic questions
 - How long have you been working/teaching in higher education?
 - How old are you?
 - What is your native country and where do you live now?
- Describe your HEI and your position in it.
 - What do you think are the core values of your HEI, especially in regard to internationalization?
- Describe your VE course to me.
 - Has this description changed over the iterations?
 - What are the main benefits students report about your VE?
 - Why do you think students should participate in your VE?
- Tell me how you became involved in this VE/course. OR Erasmus+ Project
 - If involved from the beginning: how was the course designed?
 - If you joined after the course was developed: what was your first impression of the course design? Of the other staff?

Course design/logistics

- Describe the process of running the course for me
 - Tell me about how you prepare for the next iteration of the course.
 - What types of evaluation/feedback systems do you use, if any?
 - What do you do with the feedback you receive?
 - What has stayed the same over all the iterations and what has changed?
 - When you are planning the course for the semester, who else do you need to communicate with besides your co-facilitator? Why?
 - How do you market your VE? Has this changed over time?
 - If you need logistical or technical help, who do you turn to?
- What would happen if you chose not to participate/run the VE in the next iteration?
- How does the socio-cultural context affect the course and task design?

Facilitator Relationships

- Describe your co-facilitator(s).
- How do you and your co-facilitator(s) make decisions about the course?
- Can you give me an example of socio-cultural differences that have shaped your communication with your co-facilitator(s)?
- How do you think the differences in socio-cultural contexts affect the relationships between you and your co-facilitator(s)?

Practices

- A body double (someone who looks exactly like you) is going to teach the VE. What does he/she need to do or know about the VE so that no-one would know he/she is a different person?
- A new facilitator is joining your VE. What does he/she need to know about your team/VE to succeed?
- A colleague at your HEI comes to you for advice on how to design and implement a VE at your institution. What advice would you give that person?
- Are there other VEs at your institution? Do you have any connection/communication with them? If so, what?

Faculty who participated but then left the VE

- Why did you decide not to continue to facilitate the VE?
- What did you do instead?
- How was the next facilitator chosen?

Closure of the interview

- Is there anything that our discussion hasn't covered that you would like to add about this issue or about the research project?

Appendix 2: Participant Profiles

In this Appendix, I present short profiles of each facilitator who participated in this research to provide background on the facilitators' previous experiences and positions.

PC1 – EPIC

Ariella is a native Hebrew speaker born in Israel with a Ph.D. in internationalization of curriculum (IoC). She started her HEI career as an English for Academic Purposes (EAP) teacher. She was a founder of the EPIC course who participated in the Erasmus+ project. At the time of data collection, Ariella held two positions at her college: head of academic internationalization and an EAP teacher. Ariella became involved in earlier international projects at her college because of her English abilities and thrived. She described feeling “very much in my element” in an international environment. Her international activities inspired her to earn her Ph.D. concurrently with building the EPIC course. Ariella developed the head of academic internationalization position at her institution based on her expertise in IoC and experience in international projects. One of her responsibilities was promoting VEs by guiding faculty in VE course development.

Ariella facilitated the EPIC pilot in fall 2017 and two more iterations afterwards. In spring 2019, Ariella passed the course to Daniella to focus on finishing her Ph.D. and promoting internationalization at the institutional level through her new position.

Daniella is a native Portuguese speaker, born in Brazil, with a master's degree. She spent her childhood in Brazil, moved to the USA for high school, and then emigrated to Israel for college and never left. Besides Portuguese, she speaks fluent English and Hebrew. For over 30 years, she has been an EAP teacher at PC1-Israel-A. Since joining EPIC, Daniella has specialized in facilitating VEs by running or supporting an additional two VEs.

Daniella took over facilitating EPIC from Ariella in spring 2019 and has facilitated the course every semester since. She has “lovely memories of it [her first iteration]” and felt comfortable working with the workgroup. Since joining, Daniella has moved from

a quieter, periphery member of the workgroup to one of the de facto leaders, investing extra time in introducing the course to new workgroup members.

David is a native English speaker, born in England, with a Ph.D. in English literature. He taught English language literature to pre-service English teachers and EAP to the rest of the student population. At the time of data collection, David had retired. Similar to Ariella, he was involved from the beginning in the Erasmus+ project that developed the EPIC course because he was only one of a few English speakers at his college.

David facilitated EPIC for three iterations, then passed the course to another teacher from his college in spring 2019 due to scheduling conflicts. David gave many presentations about the EPIC course within his college and at academic conferences, advocating for the benefits of VE. Due to these presentations, David recruited two additional HEIs to join the course, even after he stopped facilitating himself.

Lior is a native Hebrew speaker, born in Israel, with a master's degree, and he teaches EAP courses at two HEIs, full-time at an engineering college and the EPIC course at PC1-Israel-B college. He joined the EPIC course in fall 2019, replacing another teacher who only facilitated one iteration. Since joining, Lior has participated in every iteration except for fall 2022 due to low student registration.

The first iteration was more difficult for Lior because he had to adapt to teaching a VE. However, he received support from David to navigate the digital platform and found the EPIC workgroup “wonderful” and “cooperative”. After the first iteration, Lior found teaching EPIC much easier.

Michal is a native Hebrew speaker with a master's degree, and she is an EAP teacher and the head of the English unit at PC1-Israel-C. She was involved in the Erasmus+ project that developed the EPIC course, albeit joined towards the later stages of the project. She heard about the project since her college was involved from the beginning and asked to join out of interest. She initially liked many parts of the course but was “unsure” about others.

Cleo is a native Italian speaker with a Ph.D. in English linguistics who has been teaching EFL in HE for 14 years. Cleo became involved in the Erasmus+ project when her department head offered her the opportunity to join since the department head was busy with several other projects at the same time. Cleo facilitated every iteration of the course from the pilot until fall 2021 when she left on personal leave. The EPIC course was passed to another lecturer, who chose not to participate in this research.

Brad is a native Polish speaker with a Ph.D. in linguistics and has been teaching EFL and phonetics classes for 29 years in HE. Brad joined EPIC in spring 2019. Through an international cooperation agreement between PC1-Poland and PC1-Israel B, David introduced and promoted the EPIC course to the dean of Brad's department. Then, the dean approached Brad to facilitate. Although Brad liked the EPIC syllabus's focus on all four language skills, finding it similar to other courses he taught at PC1-Poland, Brad found the course design "quite frightening" at first because of unfamiliarity with the LMS and online/VE courses. Despite his initial first impression, Brad became a champion of the course and convinced his dean to incorporate it as a mandatory course for students in the English for tourism program.

Stacy is a native English speaker born in Canada who lives in Japan and has been teaching EFL in HE since 2013. At the time of the interview, she was pursuing her Ph.D. in education. I invited Stacy to join the fall 2021 iteration since we became professional colleagues during our Ph.D. studies. She accepted my invitation because the course provided her students an opportunity to speak and interact with others outside of Japan. Stacy faced institutional bureaucracy barriers to receive approval for the course, but she succeeded in overcoming them. In her first iteration, Stacy and her students experienced several technical difficulties and timing issues (the course began during a Japanese holiday), creating some challenges in the onboarding process. Afterward, the course ran smoothly, and Stacy joined a second iteration in fall 2022.

