Final Report

The ABCs of Young People and Virtual Exchange (VE): Access, Benefits, and Content

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1. Introduction

Over the last few years, virtual exchange (VE) has emerged as a popular medium to promote intercultural understanding, global competency, and collaboration among K-12 students. With a considerable amount of existing research on VE in higher education institutions, our study was derived from the need for more research on the impact of VE on K-12 institutions. Our approach was guided by critical VE, i.e.VE through the equality, diversity and inclusion lens as framed by Kastler and Lewis (2021) and with a focus on social justice.

We have explored what kind of content younger learners engage with in their exchanges and what challenges educators experience who want to implement VE at the K-12 level. Although many challenges were identified in relation to the implementation of successful exchanges, we hope our findings will help promote new and innovative approaches to VE by sharing lessons learned and in many cases, recommendations and suggestions for moving forward.

Educators, coordinators, organization representatives, school administrators, and students were interviewed in the following regions: Middle East and North Africa (MENA), Americas, Central Asia, Europe, Africa, and East Asia.

Starting April 2022, the study objectives leading our work for the past 12 months were as follows:

- ✓ **Objective 1:** Collaborate and meet with team members to decide on the study design, interview prompts, administration, and tools to be used throughout (including consent forms, interview/email scripts, tools for interview transcription and analysis)
- ✓ **Objective 2:** Conduct interviews over several months with VE educators, coordinators, representatives in organizations, and school administrators
- ✓ **Objective 3:** Data analysis, creation of 5-8 vignettes per region (between 25-30 case studies overall) to be published on Google sites in the context of an online report, and preparation/submission of a final, more traditional report following the Stevens Initiative template
- ✓ **Objective 4:** Preparation of research publications and white papers

Overall, our study was guided by the following research questions (RQs):

- 1. What are the VE contents and outcomes for young learners and what are the hurdles they encounter in under-resourced areas?
- 2. What are some of the competencies or skills developed by young learners in well-sourced areas? Are there any challenges they encounter?
- 3. How do the outcomes in these two areas compare?

2. Literature Review

In K-12 settings, VEs are becoming more common as a way to foster cross-cultural learning and global competency development. Students that take part in VE programs are said to acquire skills relating to the world around them, communicating with individuals from different cultures, and creating global solutions to real-world problems (Hinshaw et al., 2022). While these opportunities also may provide cost-effective and enriching experiences for students from low income backgrounds and/or underrepresented regions, studies have shown that there are a number of challenges facing VE. Known hurdles include different time zones, lack of internet connectivity in some regions, different curricula and approaches to assessment, and conflicting schedules (Alami et al., 2021; Baroni et al., 2019; O'Dowd, 2018).

The technology infrastructure needed to facilitate VE is one of the primary obstacles (Alami et al., 2021; Buckner & Kim, 2019). Similarly Kastler and Lewis (2021) have pointed out that the most urgent equity issues in VE are the inequalities in, or the lack of access to software and hardware, and/or internet connectivity. Figure 1 illustrates the situation:

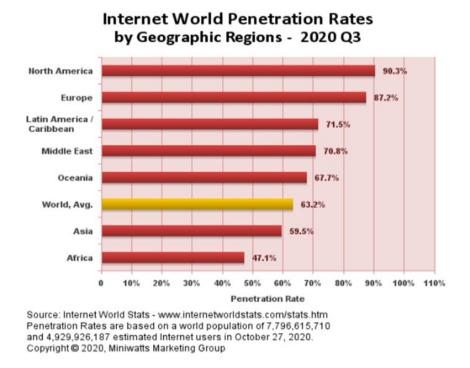


Figure 1: Internet World Penetration Rates by Geographic Regions

Thus, in many cases, schools might not have the tools or internet access needed to support virtual interactions. Teachers might also lack the technological skills necessary to efficiently facilitate learning in a virtual environment and digital tools. The potential for cultural misinterpretations and misconceptions presents another difficulty (Schenker, 2013). Language limitations, time zone differences, and variations in cultural norms and expectations can all make this more difficult (for a telecollaboration/VE risk assessment tool based on O'Dowd & Ritter, 2006, see Hauck, 2007). It is therefore crucial for teachers to give their students the background

information and cultural context they need to handle these potential challenges. Educators, administrators, and VE organizations must be aware of the difficulties involved and come up with practical solutions as schools continue to use VE to encourage intercultural learning.

Despite these difficulties, VEs in K–12 settings have potential advantages. They can aid students in gaining a deeper comprehension and respect for various cultures (Guth & Helm, 2018). Additionally, they can assist students in strengthening their language skills and acquiring critical intercultural communication abilities (O'Dowd & Ritter, 2006). Students can better grasp global challenges and grow in their capacity for empathy and compassion by connecting with peers from different countries and backgrounds. Many of these benefits are also evident in VE programs in higher education.

All in all, there are many aspects of VE that need to be carefully considered before designing an exchange to meet the mutually agreed upon objectives and optimize student experience. Alarmingly, in K-12 contexts in particular, there is still a lack of understanding of what VE is, and what the best ways are to design and structure programs in order to overcome pitfalls identified within the literature (Hinshaw et al., 2022).

In recent years we have witnessed the emergence of a number of VE organizations that facilitate exchanges and provide institutions with support including training for educators. Many of these organizations, though, serve higher education institutions rather than K-12 schools (Steven's Initiative, 2021). In addition, the majority of the literature focuses on the student outcomes, and fails to sufficiently identify challenges and outcomes related to educators and coordinators.

3. Methodology

3.1. Study Design

Our study is based on a qualitative design informed by collaborative action research (AR) and ethnography. AR is "a comfortable partner" to ethnography as it is a form of practitioner research conducted "to improve rationality and social justice" (Gray, 2014, p.460). Ethnography is concerned with articulating identifiable cultural and political issues including injustices. It "should criticize how things are and imagine how they could be different" (Denzin, 1999, p. 153). Both involve close collaboration between the researcher and the practitioners - in our case teachers, administrators, VE coordinators, organizations promoting VE, and students.

AR also promotes change, in this case, access and VE participation for young people.

The main AR medium is the case study. Our aim was to produce case studies in the shape of narrative descriptions presented in vignettes that help to tell "the story" (Hammersley, 1990) and that are based on narrative inquiry (Riessman, 2008; Butina, 2015). We were interested in two types of case studies:

• Case studies involving educators, administrators and young learners from underrepresented VE regions. • Case studies focusing on educators, administrators and young learners from well-represented areas and their "take-aways" from VE and how these compare to the previous group.

Narrative inquiry has proven to be beneficial for studying biographical experience. However, in contrast to the recommended procedure – two interviews per participant: the first one to elicit information, and the second to reflect on the first interview and for further exploration – we were unable to have repeated conversations with our interview partners. Yet, we closely followed the advice on how to phrase prompts for narrative inquiry, i.e., in such a way that the interviewees felt encouraged to share their experience with VE and to tell their VE story: "Tell me about an incident or experience ... Tell me what happened? ... and then what happened? Tell me your story," etc. (Butina, 2015, p. 194).

3.2. Data Collection and Analysis

Semi-structured interviews were conducted based on the interview prompts (Appendix 1) which, in turn, were aligned with the research questions and followed the principles of narrative inquiry (see section 3.1). Interviews were carried out with teachers, VE coordinators, representatives from organizations promoting VE, educational administrators, and also students. Participants for our study were solicited from: pre-existing contacts of our team, organizations that coordinate VE in some of the regions, and individuals from schools already involved in VE.

Participants were interviewed from the following countries: Brazil, Chile, Columbia, Ecuador, France, Honduras, Iraq, Japan, Jordan, Kazakhstan, Kenya, Lebanon, Mexico, Morocco, the Netherlands, Peru, Rwanda, Spain, South Africa, Uganda, the United Kingdom, and Uzbekistan. Interviews were transcribed using Otterai, after which they were validated and edited to fix any errors. Interviews were conducted in English across all regions. The duration of each interview ranged between 60-90 minutes. All interviews were conducted via Zoom or Microsoft Teams.

To analyze the data and to address our research questions, qualitative content analysis was used (Zhang & Wildemuth, 2009). This is a widely used qualitative research technique which consists of subjective interpretation of the content of text data through the process of identifying themes or patterns and classifying them through the use of codes. This approach was used, for example, in the EU ERASMUS + funded VE impact study EVALUATE (The EVALUATE Group, 2019).

According to Hsieh & Shannon (2005) there are three distinct approaches to qualitative content analysis: conventional, directed, and summative. In conventional content analysis, coding categories are taken directly from the text data. In a directed approach, a pre-existing theory or research findings guide the creation of initial codes, and in a summative approach, keywords are counted and compared followed by the interpretation of the underlying context. In this study, a conventional approach to qualitative content analysis was used.

4. Findings

4.1. Overview of Qualitative Findings

Data will be presented and discussed in alignment with the major themes that emerged throughout the data collection process (semi-structured interviews) with various educators,

coordinators, administrators and students across the regions. A total of 43 interviews were conducted for this study. Table 1 shows the number and type of interviewees by region.

Table 1: Interviewees by Region, Country, and Role

	Africa	Central	East	Europe	Middle East	South	Total
		Asia	Asia		& North Africa	America	by
							Roles
Total by Region	6	6	1	11	10	9	43
Teacher	5	5	1	11	5	5	32
VE Coordinator	-	1	-	-	2	3	6
VE Organization	-	-	-	-	2	1	3
Student	-	-	-	-	1	-	1
School Admin	1	-	-	2	-	-	3
Countries	Kenya	Kazakhstan	Japan	United	Iraq, Jordan,	Brazil,	
Represented	Rwanda	,		Kingdom,	Lebanon, and	Chile,	
	South	Uzbekistan		France,	Morocco	Mexico,	
	Africa			Spain, the		Peru,	
	Uganda(3x)			Netherlan		Ecuador,	
				ds with		Columbia	
				additional		with	
				partners		additional	
				outside		partners	
				Europe in		outside	
				China,		South	
				Mexico,		America	
				South		in Italy,	
				Africa,		Sweden,	
				and the		Germany,	
				USA		India and	
						South	
						Africa	

4.2. Common Findings in All Regions

Lack of access to technology and resources in schools was one common finding, especially in public schools. This was also a challenge in higher education institutions (Alami et al., 2021), and hindered the establishment of VE programs. Another challenge was the lack of professional development opportunities for educators, specifically training in technology and communication skills, which are essential for the successful implementation of VE programs. Many educators also lacked incentives to partake in VE. On the other hand, educators and students reported increased engagement, motivation, and interest in learning through VE programs. Students were exposed to diverse perspectives, cultures, and ways of thinking, which enhanced their global competence and, in some instances, helped them achieve educational milestones in higher education settings.

In terms of outcomes, educators and students alike have reported improved language proficiency, communication skills, and intercultural competence. Interviewees reported the potential for VE to "promote social justice and equity". Programs provided access to educational resources and

opportunities for students who may not have had them, such as those from marginalized communities or under-resourced schools.

None of the interviewees in countries like Uganda, Kenya, Rwanda, and South Africa claimed to have personally participated in VE, and the interviews instead concentrated on how technology is utilized in the classroom, challenges to establishing VE, and the expected outcomes of VE. It was found that even though international schools have easier access to technology, VE could improve education quality by fostering collaboration, critical thinking, problem-solving, and cross-cultural understanding. Culture-related issues, internet safety issues, and varying priorities in various nations and communities are obstacles to the introduction of VE in Africa.

4.3. Region-Specific Findings

4.3.1. Africa

We conducted six interviews for this region: three participants from Uganda, and one from each of Kenya, Rwanda, and South Africa. All participants interviewed were educators, except for one administrator. Of the five educators, two were STEM teachers and three were special education (learning support) teachers. All six were employed at private international schools, although most had (formal or informal) experiences with local public schools in their region. Appendix 2 includes the six vignettes created based on these interviews.

Even with their position at international schools, none of the participants reported being directly involved in VE. As such, we focused on the following three questions: 1) how, if at all, is technology utilized in the classroom?; 2) what are the obstacles that prevent establishing VE (or an increase in use of technology) in the classroom and how might they be overcome?; and 3) if VE were to be implemented, what might the anticipated outcomes be for teachers and students?

Our findings indicate that, though they share some similarities, the realities for private schools differ from those of local public schools. Regarding how technology is utilized in the classroom, the pandemic has certainly highlighted and potentially exacerbated the gap between the public and international schools (respondents: K-A, S-A). Nearly all the international school educators reported their student body as having access to either their personal or school provided stable electricity, laptop/tablets, and WiFi (both for at home and at school). They reported that this is not the case for any of the local schools in their areas (respondents: K-A, U-B, U-C). So, when it comes to obstacles preventing establishing VE, for international schools, they stated the need for: technical training for educators (to design safe and effective experiences), access to international VE program partners, and strategic support from their school leadership. For public schools, their obstacles include all of these factors, as well as the basic need for technology in the classrooms. All the participants do agree however, that gaining access to VE would increase students' overall quality of education by helping them to be better collaborators, become critical thinkers and problem solvers, and gain new (cultural) perspectives.

Other challenges to introducing VE to the African region that were raised included: 1) overcoming cultural-based concerns of parents who might be weary of "pollution" of their children's morals & values if they engage with western institutional partners (respondent K-A); 2) ensuring that parents and teachers are technologically skilled enough to ensure the online safety of students before providing them access to devices (respondents: S-A, R-A); and 3) for VE proponents to be culturally sensitive enough to realize some countries and communities in the region have higher priority of needs to be met well before VE even becomes a matter of concern (respondent U-C).

4.3.2. Central Asia

In the Central Asian region, we found it particularly challenging to identify study participants at the pre-college sector. Most public (regular) elementary and secondary schools are not connected to international exchange networks, and teachers are not accessible via direct emails and invitations. That being the case, five out of six participants interviewed for this study come from Kazakhstan, the country with the most developed Internet infrastructure and the state-mandated focus on internationalization and multilingualism, namely, trilingual (Kazakh-Russian-English education) in secondary education. To ensure greater diversity in the sample of participants, several participants were selected from the schools where teachers heard about VE pedagogy but never used it in their own classes. Among the participants, three represented a special kind of school in Kazakhstan (known as Nazarbayev intellectual schools). These schools can be described as experimental and supported through the STEM program launched by the Kazakh government. The Nazarbayev intellectual schools were established in a number of regions with the goal to reach more talents and provide academically gifted students across the country with equal opportunities to receive high-quality education. Unlike charter or magnet schools in the United States, the admission to these schools is highly competitive, and students are required to receive high scores on a number of entrance exams before they are officially admitted. The government provides special funding to cover room and board for students from remote areas. The Nazarbayev schools have a strong orientation towards STEM. A number of subjects are taught in English, and the government encourages and funds international hires; i.e. some instructors are international in these schools. It is not surprising that the VE projects reported in the region were conducted predominantly by English language teachers either in their own class or in collaboration with another teacher in STEM. However, two interviewees stated that the program is currently experiencing financial cuts, and many international faculty positions have been discontinued. Appendix 6 includes the five vignettes created based on these interviews.

The teachers from these schools reported that the administration requires them to create VE opportunities for their students, but no concrete steps are usually undertaken to support such initiatives. In particular, one teacher mentioned the need to update the computers in the school because students cannot download any communication tools, such as Zoom or Skype. By far the most frequently mentioned challenges were a lack of international partners and professional development opportunities, namely, training in technology, and a significant time difference between Kazakhstan and Europe and North America. We have identified several formats of VE

that were particularly popular among the teachers in this region: 1) an email exchange with students in another country in an English class; 2) a VE with a series of synchronous Zoom sessions (usually limited to 1-3), organized by the teachers with the goal to expose their students to "real" language use and create a space for them to meet peers in other countries; 3) one-onone penpal/tandem exchanges between students facilitated by the instructors in two collaborating institutions. Another notable finding is that such exchanges are typically organized between local teachers and the international teachers who once worked for the school or have some ties with the school or one teacher. The teachers we interviewed described email exchanges with 8th-9th graders in New Zealand, South Korea, India, and Georgia. One interviewee, who is an international STEM teacher from Uganda reported a project in which VE was organized in a mathematics class, and students exchanged and discussed their solutions to a series of mathematical problems via Zoom using English as their language of communication. The primary teaching goal of such exchanges is the country's need to educate global citizens who are fluent in multiple languages and capable of collaborating with peers in other countries and cultures. The VE exchanges are typically unsystematic, spear-headed by individual teachers, lasting for a few weeks. While these exchanges are usually guided by the topics chosen by the teachers in the participating schools, students are instructed not to discuss religion and politics. The only participant from Uzbekistan, an educator and teacher-trainer, noted that the content of the exchange between students in the Uzbek regional schools and students in an American school had to be approved by the government. Overall, the instructors noted the importance of VE for educating well-rounded citizens, but noted that training opportunities in VE pedagogies and technology are most needed for such exchanges to be happening on a more systematic basis. For the teachers, VE is a way to demonstrate innovation in teaching; and for the students, VE is viewed as the platform for developing long-lasting connections with peers in other countries who may become future collaborators and partners in international business and research initiatives.

4.3.3. East Asia

There was one vignette prepared for this region (Appendix 7). The vignette was based on one interview conducted with a teacher in a Japanese private high school (JI). The virtual exchange program that the interviewee discussed was between Japan and Uganda, and was led by the interviewee. The program was created based on a personal initiative, and she gained support from the high school administration based on the pretense that this would help the high school gain an 'international' aspect.

The exchange faced challenges due to technological limitations and sporadic network connections, but JI plans to expand the program to schools in India, the United States, and Shanghai. Despite the challenges, students enjoyed the exchange and acquired some technological skills. JI aims to increase the frequency of meetings, introduce project-based learning, and start new exchange programs.

4.3.4. Europe

A total of 11 vignettes are reported from Europe (Appendix 3). The VE programs from this region demonstrate a variety of public and private schools with five examples from primary

school, two from secondary, and four from high school, lycee, and college levels. The vignettes describe two exchanges between institutions in Europe, seven between Europe and other continents (South America, Asia, North America, and Africa), one from the same country (Scotland) and one from two countries within the United Kingdom (England and Wales). The last two vignettes demonstrate that the real value of international, intercultural VE is in the opportunities it enables in engaging students with those from diverse socio-economic, racial, and cultural backgrounds, and opportunities for students to share and explore varied perspectives on current events. In terms of access, teachers from Europe reported that some learners either did not have technologies or data packages/wifi, or lacked quiet spaces to engage with exchanges organized outside of class time. In most cases, institutions offered support in terms of provision of technologies and training in using the tools required. Partnerships were largely formed through personal connections, such as friends from university. Teachers suggested that wider support from the government and institutions can assist in reaching out to a larger number of students and those from various backgrounds.

