Monitoring and Evaluating of Virtual Exchange: Lessons from Literature & Implications for ECA

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BLUF:

This report examines the extent to which Bureau of Education and Cultural Affairs' (ECA) can achieve its programmatic outcomes through virtual exchanges (VE), and whether ECA needs new monitoring and evaluation (M&E) approaches to capture those effects. A literature review revealed that the primary outcomes of VE programs mirror traditional exchange programs, with emphasis on building cross-cultural competencies, language capacities, and personal/professional networks. It is quite likely these effects are less profound than in-person exchanges, but the existing literature provides no empirical basis to make such comparisons. Information technology (IT) and logistics can challenge VE programs; at the same time, the programs add value in areas like building digital competencies. ECA will have no need for major shifts in M&E methodologies to evaluate VE programs; the MODE Framework indicators mostly still apply. The ECA Evaluation Division proposes eight new optional indicators to help tease out the unique positive and negative outcomes of VE programs.

RESEARCH QUESTIONS

1. To what extent can ECA achieve its programmatic outcomes – increasing cross cultural competence and global perspectives; increasing participant and alumni impact; strengthening alumni engagement; strengthening personal, professional, and technical abilities – through virtual exchanges?
2. Does ECA need to measure those outcomes differently than those of in-person exchange programs and, if so, how?

INTRODUCTION

Amid the COVID-19 pandemic, teleconference platforms like Zoom have gained widespread usage as quarantine measures necessitate the continuation of economic and social activities without in-person meetings or gatherings. These global developments have renewed interest in VE as an avenue for continuing public diplomacy engagements and exchanges, which have a longer history of using such technologies to get around logistical, geographic, and political barriers.

Virtual exchange developed during the late 1980s to connect students in the United States and the USSR as the relationship between those two countries improved at the end of the Cold War. Many public diplomacy professionals aim to build on this history by exploring virtual options to continue their programs amid varying degrees of quarantine and travel restrictions. In this context, it is imperative to understand the research that exists on the effectiveness of VE in achieving public diplomacy outcomes.

EXISTING LITERATURE ON IMPACTS OF VE

Relevant programming and associated literature come from diplomacy contexts (e.g. Department of State-sponsored exchange program) but also academic contexts, most commonly in business and language training programs. The review here, drawing on Stevens Initiative (2020) and Google Scholar searches, does not make a sharp distinction between diplomatic and academic contexts because they are closely related in terms of subject matter, exchange methodologies, and evaluative approaches.

Emerging Successes

One of the largest and longer-term studies into VE focused on Erasmus+, an EU-sponsored and diplomacy-driven VE program designed to connect young people between 18 and 30 years old in EU countries and their peers in the Middle East and North Africa (MENA). Successive assessments of Erasmus+ have demonstrated strong impacts in the same kinds of cross-cultural competencies measured as part of traditional in-person exchanges. Their 2018 impact report, for example, found that 88 percent of exchange participants reported a positive impact on their ability to work in a culturally diverse place. Other outcomes included increases in language learning in exchanges that had such a component, as well as improvements to media literacy, tolerance, and cultural sensitivity (Helms & van der Velden 2019). The program's 2020 impact report added that 71 percent of participants believed they had built meaningful relationships with their counterparts despite never actually meeting them in person, and 86 percent of participants shared with others what they learned through the course of their participation in the program (Erasmus+ 2020).

Other diplomacy-focused VE programs have followed suit. The ECA-funded Stevens Initiative has successfully implemented virtual exchanges between young Americans and their counterparts in the MENA region, with evaluations of the programs finding a "large positive change in participants' knowledge of the other country or culture from pre-program to post-program across both the MENA region and the United States" (Stevens Initiative 2019).

On the educational/academic end of the spectrum, throughout 2017-2018, the EVALUATE Group organized a consortium that trained teacher trainers from 34 training institutions and organized more than 25 virtual exchanges involving over 1,000 students. They then analyzed the learning gains from these exchanges using qualitative and quantitative research evaluation methodologies. In the findings, student teachers highlighted how the program enhanced their linguistic competencies and ability to engage with peers from other cultures (EVALUATE Group 2019). Similar results have arisen in association with the COIL[1] model for international online learning courses, which feature co-design and teaching by two or more international

[1] Collaborative Online International Learning: https://innovate.suny.edu/introtocoil/suny-coil-what-is/

partners using a "consultative and supportive approach" (Guth & Rubin 2015; Rubin 2016; O'Dowd 2018).