Cathy is a native Portuguese speaker who completed her Ph.D. in linguistics during data collection. At the time of the interview, she had taught EFL in HE for 11 years but had 20 years of experience teaching English in schools and language

institutions. Cathy joined the EPIC course in spring 2022 through a partnership between PC1-Israel-A and PC1-Brazil. The BTCS VE coordinator recruited Cathy to facilitate the EPIC VE since she was already providing language assistance to another faculty member running a VE (i.e., Theresa from SC2). Cathy found the EPIC VE attractive because it taught similar content to her courses (i.e., job interview skills and academic texts). Additionally, since many of her students work for international companies after graduation, the course provided an opportunity for her students to work with different nationalities before entering the job market. She had a positive impression of the EPIC workgroup, saying, “They were very welcoming”.

PC2 – Entrepreneurship Hackathon

Anna is a native Hebrew speaker with a master’s degree. At the time of the interview, she was the head of the digital innovation track in the information systems degree and the head of the entrepreneurship track in the business and economics degree. In 2013, Anna transitioned from a successful business career to teaching entrepreneurship in HE because she had a vision of entrepreneurship education which combined theoretical knowledge with practice. Anna’s manager, the dean of the information systems school, asked her to join the Erasmus+ project, which she accepted. She joined the entrepreneurship course group because of her business background.

Karen is a native French speaker and an associate professor (maitre de conferences) whose research focuses on corporate governance in cooperative banks. At the time of the interview, she had worked in HE for 16 years, after teaching in high school and working at a cooperative bank. Karen explained that “I participated to the Erasmus+ project because I was asked it. It’s quite a hazard [haphazard]. Um, they need a colleague in management... and I was available at this time.”

Melissa is a native English speaker who is an associate professor. At the time of the interview, she had taught in HE for 30 years and worked in the learning and teaching enhancement department promoting the integration of entrepreneurship into curriculum university-wide, with a focus on hackathons. She did little direct teaching of students but rather advised faculty. When PC2-UK joined the Erasmus+ project,

the university liaison for the project asked Melissa to join because her personal and professional interests aligned with the project's goals. According to Melissa, she suggested the idea of a hackathon because she had started running hackathons at her university and thought it would work as a little course that "could be plugged into different courses and different universities."

SC1- TEFL VE

Gloria is a native Polish speaker and a professor of applied linguistics whose research focused on computer-assisted language learning. At the time of the interview, she had worked in HE for 24 years.

Aaron is a native German speaker and a professor of didactics and American studies. At the time of the interview, he had worked in HE for over 25 years and facilitated VEs since 1997.

SC2- Culture VE

Theresa was born and raised in India and moved to the USA as an adult. She has a Ph.D. in global affairs and, at the time of the interview, had worked in HE for 13 years, with the last six at SC2-USA as the global certificate director in the Center for Global Engagement.

In 2019, Theresa and her SC2-USA colleague sought opportunities for their global certificate students to apply cultural theories learned during the introductory course in sustained interaction with people from other cultures without overburdening their international students. They met the BTCS VE coordinator at an academic conference and discussed a potential partnership. Theresa said, "This is kind of meant to be and within five minutes, we knew we were going to partner with him." Quickly, the partnership was formed, and the first Culture VE iteration occurred in spring 2020, with students from SC2-USA and three BTCS campuses. Theresa recruited the SC2-USA facilitators, and the VE coordinator recruited the BTCS facilitators, including Charles and Tiffany. Theresa described these matches as lucky since "the partner we got ended up being a very good match, so we have just continued those partnerships... our partners are in sync with each other."

Tiffany is a native Portuguese speaker and a lawyer. At the time of the interview, she practiced law and had taught law-related courses in HE since 2007. She taught at three colleges, including PC1/SC2 Brazil. The BTCS VE coordinator recruited Tiffany because she taught international law. Tiffany agreed to facilitate despite struggling with spoken English because she saw the importance of culture exchange and language practice for her students, who would work in international environments after graduation. Although she did not receive financial compensation for facilitating the Culture VE, she continued because of the value to her students.

Charles is a native Portuguese speaker with a Ph.D. in business administration. At the time of the interview, he had worked in HE for 25 years, the last 14 years at SC2 Brazil. He also worked at a larger Catholic university. Charles started facilitating his first VE in 2014 when a professor from a SUNY campus (one of the pioneering HEIs in VE/COIL) was looking for a new partner for a business VE. Due to his experience with the SUNY VE and his business background, the BTCS VE coordinator recruited Charles.

SC3- Immigration VE

Sandy is a native Italian speaker with a Ph.D. in applied linguistics, with a specialty in English language history. At the time of the interview, she had taught EFL in HE since 2006. Sandy took over the Immigration VE from her department head because the department head had transitioned to a new position as the internationalization center director. Although Sandy did not receive financial compensation for facilitating the VE, she continued because of the value for her students.

Charlotte was born and raised in Italy and moved to the USA as an adult. She has a Ph.D. and researches language identity. At the time of the interview, she had worked in HE since 2005, moving to SC3-4 USA as the Italian program director in 2011. Through her work in modern languages, Charlotte gained experience in study abroad programs and worked with the global engagement office.

SC4- Italian/English VE

Jane was born and raised in England and moved to Italy after earning her MA in English language and literature in England. She had worked as an English lecturer in

HE at PC1/SC3-4 Italy since 2007. Jane replaced her department head as facilitator of the Italian/English VE in 2020. Although Jane did not receive financial compensation for facilitating, she continued because she saw the value for her students since she “knew the students needed this experience, and I wanted them to have this experience without teacher interference, without them being graded, without them feeling judged.”

Ashely was born and raised in Italy and moved to the USA in her early 40s with her family. She has an MA degree in curriculum design. She had worked in HE since 2008, teaching Italian as an adjunct lecturer. Her program director, Charlotte from SC3, asked Ashely to maintain the connection with PC1/SC3-4 Italy for one year when Charlotte could not teach. Thus, Ashely developed the Italian/English VE as part of her intermediate Italian courses and has continued since.