VEs from Europe represented in this report were organized predominantly in first and second language classes, but there are also examples from business, science and arts. Main benefits for learners were perceived to be in communication and reporting skills, teamwork and collaboration skills, higher engagement, involvement, and interest in class, racial diversity and respect for people of color, opportunities to connect with peers from diverse cultural, social, and socioeconomic backgrounds, creating a rich learning experience, and exposure to a variety of perspectives and viewpoints from individuals worldwide, broadening the educational experience, and empowering students to express their own viewpoints and opinions. A number of teachers offered examples of students who benefited from the VE experience significantly. These learners were those who normally felt isolated, shy, or disconnected from their peers and felt anxious to speak in class. The teachers were pleased to see these learners flourish and engage more actively online.

In Europe, common challenges were reported in language level differences, internet connectivity, curricular and assessment differences, and time zone discrepancies. Three vignettes describe racial and political challenges where African or Chinese students felt or faced some level of discrimination. Encouraging some students to work in groups, monitoring work in break-out rooms, pressure on students to produce, workload for the teachers, and securing parental consent for participation of underage students were other challenges that were reported from Europe.

4.3.5. Middle East and North Africa (MENA)

A total of ten interviews were conducted, and the majority were teachers that took part in VE programs. Five vignettes were completed for this region (Appendix 4). There were more public schools in the region involved in VE programs than private schools. The themes focused on culture, but in other cases they focused on specific themes within the national curriculum. In other VEs, content was provided by international organizations running the schools, such as UN organizations, or organizations funding the VE.

Key informants reported common challenges related to internet connectivity, student access to materials/equipment needed for the exchange, time zone differences, and language. Engaging male students in VE programs in K-12 was also identified as a challenge, given that they were identified as less detail-oriented and harder to engage than females (Respondent J4). Other challenges identified included a misconception of what VE is, and lack of access to many public schools due to government approvals needed before implementing a VE in many countries in the region. Some schools that take part in VE also find it difficult to find partners at times. For exchanges that took place in rural areas or public schools, many of the students had limited resources. Organizations facilitating such exchanges would need to allocate a separate financial budget to ensure students and schools are able to take part. This is sometimes tough for organizations to secure. In addition, securing parental consent, especially for female participants at times, was also a challenge identified in a Moroccan public school, specifically (Respondent M3).

In some countries in the region with limited resources, one of the facilitators stated that teachers have to pay out of pocket to support VE programs:

"So, once you have to pay from your pocket to get the internet and to teach the students, this is not an incentive at all, this is not going to encourage any teacher to go on [with VE]..." (Respondent L1)

There were a number of common successes and student takeaways that were mentioned by various respondents. These included students becoming effective communicators and building their language skills (Respondents J2, L1, M1, M2), in addition to gaining exposure to other cultures and the world (Respondents J1, J2, M1, M2). One facilitator also claimed younger students developing empathy, open-mindedness, and self-awareness as a result (Respondent J4). One student mentioned that he gained a better understanding of his culture.

Facilitators also benefited from the exchanges by learning how to trust their students, become global citizens and learn about different cultures (Respondents J2, L1). One facilitator stated that her experience influenced her career path as she was credited to be promoted twice due to her VE experiences (Respondent J2).

4.3.6. South and Latin America

A total of nine interviews were conducted, mostly of teachers with some VE experience. Nine vignettes were created for the region as well (Appendix 5). Many of the exchanges took place between partners from the same continent. As for existing VE practices, there was a clear dominance of private schools and international school groups. They clearly spoke from a position of privilege and had established connections with partners abroad. Yet almost all participants highlighted the crucial role of a committed educator/administrator in terms of the success of the exchange programmes. The exchanges were facilitated by individual educators but also by administrators with "internationalization" as part of their responsibilities. Most VEs were between late years secondary school children but some also connected a school class with first year University students. On one occasion, primary and secondary school children worked together (M5). Approximately half of the schools involved were associated with a University and

teacher training programmes. Educator familiarity with a common or close language (e.g. Spanish with Brazilian Portuguese), were found to facilitate easier inroads to VEs and to be helpful in overcoming linguistic challenges. Need for flexibility, increased demands of (new) skills, time investment required, partners' unfamiliarity with each other's preferred software, lack of screens (the perceived need to equip each student) with their own device for best participation) and connectivity were mentioned among the main challenges experienced by the educators.

5. Implications

Our findings from this round of research aligns to a large extent with the findings from our study on challenges facing VE programs in higher education institutions. Across all regions studied, we have noted a glaring absence of VE programs and initiatives in K-12 schools, as evidenced by the difficulty in finding VE practitioners in the geopolitical regions included. The need for increased advocacy for VE and exposure to successful exchanges and their benefits needs to be taken seriously. Outreach efforts and capacity building workshops that highlight previous work and potential advantages are necessary. Our data suggests that policy-makers and administrators are essential to the success of such advocacy, as educators are generally more aware and accepting of VE initiatives.

The study also highlights the lack of training opportunities for educators and staff, which is understandable given the aforementioned lack of awareness and hesitancy of administrators and policy-makers to fully endorse VE programs at scale. One main challenge that is not to be overlooked remains the lack of resources in the MENA region and Africa, be it in the lack of software, electric power, dependent internet connections, or even financial incentives for educators who partake in these initiatives.

Based on our study, we recommend:

- Work with key opinion leaders and policy-makers to promote the benefits of VE programs schools, and integrate these initiatives within the national educational curricula. This work could especially benefit from the shift in perceptions towards online learning and education technology as a result of the pandemic.
- The favorable attitudes towards digital tools and innovative pedagogical approaches should be coupled with capacity building and training offered on all levels of the educational system, including teachers, administrators, policy-makers, and parents, to ensure a collective acceptance and recognition of VE benefits.
- Schools should create specialized VE assistance roles to aid faculty in the curriculum internalization process.
- Incentivize VE practitioners appropriately (e.g. funding, promotion, professional growth opportunities, etc.).
- Measure and evaluate VE impact on students.

VE is typically conceptualized as a partnership with a Western university (preferably English speaking). While this perception is advantageous in many contexts, VE programs should also be highlighted in practitioners' discussions about preparing students for a globalized multicultural world, higher education, and the job market.

Further work needs to be done to better understand the internal challenges facing schools and teachers across the globe to improve existing VE programs and to promote the development of new ones that address specific needs of different communities.

6. Further Directions for Research

Further Directions for Research Include:

- Measuring the impact of VE on students in different regions.
- Nature of partnerships and understanding which partnership arrangements result in successful VE programs
- Impact of VE programs on students' learning outcomes, their intercultural competence, and their understanding of global issues
- Develop strategies to overcome the challenges faced in implementing VE programs, especially in regions with limited resources
- Replicate in other/more regions of the world to gain a comprehensive understanding of the implementation of VE programs worldwide

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Interview Questions
ABC Project Interview Prompts
Revised: August 2022

Section 1. Demographics and Prior Experience/Familiarity with VE.

- 1.1. In the first part of the interview, we would like to ask you a few questions about you and your work. Tell us about yourself and your position in your institution.
 - 1.1.1 Tell us about your educational background (your level of education, your academic discipline, etc.)
 - 1.1.2 Does your position involve any administrative duties or teaching?
 - 1.1.3 *Teachers*: What subject do you teach?
 - 1.1.4 *Administrators*: Do you make curriculum decisions in your current position? What types? Do you help faculty establish international connections?

Section 2: VE Experiences, Methodology and Challenges/Successes

Our related research questions: What are the VE contents and outcomes for young learners and what are hurdles they encounter in under-resourced areas?

2.1 Tell me about your first time experiences with VE. How did it come about? Were there some challenges/successes?

*If Admin/educator participant shares VE story of when they were a student experiencing VE, add follow up question to inquire VE experience from their admin/educator career.

- *If admin/educator has had multiple years of VE experience, ask about more current experiences (growth & development) since those first years? Were there any differences between the first experience and your most recent experience?
- 2.2 Can you describe the design/structure/content of the VE programs you have been involved in?
 - *How did you come up with the design/structure/content?
 - *How did your institution specifically impact (in a positive or negative way) the design/structure/content of the VE program(s)?
 - *Interviewers be sure to inquire about issues/experiences with partner selections, technologies, field study, and government support/limitation with VE program design
- 2.3 What would have, if anything, helped improve your experiences?

*What would have helped you overcome your challenges, or have helped to increase your success?

*What, on the institutional level, could be changed to improve your VE experience, if any?

Section 3. VE Engagement and Participation

Our related research questions: What are some of the competencies or skills developed by young learners in well-sourced areas? Are there any challenges they encounter?

- 3.1. Describe the degree of engagement of students in the VE programs. How would you describe their experience/participation?
 - *Can you share if you have your own techniques/strategies to engage students in VE?
 - *Can you explain if there were any noticeable differences/similarities between the type of students that engaged, if any?
- 3.2. What teaching objectives do you set for the VE component in your teaching? What do you try to achieve by engaging students in a VE project?
 - *How did you come up with these objectives/strategies?
- 3.3. Looking back, were there some unanticipated takeaways from your participation in VE (for yourself; for your students). Can you explain?

Section 4. Wrap Up

4.1. Is there anything else you would like to share with us about your experience with VE projects?

APPENDIX 2 - Africa Vignettes

Discussing Virtual Exchanges in Kenya

Countries/Regions: Kenya

Collaborators: N/A

Participan Code: KY Participant A

Interviewee: Learning support / special needs educator, with MA in Education

(Russian & Iranian educator born in Nigeria)

Interviewee role: Board member of a global virtual platform that provides training (professional development opportunities) for teachers. Also serves as a special education educator for a middle school. Motivated to encourage students to be independent learners and learning from their peers, as influenced by the Montessori system.

"Cross cultural engagement i think is necessary in the world we live in right now... the world is getting smaller and smaller with social media and traveling. i think you'll be handicapped if you weren't aware and familiar with other cultures around the world."

Use of technology in the classroom:

There is a huge range of technology accessibility in classrooms across Kenya public schools students almost lost a full year of school during covid due to lack of access to technology. Private school students hardly lost a day of school Covid was instrumental in introducing technology to the classroom

"I remember the first day we were all able to connect via zoom and I could see all my colleagues before covid we were using google classroom and Seesaw"

Pre-covid technology policy for private schools:

for high school students: all students are required to buy their own laptop to enroll for middle school: each student are provided a Chromebook for the year for elementary school: each student is given ipads

Teachers utilized technology to collaborate virtual and receive professional development SENIA was an organization that conducted virtual conferences for educators

"There's is a huge range of technology access for African countries like Kenya. So taking COVID as an example, the local Kenyan schools lost a full year of education because of the lack of technology... so we go from that extreme to the extreme of the international schools... whose students did not miss one day of school during COVID times."



For students who were away from their school during COVID, students were able to take their classes online. but not VE because they were not collaborating with peers from other institutions in other countries.

Challenges & problems to be addressed for VE:

How to make VE a reality:

For international schools: lack of programs

need programs that offer opportunities to connect students to other students around the world (need program partners)

school seeking partnerships do not think of Kenya. think it is not possible in kenya

administration is not looking. they are inward focused. they feel isolated from local kenya schools adn they are few in number

Time zones can be a challenge

issue with increase students' screen time (from parents' point of view)

"I think when people think of virtual education maybe kenya is not the first place they think of. I think a lot of people have strong misconceptions of Africa"

For local kenyan school

financial

access to device

access to wifi

cultural challenges

community living might even lead student to relinquish device to older family member):

access to private (community living without walls, how do find the private space for your virtual program)

school admin not open to VE

VE viewed as western push... traditional Kenyans will push back thinking western classrooms will dilute kenyan traditional morals.

Challenges of connecting with Western schools: "I don't really think they will be as open because I would think many of this would be coming from the west. I think traditional parents will view the west as having loose morals... they would view it as diluting the morals they want to instill in their children."

Anticipated Student Takeaways from VE

VE will be successful if it is led by student interest... so it will be student led connect students via their interests across the globe

Cross cultural engagement will enhance your learning experience cultural engagement will lead to deeper learning because it'll provide multiple perspectives on the subject matter also exchange of attitudes towards learning and education itself

Skills gained...

learn to be connected: learn how to collaborate with others be able to view challenges from multiple perspectives

"They [international school Admin] are just very inwardly focused, just focused on their own school. ...I know there are very few international schools in a country like Kenya, so they educate a tiny tiny minority of children that live in the country so I think they are used to standing on their own. We do not even have interschool sports with local Kenyan schools. ...we have limitations. We live in a bubble. We live in a bubble. It is very hard to integrate. so it is not only between countries because even within our country we have this problem."

Discussing Virtual Exchanges in Rwanda

Countries/Regions: Rwanda

Collaborators:N/A

Participan Code: RW Participant A

Interviewee: Global Educator who has had experiences in 3 countries;

currently an IB leader/coordinator and a primary school principal

Interviewee role: an administrator brought in to implement the primary IB curriculum at

her current institution

Use of technology in the classroom:

Teachers receive professional development virtually regarding the IB curriculum.

IB teachers requires specialised training which had to be conducted virtually during COVID

Technology in the classroom: Covid forced technology to be a must in a classrooms But in IB technology as a tool has already been encouraged in the classroom: e.g.

valuing research in credible way online;

collaboration among educators: vertical and horizontal planning (within subject matter and within age group)

one IB school was able to have video conferences with other IB sister schools

Unique experiences of international school:

Utilising the various apps and platforms to help the students' learning experience is getting students more comfortable with engaging through technology all learners have Chromebook and students were able to quickly learn on the devices international schools are able afford the resources and hire foreign educators

Challenges & problems to be addressed for VE:

Electricity and infrastructure is an issue that needs to be addressed "all of our learners are bright and they are able to catch to any program"

Anticipated Student Takeaways from VE



Students can learn how to use technology to connect with others for educational purposes.

Discussing Virtual Exchanges in South

Africa

Countries/Regions: South Africa

Collaborators: N/A

Participan Code: SA Participant A

Interviewee: Advisory teacher for neuro diverse learners

Interviewee role: SA Participant A has a BA in Education teacher who works with neuro diverse learners, middle school students (7th and 8th graders specifically). Her teaching experiences include teaching in manila, cambodia, india, and currently in South Africa. She is an advisory teacher who provides specialised lessons for students who need additional support

When SA Participant A thinks of what benefit VE can bring to her students: "Learning is social... so if we can make is as social as possible and not limit them to their own worldview, why not?"

Use of technology in the classroom:

In the earlier schools technology use was limited.

Some examples of use of technology in the past include iPad and projectors.

Currently, in SA, she is able to use some more EdTech platforms such as...

Nearpod (for designing lessons for classes)

breakout EDU (to bring students as a group to work as a community)

Lexia (for students having literacy challenges)

Mario For Me software (check student wellbeing, empower them, and monitor/track their progress)

Increase use of EdTech due to post-covid effect and changing times & circumstances such as availability of technology and offering of platforms. Additionally, being tech savvy has helped her get more comfortable with these new platforms.

Institutional support for use of technology in the classroom... steps are the following: present platform to school's tech coach, then platform gets reviews, then after approval (based on budget) teacher is granted access. This process requires teachers to take initiative regarding getting access to new Edtech apps.



School is more likely to back the platforms/apps that have more research-based support

Other examples from around the world:

teachers taking individual initiatives to introduce their students to social media (having lessons about ethics/behaviour on the internet)

Challenges & problems to be addressed for VE:

Other than penpals and community wide fundraisers with other schools, no active VE programs going on.

VE is not yet embedded in the school culture:

maybe the curriculum does not open up opportunities for collaboration teachers do not know somebody from another school they could partner with

The lack of know-how ranks higher than the lack of opportunities (cannot ensure the safety for the participants (for international/private schools). Lack of opportunities because of lack of resources (technology, infrastructure, & personnel) rank higher than lack of know-how in the public school system of SA. (For example, international schools the school and some of the students' families have generators at the school and in their homes where as the public schools do not)

"I think [VE] is very important because it opens up their mindset to what other places are like, what other cultures are like, what other kids are like, what other learning environments are like. It definitely brings about new perspectives"

Anticipated Student Takeaways from VE

VE will bring about new perspectives and provides them the opportunity to share their own experiences with their peers. "the reason is that... well we cannot ensure the safety of the VE, so if we cannot assure parents of the safety then we're not going to do it"

Other takeaways:

connect with experts around the world (not just rely on Uncle Google)

Be inspired by directly from students around the world to engage in things like passion projects

Have engaging cultural experiences for courses covering broad topics like Social Studies

"its not just about receiving other perspectives but also them sharing themselves and their perspectives to other kids"

Discussing Virtual Exchanges in Uganda

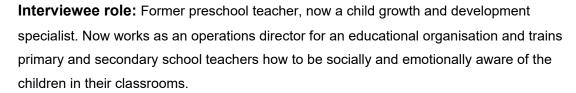
Countries/Regions: Kampala, Uganda

Collaborators:N/A

Participant Code: UG Participant A

Interviewee: Admin and Teacher from a High School in

Uganda



When UG Participant A thinks of what benefit VE can bring to her students: "I think it would be the exposure to the rest of the world and the diversity in the rest of the world."

Use of technology in the classroom:

There is little to no technology merged into the classroom.

The most consistent use of technology in the classroom is through "computer classes" that are offered to children from age 11 to 18 years, but that is it. But even among that age group access to computers is limited and the internet is even less accessible since statistically, the cost of internet is much more expensive than in other countries.

The only examples of use of technology seen in the education industry is of teachers who privately use technology to connect with other educators abroad for the purposes of their own professional development.

New teaching models UG Participant A has successfully introduced to her classroom and other educators in the city of Kampala which has lead to increase in enrolment of highend/higher-class clients: more relaxed school hours (half-day), shortened sit-down classroom learning, increased child-led learning that centres child's interests, increased learning through play, etc.



Challenges & problems to be addressed:

Creating Access

- o cost of internet (it is too high for an ordinary Ugandan)
- o There are no local companies providing internet (only foreign companies)

o General connectivity (infrastructure is only available for those in urban centres)

Organisation and institutions need to intentionally have VE programs

- conduct online VE trainings
- get educators comfortable with VE 0

Anticipated Student Takeaways

parents are willing to pay for quality education

Children will & able learn if the environment is nurturing (as opposed to simply pumping them with knowledge)

what would VE offer?

exposure to other cultures, the diversity within the world

knowledge on how to grow and develop in their education career (apply to universities in

other countries)

skills: critical thinking and problem solving

Structures to include in VE designs: project based planning group projects to develop collaborative skills

"...ummm critical thinking skills. They'll definitely walk away with critical thinking skills. And then also problem solving skills. I think when you have been exposed to how things are done in different demographics you are able to solve problems better when they come to you."