A study of a university exchange between students in France, Spain, and the UK found that, in the post-2016 European context, adding a virtual exchange component to an in-person international exchange in anticipation of changing immigration rules due to Brexit was a successful strategy to maintain engagement between participants and avoid program disruption. The study suggested that, while virtual exchanges cannot offer the same immersive environment in-person exchanges do, they can achieve similar cultural competency outcomes (Barbier & Benjanmin 2019). Similarly, a multi-year virtual exchange partnership between higher-education institutions in Japan and Romania reported students ultimately were able to articulate a deeper sense of self-awareness and understand differences in communication styles, and advocate for cultural training within the course (Caluianu 2019).

A study of the Soliya model of virtual student exchange, which focuses on connecting small groups of students from Western countries with those in Muslim-majority countries, found the program fostered meaningful contact and dialogue to increase compassion among students. The program reportedly increased American students' self-awareness about culture and their own cultural tendencies; increased understanding of the culture and history of communities with significant Muslim populations; and created a space for constructive dialogue that did not previously exist (Elliott-Gower & Hill 2015).

One study noted asymmetrical results among exchange partners but still overall positive effects in cross-cultural competencies. In a U.S.-China student exchange program, pre-tests indicated American students lacked global knowledge, skills, and attitudes; these students grew strongly in their intercultural competence with exposure to their Chinese peers. For their part, the Chinese students were reportedly eager to engage with their U.S. counterparts but already had a strong understanding of U.S. culture; as such, they changed less in the course of the program but still reported some positive effects (Li 2012).

In sum, the reported successes of these VE programs in diplomatic and related academic domains, in areas such as cross-cultural competencies, language capabilities, and personal network-building, seem comparable in nature to what is found in traditional in-person exchange programs.

Added/Unique Value?

The literature goes on to point to some areas of positive effect that may be unique to VE.

VE programs present strong indications of accompanying improvements in digital skill-building, which would have no necessary connection to in-person exchange programs. The Erasmus+ studies report that 76 percent of participants saw improvements in their digital skills (Helms &

van der Velden 2019). The EVALUATE Group pilot and study of VE among student teachers reported similarly strong improvement of digital-pedagogical competencies in trainees (EVALUATE Group (2019). The university exchange program studies by Barbier & Benjanmin (2019) also found improvements in digital literacy skills among participants.

Another area of potentially unique contribution comes in the form of soft skill-building in areas of teamwork, collaboration, and problem solving. Helms & van der Velden (2019) report precise improvements in these areas as part of the Erasmus+ program, with similar results in the EVALUATE Group's pilot and research (2019). It is unclear from the literature whether the programs were designed specifically to build these skills, but the effects are clear in any case. This is not to suggest in-person exchanges are incapable of supporting such skill-building, but the findings seem more pronounced in these virtual programs – suggesting that perhaps the inherent challenges of a virtual environment (i.e. logistics of remote teamwork) help compel participants to collaborate and cooperate more deliberately. As virtual scenarios of all kinds become more common in the world, the ability to succeed in such scenarios can, in itself, become another soft skill that gets built and bolstered in the course of VE programs (see discussion in William Davidson Institute 2019).

A final reported area of potentially unique value for VE programs is depth of outreach among participants. This is a logical and intuitive difference between virtual and in-person exchange that emerges clearly in the literature. This is to say, some students lack the means, the flexibility, and even the nerve to participate in full-on international exchange. VE has the unique potential to widen exchange participation beyond a relatively privileged and/or adventurous minority (see discussion in Hagley 2016 and Elliott-Gower & Hill 2015). It also facilitates exchange in cases where it might be otherwise impossible due to procedural barriers, such as restrictions on travel visas for residents of certain countries.

Challenges/Limitations

The biggest challenge/limitation reported in the literature is technological infrastructure, particularly on the side of exchange participants from developing countries. Live-streaming easily fails under a weak internet connection, and the effects on participant enthusiasm and morale can be detrimental to program aims (Abrahamse, et al. 2014; Patterson, et al. 2012).

Technology issues, combined with the challenges of time-zone difference, compel some programs to support asynchronous exchange using recorded content. This form of exchange is seen by many as an unengaging and weak substitute for live exchange (Patterson, et al. 2012; Stevens Initiative 2019).

Language issues also can be an added challenge (Bassani & Buchem 2019). As most students of a new language can attest, for a combination of reasons, communicating remotely is simply more difficult than communicating in-person when language proficiencies are developing.