List of Abbreviations

BTCS	Brazilian Technical College System
CEFR	Common European Framework of Reference
DAAD	German Academic Exchange Service
EAP	English for Academic Purposes
EFL	English as a Foreign Language
HE	Higher Education
HEI	Higher Education Institution
IaH	Internationalization at Home
IC	Intercultural Competences
ICT	Information and Communication Technology
IoC	Internationalization of Curriculum
LMS	Learning Management System
MS	Microsoft
TEFL	Teaching English as a Foreign Language
UK	United Kingdom
UN	United Nations
USA	United States of America
VE	Virtual Exchange

References

- Aarons, G. A., Hurlburt, M., & Horwitz, S. M. (2011). Advancing a conceptual model of evidence-based practice implementation in public service sectors. *Administration and Policy in Mental Health and Mental Health Services Research*, 38(1), 4-23.
- Adefila, A., Arrobbio, O., Brown, G., Robinson, Z., Spolander, G., Soliev, I., Willers, B., Morini, L., Padovan, D., & Wimpenny, K. (2021). Ecologized collaborative online international learning: Tackling wicked sustainability problems through education for sustainable development. *Journal of Teacher Education for Sustainability*, 23(1), 41-57. <https://doi.org/10.2478/jtes-2021-0004>
- Alami, N. H., Albuquerque, J., Ashton, L. S., Elwood, J. A., Ewoodzie, K., Hauck, M., Karam, J., Klimanova, L., Nasr, R., & Satar, M. (2022). Marginalization and underrepresentation in virtual exchange: Reasons and remedies. *Journal of International Students*, 12(S3), 57–76.
- Albers, B., & Pattuwage, L. (2017). Implementation in education: Findings from a scoping review. *Melbourne: Evidence for Learning*, 10. <https://doi.org/10.13140/RG.2.2.29187.40483>
- Albers, B., Shlonsky, A., & Mildon, R. (2020). En route to implementation science 3.0. In B. Albers, A. Shlonsky, & R. Mildon (Eds.), *Implementation science 3.0* (pp. 1-38). Springer. https://doi.org/10.1007/978-3-030-03874-8_1
- Allan, G. (2004). *Higher education in the making: Pragmatism, Whitehead, and the canon*. State University of New York Press. <http://ebookcentral.proquest.com/lib/lancaster/detail.action?docID=3408403>
- Altbach, P. G., & de Wit, H. (2015). Internationalization and global tension: Lessons from history. *Journal of Studies in International Education*, 19(1), 4-10. <https://doi.org/10.1177/1028315314564734>
- Altbach, P. G., & Knight, J. (2007). The internationalization of higher education: Motivations and realities. *Journal of Studies in International Education*, 11(3-4), 290-305.
- Alvarez, L., & Steiner, M. (2019). Collaborative online international learning: From a systematic review of literature about barriers to an implementation plan. In K. Birk (Ed.), *ASEM education in a digital world: bridging the continents-connecting the people* (pp. 18-29). Erasmus+ National Agency for EU Higher Education Cooperation. <https://sonar.ch/global/documents/312717>
- Aristizábal, J. C., & Welch, P. M. (2017). Promoting intercultural competence through student-driven online intercultural exchanges. *Hispania*, 100(2), 225-238. <https://www-jstor-org.ezproxy.lancs.ac.uk/stable/26387776>

- Ashwin, P. (2012). How often are theories developed through empirical research into higher education? *Studies in Higher Education (Dorchester-on-Thames)*, 37(8), 941-955. <https://doi.org/10.1080/03075079.2011.557426>
- Badampudi, D., Wohlin, C., & Petersen, K. (2015). *Experiences from using snowballing and database searches in systematic literature studies*. <https://doi.org/10.1145/2745802.2745818>
- Bamber, V., Trowler, P., Saunders, M., & Knight, P. (2009). *Enhancing learning, teaching, assessment and curriculum in higher education*. McGraw-Hill Education. <http://ebookcentral.proquest.com/lib/lancaster/detail.action?docID=771392>
- Barbosa, B., Santos, C. A., & Prado-Meza, C. M. (2020). There is no one way to internationalization at home: Virtual mobility and student engagement through formal and informal approaches to curricula. *Revista Lusófona de Educação*, 47(47), 85-98.
- Barbosa, M. W., & Ferreira-Lopes, L. (2021). Emerging trends in telecollaboration and virtual exchange: A bibliometric study. *Educational Review*, 75(3), 1-29. <https://doi.org/10.1080/00131911.2021.1907314>
- Baroni, A., Dooly, M., García, P. G., Guth, S., Hauck, M., Helm, F., Lewis, T., Mueller-Hartmann, A., O'Dowd, R., & Rienties, B. (2019). *Evaluating the impact of virtual exchange on initial teacher education: A European policy experiment*. Research-publishing.net. <https://doi.org/10.14705/rpnet.2019.29.9782490057337>
- Bazeley, P. (2020). *Qualitative data analysis: Practical strategies*. Sage.
- Beaven, A., Pittarello, S., & van der Heijden, C. (2021). *Scenarios for the integration of virtual exchange in higher education*. Zenodo. <https://doi.org/10.5281/zenodo.5573614>
- Bedenlier, S., Kondakci, Y., & Zawacki-Richter, O. (2018). Two decades of research into the internationalization of higher education: Major themes in the Journal of Studies in International Education (1997-2016). *Journal of Studies in International Education*, 22(2), 108-135. <https://doi.org/10.1177/1028315317710093>
- Beelen, J. (2015). Global at home: Internationalisation at home in the 4th global survey. In E. Jones, Coelen, R., Beelen, J., & De Wit, H. (Eds.), *Global and local internationalization*. Springer.
- Beelen, J. (2017). The missing link in internationalisation: Developing the skills of lecturers. *Zeitschrift für Hochschulentwicklung*, 12(4), 133-150. <https://doi.org/10.3217/zfhe-12-04/0>
- Beelen, J., & Jones, E. (2015). Redefining internationalization at home. In A. Curaj, L. Matei, R. Pricopie, J. Salmi, & P. Scott (Eds.), *The European higher education area: Between critical reflections and future policies* (pp. 59-72). Springer International. https://doi.org/10.1007/978-3-319-20877-0_5