"I think the biggest

high for an ordinary

Ugandan"

problem to be addressed will be the cost of internet.

umm, internet cost are too

"We are ready to go [regarding getting involved in VE is just the systems that are still failing us"

Discussing Virtual Exchanges in Uganda

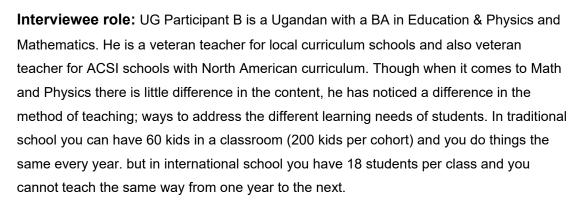
Countries/Regions: Kampala, Uganda

Collaborators: N/A

Participan Code: UG Participant B

Interviewee: Math & Physics teacher for middle school

and High School



When UG Participant A thinks of what benefit VE can bring to her students: "I think it would be the exposure to the rest of the world and the diversity in the rest of the world."

Use of technology in the classroom:

In the local school, technology will only come in for technology related classes, like a computer science class. In that instance you will have some resemblance of technology by having 1 computer for every 5 kids.

In international school, at minimum each class has a projector. But with students having individual laptop (either be it their personal laptop or one provided by the school) it helps to incorporate technology in the student learning experiences.

Benefits of this include:

Online activity were students get immediate feedback (saves time for teacher feedback)

Students are able to move at their own pace (with fewer individual students can get individual attention)

Can get immediate reaction from students based on their engagement level and comments

Can utilize digital books which reduces cost of books or students forgetting books



Faculty collaboration based on sharing techniques that have been successful & not successful

Challenges include:

Distraction of having access to computer and online games (we try to mitigate distractions with engaging assignments and projects)

Challenges & problems to be addressed:

Faculty have professional development sessions twice a quarter and classroom

"I think the biggest problem to be addressed will be the cost of internet. umm, internet cost are too high for an ordinary Ugandan"

observations few times a year. Though encouraged to innovate and learn new teaching techniques, faculty are assessed based on a rubric that ensures that they are meeting school standards.

sessions: IT retooling (e.g. how to utilise ChatGPT)
UG Participant will like other options but they are not offered

At international schools logistic is the biggest challenge to VE:

content alignment

time zone challenges and class time challenges course design need to consider asynchronous or synchronous options

At local schools the biggest challenge to VE will be:

reliable internet connection

access to the internet for all students at the same time students knowing how to use the laptops and devices

For international school some of the infrastructure is not a challenge because the school funding make basic things available such as:

generators for the school

fibre optic internet provided by a Kenyan company

high class families who are able to secure the same resources for students' home life

Anticipated Student Takeaways from VE

International collaboration will allow faculty to learn new ways of teaching certain topics Will need to ensure there is alignment on what is being taught

Students:

Compare their learning experiences to other students' learning experiences (amount of work demanded of you here versus other locations; and the type of struggles other students face)

Get accustomed to virtual collaboration which is going to continue to be a norm

"...ummm critical thinking skills. They'll definitely walk away with critical thinking skills. And then also problem solving skills. I think when you have been exposed to how things are done in different demographics you are able to solve problems better when they come to you."

"We are ready to go [regarding getting involved in VE] is just the systems that are still failing us"

One change to get use to international curriculum: Organization "having a structured plan a month ahead of time and what that looks like for different student groups"

Benefits of VE: "I think there will be a lot positives from that because you can be able to see how other people around the world are doing the same thing you're doing. ...If i'm only getting ideas from the community here, of course that restricts me to only this place and I am not able to see what the rest of the world is doing"

VE challenges for international school: I think for me as far as I am concerned it is a logistics issue versus an interest issue. Because I am definitely interested in having my classes connect to peers around the world because that will wake them up to see where they are compared to students around the world. ...to see whether they need to step up and all of that.

VE challenges for local school: "one of the reasons I am onboard with this [VE program] because all of the students here have access to the internet both at school and at home. And all of them, at least on some level,are technically savvy with these gadgets because they have used them for some time"

"I think the biggest thing I want them to see is how ...they fair with other students around the world. Because if you're here and you think 2 problems of homework a day is too much and somebody 8 hours away from you in a different economy is getting 10 problems of homework a day, then you can think how will I compete with these same people when the time comes"

"not to mention of course they're learning the skills of working with people they do not know and have not met before. Online interaction is where the world is moving today. I think especially, that will be a vital skill for them to have"

Discussing Virtual Exchanges in Kenya

Countries/Regions: Uganda

Collaborators: N/A

Participan Code: UG Participant C

Interviewee: Ugandan living in Kazakhstan; 25 years of teaching experience in secondary physics and economics, with a Masters in Education and PhD in instructional design and open learning; experience in Uganda, Sudan, & Kazakhstan

Interviewee role: 15 teaching in Uganda, taught secondary school physics and maths, and in Sudan taught chemistry. 2 years of experience at public schools in Uganda; with remaining years in private international schools.

"VE will open the road for interaction. We know that learning, especially the acquisition of tacit knowledge, mostly comes through sharing and interaction"

Use of technology in the classroom:

International schools

Limited technology resources and penpal based exchanges began in private international schools since early 2000s

Currently international schools are fully resourced with internet and technological devices

Teachers have implemented innovative solutions by posting videos and resources online (since infrastructure limits direct exchange opportunities)

Local public schools

Current situation in Uganda: technology is limited with sparsely resourced computer labs and limited internet connectivity for admin work

Students are not permitted to use phones in the classroom since it is considered a distraction

"This is not the time to list the litany of problems [in Uganda]... but it would help to think of Maslow's hierarchy of needs. When people are struggling with what to eat, why would they be thinking about how to establish VE?"



Challenges & problems to be addressed for VE:

Infrastructure does not allow for regular VE interactions/programs

requires leadership to develop (invest) and design international programs

- ...top-down strategic process that has the end goals and outcomes in mind
- ...budget for the initiative to invest in resources
- ...then investment in resources will be followed by the training of teachers

"This is not the time to list the litany of problems [in Uganda]... but it would help to think of Maslow's hierarchy of needs. When people are struggling with what to eat, why would they be thinking about how to establish VE?"

In general though.. important to keep the overall country and cultural context in mind in terms of hierarchy of needs other issues (safety and stability) might take priority over VE

Anticipated Student Takeaways from VE

improved conditions to enable VE within the classroom: will address 2 sigma gap (Bloom's insight that one-on-one teaching is 2 standard deviations higher than group based learning)

VE will make interactions more possible: "learning, especially the acquisition of tacit knowledge, mostly comes through sharing and interaction"

- ...overcoming barriers to VE will enable teachers and students to interact with people and other technology that would allow for a more efficient learning experience
- ...students will have better chances to "getting the hang of it" if they're able to learn with their peers

"...what could be done to teach a group to perform as well as when a teacher works with a single student at a time. This VE seems to be providing that solution. If Ugandans and other Africans could have these technological barriers removed, I think we might begin to see the closure of this 2-Sigma gap... it will properly democratise the internet resources of education and make it available to them openly."

APPENDIX 3 – Europe Vignettes

An Arts and Crafts Exchange in Year 10 between Two Schools in Scotland (AM)

Countries: Two schools in Scotland

Collaborators: Year 10 teachers of arts and crafts

Date and duration: January 2023, ongoing

Interviewee Role: Teacher (AM)

Design and Structure of the Exchange:







24 students from one school in Scotland engaged in online interactions with 32 students from another school in Scotland. Participants were Year 10 arts and crafts students aged 15-18 years old. The language of the exchange was English and students participated using Zoom and Smash Board as the technologies.

The two teachers from Scotland were selected and appointed by their respective institutions to run the exchange. They had an opportunity to meet in person once and discovered that they had similar schedules and teaching goals and were able to establish rapport. Prior to their VE sessions, they usually connected on Zoom for planning.

In each hour-long VE session per week, students were placed in small groups of a maximum of four students, two students from each school, and engaged in hands-on activities. The teachers created learning guides and teaching videos for self study. The students were then directed to use technologies (e.g. CANVA app) to create an online craft (e.g., graphics) together in their small groups. Student work was largely in the form of cooperation with each student working on the product individually when it is their turn.

"The first student will do the bits, send it to the second one and put its own bits, then send it to the third one, so put his own bits, and the last on to make it a complete form"

The students were already familiar with the app and performed very well. In line with safety guidelines, students' parents or guardians were also present online.

Following student-student exchanges, the teachers offered a summary and wrap-up session where students asked questions. The teachers showcased some of the craft outcomes produced by the students and assigned them their next projects. At the end of each session or project, the students provided a structure or learning instructions summarising how they worked together with students from another school.

Main takeaways for the teacher:

- Encouraged students to share their ideas and ensured that they didn't feel isolated in class.
- ✓ Mixed up the students to avoid anyone being left out in the future
- ✓ Enhanced the knowledge of both the students and teachers
- ✓ Managed time effectively
- ✓ Had the chance to teach a larger number of students

Main takeaways for the students:

- Can acquire diverse knowledge through mutual learning and increased interaction
- Can generate unique ideas and exchange them with classmates
- Proficient in creating graphics using various approaches
- ✓ Enhanced communication and teamwork skills



Teacher's Strategies for achieving student engagement:

- ✓ Prior to the joint video conferencing, the teacher visited the other school and classes to ensure her students were well-prepared and confident.
- Organised hands-on practice classes in her own classroom, allowing students to share their experiences with their virtual partners online.

Challenges:

✓ The teacher faced challenges when trying to balance teaching schedules and VE topics sometimes.

- ✓ Many students preferred VE activities over their regular physical classes, making attendance an issue.
- ✓ Obtaining consent from parents or guardians was challenging.
- ✓ Internet connectivity problems occasionally affected students' participation in the activity.

Successes:

- ✓ The two teachers worked together effectively, with one able to take over the VE session if the other was unavailable.
- ✓ Students demonstrated enthusiasm towards future VE classes and felt comfortable expressing their thoughts, collaborating to achieve shared objectives.
- ✓ Students actively engaged with the activity, utilised technology efficiently, and interacted well with their peers.
- ✓ No student encountered participation difficulties or was unable to participate in the activity.
- ✓ The institution provided ample online and offline support and resources.

Next steps and moving forward:

- ✓ The teacher planned to focus on students' progress and identify specific beneficiaries
 as the project continues. She also aimed to reflect on any learning opportunities
 presented during the virtual exchange, as well as intercultural communication,
 racial issues, or challenges with sensitive topics.
- ✓ To ensure safety and consent, consent from parents/guardians should be gained by the institution rather than by the teachers themselves.

A Primary School Virtual Exchange between France and Spain: learn language and culture (APS)

Countries: France and Spain

Collaborators: Primary schools teachers of English in Spain

and France

Date and duration:

Interviewee Role: APS is a teacher in secondary education in Spain, holds an MA Degree of English, with a dissertation on virtual exchange.



Design and Structure of the Exchange:



17 students from Spain (9-10 years old) and 26 students from France (11-12 years old) participated in the exchange via BigBlueButton and Skype using computers, smart boards, projectors, and microphones in class. In Spain students' first language was Spanish and in France it was French. The exchanges took place in English as a foreign language. In

France, students were Year 5, and their English level was CEFR A2. In Spain, the students were Year 6 with CEFR B1/B2 level of English.

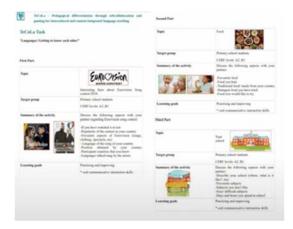
The main objective and focus of the virtual exchange experience was for the students to **use English** and learn about the other **culture**, improve engagement, and **learn English in an authentic way.** This VE experience was motived by the fact that the school had been a part in many other programmes of Erasmus projects, but they had never been in a VE project and were very excited about such an opportunity.

Before the start of the exchanges, the teachers negotiated teaching objectives, shared their views and discussed what they wanted to do or achieve in lessons and the VE. Both teachers and trainers organised their syllabus to fit the needs of each school. They either: 1. used only one task as it was; 2. modified one task to fit their own class needs; 3. treated the activity as a new task, looking at what they needed to do in class.

This VE activity was designed with three task phases. The pre-task involved the following: 1) Students filled a pre-questionnaire about their interests and needs; 2) did a culture-related task: drawing a French flag; 3) designed a poster about Spain/Valencia; 4) wrote a script to introduce themselves, their life, and hobbies, etc.; 5) recorded a 1-min short video introducing



themselves; 6) had the opportunity to learn about cultures through their peers' videos and posters; 7) finally discussed the videos.



The main task involved participating in a video conference via BigBlueButton (8 students per group) to have a 30-minute conversation about different topics such as: Eurovision, food, and their school. Students were practised their English through giving their opinions, asking each other questions.

In the post-task: 1) all students reflected on their activities and watched their videos, and then discussed what was learned, what language they used, and how they answered the questions in the VE activity; 2) reflected on the pre-task for their learning experiences and filled a questionnaire to offer perspectives on whether they liked or enjoyed the exchange and their favourite elements of the VE.

"Nowadays, we have some difficulties connecting something with the students to let them participate. All students were involved, this is very credible for education, right?'

Main takeaways for the teacher:

- ✓ Interested in experiencing first-hand the potential of virtual exchange and telecollaboration for language learning
- ✓ Every student showed a willingness to participate and attend consistently
- ✓ Has the potential to enhance students' proficiency in everyday conversations
- ✓ Had the chance to observe the students' learning progression and their utilization of individual strategies during interactions

Main takeaways for students:

- ✓ Students were highly engaged, delighted, and enthusiastic.
- ✓ Enhance their English speaking ability, particularly in the absence of other language options, leads to improved proficiency in English
- ✓ Able to promptly resolve any issues that arise during their interactions
- ✓ Demonstrate an awareness of turn-taking during the interaction and smoothly completed their tasks
- Excited about conversing with new peers.

Challenges:

- ✓ Coordination among teachers
- ✓ Find mutually convenient time slots for both schools

Successes:

- ✓ Teachers observed an improvement in the students' ability to converse in daily situations.
- Students had no opportunity to switch to other languages and had to find solutions to any language-related challenges.

- ✓ Desire to acquire additional technological devices
- ✓ Make an effort to maintain close contact with the other school
- Customise the materials to suit students' needs, resources, and requirements
- Enjoy the process

This vignette has been created using the information presented here by the E-Live project: https://www.youtube.com/watch?v=hCfmx1B2haw

The images used are screenshots from the recording.

A College Level VE for language learning in Virtual Worlds (BP)

Countries/Regions: The Netherlands and France

Collaborators: Secondary pre-vocational education

teachers of German (CEFR A1/A2)

Date and duration: 6 weeks, 35 minutes each **Interviewee Role:** BP, teacher of German in the

Netherlands



"By participating in the virtual exchange, we meet real students from real countries. My students have the possibility to actually have those experiences."

Design and Structure of the exchange:

In this VE, the first language of the students were Dutch and French, and the language of the VE was German. Participants were 20 students from the Netherlands and 21 in France, all 15 years old. Technical setup included seven laptops with headsets at both classes. The exchanges took place in pairs synchronously in Virtual Worlds.

"A virtual world is an immersive environment. The students can not only work and talk ... they can also interact with each other, and with the virtual environments, that opens up a lot of possibilities for the students in language learning situations."

The primary aim of the exchange program was to promote purposeful language use and communication in German, while also fostering the development of intercultural competencies. The teachers from the Netherlands and France connected via the eTwinning online platform, which enables European teachers to locate and collaborate with one another. Both teachers expressed a desire for their respective students to engage with each other virtually. After some negotiation, they agreed to select classes with similar language proficiency levels and identified a common theme in their curricula.

The students' objective was to meet at a designated location on the map explained in the task instructions.



Following a training session, the students completed 6 tasks designed by the teachers on the topics of food, celebrations, and fashion which incorporated cultural elements that allowed the students to gain intercultural experiences. Tasks were appropriate to the students' level of German, were not too challenging, and enabled students to practise expressing future plans and sharing past experiences in German.



Class hours were organised around pre-, main, and post-task stages. For the pre-task students wrote down questions and answers on a sheet of paper. The teachers provided the students with useful German words to aid them in formulating their questions and to anticipate what their partner might ask in return. During the main task, a Carousel model was used with the seven students

from the first group engaging in the activity while the other seven students assisted their classmates whenever they encountered difficulties. In the post-task phase, the students received information about their French partner and were required to produce a presentation or article to present their partner's answers and views to their classmates. The pre-task and post-task were largely done autonomously by the students.

Main takeaways for the teacher:

"As a language teacher, I actually love that my students use the target language."

- ✓ Communication was synchronous and feedback from the peers was direct.
- ✓ In virtual worlds, there are more possibilities to simulate language learning situations.
- ✓ The exchange helped students feel more at ease in using the language and reduced insecurities.

Main takeaways for the students:

- Improved digital and literacy competencies.
- ✓ Met new students and got to know different cultures. Improved their intercultural awareness.
- ✓ Had a lot of fun and were very excited about talking to new peers.
- ✓ Spoke a lot, used German most of the time and helped each other, focused on getting the tasks done.



✓ Had the opportunity to learn and speak a second language.

Challenges:

- Organisation and communication: Curricular differences make it difficult to identify common content.
- ✓ Time constraints: Classes in the Netherlands were 45 minutes, while in France they were 60 minutes.
- ✓ Inadequate speaking practice for many: Only one or two students were able to speak at a time while others remained quiet.
- ✓ Confidence: Students were initially insecure and lacked confidence.
- ✓ Technical issues
- ✓ Noise: Students had to speak at the same time causing background noise.

Teacher's strategies for achieving student engagement:

- ✓ Explained to the students a different way of learning they engage in: Speaking via technology is a modern and quicker way of learning that works for a lot of people.
- ✓ Informed students that there is no need for shame or embarrassment as their partner is just as capable or incompetent as they are.

✓ Chose topics covered in both curricula, adjusted teaching schedules, and arranged synchronous tasks for 35 minutes.

Successes:

- ✓ Students overcame language speaking anxiety and felt safe to speak.
- ✓ All students were actively engaged and involved.
- ✓ The virtual learning environment provided a safe space for language learning.

Next steps and moving forward:

- ✓ Matching suitable periods of time for both schools
- ✓ Coordination between teachers/students
- ✓ Using FrameVR for future language learning virtual activity
- ✓ Advice for teachers for their exchange:
- 1. Try to keep in close contact with the other school.
- 2. Plan ahead.
- 3. Organise the tasks in the three stages (pre-, main, and post-).
- 4. Adapt the materials to your students, their needs, and available resources.
- 5. Make the content of the tasks interesting for the students.
- 6. Be there for the students in all task stages.
- 7. Plan for backup for technology and the data.

This vignette has been created using the information presented here by the E-Live project: https://www.youtube.com/watch?v=KoyoNQPfBN8

The images used are screenshots from the recording.

