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Preparing Students for Globalization Without Traveling: A Multi-Layered Intercultural Technology-Mediated American and Israeli Collaboration

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Costly exchange programs are not the only way to achieve global competence. This paper describes a model for the use of collaborative and cost-effective course assignment to develop global competence among student. We used this model to develop and implement a technology-mediated local-global experience between two undergraduate programs: American Teacher Education and Israeli Hotel, Food and Tourism Management. The 2-year collaboration was built on a three-layer pedagogical model: Layer 1 (instructor collaboration), Layer 2 (joint task), and Layer 3 (student collaboration). Three hypotheses were tested with pre- and post-project survey data: increased assessment and global competencies self-efficacy for American students; and, increased global competencies self-efficacy for Israeli students. Year 1 results supported the hypothesis for Israeli students but failed to support both hypotheses for American students. Subsequent refinements to the three collaboration layers were made. Year 2 results supported all three hypotheses, establishing the potential value of this pedagogical model to implement effective technology-mediated local-global international experiences. Limitations and further studies are discussed.

Keywords: collaboration model, American Teacher Education, Israeli tourism management, technology-mediation, local-global international experience

INTRODUCTION

The importance of preparing higher education graduates to thrive in a globally interconnected, cross-cultural, 21st century world is generally accepted [Lumina Foundation, 2014; ESG, 2015; Organisation for Economic Co-operation and Development (OECD), 2016]. Accordingly, preparing globally and culturally competent graduates has become an important higher education outcome [e.g., National Association for Foreign Student Affairs (NASFA), 1998– 2019; Lee-Olson and Kroeger, 2001; Schuerholz-Lehr, 2007; Deardorff, 2011; Council for the Accreditation of Educator Preparation (CAEP), 2013; Council of Chief State School Officers (CCSSO), 2013; de Hei et al., 2019]. Globally competent graduates are more open to the world, respect multiple perspectives and differences, and communicate effectively (Mansilla and Jackson, 2011). The importance of these competences is recognized for supporting professional

readiness for careers in diverse settings [National Association for Foreign Student Affairs (NASFA), 1998–2019; Stachowski and Sparks, 2007; Moss et al., 2012; Arhar et al., 2015; García-Cabrera et al., 2016; Institute of International Education, 2017a,b].

Global competency has three components: knowledge, perceptions, and communication skills (Lee-Olson and Kroeger, 2001). Hence, the globally competent person: knows about other cultures including languages; recognizes and respects other cultural perspectives; and, can communicate with people from other cultures (Mansilla and Jackson, 2011). Intercultural communication skills are both an essential component and outcome of global competency. These skills support: communicating with persons from other cultures; contributing to the needs of others; overcoming language fluency and differences; working toward common goals; and, overcoming the communication and collaboration difficulties. Activities that support the development of globally competent graduates range from exchange programs to internationalization of the curriculum (Schuerholz-Lehr, 2007).

Study abroad programs enable students from any discipline to engage in diverse perspectives and confront misconceptions (Bloom, 1998) while developing critical knowledge, skills, and dispositions through immersion in foreign settings (Mahon and Cushner, 2002; Quezada, 2004; Hjalager, 2007; Malewski et al., 2012). However, the associated time and financial commitment, attitudes and culture, and various personal obligations have created barriers to participation (Green, 2003; Knight, 2005; Dessoff, 2006; Altbach and Knight, 2007). For example, American Education students' participation rates ranged from a high of 4.2% in 2011–2012 to 3.4% in 2015–2016 (Institute of International Education, 2017c), placing them near the bottom of the 12 fields reported. Moreover, traditional study abroad experiences also tend to attract students who are already globally competent and those who have pre-existing interests in and access to international experiences (Dessoff, 2006; Altbach and Knight, 2007). Therefore, it is unlikely that most students will develop global and cross-cultural competences through traditional study abroad programs. Regardless and given the well-established benefits of these experiences, it is incumbent on university faculty and staff to develop alternative and creative approaches using alternate spaces and modalities.