- Belz, J. A. (2001). Institutional and individual dimensions of transatlantic group work in network-based language teaching. *ReCALL*, 13(2), 213-231. <https://doi.org/10.1017/S0958344001000726a>
- Belz, J. A. (2003). Linguistic perspectives on the development of intercultural competence in telecollaboration. *Language Learning and Technology*, 7(2), 68-99. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-0346049354&partnerID=40&md5=b4b0961d6d5305cec6e23fb662e9a0db>
- Best, J. (2007). Historical development and defining issues of constructionist inquiry. In J. A. Holstein & J. F. Gubrium (Eds.), *Handbook of constructionist research* (pp. 41-64). Guildford. <http://ebookcentral.proquest.com/lib/lancaster/detail.action?docID=406002>
- Biesta, G., & Burbules, N. C. (2004). *Pragmatism and educational research*. Rowman & Littlefield.
- Branch, J. D., & Wernick, D. A. (2022). Virtual exchanges: A new pedagogical model for the post-COVID era? *International Journal of Learning and Teaching*, 8(3), 195-199. doi: 10.18178/ijlt.8.3.195-199
- Brewer, E., & Leask, B. (2012). Internationalization of the curriculum. In D. K. Deardorff, H. de Wit, J. D. Heyl, & T. Adams (Eds.), *The SAGE handbook of international higher education* (pp. 245-265). SAGE. <http://ebookcentral.proquest.com/lib/lancaster/detail.action?docID=1995626>
- Brundtland, G. H. (1987). Our common future—Call for action. *Environmental Conservation*, 14(4), 291-294.
- Bueno-Alastuey, M. C., Villarreal, I., & García Esteban, S. (2018). Can telecollaboration contribute to the TPACK development of pre-service teachers?. *Technology, Pedagogy and Education*, 27(3), 367-380. <https://doi.org/10.1080/1475939X.2018.1471000>
- Burr, V. (2003). *Social constructionism*. Routledge. <http://ebookcentral.proquest.com/lib/lancaster/detail.action?docID=199330>
- Byram, M. (1997). Teaching and assessing intercultural communicative competence. *Multilingual Matters*.
- Caluianu, D., Turula, A., Kurek, M., & Lewis, T. (2019). When more is less: Unexpected challenges and benefits of telecollaboration. In A. Turula, M. Kurek & T. Lewis (Eds.), *Telecollaboration and virtual exchange across disciplines: In service of social inclusion and global citizenship* (pp. 7-13). Research-publishing.net (France)
- Chambers, D. A., Glasgow, R. E., & Stange, K. C. (2013). The dynamic sustainability framework: Addressing the paradox of sustainment amid ongoing change. *Implementation Science*, 8(1), 1-11.

- Chang, T. C. (2004). Transborder tourism, borderless classroom: Reflections on a Hawaii-Singapore experience. *Journal of Geography in Higher Education*, 28(2), 179-195. <https://doi.org/10.1080/0309826042000242431>
- Chun, D. M. (1994). Using computer networking to facilitate the acquisition of interactive competence. *System*, 22(1), 17-31. [https://doi.org/https://doi.org/10.1016/0346-251X\(94\)90037-X](https://doi.org/https://doi.org/10.1016/0346-251X(94)90037-X)
- Chun, D. M. (2015). Language and culture learning in higher education via telecollaboration. *Pedagogies: An International Journal*, 10(1), 5-21. <https://doi.org/10.1080/1554480X.2014.999775>
- Çiftçi, E. Y., & Savaş, P. (2018). The role of telecollaboration in language and intercultural learning: A synthesis of studies published between 2010 and 2015. *ReCALL*, 30(3), 278-298. <https://doi.org/10.1017/S0958344017000313>
- Cohen, L., Manion, L., & Morrison, K. (2013). *Research methods in education*. Routledge.
- Cohen, L., Manion, L., & Morrison, K. (2017). *Research methods in education*. Taylor & Francis. <http://ebookcentral.proquest.com/lib/lancaster/detail.action?docID=5103697>
- COIL Consulting. (n.d.). <http://www.coilconsult.com/welcome.html>
- Cunliffe, A. L. (2008). Orientations to social constructionism: Relationally responsive social constructionism and its implications for knowledge and learning. *Management Learning*, 39(2), 123-139. <https://doi.org/10.1177/1350507607087578>
- Deardorff, D. K., & Jones, E. (2012). Intercultural competence: An emerging focus in international higher education. In D. K. Deardorff, H. de Wit, J. D. Hely, & T. Adams (Eds.), *The Sage handbook of international higher education* (pp. 283-303). Sage.
- Dooly, M., & Sadler, R. (2020). If you don't improve, what's the point? Investigating the impact of a flipped online exchange in teacher education. *ReCALL*, 32(1), 4-24. <https://doi.org/10.1017/S0958344019000107>
- Dooly, M., & Vinagre, M. (2021). Research into practice: Virtual exchange in language teaching and learning. *Language Teaching*, 1-15. <https://doi.org/10.1017/S0261444821000069>
- Doscher, S., & Rubin, J. (2022). Introduction to what instructors and support staff need to know about COIL Virtual Exchange. In J. Rubin & S. Guth (Eds.), *The guide to COIL virtual exchange: Implementing, growing, and sustaining collaborative online international learning* (pp. 187-199). Stylus.
- Dovrat, L. (2022). Systematic literature review on the utilization of theoretical underpinnings in virtual exchange research. *Journal of Virtual Exchange*, 5, 193-212.

- Elder-Vass, D. (2012). *The reality of social construction*. Cambridge University Press.
<http://ebookcentral.proquest.com/lib/lancaster/detail.action?docID=907177>
- Epstein, M. J., Elkington, J., & Herman, B. (2018). *Making sustainability work: Best practices in managing and measuring corporate social, environmental and economic impacts*. Routledge.
- Erhard, F., Jukschat, N., & Sammet, K. (2021). Lost in translation? Openness, reflexivity and pragmatism as guiding principles for cross-language qualitative research. *Forum: Qualitative Social Research*, 22(3), 1-20.
<https://doi.org/10.17169/fqs-22.3.3722>
- European Commission Directorate-General for Education, Culture, Youth and Sport. (2019). *Key competences for lifelong learning*.
<https://doi.org/doi/10.2766/569540>
- EVOLVE Project Team. (2020a). The impact of virtual exchange on student learning in higher education: EVOLVE Project Report. EVOLVE Project publication.
<http://hdl.handle.net/11370/d69d9923-8a9c4b37-91c6-326ebbd14f17>
- EVOLVE Project Team. (2020b). *Key drivers' perspectives on the institutional uptake of virtual exchange*. EVOLVE Project publication.
<http://hdl.handle.net/11370/86cbbfd8-64e8-44e9-aa2a-5e01993528d8>
- Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., Wallace, F., Burns, B., Carter, W., Paulson, R., Schoenwald, S., & Barwick, M. (2005). *Implementation research: A synthesis of the literature* (FMHI Publication #231). University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network.
- Flammia, M. (2011). Using service-learning and global virtual team projects to integrate sustainability into the technical communication curriculum. IEEE International Professional Communication Conference,
- Flammia, M., Cleary, Y., & Slattery, D. M. (2007, 1-3 Oct. 2007). Technology use and communication strategies of Irish and US students in virtual teams. 2007 IEEE International Professional Communication Conference,
- Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), 219-245.
- Fors, P., & Lennerfors, T. T. (2020, October 20-24). *Virtual exchange in education for sustainable development*. 2020 IEEE Frontiers in Education Conference (FIE), Uppsala, Sweden. doi:10.1109/FIE44824.2020.9273897.
- Fuchs, C., Hauck, M., & Müller-Hartmann, A. (2012). Promoting learner autonomy through multiliteracy skills development in cross-institutional exchanges. *Language Learning & Technology*, 16(3), 82-102.