A Primary School Virtual Exchange Programme between the UK and the USA: communication skills and confidence (DA)

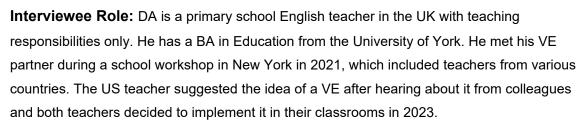
Countries: The United Kingdom and the United

States of America

Collaborators: Primary school teachers of English

in the UK, and of Science in the USA

Date and duration: February 2023, ongoing



Design and Structure of the Exchange:

30 students in the UK (11-15 years old, Year 7) and 30 students from the USA (13-16 years old, Year 7) participated in this exchange. The first languages of the students in the UK were English, Spanish, and Swahili. The language of the exchange was English and the aim was to allow their students to learn about other cultures and improve their communication skills.



The VE sessions occurred every two weeks on Zoom, and students were provided with discussion topics a week in advance to practise their Zoom skills and prepare their opinions. The teachers in the UK and USA met a week beforehand to discuss the topics. During the 2-hour VE session, students

worked in small groups of six, three from each country, using their own technological devices. They discussed **topics related to the effects of COVID-19 on their schools and homes, currency, and different cultures**. The teacher in the UK had concerns about potential racial issues, but none occurred.

The teachers were responsible for monitoring their students' breakout rooms during the VE sessions and had assistants to supervise each group. Students were required to write a summary of their discussions, including their reflections and opinions, and share them with their group members. The teacher in the UK noted that one previously shy student became more outgoing and engaged during the VE sessions. The teachers worked together as a team

without a designated leader, despite differences in curriculum, subject, teaching hours, and teaching methods between the UK and USA. Overall, the collaboration between the two countries was very successful.

Main takeaways for the teacher:

"what I want to achieve for my students, is to learn how to engage with the strangers, maybe the people that they're not used to ... and to learn more about the communication skills, how to give opinions"

- Gained insights on the teaching and organisational styles of the teacher from the USA.
- ✓ Explored the unique qualities and characteristics of different students.

Main takeaways for students:

"They did very well, most of them were sceptical at the first, so they are not sure about many things ... after maybe getting in and trying to see they are doing very well, they were cheerful and happy about it."

- ✓ Enhanced the students' communication skills.
- ✓ The students were able to interact with students who were not from their own country but from different countries.
- ✓ The students were able to communicate with their VE counterparts for a longer duration than expected.
- ✔ Practised effective interpretation, communication, and engagement skills.
- Gained knowledge about different cultures and developed an understanding of people from diverse backgrounds.
- ✓ Learned how to express their own opinions confidently.

Teacher's strategies for achieving student engagement:

- ✓ Thoroughly prepared for the task to effectively engage the students.
- ✓ Prior to the VE session, informed the students of what to expect and emphasised the importance of being aware of different cultural backgrounds among the students.

✓ Encouraged the students to feel free and provided them with ample time to prepare their thoughts for the activity.

Challenges:

- ✓ Initially, students were quite anxious and requested the teacher to reschedule the VE session as it was a new experience for them, and they were young.
- ✓ The communication skill of students from the USA was slightly superior to that of UK students (but overall, the difference did not have a significant impact on their activities).
- ✓ There were students who lack access to Zoom and require guidance on how to properly join the session to ensure everyone is present.

Successes:

- ✓ The students learnt effective communication strategies: how to communicate and
 how to talk to other students, how to talk to be understood and how other people talk
- ✓ The students gained knowledge about different cultures.
- ✓ Students were **well-engaged** in the VE session.
- ✓ The students acquired skills in using online platforms for communication.
- ✓ The students were very cheerful and happy after the session.
- ✓ As the session was held during the weekend, the students' parents were highly cooperative in assisting the teacher with managing the session.

- ✓ Increase the frequency of future VE sessions, perhaps on a weekly basis.
- ✓ Secure more governmental or institutional support to integrate VE into the system and provide enough assistance. For instance, administrations can be informed about the initiative and offer help to teachers to reach out to more students. The government can organise more campaigns or activities and allocate funds for more schools to participate.
- ✓ Encourage teachers to communicate and explain more about VE to their students, providing a general idea of what VE entails, and instruct them on how to engage in discussions.
- ✓ Request the school to provide necessary equipment to ensure every student has access to Zoom.
- Encourage more teachers to participate in VE.

resources and supp	ort at the institutional le	evel.	

A Secondary School Virtual Exchange between the UK and the USA: empowering students through discussions on current global events (GS)

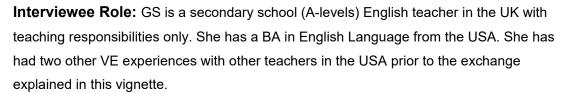
Countries: The United Kingdom and the United

States of America

Collaborators: Secondary school teachers of English in the UK, and English and Spanish in the

USA

Date and duration: 2022, 2 months



Design and Structure of the Exchange:

15 students in the UK (16-18 years old) and 20 students from the USA (17-18 years old) participated in this exchange. The first languages of the students in the UK were English, Spanish, and French. The language of the exchange was English.

The VE programme was organised by the school administrator in the UK, who provided the teacher, KN, with a list schools. KN chose her partner based on positive reviews, well-planned curriculum, and shared teaching objectives. The teachers contacted each other a week before the VE sessions to discuss topics, tasks, and structure.



The VE sessions were held every Wednesday and Thursday at 3pm or 4pm via Zoom and Google Meet, according to the teachers' preferences. Students were informed of the session topics two days in advance and were divided into small groups to discuss their findings for approximately 1.5 hours, supervised by both teachers in breakout rooms. The topics covered included the pros and cons of

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electronic safes, books, and the impact of Covid-19 on their lives, etc. At the beginning and end of each session, the teachers reviewed the topics and wrapped up the discussion for approximately 30 minutes.

Despite some challenges with student participation, such as a student from the USA who struggled to get along with others and a student from the UK who initially had difficulty in their English classes, the VE sessions were overall successful. After each session, students were given two days to submit a report of their discussion, which was reviewed by both teachers in a 30-40 minute follow-up Zoom meeting where they reflected on their students' progress and participation.

Main takeaways for the teacher:

"I try to choose my topic of things that are actually happening in the world. I want all the topics – I want all the students to be able to relate with the topic that we are going to be talking about..."

- Selected topics that are relevant to current events and can be easily understood by students
- ✓ Developed more expertise and established professional relationships, including connections with administrators at other schools
- ✓ Acquired knowledge of varied teaching approaches from the other teacher. For example, while the UK teacher used to closely read a book, the USA teacher preferred to give students more freedom to read the book on their own time and share their individual perspectives without the book in front of them.

Main takeaways for the students:

"I'd say most of my students are really active, and during the zoom rooms, they actually – so they even someone starts to argue, I mean. I'd say they (.) they really love it"

- ✓ Were exposed to a variety of perspectives and viewpoints from individuals worldwide
- ✓ Broadened their educational experience and gained new insights
- ✓ Enhanced their abilities in English language, oral presentation, and communication.
- ✓ Displayed high levels of engagement and competitiveness in striving to earn scores or points during discussions.

✓ Were empowered to express their viewpoints and opinions with their peers

Teacher's Strategies for achieving student engagement:

- Consistently provided advance notice to students before each virtual exchange session, ensuring that they were adequately prepared.
- ✓ Furnished students with thorough instructions on how to utilise the virtual exchange platform and all of its features.
- ✓ Selected topics that were easily relatable and understandable for the students.
- ✓ Encouraged students by offering incentives, or "goodies," for excellent performance.

Challenges:

- Occasionally, the UK and USA teachers had distinct teaching goals and used different teaching methods.
- ✓ Students from the UK who spoke Spanish and French as their first language often felt anxious.
- ✓ Initially, some students struggled to use the technology, but their skills improved after two sessions.
- ✓ A few students did not actively participate in their breakout rooms or contribute ideas.
- ✓ Problems with internet connectivity and discrepancies in time zones occasionally arose.

Successes:

- ✓ The UK and USA teachers collaborated effectively, even when they had divergent teaching objectives, by ensuring that all topics they wanted to do were covered.
- ✓ Students expressed a strong desire for more virtual exchange classes than their regular classes.
- ✓ The school provided ample support, including technological devices and upgraded student networks, to ensure that all reported problems were resolved.
- ✓ All students benefited from the virtual exchange, and none encountered difficulties participating (though the UK teacher noted that this might be because the school was a boarding school with all students in attendance).
- ✓ Students performed very well on an examination that was based on the discussion and report findings.

- ✓ Explore opportunities to collaborate with more schools of similar level for future virtual exchanges.
- ✔ Promote virtual exchange to more schools, especially considering the positive reception from governments.
- ✓ Consider setting up virtual exchanges as a separate class rather than integrating them into existing English or computer classes.
- ✓ Ensure proper supervision of students' breakout rooms to minimise chaos and maximise productivity.

A Primary School Maths VE between UK and USA leading to rich global learning experiences (KN)

Countries: United Kingdom and United States of

America

Collaborators: Two primary school teachers

teaching Maths

Date and duration: 2021-2023

Interviewee Role: KN is a maths teacher in the UK. She has an undergraduate degree in Maths (ETS) and Psychology. She only has teaching responsibilities at the school. She is also a licensed therapist in London.

Design and Structure of the Exchange:

23 Year 6 students from the UK studying Maths and 19 Year 7 students from the USA studying Maths and English participated in this exchange. In the UK, students' first languages were English, French, and Spanish

This was the first VE experience for the teacher in the UK (KN). To initiate the collaboration, she contacted a friend from her BA degree, who was a primary school teacher in the USA. After reviewing each other's curriculum, they discovered few differences and were able to agree on a common **objective: ensuring that their students truly comprehended the concepts** taught on a given day. Consequently, they designed a VE activity focused on teaching maths.



Prior to the VE activity, the two teachers collaborated extensively, on email, WhatsApp, and used Google Slides to plan and design topics, tasks, and activities without any conflict of interest. In addition to their personal friendship, the teacher, KN, also noted that another motivating factor for organising the VE was the potential for increased opportunities for deeper learning. She had observed that many of her **students were not very engaged in the classroom** and hoped that VE would help address this issue.

During the VE activity, the two groups of students met on Zoom twice a week at school. They initially engaged in whole-class discussions on **maths topics**, **such as currencies**, and then had opportunities to collaborate in small groups of five to address more challenging concepts and problems. The common language of instruction was English, with video messages on WhatsApp serving as a backup in case of internet connectivity issues. Although some students initially showed little interest, they eventually became highly interactive and engaged during the VE sessions, as reported by the teachers.



After the activity, the students were expected to write a summary and deliver an oral presentation based on their discussions. One group of five students reportedly benefited significantly from the program, as they were previously shy and hesitant to interact with others but became more confident and engaged through the VE activity. The UK students also exhibited high levels of participation and engagement, leading to improved maths grades. Additionally, a new student in the UK class, who was previously withdrawn and had lower grades than

her peers, experienced positive growth through the VE program.

Overall, the UK teacher had a very positive VE experience and has recommended it to her colleagues and friends.

Main takeaways for the teacher:

"it's a good stage for them to really interact with other students in a different country ... it could be interesting and be a better way for them to get quality and better learning opportunities as they understand people from different countries"

- ✓ Had a highly positive experience working with the VE partner, with no conflicts of interest or unexpected outcomes.
- ✓ Delighted to see the students excel and found the VE program to be an effective tool for teaching various topics, concepts, and lessons.
- ✓ Enabled the teacher to put theory into practice, resulting in a deeper understanding of the subject matter among their students.

Main takeaways for students:

- ✓ Facilitated a high level of participation and interaction among students, allowing them to easily supplement their learning across various subjects and topics, including exploring specific dialects.
- ✓ Provided with an opportunity to connect with peers from diverse cultural, social, and socioeconomic backgrounds, creating a rich learning experience.
- ✓ Were able to discuss their favourite things, such as movies, and improve their skills by comparing different curriculums and applying them to solving maths problems in class

Teacher's strategies for achieving student engagement:

- Collaborated closely to ensure that the program was engaging for all students, discussing, and planning together to achieve this goal
- ✔ Provided opportunities for students to discuss and present in front of class

Challenges:

- ✓ Students occasionally struggled with writing their final reports/summaries of the discussions, leading to increased pressure on them.
- ✓ Time was limited during class for each session.
- ✓ Some students were less committed to teamwork than others.
- ✓ There were no proper incentives provided, despite the extra work required of the teachers who had to bring laptops to school and devote additional time and effort.
- ✓ There was a **lack of institutional leadership** to support the program.

Successes:

✓ Students had the opportunity to learn about diverse cultures, engage in interracial communication, and interact with people from various backgrounds.

- ✓ Providing more support and resources from the schools and institutions can increase teacher incentives and make the program more successful.
- ✓ Having more teachers implement this type of program can benefit the entire school and provide students with a higher level of global learning.
- ✓ Having the opportunity to work with a different VE partner from another country in the future would be beneficial.

A College Level Virtual Exchange in Arts between England and Wales (LA)

Countries:

Collaborators: Arts (England) and Painting (Wales) teachers

at college level

Date and duration: 2022, 7 months

Interviewee Role: LA has an undergraduate degree in

English. She is responsible for teaching Arts and does not have

administrative duties.



Design and Structure of the Exchange:

57 students from England and 72 students from Wales participated in the VE. Both countries are part of the United Kingdom. In England, the first language is English, but some students' first language was Spanish. In Wales, although English is predominantly spoken by most families, Welsh is also an official language and is supported by the government. The language of the exchange was English. Students met synchronously twice a month through Zoom and Skype either on laptops or their own mobile devices. The teachers also used Microsoft Teams for their own interactions. The students were engaged in a range of social, and artistic athletic pursuits, such as painting together.



Prior to the VE, the teacher in the UK (LA) trained the students on the use of Zoom, explained the activities, duration of the VE, and the contents. She prepared lesson plans for all the activities. There were no curricular differences between England and Wales, and no unexpected issues arose regarding

intercultural communication or sensitive topics.

LA observed that students enhanced their communication abilities, interpersonal aptitude, and painting skills. The teacher noted that there was a student who previously had no interest in painting, but developed a fondness for it after connecting with a virtual exchange friend who was highly skilled in art.

Main takeaways for the teacher:

- ✓ Overall satisfaction with the virtual exchange experience: The teacher stated that no unexpected incidents, intercultural or racial issues, or difficulties with sensitive topics arose for herself or her students.
- ✓ Both teachers in England and Wales collaborated effectively, sharing the same teaching objectives throughout the exchange.
- ✓ The teacher in England credited her institution for positively influencing the activity's design, structure, and content.

Main takeaways for students:

- ✓ Highly enthusiastic and engaged throughout the virtual exchange
- ✓ Demonstrated efficient use of technology
- ✓ Significantly improved their communication and interpersonal abilities while also learning new perspectives from their peers

Teacher's strategies for achieving student engagement:

- ✓ The teacher provided guidance on the usage of virtual exchange platform such as
 Zoom and Skype, while also introducing the virtual exchange activity, including its
 duration and frequency.
- ✓ The teacher encouraged the students to engage in social activities, allowing them to make friends and connections during the exchange.

Challenges:

✓ The teacher did not indicate any challenges.

Successes:

- ✓ Students performed well and were highly engaged throughout the virtual exchange.
- ✓ The teacher had a highly positive experience with virtual exchange.

- ✓ Having more options for selecting virtual exchange partners from a diverse range of countries.
- ✓ The institution could assist by providing technological devices to facilitate the virtual exchange.

A Primary School Virtual Exchange between UK and Mexico: communication skills and exploring diverse cultures (LN)

Countries: UK and Mexico

Collaborators: Teachers of English (as first language in

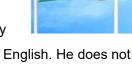
the UK, as foreign language in Mexico)

Date and duration: November 2021, ongoing

Interviewee Role: LN is an English teacher at a primary

school in the UK. He has a BA in Education in the field of English. He does not have any

administrative duties.



Design and Structure of the Exchange:



Primary school students in Mexico and the UK met synchronously on Zoom and Google Meet and engaged in a debate on a given topic during class time. They were put into break-out rooms to talk about the given topics. Both teachers jointly identified the themes and topics together in line with the curriculum and student interests.

The main objective of the VE was to practise **communication skills**. Students in the UK were also expected to **explore diverse cultures in South America**, **gain knowledge about the lives of students in Mexico**, and find out how cultures and individual lives are different from Europe.

The teacher in the UK, LN, consulted his students when designing and proposing content to talk about and evaluated student progress by identifying gaps. LN described himself as a "shelf of English" during the activity, encouraging students to communicate fluently and confidently.

Main takeaways for the teacher:

✓ The teacher described the VE as a 'nice' way for students to learn many things
and break the monotony of regular classes.

- ✓ Helped students improve their communication skills and provided an opportunity for those who previously had trouble communicating with their classmates.
- Gained institutional support and flexibility in introducing activities that would benefit the students and providing technical assistance

Main takeaways for the students:

- ✓ Highly engaged, actively participating, and communicating fluently.
- ✓ Had the opportunity to express their own opinions.
- ✓ Students' performances were rated 8/9 out of 10 by their teachers
- ✓ Enjoyed the VE activities very much, particularly the exploration of different cultures with their Mexican partners
- ✓ Helped improve their self-awareness

Teacher's strategies to achieving student engagement:

- ✓ Had a thorough understanding of students
- ✔ Provided additional focus to those who seldom participate in class
- ✔ Prepared meticulously ahead of VE sessions/events

Challenges:

- ✓ Inconsistent educational frameworks and instructional approaches of the UK and Mexico posed a significant obstacle, with the former emphasising practical coursework more than the latter. This disparity made it challenging for students to comprehend each other's curricula during the exchange.
- ✓ During the breakout room sessions, monitoring students' activities proved to be a difficult task for the teacher, and some students were susceptible to boredom and distractions. Additionally, students in the UK encountered obstacles adapting to the technology.

Successes:

- ✓ Enabled students to realise their full potentials
- ✓ Had the potential to foster an appreciation for international collaboration.
- ✓ The teacher had an excellent experience, as the students performed as they were
 expected

✓ Conduct VE sessions more frequently

A High School Virtual Exchange between France and South Africa: awareness of and respect for people of colour (RM)

Countries: France and South Africa

Collaborators: Two international high schools (subject in France: English; subject in South Africa:

English and Maths)

Date and duration: since January 2022, ongoing

Interviewee Role: RM is an English teacher in the



French international school (Lycee). She is the head of the department making curriculum decisions, setting exams, arranging English contests with other schools, and helping faculty connect with other students from Africa. She has an undergraduate degree in Education. During her studies, RM attended university meetings with African universities to discuss challenges related to English and racism. These meetings were organised by one of her professors, and they provided her with the opportunity to expand her social circle and gain knowledge. The partner teacher in South Africa is a friend from university.