A final area of challenges/limitations connects to the common view that VE is inherently less interesting and engaging than in-person exchange – a point taken up further in the next section. Relatedly, some programs report variable commitments from partners (Caluianu 2019). Students also have demonstrated varied commitment, with attrition considerably higher than in-person programs (Guadamillas Gómez 2017; Stevens Initiative 2019).

SUMMARY/DISCUSSION

The ECA Evaluation Division has every indication that the primary outcomes of VE programs largely mirror traditional exchange programs, with emphasis on building cross-cultural competencies, language capacities, and personal/professional networks across borders. Clearly, VE programs have positive effects in these areas. Equally clear is the idea evaluators could use the same scales and metrics to measure change in these areas that they use in evaluating in-person exchanges (cf. EVALUATE Group 2019a: 22-24).

At the same time, VE programs are also bringing added effects to exchanges, most notably in the form of enhanced digital competencies. Moreover, it is cheaper and less complicated than in-person exchanges, which is likely to deepen the outreach of such programs among less affluent and less privileged participant populations. These effects are in addition to VE's most obvious advantage at this moment and the reason for its current surge, which is its ability to hinder the spread of infectious disease. The biggest disadvantages to VE are logistical in nature, particularly the IT issues that come with connecting to less developed parts of the world.

But ultimately, how do VE and in-person exchange program compare on outcomes? Can VE programs truly substitute for in-person programs and produce a similar depth of effect? The literature at present provides no empirical basis to answer such questions. A meaningful comparison would require research in which VE participants and in-person participants were presented with the same research queries and the results were compared. For best comparisons, the measurements would need to be identical and quantitative in nature. Forays into this kind of research is just now beginning on a small-scale and exploratory basis (see Van der Velden, et al. 2016). What the existing literature/research tell us is this: VE programs have positive effects and they are better than nothing.

At the same time, on an intuitive level, reinforced to some extent by existing exploratory research (e.g. Nissan 2016: 209), there is little reason to think VE programs will ever approximate the effects of in-person exchange. Human nature dictates that experiencing a foreign culture in-person will always be more dynamic, compelling, and exciting than experiencing it on a computer screen. As such, the expectations around VE should always be lower. Designers of VE programs should anticipate the need to mediate another effect: disappointment on the part of participants in cases where in-person exchanges were once a possibility (such as the current COVID-induced scenarios).

In this context, one researcher proposes a pragmatic vision for VE programs as an "acclimatization" mechanism to occur prior to in-person exchange. Much in the same way climbers acclimatize themselves at lower levels before ascending a peak, exchange participants will join VE programs as "a more gentle introduction to foreign culture" which will in turn lessen the shock that often comes with physically entering another country (Hagley 2016: 228).

IMPLICATIONS FOR EVALUATION AT ECA

The existing literature points to the unambiguous conclusion that the effects and outcomes of VE programs are primarily the same as an in-person exchange – albeit at less profound levels. As such, for the most part, ECA does not need to change the metrics, lines of questioning, and tools currently in use.

The MODE framework and most of its library of indicators will still apply. Even across the VE types – for example, synchronous (live) vs. asynchronous programs – the MODE indicators and questions will have equal utility (though likely some predictable variation in results).

Likewise, ECA does not need any major shifts in the methodologies employed to gather data. The same approaches based on surveys (pre/post/post-post) and retrospective qualitative interviews will function here, with similar expectations around their efficacy. The use of remote data collection (e.g. emailed surveys and phone interviews), already common within ECA, will be appropriate and necessary to evaluate VE programs in the COVID context.

ECA programs will find some common-sense need to alter the wording of questions to suit the VE context, but it will not the change the substantive intent of these questions. Other indicators questions simply will not apply to VE. Table 1 below provides some examples of current MODE indicators, with current wording of related questions and new proposed wording.

Table 1 - Examples of Revised MODE Indicators/Questions for VE Programs

MODE Indicator	Revised VE Indicator	Revised Wording for VE Question
E1.1.9 - Percent of participants who traveled abroad for the first time on an ECA exchange program	E1.1.9 (VE) - Percent of participants who participated in exchange programming online with participants from other countries for the first time on an ECA exchange program	Before this exchange program, did you communicate online with individuals outside of your home country? [Yes/No] If yes: Why did you initiate such communication? Select all that apply. • To learn more about foreign countries • To make new friends • Connect with friends/family in other countries • Another virtual exchange program • Study • Work • Other: _____ [write-in]
E1.1.10 - Percent of foreign participants who traveled to the United States for the first time on an ECA exchange program	E1.1.10 (VE) - Percent of foreign participants who joined Americans in online programming for the first time on an ECA exchange program	Before this exchange program, did you participate in any online activities with Americans? [Yes/No] If yes: Why did you initiate such communication? Select all that apply. • To learn more about foreign countries • To make new friends • Connect with friends/family in other countries • Another virtual exchange program • Study • Work Other: _____ [write-in
E4.1.15 - Percent of foreign alumni that return to the United States to study	E4.1.15 (VE) - Percent of foreign VE alumni who went on to travel to the United States to study	Since your VE experience, did you travel to the United States for any of the following reasons? [Yes/No] • Continue education • Make money/work • Participate in another ECA exchange program • Tourism • Visit friends/family • Other: _____ [write-in]