- Furstenberg, G., Levet, S., English, K., & Maillet, K. (2001). Giving a virtual voice to the silent language of culture: The Cultura project. *Language Learning & Technology*, 5(1), 55-102.
- Garcés, P., & O'Dowd, R. (2020). Upscaling virtual exchange in university education: Moving from innovative classroom practice to regional governmental policy. *Journal of Studies in International Education*.
<https://doi.org/10.1177/1028315320932323>
- Gavidia, J. V., Mogollón, R. H., & Baena, C. (2005). Using international virtual teams in the business classroom. *Journal of Teaching in International Business*, 16(2), 51-74.
- Genkova, P., & Kruse, L. M. (2020). Do stays abroad increase intercultural and general competences, affecting employability? *Leadership, Education, Personality: An Interdisciplinary Journal*, 2, 81 - 89.
- Gergen, K. (2015). An invitation to social construction (3rd ed.). Sage.
<https://doi.org/10.4135/9781473921276>
- Gilbertson, D., & Cathro, V. (2015). A decade of global enterprise experiences. In V. Taras & M. A. Gonzalez-Perez (Eds.), *The Palgrave handbook of experiential learning in international business* (pp. 149-168). Palgrave Macmillan UK.
https://doi.org/10.1057/9781137467720_10
- Global Enterprise Experience*. (n.d.). <https://www.geebiz.org/>
- Guidry, A., Leibowitz, J., & Adeyemi-Bello, T. (2020). Global BEEHIVE: Developing good practice for multilateral, scalable, and sustainable virtual exchange. *Journal of Virtual Exchange*, 3, 13-26.
- Guimarães, F. F., & Finardi, K. R. (2021). Global citizenship education (GCE) in internationalisation: COIL as alternative thirdspace. *Globalisation, Societies and Education*, 19(5), 1-17.
- Guimarães, F. F., Mendes, A. R. M., Rodrigues, L. M., dos Santos Paiva, R. S., & Finardi, K. R. (2019). Internationalization at Home, COIL and Intercomprehension. *SFU Educational Review*, 12(3), 90-109.
- Harrison, H., Birks, M., Franklin, R., & Mills, J. (2017). Case study research: Foundations and methodological orientations. *Forum Qualitative Sozialforschung*, 18(1), 1-17.
- Hauck, M. (2023). From Virtual Exchange to Critical Virtual Exchange and Critical Internationalization at Home. *The Global Impact Exchange* (2023), 9-12.
- Heffernan, T., Morrison, D., Magne, P., Payne, S., & Cotton, D. (2019). Internalising internationalisation: Views of internationalisation of the curriculum among non-mobile home students. *Studies in Higher Education*, 44(12), 2359-2373.
- Helm, F. (2015). The practices and challenges of telecollaboration in higher education in Europe. *Language Learning & Technology*, 19(2), 197-217.

- Helm, F., & Acconcia, G. (2019). Interculturality and language in Erasmus+ Virtual Exchange. *European Journal of Language Policy*, 11(2), 211-233.
<https://doi.org/10.3828/ejlp.2019.13>
- Helm, F., & van der Velden, B. (2020). Erasmus+ virtual exchange: intercultural learning experiences: 2019 impact report.
- Helm, F., & van der Velden, B. (2021). *Erasmus+ virtual exchange impact report 2020*. European Commission.
https://europa.eu/youth/sites/default/files/eyp/eve/attachments/ec-01-21-404-en-n_final.pdf
- Hernández-Nanclares, N., Javier Mato Díaz, F., & Kóris, R. (2019). Expanding higher education classrooms beyond their walls: Virtual exchange and challenges for professors. *Journal of International Mobility*, 7(1), 139-155.
https://www.cairn-int.info/load_pdf.php?ID_ARTICLE=E_JIM_007_0139
- Herrington, T., & Tretyakov, Y. (2005). The global classroom project: Troublemaking and troubleshooting. In K. C. Cook & K. Grant-Davis (Eds.), *Online education* (pp. 267-283). Routledge.
- Hjelm, T. (2014). *Social constructionisms: Approaches to the study of the human world*. Palgrave Macmillan.
<http://ebookcentral.proquest.com/lib/lancaster/detail.action?docID=4008672>
- Holmes, A. G. D. (2020). Researcher positionality--A consideration of its influence and place in qualitative research--A new researcher guide. *Shanlax International Journal of Education*, 8(4), 1-10.
- Holstein, J. A., & Gubrium, J. F. (2007). *Handbook of constructionist research*. Guilford.
<http://ebookcentral.proquest.com/lib/lancaster/detail.action?docID=406002>
- Hu, H. (2009). An international virtual team based project at undergraduate level: Design and assessment. *Marketing Education Review*, 19(1), 17-22.
- Hubers, M. D. (2020). Paving the way for sustainable educational change: Reconceptualizing what it means to make educational changes that last. *Teaching and Teacher Education*, 93, 103083.
<https://doi.org/https://doi.org/10.1016/j.tate.2020.103083>
- Hurley, J. M., Proctor, J. D., & Ford, R. E. (1999). Collaborative inquiry at a distance: Using the Internet in geography education. *Journal of Geography*, 98(3), 128-140. <https://doi.org/10.1080/00221349908978871>
- Jager, S., Peng, H., Alba Duran, J., & Oggel, G. (2021). *Virtual exchange as innovative practice across Europe: Awareness and use in higher education*. EVOLVE Project Monitoring Study 2020.
<http://hdl.handle.net/11370/80666684-9024-466a-9968-d13b335cfb6a>.
- Jiang, S., Wang, H., & Tschudi, S. (2014). Intercultural learning on the web: Reflections on practice. In D. M. Chun (Ed.), *Cultura-inspired intercultural*

exchanges: Focus on Asian and Pacific languages (pp. 121-137). University of Hawaii National Foreign Language Resource Center

- Johnson, L. B. (1934). Language learning as an activity. *Modern Language Journal*, 19(3), 202-214. <https://doi.org/10.2307/315622>
- Jones, E., Coelen, R., Beelen, J., & De Wit, H. (2015). *Global and local internationalization*. Springer.
- Jones, W. K. (1936). Modernizing language teaching. *Modern Language Journal*, 21(2), 83-88. <https://doi.org/10.2307/317724>
- Kelm, O. R. (1992). The use of synchronous computer networks in second language instruction: A preliminary report. *Foreign Language Annals*, 25(5), 441. <https://doi.org/10.1111/j.1944-9720.1992.tb01127.x>
- Knight, J. (2004). Internationalization remodeled: Definition, approaches, and rationales. *Journal of Studies in International Education*, 8(1), 5-31. <https://doi.org/10.1177/1028315303260832>
- Koh, G. A., & Askell-Williams, H. (2021). Sustainable school-improvement in complex adaptive systems: A scoping review. *Review of Education*, 9(1), 281-314. <https://doi.org/https://doi.org/10.1002/rev3.3246>
- Leal Filho, W., Pallant, E., Enete, A., Richter, B., & Brandli, L. (2018). Planning and implementing sustainability in higher education institutions: An overview of the difficulties and potentials. *International Journal of Sustainable Development & World Ecology*, 25(8), 713-721.
- Lee, J. J., & Stensaker, B. (2021). Research on internationalisation and globalisation in higher education: Reflections on historical paths, current perspectives and future possibilities. *European Journal of Education*, 56(2), 157-168.
- Leh, J. M., Grau, M., & Guiseppe, J. A. (2015). Navigating the development of pre-service teachers' intercultural competence and understanding of diversity. *Journal for Multicultural Education*, 9(2), 98-110. <https://doi.org/http://dx.doi.org/10.1108/JME-12-2014-0042>
- Lenkaitis, C. A. (2022a). Integrating the United Nations' sustainable development goals: Developing content for virtual exchanges. *Language Learning & Technology*, 26(1), 1-20.
- Lenkaitis, C. A. (2022b). Organizations supporting the broader virtual exchange field. In J. Rubin & S. Guth (Eds.), *The guide to COIL virtual exchange: Implementing, growing, and sustaining collaborative online international learning*. Stylus.
- Lennox, L., Maher, L., & Reed, J. (2018). Navigating the sustainability landscape: A systematic review of sustainability approaches in healthcare. *Implementation Science*, 13. <https://link.gale.com/apps/doc/A546082044/AONE?u=unilanc&sid=bookmark-AONE&xid=dcb2a4b4>