Relevant technology-facilitated local-global experiences can also support the development of global and cross-cultural competences (Schuerholz-Lehr, 2007; Soria and Troisi, 2014) by enabling students to collaborate and learn with international peers (Smith, 2016) without the financial and logistical limitations of international travel. Participants benefit from similar cross-cultural encounters that prepare them for possible future employment experiences [Mansilla and Jackson, 2011; Lumina Foundation, 2014; ESG, 2015; Organisation for Economic Co-operation and Development (OECD), 2016]. Moreover, integration within the curriculum at the course-level further democratizes access to international experiences, enabling all students to participate, regardless of preexisting global competence and interests in international experiences. However, little is know about how these programs can be developed and implemented successfully. Also lacking are

appropriate pedagogical models with documented successes, failures, and best practices.

This paper describes a technology-meditated collaboration between faculty and students in two different courses from two universities, one in the Midwestern United States and the other in Israel. Despite different instructional and national contexts, the faculty believed the professional preparation for their respective students could be enhanced with cross-cultural and global competency skills gained from an international collaboration. The collaboration experience had to meet three essential criteria: (1) alignment with both courses' instructional and professional goals; (2) cross-cultural communication and collaboration could be included authentically; and, (3) goals were achievable via technology-mediated communication. This paper describes its development and presents results from the 2017 and 2018 implementations.

INSTRUCTIONAL CONTEXTS AND CONCEPTUAL FRAMEWORK

American Pre-service Education

Classroom Assessment (ASMT 4000) is a required course for third-year pre-service teachers (PSTs), most of whom will be completing their final teaching internship the following year. ASMT 4000 introduces assessment theory and practice, whereby students learn to develop and administer teacher-made tests. PSTs also learn about broader issues surrounding fairness in testing (Popham, 2011, 2013), including the assessment of English Language Learners (ELLs) (Pitoniak et al., 2009). Unfortunately, many PSTs get minimal to no first-hand experience with ELLs. This issue is one of many diversity-related concerns about the American teaching force and the university-based teaching pipeline (Musu-Gillette et al., 2016; US Department of Education, 2016), both of which are largely White, female, and middle-class [National Center for Educational Statistics (NCES), 2017a,b]. This makes it more imperative for university-based programs to prepare culturally responsive (Gay, 2018) teachers who can support the learning of all students (Sleeter and Thao, 2007; Council for the Accreditation of Educator Preparation (CAEP), 2013; Council of Chief State School Officers (CCSSO), 2013). Moreover, opportunities to engage in cross cultural contexts support PSTs' development of inter-cultural awareness, cultural sensitivity, and empathy (Willard-Holt, 2001; Palmer and Menard-Warwick, 2012; Campbell and Walta, 2015; Shiveley and Misco, 2015; Hepple et al., 2017; Haughton, 2018), as well as teaching philosophy and open-mindedness (Willard-Holt, 2001; Palmer and Menard-Warwick, 2012; Shiveley and Misco, 2015).

Israeli Hotel, Food, and Tourism Management (HFTM)

Students enrolled in the HFTM bachelor's program are prepared for leadership positions in the food and tourism industry. These students must develop the knowledge, skills, and dispositions to work in environments that are increasingly multicultural (García-Cabrera et al., 2016; Oktadiana et al., 2016). Moreover,