MODE Indicator	Revised VE Indicator	Revised Wording for VE Question
E4.0.03 - Percent of participants reporting an increase in soft-skills as a result of ECA program participation	E4.0.03 (VE) - Percent of participants reporting an increase in soft-skills specifically as a result of ECA VE program participation	Do you feel you have increased your skill level in any of the following areas as a result of participation in this program? Please select all that apply. • Communication skills • Listening skills • Self-awareness • Awareness of others • Self-initiative • Self-confidence • Resourcefulness • Decision-making skills • Problem-solving skills • No skills improvement

In addition, VE practitioners should consider the following indicators and questions that probe both the positive and negative anticipated outcomes of VE programming (Table 2). These indicators will remain optional within ECA, depending on the program team's particular interests in tracking these outcomes and enacting VE programming in future.

Table 2 - New Optional VE Indicators & Questions

VE Indicator	Proposed Wording for VE Question
VE1 – Percent of participants reporting new digital skills/competencies gained from VE program.	I gained new digital skills/competencies from participating in the VE program. • Strongly disagree/disagree/neutral/agree/strongly agree
VE2 – Percent of participants reporting application of VE skills to other virtual opportunities	I will apply the experience from this VE program to other virtual opportunities in the future. • Strongly disagree/disagree/neutral/agree/strongly agree
VE3 – Percent of participants reporting positive views of synchronous/asynchronous format	Please indicate the format of your VE program • Synchronous (live)/Asynchronous (recorded) I feel the format of this VE was effective and well-suited to its purpose. • Strongly disagree/disagree/neutral/agree/strongly agree
VE4 – Percent of participants reporting negative effect of IT issues	Technological/connectivity issues affected my virtual exchange experience in a negative way. • Strongly disagree/disagree/neutral/agree/strongly agree
VE5 – Percent of participants reporting language challenges that affected VE efficacy	Language differences between me and my counterparts from another culture hampered our ability to complete tasks. • Strongly disagree/disagree/neutral/agree/strongly agree

VE Indicator	Proposed Wording for VE Question
VE6 – Percent of participants reporting time-zone challenges that affected VE efficacy	Time differences between me and my counterparts from another culture hampered our ability to complete tasks • Strongly disagree/disagree/neutral/agree/strongly agree
VE7 – Percent of participants reporting disappointment over virtual format	I was disappointed by participating in a VE program instead of an in-person exchange. • Strongly disagree/disagree/neutral/agree/strongly agree
VE8 – Percent of participants who report VE as their only likely way to interact with Americans	Are virtual exchanges likely to remain your only way to interact with Americans? [yes/no]

Finally, ECA program teams interested in comparing the outreach of VE programs versus in-person programs should consider the standardized use of demographic surveys (including validated poverty scorecards, etc.) across the VE participant population, ideally paired with the same survey data from in-person programs. The ECA Evaluation Division (ecaevaluation@state.gov) can assist in the development and launch of such surveys, as well as analysis of the data.

ANNEX - Useful resources for virtual programming

- ECA's Collaboratory Virtual Exchanges Toolkit: https://state-low.app.box.com/v/VirtualExchangeToolkit
- ECA's American Spaces Virtual Programming Toolkit: https://americanspaces.state.gov/virtual-programming-kit/
- EVALUATE Group's 2019 report, *Evaluating the Impact of Virtual Exchange on Initial Teacher Education: A European Policy Experiment*: https://research-publishing.net/publication/978-2-490057-33-7.pdf
- Best Practices for Virtual Exchanges: https://blog.thepienews.com/2019/03/what-we-learned-from-conducting-a-virtual-exchange/
- Journal of Virtual Exchange: https://journal.unicollaboration.org/
- Stevens Initiative Virtual Exchange Resources: https://www.stevensinitiative.org/resources/
- Virtual Exchange Coalition: http://virtualexchangecoalition.org/

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