- Liddicoat, A. J., & Scarino, A. (2013). *Intercultural language teaching and learning*. John Wiley.
<http://ebookcentral.proquest.com/lib/lancaster/detail.action?docID=1124313>
- Lincoln, Y. S., & Guba, E. G. (2009). *Case study method*. Sage.
<https://doi.org/10.4135/9780857024367>
- Lunde, K. R. (1990). Using electronic mail as a medium for foreign language study and instruction. *Calico Journal*, 7(3), 68-78.
<http://www.jstor.org/stable/45119327>
- Luo, H., & Yang, C. (2018). Twenty years of telecollaborative practice: Implications for teaching Chinese as a foreign language. *Computer Assisted Language Learning*, 31(5-6), 546-571. <https://doi.org/10.1080/09588221.2017.1420083>
- Marinoni, G. (2019). Internationalization of higher education: An evolving landscape, locally and globally: IAU 5th global survey. https://www.iau-aiu.net/IMG/pdf/iau_5th_global_survey_executive_summary.pdf
- McNess, E., Arthur, L., & Crossley, M. (2015). "Ethnographic dazzle" and the construction of the "other": Revisiting dimensions of insider and outsider research for international and comparative education. *Compare: A Journal of Comparative and International Education*, 45(2), 295-316.
<https://doi.org/10.1080/03057925.2013.854616>
- Mercer, J. (2007). The challenges of insider research in educational institutions: Wielding a double-edged sword and resolving delicate dilemmas. *Oxford Review of Education*, 33(1), 1-17.
- Mercer, S., Hockly, N., Stobart, G., & Galés, N. L. (2019). Global skills: Creating empowered 21st century citizens. *ELT Position Papers*. <https://elt.oup.com/feature/global/expert/global-skills>
- Merriam, S. B. (1998). *Qualitative research and case study applications in education*. Jossey-Bass.
- Michel, J. O. (2020). Toward conceptualizing education for sustainability in higher education. *New Directions for Teaching and Learning*, 2020(161), 23-33.
- Moir, T. (2018). Why is implementation science important for intervention design and evaluation within educational settings?. *Frontiers in Education*, 3.
<https://doi.org/10.3389/feduc.2018.00061>
- Moore, J. E., Mascarenhas, A., Bain, J., & Straus, S. E. (2017). Developing a comprehensive definition of sustainability. *Implementation Science*, 12.
<https://link.gale.com/apps/doc/A509119401/AONE?u=unilanc&sid=bookmark-AONE&xid=0117a83c>
- Morais, D. B., & Ogden, A. C. (2011). Initial development and validation of the global citizenship scale. *Journal of Studies in International Education*, 15(5), 445-466.

- Morgan, D. L. (2014). Pragmatism as a paradigm for social research. *Qualitative Inquiry*, 20(8), 1045-1053. <https://doi.org/10.1177/1077800413513733>
- Müller-Hartmann, A. (2000). The role of tasks in promoting intercultural learning in electronic learning networks. *Language Learning & Technology*, 4(2), 117-135.
- Nesdale, D., & Todd, P. (2000). Effect of contact on intercultural acceptance: A field study. *International Journal of Intercultural Relations*, 24(3), 341-360. [https://doi.org/https://doi.org/10.1016/S0147-1767\(00\)00005-5](https://doi.org/https://doi.org/10.1016/S0147-1767(00)00005-5)
- Nilsen, P., & Birken, S. A. (2020). *Handbook on implementation science*. Edward Elgar. <https://doi.org/10.4337/9781788975995>
- Nishio, T. (2023). Project redesigning for US-Japan COIL. *Journal of Virtual Exchange*, 6, 1-11.
- Nissen, E., & Kurek, M. (2020). *The impact of virtual exchange on teachers' pedagogical competences and pedagogical approach in higher education*. Evolve Project Publication. <http://hdl.handle.net/11370/bb89998b-c08b-41f4-ae6-08faf1208433>
- O'Dowd, R. (2003). Understanding the "other side": Intercultural learning in a Spanish-English e-mail exchange. *Language Learning & Technology*, 7(2), 118-144.
- O'Dowd, R. (2005). Negotiating sociocultural and institutional contexts: The case of Spanish–American telecollaboration. *Language and Intercultural Communication*, 5(1), 40-56. <https://doi.org/10.1080/14708470508668882>
- O'Dowd, R. (2015). Supporting in-service language educators in learning to telecollaborate. *Language Learning & Technology*, 19(1), 63-82.
- O'Dowd, R. (2021). Virtual exchange: Moving forward into the next decade. *Computer Assisted Language Learning*, 34(3), 209-224. <https://doi.org/10.1080/09588221.2021.1902201>
- O'Dowd, R. (2023). Issues of equity and inclusion in Virtual Exchange. *Language Teaching*, 1-13. <https://doi.org/10.1017/S026144482300040X>
- O'Dowd, R., & Eberbach, K. (2004). Guides on the side? Tasks and challenges for teachers in telecollaborative projects. *ReCALL*, 16(1), 5-19. <https://doi.org/10.1017/S0958344004000217>
- O'Dowd, R., Sauro, S., & Spector-Cohen, E. (2019). The role of pedagogical mentoring in virtual exchange. *Tesol Quarterly*. <https://doi.org/10.1002/tesq.543>
- O'Dowd, R., & Waire, P. (2009). Critical issues in telecollaborative task design. *Computer Assisted Language Learning*, 22(2), 173-188. <https://doi.org/10.1080/09588220902778369>