Design and Structure of the Exchange:

80 students from France and 100 students from South Africa participated in the exchanges. Students ages were 12-17 at both institutions. The exchanges were conducted in English as a Lingua Franca. Exchanges took place synchronously via Zoom and Google Meet and asynchronously on social media (Instagram).

The VE was first initiated by the partner teachers, which then received institutional support and greater involvement from the school administration.

The teachers collaborated to plan the specific topics for student discussion through video conference, with each teacher taking turns to select topics. As the teachers found **no curriculum differences**, planning and designing the virtual exchange was easier.

To prepare the students for the exchange, the teacher in France provided them with knowledge and skills on how to interact and complete tasks with their virtual exchange partners online. The teacher gave students topics two weeks in advance of the synchronous VE sessions.

During the virtual exchange, students met twice or three times a week, on weekdays during class time and on weekends at home. Each session lasted around one hour. In-class sessions

involved **small groups of 15 students**, seven from France and eight from South Africa. Students were grouped based on language and performance levels. Each small group was expected to present an **oral narrative**, **such as storytelling**, to their virtual exchange partners with a well-structured presentation. The teacher **recorded the sessions** to monitor student progress and the students submitted a **report after their VE session**. For sessions held at home during weekends, the teachers supervised discussions on issues such as race, interaction, and gender diversity, encouraging respectful and ongoing interaction.

The teacher in France reported one student who struggled with presenting an oral presentation due to a lack of confidence and a feeling of not belonging as a black American student. However, the student managed to complete the presentation well during the virtual exchange session.

Both teachers aimed to instil respect for each other's cultures, good interaction skills, note-taking, and respect for each other's opinions through virtual exchange. They also sought to impart knowledge and wisdom that would help their students become lifelong learners. After the virtual exchange program, both classes met with their teachers for closing discussions.

Main takeaways for the teacher:



- ✓ The two teachers collaborated effectively and were aligned in their teaching objectives.
- ✓ The VE sessions helped the students develop respect for people of colour.
- ✓ The teacher had the opportunity to learn more about their own students.
- ✓ The teachers learned from each other during the VE, with the teacher in France noting that students in

South Africa had better report writing skills, which helped improve the skills of the students in France.

✓ The students in South Africa improved their oral presentation skills through their interactions with the students in France.

Main takeaways for students:

"They enjoyed the class a lot, interacting with other students like I should do more of that in other subjects, like maths maybe. They could understand it well if they did it in groups"

- ✓ Gained knowledge and skills while learning about other cultures
- ✔ Developed interaction skills, including the use of virtual meeting tools like Zoom
- ✓ Improved oral presentation and communication skills, while making new friends
- ✓ Developed awareness of and respect for people of colour

Teacher's strategies for achieving student engagement:

- ✓ Instructed students to take brief notes
- ✓ Allowed students sufficient time to prepare for the VE
- ✓ Asked students to remain quiet during the session and to raise their hands if they have any issues

Challenges:

- ✓ Some students did not have access to technological devices.
- **✔** Black students perceived white students as superior and felt fearful of them.
- ✓ The teacher had to allocate extra time for the students' VE sessions at home.

Successes:

- ✓ Students had a positive and rewarding VE experience.
- ✓ The institution provided technological devices to students who could not afford them.

 These devices were available for borrowing and had to be returned after use.
- ✓ Black students became accustomed to interacting with white students and began to engage with them more equitably.
- ✓ The institution's positive impact has inspired other teachers to implement similar VE exchanges.

- ✓ more VE session with African classes
- ✓ school could provide Wi-Fi for students

A High School Virtual Exchange on Business between the UK and China (TB)

Countries: United Kingdom and China **Collaborators:** High school teachers

Interviewee Role: TB is a teacher of Business and

Economics in the UK. They have a BA degree in Economics

from the London School of Economics. TB's initial exposure to online meetings and virtual learning occurred during her undergraduate studies. The partner teacher in China is a friend from university.

Design and Structure of the Exchange:

The language of the exchange was English as a Lingua Franca. 23 students from the UK and 15 students from China participated in the exchange. Students were grouped into teams of four who met synchronously using Zoom and Google Meet. An essential part of the preparation for the exchange was training on the use of technologies. The teacher provided instructions on how to install and use the communication tools such as using the text chat, activating videos, sharing screens, etc.



The VE focused on writing essays about business ideas, such as how to operate a business, the necessary capital, and topics like demand and supply. The teaching objectives included gaining comprehensive knowledge on virtual learning systems as a team, fostering group creativity, and promoting effective communication. The VE

content was created by the teacher herself and followed their syllabus and curriculum, which were then delivered through the virtual system. She also designated specific dates for the virtual exchange program, marked them on calendars, and introduced the topic in class herself, encouraging student participation by asking questions to stimulate discussion.

Main takeaways for the teacher:

- ✓ Delighted with the **high level of engagement** exhibited by her students during the VE activities
- ✓ Expressed a desire to conduct more frequent virtual exchanges in the future, noting that it was a positive, pleasant, and innovative change
- ✓ The teacher found it much easier to work in partnership rather than working alone.
- ✓ The school provided significant support for the initiative, particularly during the pandemic, and held virtual exchange in high regard.
- ✓ Despite facing challenges such as language barriers, internet connectivity, and time zone discrepancies, the teacher was overall pleased with the experience.

Main takeaways for students:

- ✓ The students in the UK demonstrated an improvement in their communication, teamwork, and cooperative skills, as well as grades following the virtual exchange.
- ✓ The students were able to learn new ideas from a diverse range of individuals and effectively utilise various technologies.
- ✓ At the conclusion of the activity, the students in the UK shared their experiences and expressed their desire to form new connections with the partner students in China.
- ✓ The VE was particularly beneficial for one student (pseudonym: Janet) who had
 previously struggled to connect with her peers and was apprehensive about
 being judged for her appearance.
- ✓ However, the teacher observed some potential issues with discrimination, as some students in the UK displayed a desire for superiority over their Chinese counterparts. While the Chinese students may have been less talkative, they were highly knowledgeable and willing to share their insights with their UK peers.

Teacher's strategies for achieving student engagement:

- ✓ Provided guidance on how to effectively use the platforms for communication for Zoom and Google Meet
- ✓ Limited students' chatting and audio on Zoom

Challenges:

- ✓ The teacher faced various challenges when trying to encourage group work as some students preferred to work independently. This was particularly difficult for the teacher as it required the teacher to allocate students into groups.
- ✓ Some students struggled to cooperate and contribute to group work, requiring individual coaching and training.
- ✓ The language barrier, differences in curriculum and grading systems were also found to be demanding and time-consuming. Time differences, with an 8-hour gap between the UK and China, made scheduling sessions difficult, resulting in some cancellations.
- ✓ Internet connectivity was a common issue for students both in the UK and in China, with students frequently dropping in and out during the activity.
- ✓ During the VE activities, there were also several uncontrollable issues, such as background noise, loud television, and parental arguments.

Successes:

- Students in the UK improved their communication skills and learned how to negotiate ideas with people from diverse cultural backgrounds.
- ✓ Students in the UK became more aware of their own cultural beliefs and gained a new perspective on different cultures.
- ✓ Through the exchange, they also gained knowledge of the traditions and history of another country and learned to appreciate them.

- ✓ Parents should ensure that their children have access to high-speed internet so that they do not miss classes due to connectivity issues.
- ✓ Schools can consider purchasing devices for students to borrow if needed.
- ✓ Teachers should consider using a platform that can accommodate a large number of students, as Google Meet has a limit of 150 participants, and implement more restrictions on student behaviour if necessary.
- ✓ The teacher expressed a desire to work with a group of students who are in a similar time zone as the UK to facilitate more synchronous virtual exchange activities.

A Primary School Virtual Exchange for Racial Diversity and Inclusion (TS)

Countries: United Kingdom - Russia

Collaborators: Primary school teachers (English teacher in the UK, and Maths and Physics teacher in

Russia)

Date and duration: 2021, one year, ongoing



Interviewee Role: TS is a primary school teacher in the UK. She has a PhD degree in Education from Buckingham University and an MA degree in English from Oxford University. TS also acts as the head of the language department at their institution and undertakes various administrative responsibilities such as making decisions about the curriculum, organising the syllabus, setting exams, and facilitating the establishment of international connections for the faculty and students. This involves arranging for students to visit foreign countries to interact with peers and participate in international competitions. TS had a VE experience as a student as part of her own education in the UK. Her decision to join the VE programme was based on two factors: firstly, as a black student, she found herself only conversing with Spanish-speaking individuals since others did not engage with her; and secondly, she had a fondness of Spanish culture and language and was eager to learn more. This virtual exchange programme provided her with a wonderful opportunity to connect with others, make friends, and broaden her cultural understanding.

Design and Structure of the Exchange:

The students in this exchange were 10-12 years old studying English in the UK and maths and physics in Russia. The language of the exchange was English. The first language of the students in the UK were English, French, and Spanish, and that of the students in Russia were Russian, Spanish, and English.

"Because, let me say in the school where I teach, I think, more black than the white. So because of that difference, I wanted my students to know that, to know how to interact with other people across the cultural:: Yeah, and share a lot. That's what I wanted to do. The other children so that they cannot despite the white, or they would kind of despite them in any way."

This was the first virtual exchange the UK teacher organised in her career. Interestingly, the teacher from Russia was actually a friend from university, where they both completed their

postgraduate degrees in English at Oxford University. The UK teacher noticed that the majority of her students were black, and she felt that it was important for them to have the opportunity to interact with students from other cultures. This motivated her to organise the virtual exchange, which involved 100 UK students, most of whom were black, and 50 Russian students, most of whom were white. The teacher recognised that this program would not only benefit her students, but also enhance her own professional development by allowing her to gain more cultural awareness and learn from other teachers and individuals.



Throughout the virtual exchange experience, students used various platforms such as Google Meet, Zoom, Skype, and Virtual Reality to communicate with one another. They also used Instagram as a social media platform and incorporated images into their tasks and activities. Students met synchronously twice a week, either at school with the guidance of their teacher (with some students bringing their own laptops while others borrowed from their institution), or from the comfort of their own homes.

In order to effectively monitor her students, the teacher from the UK preferred to have them work in small groups, with a maximum of 25 students per group. The virtual exchange activity typically began with a request for a Zoom meeting, after which the students were divided into their respective groups to discuss various topics such as education, English language, racial and cultural differences, with the teacher observing and guiding them throughout. Following the activity, each group delivered an oral presentation based on their discussions and interests. Additionally, the students were given extra time to interact with each other and reflect on their experiences. All these activities and tasks were meticulously planned and negotiated via email and online meetings between the teachers. Both teachers had a very positive experience and shared the same teaching objectives of improving students' oral performance, grades in exams, and overall learning skills and character development.

In her interview, TS shared an example of a student in her class who normally struggled with classroom participation and often appeared too shy to talk in class performed much better in her small group interactions with her VE partners.

"There was one day she presented a narrative, and I think that was the very best of her. And I am very proud."

TS has met other teachers in conventions, meetings, contests, school arrangements, etc. who can potentially become future VE partners.

Main takeaways for the teacher:

"I feel so good because I was satisfied with my job, seeing that my students are doing well. And I thought that my career outlook was going towards the right direction."

- ✔ Provided an opportunity for students to interact with people from different cultures
- ✓ Despite the times when both teachers had different teaching objectives, the teacher in the UK remained positive and saw the experience as an opportunity to learn from her partner. She recognised that they could come to an agreement and work on one thing first, with the rest to follow later.
- ✓ Gave more opportunities to be exposed to different experiences, allowing her to learn more about her students and expand her knowledge.

Main takeaways for the students:

"Let's say, they improve their oral presentation (skills), interacting with other people outside. Because I think that was the major problem, as black kids see white kids ... I saw my students interacted with more white students"

- ✓ Interacted with people from different backgrounds, made new friends, and experienced new things. This was especially beneficial for some of the more introverted students who may have been less likely to engage in traditional classroom settings.
- ✓ Improved oral performance, communication skills, had opportunities to interact with people outside their immediate communities
- ✓ Helped cultivate positive energy, and as a result, more online meetings continued
 to foster the connections

Teachers' strategies for achieving student engagement:

✓ The teachers provided notes and topics for students to present in class

- ✓ Students were then sent online to present to other students
- ✓ Showed students how to use the Zoom App
- ✓ Occasionally shared stories to engage the students before presenting the lesson

Challenges:

- ✓ Racial challenges as the black students in the UK were fearful and hesitant to interact with the white students in Russia
- ✓ Teachers had to encourage shy students to participate more in their groups
- ✓ Students in Russia had better oral presentation skills than students in the UK
- ✓ Some students could not afford to purchase data packages to join online meetings, and the teacher had to use her own funds to assist them
- ✓ Monitoring two or more meetings simultaneously was time-consuming.

Successes:

"I used to encourage my students to do better, whenever they felt that they were offended, they could just talk to them in a good way until it's (.) it was okay. They were okay with everything, they (white students) didn't mean to offend them, they only needed to put more effort in their work."

- Students had a very positive experience with the VE and enjoyed the oral presentations, and were able to use technology efficiently.
- ✓ Black students were able to interact with white students and performed well, and there was no unwillingness to participate.
- ✓ The activity was supported by both institutions.
- ✓ The school was pleased with the VE activity and encouraged other subjects to do the same.

Next steps and moving forward:

✓ It would be beneficial if the institution could provide Wi-fi for both the teachers and students.

APPENDIX 4 – MENA Vignettes

Virtual Exchange (VE) from the perspective of an International Organization facilitating VE (J1)

Organization Profile: The non-profit organization provides education, training, and exchange opportunities to youth worldwide. The exchanges aim to promote youth awareness of different cultures, empathy, peace, and build the skills needed for youth to become global citizens. The



organization provide toolkits, materials, and an online platform to help foster virtual exchanges across the globe.

Regions: North America, Central & South America, Middle East & North Africa, Africa, Central and South Asia, and Southeast Asia

Interviewee Role: The interviewee is the organization's Regional Director in the Middle East. A large part of her role is looking into new partnerships in the region, involving new schools in different regions and countries, and managing existing partnerships.

Organization's Approach: The organization works with both private and public schools in all regions. In the Arab world, the organization works with partners that already have Memorandums of understanding (MOUs) with the Ministries of Education, given that it is easier to approach these schools. The organization either reaches out to partners who do not have

youth programs available to them, and at many times, educators from schools approach the organization. At many times, the organization provides the schools with internet and hardware support, technical training for educators, materials, and support throughout the exchange.

"That's how we've been designing our experiences, it's with youth, by youth, because at the end of the day, they are the recipients. So, we want to make sure that it's actually what they want, and it is relevant to their interests, and it is delivered in a way that they can relate to."

Design and Structure of the Exchange: The organization proposes themes for educators and facilitators to implement, but the design and structure of the exchanges are done by students part of a global cohort. This global cohort of students, between the ages of 12-20 years old,

"So, we actually tell the students part of the global cohort designing the exchanges: If you want to design this, these are the things that need to be in the program. Here's how you do it. And now go ahead and do it yourself. And we're here to support you..."

build upon their virtual exchange experiences and design the virtual exchange programs being offered.

Challenges: The interviewee identified challenges the organization has faced in achieving its mission in the Middle East and North Africa, such as:

- ✓ School administrators, teachers, and students being unaware of what virtual exchange can achieve
- ✓ Schools classifying virtual exchange programs as 'extracurricular' and not seeing a need for such programs
- ✓ Lack of equipment and hardware, especially in public schools
- ✓ As an organization, inability to support all schools due to budget constraints
- ✓ Access to public schools and complications that may arise due to bureaucracy in ministries

"Sometimes, schools and educators act like gatekeepers to young people. And they won't give you access to, like: No, my students don't need this. But you actually have talked to students from that school, and they're actually interested."

Successes: The interviewee witnessed the following among virtual exchange participants:

- ✓ Better understanding of the world
- ✓ Enables student exposure to different perspectives
- ✓ Enables students to use critical thinking skills

The interviewee mentioned one specific success story involving female high school students that had participated in a virtual exchange with the organization. The female students, from a rural area in Jordan near the Syrian border, had traveled to the United States to learn coding and gain a certification. This was facilitated by the organization.

Next steps and moving forward: The interviewee would like to see more virtual exchange programs, providing opportunities to youth that cannot travel. She claims that it is needed to succeed in today's workforce for youth to be globally aware.

A Virtual Exchange (VE) between refugee students in Jordan and the World: The English Club (J2)

Countries: Jordan, the United Arab Emirates, France, India,

the United States, and Mexico

Collaborators: UNRWA school in Jordan, a private school in the

United Arab Emirates, in addition to public schools in the remaining

countries

Date and duration: September 2014, for two years

Interviewee Role: Human rights program advisor at UNRWA, Jordan. Her previous roles at UNRWA include working as field staff, a career development officer, an English language teacher, and an education specialist for the English language. During her role as an education specialist, she was selected as an ambassador for the British Council's International Schools Award (ISA) program. She is currently a Doctorate student at the American International University.





Design and Structure of the exchange: The virtual exchange experience of the interviewee started from 2014 during which she created an English Club as her own initiative. Any students between Grades 1 through 10 were able to join the English Club, given that they were interested in improving their English language skills. Each facilitator was assigned to facilitate activities among different

"From the very beginning to the end, it [the virtual exchange] was very motivational and inspirational for everyone."

groups. Teachers at these schools were the facilitators. Club meetings were also held on different days. The interviewee was the leader of this initiative, and she used her connections with schools to France, India, the United States, and Mexico to establish partnerships in the exchange.

The format of the VE was both synchronous and asynchronous. Modes of communication included Zoom, emails, WhatsApp, and Facebook. Projects and assignments were given throughout the exchange,

through delivering the same themes in each school separately, based on the textbooks followed, then sharing activities, including plays, songs, and field visits between students through Facebook posts, asynchronous meetings, or texting. Themes involved recycling, poetry, the future, cyber technology, the environment, and literature.

"...it's eight years from that time, and till now I have messages from all the students who were members in that [English] club, they told me that this is the best thing that they've been through in their lifetime." **Facilitator Takeaways:** The facilitator emphasized how beneficial and fruitful her experience with VE was. She expressed how her knowledge expanded to a global dimension and how she had the chance to learn about different cultures and different learning methodologies of other facilitators, education specialists, teachers, or even students. She stated that her experience influenced her

"...for me [...] it was hectic, but I can still say it was worth it. I enjoyed every initiative I went through as an education specialist, as a teacher, because I saw the joy in every student's eyes."

career path as she was credited to be promoted twice due to her VE experiences. She believes that she will be successful in her future endeavors as she is familiar with networking and can invest in any student's and teacher's potential and abilities. The interviewee also gained a global network which helped her in her doctorate. Her experience also changed her on a personal level.

Student Takeaways: According to the interviewee, the students enjoyed taking part in video conferences and sharing their experiences with other schools. They also achieved the following:

- ✓ Become better aware of the Sustainable Development Goals (SDGs) and more humanitarian
- ✓ Connect educational content (school textbooks) with the values and principles of world citizens
- ✓ Improve their language and knowledge levels notably, and thus improve in different school subjects

Students who have previously been enrolled in the English Club still recall and share their memories and experience with other global partner schools in this initiative. One student expressed that they would have never learned English without such activities, considering that in contrast to the 'boring' textbook activities, extracurricular language activities are more lasting in benefit.

Challenges: Main challenges identified by the interviewee were related to technical problems on the VE platforms, in addition to legal restrictions and pressure, specifically:

- Inability of some students to buy hardware and devices needed for virtual exchange
- ✓ Lack of facilities in some schools to take part and develop materials at times
- ✓ Withdrawal of schools from the exchange

Successes: The interviewee expressed that significant differences were accomplished among actively engaged students in the VE initiatives, primarily through:

- ✓ Reaching out to the world despite their language and financial challenges.
- ✓ Gaining benefits school-wise through connecting to other students in other parts of the world.

"...When you share [an experience] with someone else, either you will learn more, or at least you will teach the other partner to do something different. So, in either way you will get benefit."

A Public High School Exchange (L1)

Countries: Lebanon and the United States

Collaborators: A Public Highschool in South Lebanon

and a Public High School in Texas, United States

Date and duration: 3 months

Interviewee Role: Delegated British Council School Ambassador in Lebanon and an English language teacher at two public high schools in South Lebanon. She is also an online language specialist with British Council and a teacher on the eTwinning platform.

"...I believe that this is the century of technology. And we need really to take this seriously. This should be a part of our new window to the world... this [virtual exchange] is a good opportunity to put all people together..."

Design and Structure of the exchange: The British Council connects different School Ambassadors and connects schools throughout the world. Ongoing virtual exchanges between Lebanese students, aged 14-16 years in both public and private schools, and students from different countries also annually occur,

through different programs, including World Class and eTwinning, supported by the British Council. The interviewee talked about this year's virtual exchange program, which involved around nine students from Grade 10, and 16 students from Grade 11 at the public school she is teaching at.

"...All my trainings, all my experience that I got, all the facilities that I have, all the potentialities that I have, all the capacity buildings, were led by the British Council..."

The interviewee partnered with other teachers through an international WhatsApp group to work on a virtual exchange theme, and collaboratively identified the objectives of the programs, which included communication skills, digital literacy, critical thinking skills, creativity, and imagination skills. Collaborative activities were categorized into synchronous (using Microsoft Teams/Zoom) and asynchronous (using WhatsApp), with various educational technology tools used. Other tools used during the exchange included Canva, Quizlet, Google Hangouts, and Edmodo.

Periodic meetings occur between facilitators, students, and between facilitators and students together. The theme of the exchange program was citizens of the world, and projects groups had worked on included one on different cultures and religious customs. The exchange was done through the eTwinning platform, where students meet to collaborate on project-based activities to produce an international output.



Facilitator Takeaways: The facilitator stated that she got more chances to teach online and familiarize herself with different platforms and tools as a result of her various virtual exchange experiences. The facilitator discovered that she's very native to using technology. Above all, she is happy to have friends from different corners of the world.

"...I do believe that I want to be an international teacher. And every year I tell my students, I'm an international teacher, and my students are international students. So, I'm preparing you for the world..."

Student Takeaways: According to the interviewee, the Lebanese students involved in the virtual exchange were able to achieve the following:

- ✓ Respect individuals from other cultures
- ✓ Become technology friendly with improved digital skills
- ✓ Improve their knowledge and language skills

"...It's not necessarily the term 'virtual exchange', but they know that they are having virtual program, they are working online with students from outside the country and they enjoy it..."

One of the previous students the interviewee facilitated expressed that the certificate she got from taking part in a virtual exchange helped her receive a scholarship at the university. She also shared that the virtual exchange experience has enriched her cultural background. She expressed that it enabled her to communicate with people from different countries and have international friends.

Challenges: Main challenges identified by the interviewee were related to the Lebanese's internet infrastructure, lack of institutional support and various extremes in terms of student skills in a single exchange, specifically:

- ✓ Electricity and connectivity
- ✓ Participants had different time zones, therefore meetings could not always be conducted synchronously during class time
- ✓ Students **couldn't afford** to buy laptops or computers
- Students and facilitators lacked technology skills in using the platforms and tools
- "...I had some students who felt that they don't want this virtual exchange. And at the same time, I have students who keep nagging that they want to share in more and more activities..."
- ✓ Students had **individual differences and interests**; some students felt shy or embarrassed if they turned on their cameras and felt it difficult to communicate with others
- Students also faced barriers to language proficiency

Successes: Successes accomplished among Lebanese students can be summed as follows:

✓ Respecting and understanding others

- ✓ Becoming open-minded students and being ready to share
- ✓ Effectively communicating and collaborating with others

Next steps and moving forward: The interviewee expressed that, on an institutional level, constant follow-up, training, mentoring, and incentives are essential as means to encourage and support teachers with digital skills and knowledge during virtual exchange programs, in addition to logistical and technical support. The trainee expressed that she is also planning to develop her own page to train teachers in digital and teaching skills.

In fact, the interviewee is positively looking forward to more virtual exchanges and highly recommends virtual exchange programs for every teacher. She believes that such programs must be integrated into curricula, as students need to be prepared for the future, friendly working with technology and communicating with different others.

A High School Virtual Exchange Program (M1)

Countries: Morocco / United States

Collaborators: Two Public High Schools in Morocco

and One Public High School in Virginia, United States

Date and duration: March 2022 (1 month)

Interviewee Role: Virtual exchange facilitator at a public high school in Morocco, and a licensed

ESL high school teacher

Design and Structure of the exchange: The VE program was supported by the Steven's Initiative. Facilitators were trained by individuals from the Steven's Initiative for

"...we need experiences like this for our students.
We need them a lot. Especially that they are
adolescents, they are building their personality and
so on. They need such experiences in order to help
them build correct people, a correct person, morally
and culturally, and everything."

around six months before the start of the exchange. Two Moroccan high schools were partnered with a public high school in the United States. Participants were between the age of 15 and 16 years old, and the exchange focused on exploring cultures. The format of the VE was both synchronous and asynchronous. The meetings focused on the idea of culture, expression, cultural identities, and literature. There was a total of five synchronous meetings during the exchange. Participants used the Narrative Atlas platform to share drawings, videos and writings about culture. The themes covered within the exchange were pre-



determined by the "Abeer" program (Arabic term for 'express'), created by the Steven's Initiative. Students were encouraged to express different aspects of their cultures through various activities. Activities were decided upon by the facilitators in Morocco and the United States.

"...our school didn't have the needed materials. It's Steven's Initiative who brought us those materials: computers, internet, projects, or tablets, and loudspeaker. They gave us all the materials in order to do the project."

Facilitator Takeaways: The facilitator expressed that she became more outspoken as a result of the exchange, in addition to playing a more proactive role in trying to find solutions to everyday problems, both inside and outside the classroom.

Student Takeaways: In the eyes of the interviewee, the Moroccan participants were able to achieve the following:

✓ Practice their language, communication, and digital skills. Many students were eager to practice their pronunciation of certain words prior to synchronous meetings, in that they can 'practice' "...Both classes were so just fluently talking, speaking about their experiences. And sometimes, me and the other facilitator would just leave the meeting, we draw aside and leave them speak..."

- ✓ Freely express themselves, and learn different aspects about culture
- ✓ Noticeable changes in behavior as many students emerged as better listeners

One specific student that went on to graduate from the high school expressed that the virtual exchange helped him develop his personality, and that he can now understand differences between people and be more tolerant of them. He now considers himself a world citizen.

Challenges: The identified challenges were related to logistics, and included:

- ✓ The Time difference between the United States and Morocco, which made it hard to conduct synchronous zoom meetings during school hours
- ✓ Sometimes, Moroccan students had exams during the synchronous meeting times

"Most students wanted to skip the classes in order to attend a [virtual exchange] class. This was another challenge..."

Successes: Successes identified among Moroccan participants included:

- ✓ Development of communication skills
- ✓ Respect towards other cultures
- ✓ Overall acceptance towards each other

Next steps and moving forward: The interviewee would like to see virtual exchange programs that focus on social problems common in different countries and try to enable the virtual exchange medium serve as a platform to freely discuss issues. She believes giving them time to talk about their problems with one another may help their overall growth as individuals.

From a Student Perspective: A Cultural Exchange between Morocco and the United States (M2)

Countries: Morocco / United States

Collaborators: Two Public High Schools in

Morocco and One Public High School in

Virginia, United States

Date and duration: March 2022 (1 month)

Interviewee Role: The student from Morocco

took part in the exchange as a senior in high school. At the time of the interview in January 2023, he was a first-year university student.

Design and Structure of the exchange: Participants were between the ages of 16 and 18, and the exchange involved students from different high school levels. The exchange focused on cultures and traditions. He was selected to join the



exchange based on his English level, and his participation in the exchange was voluntary. The format of the VE was both synchronous and asynchronous. The students would sometimes meet with the facilitator at their high school after classes to work on assignments and projects relating to the exchange. Synchronous meetings would take place once or twice a week. The facilitator at the interviewee's school would gather students, give them topics to research on, and collaborate through various assignments. In terms of asynchronous activities, the students would post their work on the Narrative Atlas platform to share drawings, videos and writings about culture.

Challenges:

✓ Synchronous sessions not being properly organized

"Here in Morocco, the US plays a big role in entertainment, the movies we watch, the content we watch...So, for us, the American culture isn't something that far out of reach for us. On the contrary, the American students didn't know much about us. So, they had a lot of questions to ask. But for us, who already knew so much about them, we tried hard to find questions that we didn't have the answers for."

- ✓ Not all participants having the chance to participate during the sessions
- Given that participants at the school came from different grade levels, the scheduling of meetings to work on assignments at the school was not always clear

"I did not know what virtual exchange was before I participated. I also was not planning on making friends with students who were two years younger than me..."

Successes: The interviewee stated that he benefited from the virtual exchange in a number of ways, such as:

- ✓ Improvement in communication skills
- ✓ Willingness to meet new people
- ✓ Building confidence
- ✓ Learning new things about his culture

"I got to talk to new people, and talk about my culture, which made me more confident about Moroccan culture because the students from the United States showed interest about it."

The student also mentioned that he saw improvements in terms of **student engagement** among the participants from his high school. At first, many of the participants would not contribute to discussions and participate, but after a few weeks, this changed. They started to participate more.



Next steps and moving forward: The interviewee would like to see virtual exchange programs with students from countries that they do not have knowledge about. He mentioned that although it was a great learning experience, he would have liked it to be with students from a different country so he could learn about a completely new culture.

"I would defiantly recommend the virtual exchange to my friends because you get to know more people. You also get to have fun organizing and researching about your own culture, knowing some things that you probably did not know before."

A High School Student Exchange

Countries/Regions: North/North-East Brazil with Italy

Collaborators: A teaching high school associated with a federal university

in N/NE Brazil with high schools across Italy.

Date and duration: 2018 for 8 months

Interviewee: Professor of English

Interviewee role: Professor of English language didactics working with student teachers, and lecturing in internationalisation and its dimensions,

culture, sustainability and human rights.



"I think that Virtual Exchange is an open window of opportunities for learning strategies for I think that students grow a lot in various aspects. I think that something that I really admire, and I have to confess is students are much more open to virtual exchange than professors and teachers in general".

Design and structure of the exchange: This Virtual Exchange was supported by the Stevens Initiative. Twenty-two, Brazilian and seventeen Italian students aged 14-15 years partnered in an 8 month exchange as part of their English Language studies. They were supported by five cross-disciplinary teachers in Brazil and three English teachers in Italy. Students worked in pairs each with a teacher mentor leading to a mostly synchronous format for the exchange. The principal focus of the VE was to foster young people's 21st century critical thinking skills providing a first opportunity for students to consider cultural differences between people of different nationalities and situations.

Student Takeaways

- ✓ Students developed a rapport with their international partners learning about partners' hobbies, likes and dislikes.
- They then created a joint project in response to a challenge to address a problem which would lead them to consider culturally different aspects of their lives at school. The students together chose to study the topic of good nutrition and the different kinds of foods that the Brazilian and Italian schools served.

Students were keen to continue with the Virtual Exchange and were clearly enthused by the experience reporting their findings and engaging in follow up activities:

- ✓ The Brazilian school's science fair hosted the Brazilian students
 presentation of findings using posters, and delivered trilingually, in
 Portuguese, Italian and English; together with a virtual recorded
 transmission from their Italian counterparts.
- ✓ Simultaneously the Italian students recorded a presentation which was shown to their local Italian Local Government City of Siena Education Secretary, and showed their work at their school end of year celebration of work
- ✓ Brazilian students from the Virtual Exchange ran small seminars in local schools for three months talking about the nutritional habits in schools both in Brazil and Italy

"it was really interesting because the Italian students were really amazed by the Brazilian dietary habits. And we were amazed by the Italian."



"they were so eager to keep on going especially because they are youngsters and" (were saying) "no we want to keep contact ... it was really effective." ✓ In 2019, the year following the Virtual Exchange, two students from each school travelled to their exchange partner school.

Facilitator Takeaways

- ✓ Students became at ease with one another very quickly and soon started to take control of the way they communicated. For instance, students led the use of WhatsApp as their preferred communication platform.
- ✓ When teachers expressed concerns about the safety of sharing phone numbers it was the young students who pointed out that WhatsApp encapsulated the C21st skills that students were supposed to be critical about and have autonomy over its use.
- Located in the English program the VE engaged cross-curriculum Brazilian teachers.

Challenges

The historical nature of the Brazilian curriculum being primarily monolingual and quite strictly structured challenged virtual exchange processes:

- Initially teachers supporting the student exchange were 'really syllabus orientated, book oriented, project oriented' and they learned that 'virtual exchange does not work that way.'
- Teachers not being acquainted with the English language could be an initial problem for expanding Virtual Exchange.
- It is important to be more open to the use of other languages.

students were "really happy they could go to other schools and debate and talk to other students and see other realities."



"The students decided to open a WhatsApp group Instead of a forum because they thought it was more immediate communication".



"I think that I learned that when we were talking about virtual exchange, it needs a lot more flexibility". "It is 100% flexible"

Successes

- ✓ Two students particularly said they benefitted. One female student who was not fond of learning English at the outset and did not get involved with activities requiring a lot of speaking thanked the teacher because she felt 'much, much more confident in relation to her English language.
- ✓ A male student said that 'the course was one of the best experiences he had', the experience of the VE had helped him focus and know what he wanted to do after high school, what kind of career he wanted to pursue.

Next Steps and Moving Forwards

In 2019, a shorter, largely asynchronous, two month VE followed with Japanese students. Group fora discussing issues such as culture, cultural differences and sustainability and what participants as citizens of their countries could do to help and facilitate change culminated in an exchange of PowerPoint presentations. Going forwards work was proceeding colleagues cross-departmentally to pilot a multischool VE comprising at least six different schools across six different regions of their city in Brazil.

A South American Exchange: Brazil and Chile

Countries/Regions: Southern Brazil and Santiago, Chile **Collaborators:** High schools within the South American Marist schools network in south Brazil and central Chile.

Duration: Seven weeks

Interviewee: Educator B2 was a master's degree research student

in international relations and had extensive experience accompanying adolescents on international travel experiences to Canada, New Zealand and Australia.

Interviewee role: B2 was the university's coordinator of internationalisation. In this role he was helping teachers to establish international connections particularly with the global south, increasing mobility through student exchanges and virtually, using virtual exchanges (VEs)

... "we think all the time if you need ... to know something, it's about Europe, the US, Canada and things like that. So, we were trying to make a good connection between our ... continent ... it was a connection between Brazil and Chile and ... both schools are from the same network."

Design and structure of the exchange:

This Virtual Exchange, was 'a kind of COIL (Collaborative Online Learning model) adapted to high schoolers'. Both schools were part of the Marist network of 600 private

schools which also offer philanthropic places across 78 countries. Seven synchronous meetings took place. Two teachers facilitated the virtual exchanges, the teacher from Brazil was a Spanish teacher and the one in Chile a literature teacher. Five Brazilian and ten Chilean students took part. The objectives of the exchange were to make intercultural connections between Brazilians and Chileans. To make



connections within their own continent in contrast to more frequently sought connections with Europe, the US, and Canada. Small mixed groups of Brazilian and Chilean students met with their teachers to discuss what schools and schooling might look like in the future.

Student Takeaways

- ✓ Students enjoyed learning about each other's countries.
 Students talked about 'food, sports ... all the culture of the songs, ... the kind of music' and the geography of their countries.
- ✓ Students created informal WhatsApp groups outside their synchronous meetings.



Facilitator Takeaways

- For synchronous virtual exchanges students would have a better experience if each had their own computer or laptop with earphones and microphone.
- Minimising distractions by creating digital break out rooms to create smaller groups and by locating students in separate rooms physically to reduce noise levels can help student participation.
- ✓ Increasing teachers' online skills and confidence would help teachers to support student exchanges.
- ✓ Unforeseen experiences of teacher absences and the COVID pandemic demonstrated the importance of remaining flexible in the implementation of virtual exchange designs.

Challenges

- The Chilean partners were using Microsoft Teams for the first time and were unfamiliar with the way it worked but received IT support
- There was only one screen for each class; 5 students and the teacher in Brazil and 10 students with their teacher. There were difficulties in communicating when many people were talking at the same time sharing the one computer and one classroom space.
- o Some Brazilian students were shy about speaking Spanish, the core language of the exchanges.
- Some students dropped out of the programme.

Successes

- ✓ Spanish and Brazilian Portuguese were languages which can be partly understood by both Brazilian and Chilean students. The Brazilian students studied Spanish for two months prior to the exchange and both sets of students tried to speak the other's language e.g., in their initial ice breaker session introducing themselves.
- ✓ Students practiced translanguaging and improved their language skills during their exchanges.





Next Steps and Moving Forwards

Further virtual exchanges were being encouraged within the Marist network of schools across Brazil and the other 77 countries with Marist schools.

'VAMOS' - Let's go!

A school virtual exchange addressing sustainable cities and communities.

Countries/Regions: Brazil and Sweden

Collaborators: A University in South Brazil and a University in South-

East Sweden

Date and duration: Five week course

Interviewee: Educator/Researcher B3 had a teaching and research role with a postgraduate course of sustainable construction at a University in Southern Brazil.

Interviewee role: Educator B3 was the chair of the virtual exchange (VE), managing and coordinating the multi-site exchanges.

"Participants felt really stimulated by being able to actually know people from outside, even to know people from the other campuses."