- OECD. (2018). Preparing our youth for an inclusive and sustainable world: The OECD PISA global competence framework. <https://www.oecd.org/pisa/Handbook-PISA-2018-Global-Competence.pdf>
- OECD. (2022). *International students: A growing group of migrants in the OECD*. <https://doi.org/doi:https://doi.org/10.1787/ec0742a4-en>
- Oswal, S. K., Palmer, Z. B., & Koris, R. (2021). Designing virtual team projects with accessibility in mind: An illustrative example of cross-cultural student collaboration. *Journal of Virtual Exchange*, 4, 1-27.
- Passey, D., Laferrière, T., Ahmad, M. Y.-A., Bhowmik, M., Gross, D., Price, J., Resta, P., & Shonfeld, M. (2016). Educational digital technologies in developing countries challenge third party providers. *Journal of Educational Technology & Society*, 19(3), 121-133.
- Pears, A., & Daniels, M. (2010, April 14–16). *Developing global teamwork skills: The Runestone project*. IEEE EDUCON 2010 Conference, Spain. doi:10.1109/EDUCON.2010.5492460
- Pluye, P., Potvin, L., Denis, J.-L., & Pelletier, J. (2004). Program sustainability: Focus on organizational routines. *Health Promotion International*, 19(4), 489-500.
- Purvis, B., Mao, Y., & Robinson, D. (2019). Three pillars of sustainability: In search of conceptual origins. *Sustainability Science*, 14(3), 681-695. <https://doi.org/10.1007/s11625-018-0627-5>
- Rabe, M. (2003). Revisiting "insiders" and "outsiders" as social researchers. *African Sociological Review / Revue Africaine de Sociologie*, 7(2), 149-161. <http://www.jstor.org.ezproxy.lancs.ac.uk/stable/43657708>
- Racine, D. P. (2006). Reliable effectiveness: A theory on sustaining and replicating worthwhile innovations. *Administration and Policy in Mental Health and Mental Health Services Research*, 33(3), 356-387.
- Radjai, L., & Hammond, C. D. (2023). Internationalization of the curriculum in Japanese universities: An investigation of English medium instruction and collaborative online international learning programs. Centre for Global Higher Education Working Paper No. 88. <https://www.researchcghe.org/publications/working-paper/internationalization-of-the-curriculum-in-japanese-universities-an-investigation-of-english-medium-instruction-and-collaborative-online-international-learning-programs/>
- Reckwitz, A. (2002). Toward a theory of social practices: A development in culturalist theorizing. *European Journal of Social Theory*, 5(2), 243-263.
- Reed, M., & Mitchell, B. (2001). Using information technologies for collaborative learning in geography: A case study from Canada. *Journal of Geography in Higher Education*, 25(3), 321-339. <https://doi.org/10.1080/03098260120067619>

- Roberts, A. (2004). Analyzing patterns and relationships around a bond of common text: Purposes, dilemmas, and possibilities of a virtual community. *Journal of Research on Technology in Education*, 37(1), 37-31. <https://doi.org/10.1080/15391523.2004.10782423>
- Roehm, A. I. (1942). Learning foreign languages and life by new techniques including international educational pupil-correspondence. *Peabody Journal of Education*, 19(4), 227-229. <http://www.jstor.org.ezproxy.lancs.ac.uk/stable/1489413>
- Rubin, J., & Guth, S. (2015). Collaborative online international learning: An emerging format for internationalizing curricula. In A. S. Moore & S. Simon (Eds.), *Globally networked teaching in the humanities* (pp. 27-39). Routledge.
- Rubin, M. J. (2010). Internationalizing humanities education through globally networked learning [White paper]. SUNY Research Foundation. <http://dx.doi.org/10.17613/M6ND2X>
- Ruther, N. L., Jeffress, A. K., Shi, L., & Rabke, S. (2021). Virtual exchange program building: An assessment-based approach. *Journal of Virtual Exchange*, 4, 70-94.
- Ryan, G. W., & Bernard, H. R. (2003). Techniques to identify themes. *Field Methods*, 15(1), 85-109. <https://doi.org/10.1177/1525822x02239569>
- Sadler, R., & Dooly, M. (2016). Twelve years of telecollaboration: What we have learnt. *ELT Journal*, 70(4), 401-413. <https://doi.org/10.1093/elt/ccw041>
- Savaya, R., Spiro, S., & Elran-Barak, R. (2008). Sustainability of social programs: A comparative case study analysis. *American Journal of Evaluation*, 29(4), 478-493.
- Scheirer, M. A. (2005). Is sustainability possible? A review and commentary on empirical studies of program sustainability. *American Journal of Evaluation*, 26(3), 320-347.
- Seidman, I. (2013). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. Teachers College Press. <http://ebookcentral.proquest.com/lib/lancaster/detail.action?docID=3544963>
- Shea, T. P., Sherer, P. D., Quilling, R. D., & Blewett, C. N. (2011). Managing global virtual teams across classrooms, students and faculty. *Journal of Teaching in International Business*, 22(4), 300-313. <https://doi.org/10.1080/08975930.2011.653911>
- Shediac-Rizkallah, M. C., & Bone, L. R. (1998). Planning for the sustainability of community-based health programs: Conceptual frameworks and future directions for research, practice and policy. *Health Education Research*, 13(1), 87-108.
- Shelton, R. C., Cooper, B. R., & Stirman, S. W. (2018). The sustainability of evidence-based interventions and practices in public health and health care.

- Annual Review of Public Health*, 39(1), 55-76.
<https://doi.org/10.1146/annurev-publhealth-040617-014731>
- Sierra-Huedo, M. L., Bruton, L., & Fernández, C. (2022). Becoming global at home: An analysis of existing cases and a proposal for the future of internationalization at home. *Journal of Education*, 204(1), 241-254.
<https://doi-org.ezproxy.lancs.ac.uk/10.1177/00220574221108053>
- Simons, H. (2009). *Case study research in practice*. Sage.
<http://ebookcentral.proquest.com/lib/lancaster/detail.action?docID=743724>
- Simons, H. (2014). *Case study research: In-depth understanding in context*. Oxford University Press.
- Soicher, R., Becker-Blease, K., & Bostwick, K. (2020). Adapting implementation science for higher education research: The systematic study of implementing evidence-based practices in college classrooms. *Cognitive Research Principles and Implications*, 5. <https://doi.org/10.1186/s41235-020-00255-0>
- Soicher, R. N. (2020). Implementation science in teaching and learning in higher education: A mixed-methods study of the utility value intervention in general psychology courses [Doctoral dissertation, Oregon State University]. Oregon State University Repository.
https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/j3860f30t
- Soria, K. M., & Troisi, J. (2014). Internationalization at home alternatives to study abroad: Implications for students' development of global, international, and intercultural competencies. *Journal of Studies in International Education*, 18(3), 261-280. <https://doi.org/10.1177/1028315313496572>
- Spiro, J. (2014). Learning interconnectedness: Internationalisation through engagement with one another. *Higher Education Quarterly*, 68(1), 65-84.
- Stake, R. E. (1995). *The art of case study research*. Sage.
- Stange, D. M. C., & Stange, R. M. (2020). Integrate global sustainability virtual exchange into teaching computer science concepts. In *SIGCSE '20: Proceedings of the 51st ACM Technical Symposium on Computer Science Education* (p. 1286). Association for Computing Machinery.
doi:<https://doi.org/10.1145/3328778.3372580>
- Starke-Meyerring, D., & Andrews, D. (2006). Building a shared virtual learning culture: An international classroom partnership. *Business Communication Quarterly*, 69(1), 25-49. <https://doi.org/10.1177/1080569905285543>
- Stevens Initiative. (2022). *Virtual exchange impact and learning report*. Aspen Institution. <https://www.stevensinitiative.org/wp-content/uploads/2022/02/2022-Impact-and-Learning-Report-English.pdf>
- Stevens Initiative. (2023). *2023 Virtual exchange impact and learning report*. Aspen Institution. <https://www.stevensinitiative.org/wp->