Design and structure of the exchange: Supported by the Stevens Initiative, this was the university's first VE. The university was a public university with campuses in thirteen cities across the Southern Brazilian state. Most students would never have the opportunity to study abroad.

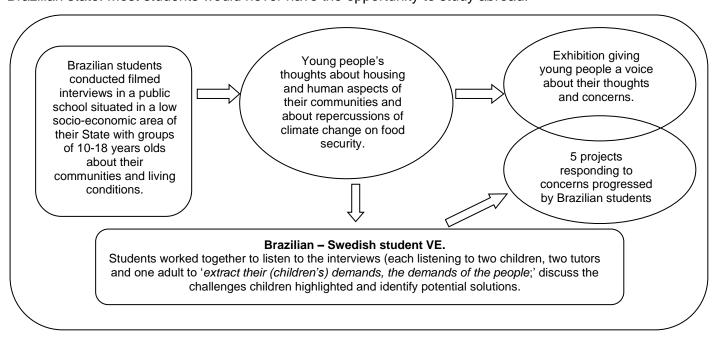


Diagram to show how Brazilian students gathered interview data from young people as the source material for their VE with Swedish students to address SDG 11 and climate change challenges.

The VE programme engaged two Brazilian university campuses and 61 students from a range of academic disciplines including graduate students from architecture and civil engineering, postgraduate students from technology and environment studies, bioprocesses pedagogy, maths and history. They partnered with students from the Swedish university studying sustainable tourism destination development at master's degree level. The VE addressed the United Nations Sustainable Development Goal 11 – sustainable cities and communities - and aimed to:

Give students 'the opportunity to be able to interact and collaborate with foreign students' – to
enable a class of 50-60 students to know about other cultures and other ways of doing things.



- Support the teaching of environmental studies, in a multidisciplinary, multicultural environment to 'teach students how to see things differently.'
- Give tutors and students 'the opportunity to actually practice in a real environment, with a real community' beyond the university.

Student Takeaways

- ✓ Students developed a rapport with their international partners.
- ✓ Students (as well as tutors) gained 'experience in dealing with real life' and the opportunity 'to listen to the demands of real people'.

Facilitator Takeaways

- ✓ Timing of the VE in the student's final semester meant that they were 'overloaded with exams, essays' and other commitments there was a need to re-schedule.
- ✓ There was lots of interest in taking this initiative further.
- The difference between distance learning and a virtual exchange needed to be explained to students.

Challenges

- Engaging with a third partner proved unsuccessful and meant that only 47 of the 61 volunteer Brazilian students could participate.
- Gaining the trust of local community leaders to access children in schools to participate in the programme was a delicate task.
- o IT connectivity and infrastructure challenges existed, particularly in schools.
- Staff and students had little or no experience of working with collaborative IT tools like Miro, Padlet and Mentimeter.
- Layered demands upon the VE programme reflected in the VE aims
 (above) made engaging school children in real conversations complex.
- Conducting the VE in English led challenging exchanges which did not flow fluently, but students remained positive.

".. it was very nice to work with Europe... the way they see things, the differences is ... challenging for our students".

Students: "understood distance learning but not the focus of VE upon learning through collaboration to explore a single problem with new people from different cultures with different perspectives.

".. even though their English wasn't quite good, they felt that they really learned a lot and they spoke and they were fearless'

Successes

- ✓ The VE programme engaged with 180 school families.
- ✓ Five projects were taken forward from the VE as a result of Brazilian young people's concerns about their communities and the impact of climate change on food security.
- ✓ Projects led to real community benefits including the development of an open, participatory classroom and improvements to a school vegetable garden used by families to improve their food supply.
- ✓ The VE enabled students to make a difference, 'do something useful' beyond the university's walls whilst training and equipping them for work.

Next Steps and Moving Forwards

Tutors and students were moved by the VE experience and were certain that this work should continue. Going forwards it was hoped that more community members could be engaged in the conversations to unveil other views.

Championing Virtual Exchange (VE) for Honduran High Schoolers

Countries/Regions: Honduras seeking partners

internationally.

Collaborators: A large Institute in Centra/South Honduras

Interviewee: A science teacher of 12-16 years old students.

Interviewee role: A champion for the introduction of VE to enrich teaching and learning within the Institute.

"Ohh, there is always a benefit in knowing people from other countries and I think that (students) will develop a more like independent type of work and that will help (students) also with their confidence when they are ... growing and trying to learn more".

Educator H1 works in a large 5,000 student, private school. As a private school Educator H1 felt that the school had more flexibility for teachers to choose topics in their teaching 'according to what is needed' rather than be confined to the State curriculum and set books.

Potential benefits of VE for students

Benefits of engaging in virtual exchanges were seen as:

- ✓ An opportunity for students to practice two large world languages. Students were already encouraged to use English as their core language in school and a VE could be conducted in Spanish and English
- Providing interesting teaching and learning experiences. It would be interesting to teachers and students to address a shared science topic or bring science and arts together in a topic for study.

topic for study.

Educator H1 wanted students " to be able to enjoy what they are studying", and she thought that VE "could be amazing for them".

Potential benefits of VE for facilitators

- ✓ Teachers tend to work individually: "here we mainly work as individuals. We don't work in groups. .. We don't usually have the time to do it."
- ✓ "It could ... bring (teachers) more experience by working with other people..."

Next Steps and Moving Forwards

Connections were to be made with organisations facilitating virtual exchanges to start to discover potential partners for a school VE.







High School Student Exchanges addressing management of energy and natural resources.

Countries/Regions: North-East Mexico with Brazil and Chile Collaborators: High School MA is part of a public/part private Institute Date and duration: 2021, Autumn semester, for three months September to November.

Interviewee: Educator M1 is a student of electronics and robotics who has been working as a technology teacher of 16-18 year olds for three years Interviewee role: The co-design of a Virtual Exchange (VE) with a Brazilian teacher which developed to include a further partner from Chile.



"I will never forget their (the students') faces from the cameras and emotion, because they were actually talking with people from other country and that was ... the first session and the thing that kept them motivated through all the projects."

Design and structure of exchanges:

Exchange with Brazil during COVID lock down: Educator M1 was paired with a teacher from Brazil to develop a VE after attending training at her Institute. Students in Mexico were working on methods of

developing technology and those in Brazil were studying different types of energy in relation to electronic devices. Students were organised in 10 small groups drawn from 32 Mexican students and 20 or so Brazilian students. They then worked together to propose solutions to environmental problems such as how to produce clean energy. The objectives of the VE were to get students "to think outside their communities, to think outside… their country and to propose technological solutions."



Four synchronous sessions were held using Zoom in small groups of three or four, and students worked separately asynchronously with their respective local teachers the rest of the time. All students used Moodle and Padlet software platforms to work together allowing them to share information, have brainstorming sessions and other activities. Some students may also have communicated informally using social media.

Three-partner exchange with Brazil and Chile post COVID lock down: The successful structure of the first VE needed some adjustments to accommodate a third country time difference and the use of Institute

digital resources as against students' own personal home-based digital equipment. In this exchange students worked in their local country groups on a project about how to improve the use of water resources. Students used a design thinking methodology to develop different applications leading to proposals for solutions to water issue problems. They then had synchronous meetings with the other country students to speak about and compare issues and problems they had discovered in their projects.



Student Takeaways

✓ The VE provided a completely new experience in learning which they
found enjoyable and motivating.

Facilitator Takeaways

- Educators also enjoyed and valued the experience of engaging with student learning in this different way.
- ✓ Development of resilience as an Educator working on this kind of project and the development of teamworking ability with teachers from other countries.

Challenges

- The internet connection presented a challenge. The exchange was taking place during COVID lock down and students were working from their homes. "Every student was like connected from a different device."
- Post-COVID, on student return to campus, digital connectivity continued to be a challenge where connectivity was sometimes not as good as students' home-based situations
- Educator M1 did not speak Portuguese and language was a challenge which the two teachers resolved using presentations which were "very, very graphic." Students could understand some mixture of Spanish and Portuguese but "the use of ... material that was very graphic, that was very visual was what helped...". The subsequent addition of Chile worked easily because the teacher and students were Spanish speaking.

"... it was a great, great experience ... and a very rich experience ... I (the Educator) was very busy, but I think it was all worth it".



"... we have students that had to take the class on their cell phone. We had others that had to take class on a laptop, on a desktop, ..."



"We used images, we used photos, we used everything like everything was very visual...."

Successes

- ✓ Participation in VE was not only a great experience for students but also improved their knowledge.
- ✓ One student integrated the VE with his curriculum work developing a software app. He subsequently successfully applied for a University scholarship to study computing engineering based upon this work. "So, this project helped them (the school) to improve their curriculum and not only (for) him, but the rest of students".

Next Steps and Moving Forwards

Educator M1 remained enthusiastic about VE and loved the variety that these experiences brought to her teaching. She continued to collaborate with other teachers from other disciplines e.g., social sciences, English and modern languages and felt proud of the work they were developing.

High School Exchange Programmes Mexico,

Chile and Brazil

Countries/Regions: North Mexico, Brazil and Chile

Collaborators: High School MB is an independent school linked with an important University in North Mexico which welcomes fee paying and non-fee paying students.

Date and duration: Two months to December 2022.

Interviewee: Educator M2 is a teacher and has a bachelor's degree in human resources management, a master's degree in business and marketing and Doctorate in Education.

Interviewee role: Educator M2 developed and facilitated a Collaborative Online Learning (COIL) programme drawing on her long experience of pioneering internationalisation of learning.

"You know you can see just in their (student) faces when you mention we're gonna have a COIL interaction they some of the students light up you know because for them ... they are so used to seeing social media but not so much to be on one-on-one contact with someone from another country."



Educator M2 had a lifelong interest in connecting with others internationally. She actively pursued opportunities to take part in exchanges as a child and communicated with pen pals. An early job based in Canada working internationally involved her researching multi-country distance learning programmes using satellite telephone technology before the existence of the



in Mexico to bring internationalisation initiatives to students i.e., home international experience. She established a range of exchanges partnering extracurricular student groups from the five high schools within her current Institute with schools throughout the world. Exchanges were in English using email and focused upon a program of weekly discussion with no formal assessment or evaluation. Some further years later Educator M2 joined the

COIL programme. She took part in many different programmes with different international colleagues including France, Turkey, Jamaica and most recently with Chile and Brazil.



This recent exchange was part of a Mexican10th grader (15 to 16 years) curriculum project. 30 Mexican male and female students partnered with 40 Chilean male students. The VE focused upon three of the United Nations (UN) development goals. A series of tasks were set over four synchronous and two asynchronous sessions. For the first warm up tasks students worked



asynchronously to give them time to "*learn from each other*". One early task involved students choosing a picture of something e.g., food, sports, nature, mountains, rivers, beaches to talk about and share helpng students get to know about each other's country and also to know each other personally. Thereafter



students were put into small mixed teams to address the UN development goals and develop a joint synchronous presentation at the end of the VE. The programme used English but also when Brazilian partners were briefly engaged in the programme a spoken blended language of Spanish and Portuguese was also used.

Student Takeaways

- ✓ Educator M2 witnessed students with diagnosed non-standard learning behaviours* such as Asperger's disease interacting much more comfortably and another student overcame their stammer to communicate more confidently and fluently through video conferencing.
- ✓ Students liked to make social contact and to look for each other on social media and become friends on Instagram and WhatsApp.

Facilitator Takeaways

- ✓ It is important to choose partners who have similar objectives, interests and capacities to commit to a VE.
- ✓ Teachers need the support of their school to protect the time they need
 to commit to a VE.
- ✓ Setting specific dates and times which work for all partner countries in advance assists planning and implementation of VE programmes.

"... I have seen that for them* talking to the camera was like, like seeing a new student. They would be very outgoing. ... They would, ... even speaking in English ... it's like, ... it's a different person from the one that you see in the

Success of VEs: ".. one of the most important things that I find is that it has to do so much with the teacher".

"... it takes time for you (to) prepare for meetings for students and that's probably one of the hardest things".

Challenges

- Originally planned as a three way exchange, one partner found they were not able to fulfil their commitment to the VE. The VE proceeded very well with just the two participating countries with one highly committed teacher experiencing VE for the first time.
- Student commitment to the synchronous tasks varied; some did not connect with partners at all. Others were more committed.
- Student connectivity to the internet varied. Mexican students were required to have laptops after returning to school post-COVID whereas Chilean students would have to join online using their cell phones, some having to go outside the classroom to find a better connection.
- Mexican students had a particularly tight timetable of work and had just two hours a week for the VE whilst Chilean students had more flexibility and six hours a week to work on the VE.
- The early occasional use of translators with Brazilian students significantly slowed communication and impacted the flow of conversation and engagement of students.

Successes

✓ Participation in VE was not only a great experience for students but also improved their knowledge.

Next Steps and Moving Forwards

Going forwards Educator M2 felt it would be valuable to alert students to the VE a semester before starting. This could better prepare students and also revisit the way that participation in the COIL could contribute to student grades as this was a way for motivating participation.

Supporting teachers to develop multiple **Virtual Exchanges from Mexico**

Countries/Regions: Mexico with multiple VEs and countries including Brazil, Columbia and Ecuador.

Interviewee: Educator M3 has a bachelor's degree from a Mexican University and master's degree from a University in England during which she studied knowledge management. **Interviewee role:** Educator M3 has an administrative role coordinating and facilitating international connections such as Virtual Exchanges for the high schools within the elementary department of her university in Mexico.





"They're (VEs).. very engaging and the students also learn a lot in this kind of process in terms of who their peers are overseas." ... And I think it also gives them appetite that need to know more, to learn more, to be interested,... to ask questions, to be more interactive in their activities, ...'

Educator M3 has seen a range of Virtual Exchanges develop within her institution over more than two years including exchanges with high schools. Virtual exchanges are about "trying to see how we can all achieve a better society." Her first experiences of VE were observing teachers interacting with students online. She observed that: "it's very common to see that if they (teachers) start doing this kind of project, they will continue doing it". Exchanges with which she has been involved include big group exchanges of 20 or more students as well as smaller groups of four or five.

"I was able to see how they (teachers) interact with students, how they were doing activities online. And this has always been a very enriching experience. These students enjoy it a lot, and also the professors tend to enjoy these kinds of activities."

Design and structure of the exchange

Teachers from each of the participating high schools received training, about how to run a VE. They were given ideas and guidance about what they needed to do to create a VE. Teachers shared their experiences. Educator M3 was also able to help link classes with international partners.

Each exchange had a cultural component and Educator M3 recalled

successful VEs with Brazil and with Colombia in which each partnered a "class of art with a class of social sciences" to analyse political posters. Another partnered with Ecuador, developed by professors of engineering and maths to studying the density of materials.

Exchanges tended to 'take place using social media. One of the most effective social medias that we have found is ... Facebook groups who are dedicated to teachers and professors who are



looking for this kind of activities or experiences. Students "tend to communicate via for WhatsApp or text message" mainly in English and Spanish.

Student Takeaways

- ✓ Some students developed friendships that went beyond their projects.
- ✓ ... "I think the students really enjoy meeting Students like people their age that are ... outside of their bubble".
- ✓ "I think they'll also enjoy learning new things about other
 countries and how somehow we're very similar and some in
 certain points were not so" ...



✓ ... "being able to experience those similarities or ... differences is really enriching for them".

Facilitator Takeaways

- ✓ ..." the professors, I think the fact that they are giving something new and activity that is different to the students is also very refreshing" ...
- ✓ "they (educators) also enjoy being involved with peers and overseas. And they learn from it
 as well. So, I think that that learning process is very good for everyone".

Challenges

- During the COVID pandemic staff found time and were given the support of the University's high schools to invest time in research into VE. Post-COVID "we have the support of the academic department, but it's a support that is, depending on how busy they are."
- The biggest barrier that professors and students can face is language: "using English obviously helps. But when we are doing projects with ... Brazil, when their student doesn't speak English or our student, doesn't speak Portuguese, there is a challenge in which they have to start speaking a bit of Portuguese".

"Now that we are back in real life and with our daily in and out the car, the students, the kids, the daily activities, I think the students and the professors find these kinds of activities harder to fit in their program".

Next Steps and Moving Forwards

The institute was continuing to grow these kinds of international experiences. Two of their high schools were pioneering global classrooms. The objective was "to show students that at the end we're all people", all global citizens of the world.



Large Chemistry and Marketing Student

Virtual Exchanges: Mexico and Peru

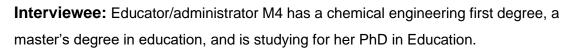
Countries/Regions: Mexico with Peru.

Collaborators: A Mexican based LaSalle University

high school with a University in Peru.

Date and duration: 14 weeks; one virtual exchange

(VE) running in each of two semesters per year.



Interviewee role: M4 is a high school coordinator of VEs with 13 years' experience at the school. She has a pastoral, teaching and administrator role, teaching chemistry to students who are interested in a future in engineering.

Students had "a desire to connect with others who study the same thing" and this led to the class participating in a COIL (Collaborative Online International Learning) program.

Design and structure of the exchange:

Mexican students in their senior year of High School partnered with students at a University in Peru using Spanish. These exchanges took place each semester for 14 weeks involving around eighty students. Students worked in groups of eight comprising four from each

Institution. The students connected weekly online using a safe platform provided by the Peruvian University.

Mexican students researched and made a chemical product which the Peruvian students then market to sell. Within this programme, the Mexican and Peruvian teachers each set activities which required the students to collaborate with their international partners. For the first three weeks or so students talked about their families and things they had in common such as what they study, or what they liked to eat in order to make a connection and make friends.

Rules were set for participating in activities. All students had to

be seen and each week they had to make or complete an activity paired with one of the other students.





Student Takeaways

- ✓ Students generated good relationships with their international partners and social meetings developed outside their main activities.
- ✓ The older university students inspired high school students
 to develop their interest in studying engineering
- ✓ The Peruvian university students did not start their
 chemistry programme until the second semester, so the
 Mexican high school students had to develop a very good
 understanding of their chemistry studies to be able to
 explain it to their partners



Students experienced being "experts helping each other."

- ✓ Students benefitted from the experience of practicing how to communicate concepts clearly
- ✓ Students also experienced taking mutual responsibility for group working commitments made to others in their groups.

Facilitator Takeaways

- The experience of running the VE was rewarding for the teachers
- Teachers were keen to share the experiences that students gained through the VE with future employers



✓ Linking the students' chemistry studies to the VE meant that the students needed to study harder so that they could explain concepts to the Peruvian students clearly.

Challenges

- Finding a mutually convenient time for the Mexican High School students to work within a school day 0700-1500 with the older Peruvian University students who tended to work much later.
- "The biggest challenge ... the time (for) students to dedicate to the COIL."
- Students had to be very motivated to work in their weekends. To keep students motivated, simple tasks such as talking about their day to day lives were programmed to build confidence and enjoyment
- The VE was managed voluntarily by one teacher in each country because they loved doing the VE. However, other teachers did not find the time to create or take part in VEs.