content/uploads/2023/02/2023-Virtual-Exchange-Impact-and-Learning-Report.pdf

- Stirman, S. W., Kimberly, J., Cook, N., Calloway, A., Castro, F., & Charns, M. (2012). The sustainability of new programs and innovations: A review of the empirical literature and recommendations for future research. *Implementation Science*, 7(1), 1-19.
- Stornaiuolo, A. (2016). Teaching in global collaborations: Navigating challenging conversations through cosmopolitan activity. *Teaching and Teacher Education*, 59, 503-513. <https://doi.org/10.1016/j.tate.2016.07.001>
- SUNY COIL. (n.d.). <https://coil.suny.edu/>
- Swanborn, P. (2010). Case study research: What, why and how? Sage.
- Tanghe, S., & Park, G. (2016). "Build[ing] something which alone we could not have done": International collaborative teaching and learning in language teacher education. *System*, 57, 1-13. <https://doi.org/https://doi.org/10.1016/j.system.2016.01.002>
- Taras, V., Caprar, D. V., Rottig, D., Sarala, R. M., Zakaria, N., Zhao, F., Jiménez, A., Wankel, C., Lei, W. S., Minor, M. S., Bryla, P., Ordeñana, X., Bode, A., Schuster, A., Vaiginiene, E., Froese, F. J., Bathula, H., Yajnik, N., Baldegger, R., & Huang, V. Z. (2013). A global classroom evaluating the effectiveness of global virtual collaboration as a teaching tool in management education. *Academy of Management Learning and Education*, 12(3), 414-435. <https://doi.org/10.5465/amle.2012.0195>
- Tight, M. (2004). Research into higher education: An a-theoretical community of practice? *Higher Education Research & Development*, 23(4), 395-411. <https://doi.org/10.1080/0729436042000276431>
- Tight, M. (2010). The curious case of case study: A viewpoint. *International Journal of Social Research Methodology*, 13(4), 329-339. <https://doi.org/10.1080/13645570903187181>
- Trautrim, A., Defee, C., & Farris, T. (2016). Preparing business students for workplace reality—using global virtual teams in logistics and SCM education. *International Journal of Logistics Management*, 27(3), 886-907. doi:10.1108/IJLM-01-2015-0003
- Trowler, P. (2019). Accomplishing change in teaching and learning regimes: Higher education and the practice sensibility. Oxford University Press.
- United Nations (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. <https://wedocs.unep.org/20.500.11822/9814>.
- Vanderstraeten, R., & Biesta, G. (2006). How is education possible? Pragmatism, community and the social organisation of education. *British Journal of Educational Studies*, 54(2), 160-174. <https://doi.org/10.1111/j.1467-8527.2006.00338.x>

- Vavrus, F., & Pekol, A. (2015). Critical internationalization: Moving from theory to practice. *FIRE: Forum for International Research in Education*, 2(2), 5-21, <http://preserve.lehigh.edu/fire/vol2/iss2/2>
- Waldman, T., Harel, E., & Schwab, G. (2016). Getting their feet wet: Trainee EFL teachers in Germany and Israel collaborate online to promote their telecollaboration competence through experiential learning. In S. Jager, M. Kurek, & B. O'Rourke (Eds.), *New directions in telecollaborative research and practice: Selected papers from the second conference on telecollaboration in higher education* (pp. 179-184). Lexington. <https://doi.org/https://doi.org/10.14705/rpnet.2016.telecollab2016.505>
- Waldman, T., Harel, E., & Schwab, G. (2019). Extended telecollaboration practice in teacher education: Towards pluricultural and plurilingual proficiency. *European Journal of Language Policy*, 11(2), 167-185.
- Ware, P. D., & Kramsch, C. (2005). Toward an intercultural stance: Teaching German and English through telecollaboration. *Modern Language Journal*, 89(2), 190-205. <https://doi.org/10.1111/j.1540-4781.2005.00274.x>
- Warschauer, M. (1996). Telecollaboration in foreign language learning: Proceedings of the Hawaii symposium (Vol. 12). National Foreign Language Resource Center.
- Weinberg, D. (2014). *The way forward for social constructionism*. Temple University Press. <http://www.jstor.org.ezproxy.lancs.ac.uk/stable/j.ctt14btbsd.11>
- Wortham, S., & Jackson, K. (2007). Educational constructionisms. In J. A. Holstein & J. F. Gubrium (Eds.), *Handbook of constructionist research* (pp. 107-127). Guildford Publications. <http://ebookcentral.proquest.com/lib/lancaster/detail.action?docID=406002>
- X-Culture. (n.d.). *What is X-Culture?* <https://x-culture.org/>
- Yazan, B. (2015). Three approaches to case study methods in education: Yin, Merriam, and Stake. *Qualitative Report*, 20(2), 134-152.
- Yin, R. K. (1994). *Case study research: Design and methods* (Vol. 2). Sage.
- Yin, R. K. (2009). *Case study research: Design and methods* (Vol. 5). Sage.
- Yin, R. K. (2015). Case studies. In J. D. Wright (Ed.), *International Encyclopedia of the Social & Behavioral Sciences (Second Edition)* (pp. 194-201). Elsevier. <https://doi.org/https://doi.org/10.1016/B978-0-08-097086-8.10507-0>
- Yvonne Feilzer, M. (2009). Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research*, 4(1), 6-16. <https://doi.org/10.1177/1558689809349691>
- Zak, A. (2021). An integrative review of literature: Virtual exchange models, learning outcomes, and programmatic insights. *Journal of Virtual Exchange*, 4, 62-79.

Zaugg, H., & Davies, R. S. (2013). Communication skills to develop trusting relationships on global virtual engineering capstone teams. *European Journal of Engineering Education*, 38(2), 228-233.

Zhu, Y., Gareis, E., Bazzoni, J. O., & Rolland, D. (2005). A collaborative online project between New Zealand and New York. *Business Communication Quarterly*, 68(1), 81-96.
<https://link.gale.com/apps/doc/A129807020/AONE?u=unilanc&sid=bookmark-AONE&xid=55171798>