Successes

✓ The COIL programme was in its third year of presentation.

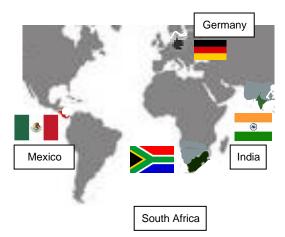
Virtual Exchange within The European Digital Universities alliance

Countries/Regions: Mexico, South Africa, Germany and India

Collaborators: A selection of universities affiliated to the

European Digital Universities alliance.

Date and duration: 2015 and 2016 each for one year



Interviewee: Interviewee M5, is an engineer and studied electrical and electronic engineering in Mexico. However, from an early age he was interested in teaching, and this led to him becoming a pedagogical engineer combining engineering studies with teaching at a University in Germany.

Interviewee role: M5's role was to "help and guide teachers in how they develop their own concepts, to collaborate with other teachers within the (Universities) alliance." Virtual exchange was part of piloting work on virtual mobility within the alliance.

Design and structure of the exchange:

In 2015, M5 worked on 'GO Global' as part of the Sustainable Development Expert Network which piloted virtual exchange in schools across Mexico, South Africa, and Germany on the subject of sustainability. In 2016 India joined the exchange too. Primary and secondary school students were paired in three/four VEs. Sustainability was addressed through a school gardens project. Students exchanged information about different sustainability initiatives associated with planning and developing a garden in their country and discussing differences between their countries e.g., the





impact of the weather and the choice of vegetables to grow to serve their own communities.

"... (students) participate doing what they are interested in, and I think this is the key for the facilitator
... the best way because they are going with their confidence". ... It'll show you what they want to show
or want to learn from the other in a more meaningful way. To force them to participate. It's not a way".

Student Takeaways

- ✓ One student demonstrated a natural talent for recording videos. When he explained and introduced his garden he "showed natural skills that flourish with the opportunity to exchange (information)" ...if it wasn't for this exchange ... "they won't discover those skills, and this is wonderful".
- ✓ Another group of students, Syrian refugees who had come to Germany to escape conflict, had multiple challenges. They had to cope with their difficult circumstances without their parents, in a different language and culture. The garden project helped them deal with "what was happening with those big changes in life."
- "... having the exposure to ... reconnect with other cultures...(was) one way to say OK, I'm not alone in this changing of my country"...

Facilitator Takeaways

- ✓ Some students were more confident than others. The facilitator needs to know their group
- ✓ Post-COVID the barriers in terms of the use of digital technology to implement these virtual exchanges had been overcome. Most people getting involved in virtual exchanges knew how to use the main VE technologies
- ✓ The key to success was the presence of self-motivated teachers and students.

"... have a good relationship with the group to identify those who are more willing to participate in the virtual meetings. But also ... identifying the members that are interested in participating in different phases of the project".

Challenges

Schools across the different countries had different annual calendars and it was also difficult to find times in the day which worked for partnering schools. For instance, Mexico and India could never have real time video conferencing because any time would be too early in the morning for Mexico and too late at night for India. This needed creative solutions leading to a rota of different combinations of countries meeting.



 Language was a challenge. Asynchronous activities helped students to work in English recording short videos and preparing written questions to share with their partners giving them time to translate.

"As a teacher starting or getting involved with virtual exchange, it takes a lot of time and effort. It takes time to understand how virtual exchange works and this is why the partners documented what they did with Go Global, so that others could benefit from their experiences".

Successes

- ✓ Facilitators wanted the VE to "bring the global perspective" to students learning about sustainability and sustainable development, for students to realise that we live in a globally connected way.
- ✓ The VE was a way "to create a … good atmosphere to talk about"
 these complex and culturally nuanced matters that otherwise may not
 be discussed
- ✓ At first children or young people were uncomfortable about saying anything and the teachers had to be 'very active trying to motivate them but at the end they mastered the thing". ...



... so, we (educators) were not necessary anymore actually for the exchange, they (students) created a new idea, so it's amazing."

Next Steps and Moving Forwards

Funding to support Go Global stopped and the project then relied upon voluntary work of teachers and facilitators which meant that it was not able to continue in its current form. Instead, the four partner countries planned to continue by seeking local organisations to adopt the projects. Materials remain available on the website.

APPENDIX 6– Central Asia Vignettes

The Email Exchange Project: Kazakhstan and New Zealand

Countries/Regions: Taraz, Kazakhstan and New Zealand

Collaborators: Middle Schools in Kazakhstan and New

Zealand

Duration: one month

Interviewee: English as a foreign language teacher in Middle school. She finished Tashkent State University in 1995 and has been teaching English since 2004 in Kazakhstan. The project was held in Nazarbayev Intellectual school of Physics and Mathematics (in Taraz city, the South of Kazakhstan). The NIS is an international school that provides educational opportunities for gifted students through International programmes.

Interviewee Role: Email exchange project organizer and facilitator

Design and structure of the exchange:



The 8th grade students in Kazakhstan and New Zealand exchanged emails in English on various topics such as music, professions, etc. Each student had an email partner, and they wrote emails to each other as part of their homework assignments. There was no limit in the number of emails. As part of this project,

they also created and exchanged PowerPoint presentations, for example, about their own schools. The objectives of the project were to motivate students to learn the English language, get to know about each other's cultures as well as to build respect for other nations and find new friends.

Students' Takeaways:

- Students became more interested in New Zealand culture
- Some students expressed a desire to make collaborations with their pen pals in the future (for example, one of the students would like to create business with their pen pal in New Zealand)
- Students enjoyed using the English language in a "real context" and communicating with native speakers English

Facilitator Takeaways:

 The teacher realized that the students' usage of English only in the classroom environment is not enough: students need to use English in real-life situations Through the exchange of emails, students not only

"Students are not interested j with different things... for exan to learn about other cultures not



practice their English language, but also build connections between two countries.

Challenges:

- Different time zones made impossible to hold online meetings between Kazakhstan and New Zealand, that is why they decided to exchange cultural presentations via emails
- In the school, computers are old and slow: the administration does not change the technology equipment due to lack of the finances
- The teacher had to find the partner school for the project on her own, but there is no support from school in finding new foreign countries for future collaborations

Successes:

- Students' speaking skills in English improved.
- Some students did not want to learn English, but the project showed them the purpose and importance of English in today's world
- The project helped shy students to become more open and confident

Next Steps and Moving Forwards:

- The teacher wants to improve this project by adding voice threads into the presentations.
- In the future, she would like to create virtual projects on culture or environment issues and collaborate with STEM teachers

High School Virtual Exchange in the ESL class

Countries/Regions: Kazakhstan and Georgia

Collaborators: High schools in Beskol, Kazakhstan

and Georgia

Duration: two meetings (40 minutes) via Zoom

Interviewee: English as a second language teacher in Middle and High schools. She is an alumna in the Fulbright teaching program and a TESOL master's student. The exchange was held in the public School-Lyceum "Parasat", which is situated in Beskol Village, North Kazakhstan. The education is conducted in Kazakh language.



Interviewee Role: Virtual exchange organizer and facilitator

Design and structure of the exchange:



In 2020 two ESL teachers from Kazakhstan and Georgia facilitated two teleconference meetings for 15-16 years old high school students in those countries. The objectives of the exchange were to motivate students to learn the English language and introduce cultures and traditions of two different countries. Prior to the virtual exchange, teachers contacted each other and planned to choose students with the same age and same interests. The teleconference meetings were held in the classroom after school hours: students introduced themselves and asked each other basic questions in

English, such as: "What is your hobby?", "What is your favorite food?", etc. Afterwards, students from both countries' students presented about their cultures in English and showed their traditional costumes to each other. It was impossible to continue holding the teleconference sessions due to the COVID pandemic.

Students' Takeaways:

- Students enjoyed learning about each other, they were surprised that teenagers from Georgia had the same hobbies and interests as they.
- Students liked the fact that they could use English as a means of communication and could understand each other thanks to their knowledge of English.

Facilitator Takeaways:

 Back then, in 2020, the teacher did not have much experience with Zoom, and she needed to ask help from IT specialists from the school. Since then, she has learnt how to work with different websites that help her English classes make learning more interesting and efficient.

"Even a lazy student can start learning English, because students are interested more to work with technologies [in the class]"

Challenges:

- Using Zoom was a new experience for the teacher and she was unfamiliar with how to set up an online conference but she received IT support.
- Some of the students were shy about communicating to new students from another country.
- Different time zones between Kazakhstan and Georgia: Kazakh school's students had to attend the teleconference after their school hours.

Successes:

- Students practiced their English speaking and listening skills and they expressed that they liked the experience of getting to know Georgian students.
- This teleconference played an important role in students' motivation in learning English: three students that participated in the event tied their lives with the English language (for example, one of the students entered the university abroad). The teacher believes that the teleconference was "a stimulation to learn [English] better."

Next Steps and Moving Forwards:

• The teacher would like to organize more of such teleconference events. She is thinking about planning a long term series of teleconference sessions in collaboration with Geography teachers on the topic of Ecology.

The Letters Exchange Project: Kazakhstan and South Korea

Countries/Regions: Taldykorgan, Kazakhstan and

Seoul, South Korea

Collaborators: Middle Schools in Kazakhstan and South

Korea

Duration: six months

Interviewee: English as a Foreign Language Teacher; she has been teaching English for 20 years. She works at Nazarbayev Intellectual school of Physics and Mathematics in Taldykorgan City, South Kazakhstan. English is taught five times a week at this school. The school has a strict English curriculum, although the teacher is allowed to add or adjust topics depending on students' desires and needs.



Interviewee Role: The letters exchange project organizer and facilitator

Design and structure of the exchange:



The 8th grade students (14–15-year-old) in Taldykorgan, Kazakhstan and Seoul, South Korea exchanged letters in English on different topics. Prior to the start of the project, the Kazakh teacher contacted the Korean teacher to plan and design the project. They created a list of 10-12 topics (on traditions, moral values, etc.) with questions that students need to answer and develop. The teacher gave a task to

students to write letters on these topics, then collected them to send to Korean partners. As part of the project, both countries' students made New Year congratulations videos and sent small gifts to each other.

Goals of the project:

- To teach cultural diversity and teach students to accept other cultures and opinions.
- To develop and improve English writing skills.

Students' Takeaways:

- The teacher conducted an anonymous survey upon the project's completion: 80-85% of students enjoyed the exchange and expressed the desire to participate in such projects again.
- Some students said that it was not useful; they found some topics such as medicine unnecessary.

- Some students said that they did not have time because they were too busy with other classes and clubs.
- The lack of grammar knowledge made it difficult to write letters for some participants.
- Most participants said that the project would be better if there would be video calls or video meetings with the Korean students.

Facilitator Takeaways:

- The teacher said that it was difficult to motivate students, and she would like to attend trainings on how to boost students' motivation when facilitating such projects.
- The students are interested in exchanging language and culture through the video calls or video presentations.

Challenges:

school).

- Different time zones made it impossible to hold online meetings with the Korean school.
- The teacher had the feeling that Korean participants were shy and not very open.
- Some students were not organized and did not meet the letters' deadlines.



Successes:

- Some students were very inspired and enthusiastic about the project: they wrote detailed letters including relevant photos.
- The project helped to improve analytical skills of the students: they wrote deep, philosophical, creative ideas in their letters.

Next Steps and Moving Forwards:

- The teacher wants to create a video exchange project on various topics (for example, short movies about their
- The teacher plans to ask students what kind of topics they are interested in before planning the topics of future projects.

The Virtual Meeting: Kazakhstan and the United States

Countries/Regions: Taraz, Kazakhstan

and the USA

Collaborators: High Schools in

Kazakhstan and the USA

Duration: one virtual meeting

Interviewee: Science Teacher; originally from Uganda, he has been teaching for 9 years in Kazakhstan. He works at Nazarbayev Intellectual school of Physics

and Mathematics, which is situated in Taraz City, South Kazakhstan. It is a government supported school, where students are selected through competition after the 6th grade.

Interviewee Role: the virtual exchange meeting facilitator

Design and structure of the exchange:

The 9th grade Kazakh and American students participated in the virtual meeting via Google Meet platform. The Kazakh students showed the presentation and talked about their school: students, their schedule, clubs, and how the pandemic affected their school lives.

HELLO III

Goals of the project:

- To teach cultural diversity and give the opportunity to meet virtually their American peers.
- To improve students' English skills.

Students' Takeaways:

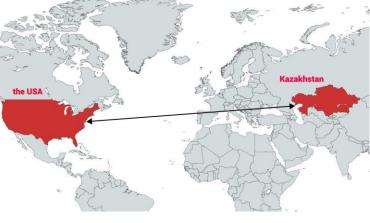
- The students enjoyed meeting virtually with the native speakers of English.
- Students loved to meet the same age students from abroad: they realized that horizons and possibilities are open.

Challenges:

• The Internet connection was not stable during the virtual meeting which did not allow for a more meaningful exchange.

Successes:

• This experience motivated students to learn and improve their English more.



The Virtual Exchange Project: Kazakhstan and English-speaking countries

Countries/Regions: Tamanskoye, Kazakhstan and some English-speaking country

Collaborators: All levels school in Kazakhstan and some English-speaking country

Duration: series of meetings or text messages exchange

Interviewee: English as a Foreign Language Teacher; she has been teaching English in all levels since 2013. The teacher constantly improves her qualifications and uses online resources (Kahoot, Quizlet, Padlet, etc.) in her



lessons to teach English more effectively. She works in Taman complex nursery-kindergarten-school, in the village Tamanskoye, North Kazakhstan. This is a public school, and the only small school (75 students) in Kazakhstan that has received the status of a leading school. Students at this school annually take exams for the highest scores and receive prizes in Olympiads.

Interviewee Role: The virtual exchange project organizer and facilitator

Design and structure of the exchange:

The teacher never conducted the virtual exchange projects but has a strong desire and ideas. She would like to find a partner school in some English-speaking country that her students are interested in. She plans to hold a series of Zoom meetings or text message exchanges with the same level students, so they can communicate with each other on various topics. She wants to include such topics as hobbies, music, traditions and customs, dishes, information, and history about their country and village.

Goals of the project:

- To introduce students with the culture and everyday life of an English-speaking country.
- Instill students' interest and respect for another culture.
- To practice and improve the students' English skills.
- To make students more confident and overcome the language barrier.

Challenges:

- Some of the students are too shy to communicate in English.
- Students face problems with the grammar when they need to use it in writing.

Next Steps and Moving Forwards:

The teacher plans to find a school in the English-speaking country to collaborate.

APPENDIX 7 - East Asia Vignette

A High-School Level Virtual Exchange between Japan and Uganda (JI)

Countries: Japan and Uganda

Collaborators: teachers at the high school level

Date and duration: one school year

Interviewee Role: JI has a graduate degree in English education from a university in the US. She is responsible for teaching STEM courses and does not have administrative duties other than her exchange activities.





Teacher Background and Motivation

JI is an energetic, very hard-working teacher who teaches at a well-known private high school in the Kanto area in Japan. She teaches STEM [science, technology, engineering, and math] classes to 1st- and 2nd-year high school students who are not yet involved with the preparation for university

entrance exams that occurs throughout the third year in Japanese high schools. Her high school has considerable financial means and provides a Chromebook to each student. Her classes are not excessively large, including 20-25 students per class. The school administration and in particular the principal have a strong interest in making the high school into an international high school and openly encourage teachers to undertake activities that will contribute to that end. The school employs not only English teachers but also teachers of Chinese and French, and students can choose to study a second foreign language.

JI's motivation for undertaking virtual exchange originated in her own background, the advent of which she described as her year abroad in 1989 under the auspices of a Rotary International scholarship. She spent one year living in a home-stay situation while studying, and she commented that she "had a good experience with people, talking [with] many people from different countries." Thereafter she transferred to a larger university to complete a master's degree and continued talking to people from various cultures, but upon returning to Japan, she "could not talk with people from different cultures with different ways of thinking." This led to the realization of the necessity of creating an atmosphere in which

students can talk with people in different cultural backgrounds [who have] different ways of thinking."

This was also when JI first entered the world of virtual exchange when an "electronic visualization" laboratory with which she was involved began an early attempt at virtual exchange with a leading university in Japan. However, the time difference, language difficulties, and the rather nascent technological infrastructure of the early- to mid-1990s stymied that effort and made her quite cognizant of the need for adequate infrastructure.

Design and Structure of the Exchanges

Her first venture into recent virtual exchange was with a high school in Uganda. The introduction came through a friend who was friends with a Ugandan high school teacher. The exchange proved somewhat difficult, however, because the Ugandan students had no electronic devices; the exchange consisted of Zoom meetings in which her Japanese students joined the Zoom meeting and the Ugandan side participated through their teacher's cell phone, the screen of which was projected on a screen. The network connection in Uganda also was often sporadic, which hampered smooth communication. Furthermore, the meetings only occurred once every several months, so about 3-4 times per year. JI mentioned that her students were quite shy, too, but nonetheless she has been able to continue the exchange program.

The next phase in JI's efforts is currently in progress. She is an officer in a Japan-India technology collaboration group and has been working to establish a virtual exchange program with junior and senior high schools in India.

She also has plans to expand her exchange activities to a high school in the Midwest in the United States as well as a high school in Shanghai.

JI reported that she had excellent reportee with her exchange colleges. She attributed that to being on very friendly terms with the teacher and also having common goals. She noted that there were some cultural differences, but they were not problematic in any way.

In future iterations of her various virtual exchange projects, JI hopes to include more projectbased learning in addition to the quite basic language exchange that students have done to this point.



JI noted that students seemed to acquire some facility with the technology and to enjoy the virtual exchange in spite of the technological difficulties and the limited quantity of exchange occurrences. She is determined to continue with her virtual exchange activities in the future.

Main takeaways for the teacher:

- ✓ Overall satisfaction with and enthusiasm for the virtual exchange experience: The teacher indicated that no particular difficulties arose in the actual exchange discourse.
- ✓ The teachers on both sides collaborated effectively based on their collegial relationship
 and having common goals.
- ✓ Encouragement and infrastructure support on the Japanese side contributed to the success of the virtual exchange experience..

Main takeaways for students:

- Appeared to enjoy the virtual exchange in spite of the technological challenges encountered.
- ✓ Acquired some understanding of their peers in the exchange context.

Challenges:

✓ Technological shortcomings were the primary challenge.

Successes:

- ✓ Students enjoyed and were quite engaged during the virtual exchange.
- ✓ The teacher had a positive experience with virtual exchange.

Steps to move forward:

- ✓ Somehow overcome the technological challenges encountered.
- ✓ Increase the number of exchange meetings.
- ✓ Introduce more project-based learning into the exchange experience.
- ✓ Begin the three in-progress exchange programs.