FIGURE 1 | Technology-mediated collaboration model.
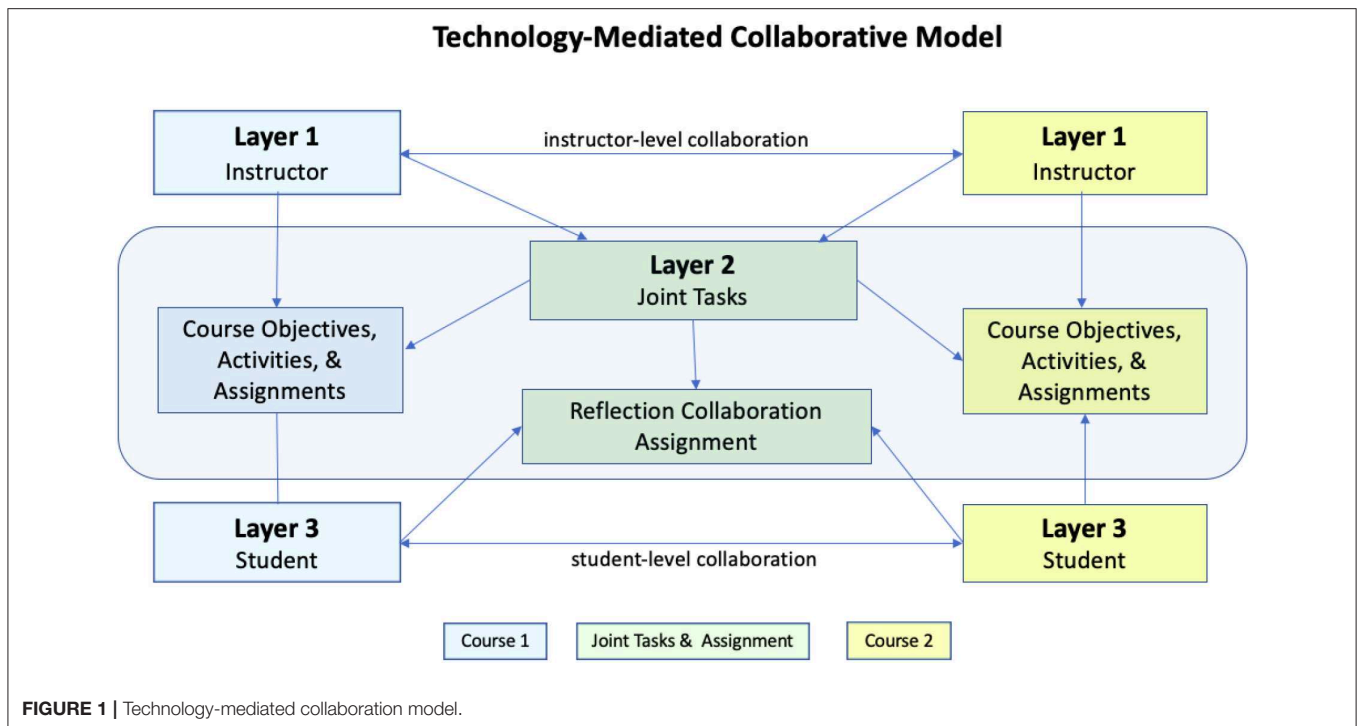
students who aim for top-positions in the tourism industry need high levels of international communication skills and multicultural sensitivity (Fernando et al., 2008) and must also be able to interview, consult, and handle a conversation in English with non-Israeli clients and partners. The HFTM organizational behavior course includes globalization and working in a multicultural environment. Specific training in interviewing, consulting, and conversing in English is not addressed in the HFTM program. Hence, participation in the current project helps to bridge this curricular gap.

Project Description and Collaboration Model

Figure 1 describes the three-layer collaboration model that underpins the project's development and implementation. Building on Layer 1 (instructor-level collaboration), the professors examined their courses and co-developed a cross-course joint task, three new assignments, and a collaboration module (Layer 2) that aligned with ASMT 4000 and Organizational Behavior (OB) course goals and learning objectives. A performance-based task (Nitko and Brookhart, 2011) presented a real-world scenario that supported the instructional goals and learning outcomes of both groups of students. The current assignment description and tasks are detailed in **Appendix 1**, which includes a scenario in which five Israeli children will be joining the American PST's class.

Layer 2's new assignments included one course-specific reflection and a structured reflection on the collaboration process itself, which was completed by the students in both courses using the same prompts. American PSTs and Israeli OB students (OBSs) were partnered and expected to collaborate with each

other (Layer 3) to complete their respective assignments (Layer 2). The OBSs provided research-based information and personal insights that helped their PST partner(s) learn about Israel, the cultural and academic norms of Israeli schools, and ELL-related issues. PSTs were expected submit proposed research-supported improvements to their assessment plans, informed by their Israeli partners as well as their own research. Improvements had to support the learning and fair assessment of the five Israeli ELL students joining their class, which aligns with existing ASMT 4000 expectations and PST preparation goals. Though OBSs were not expected to be experts in classroom assessments, they were expected to use their knowledge and skills in organizational behavior to support their PST partner's information needs. This included learning enough about the topic from their PST partners and other sources so they can provide useful information, feedback, and advice. Beyond one required synchronous meeting, students were free to choose the best technologies that supported their collaboration and suited their personal circumstances. Skype was the most used technology followed by Facebook Messenger, WhatsApp, and Facetime.

Increasing Self-Efficacy in Multicultural Competences

Self-efficacy is a central concept in social-cognitive theory that refers to the belief of a person concerning her abilities to perform successfully in a specific context (Bandura, 1997; Van Dinther et al., 2011). Social-cognitive theory (Bandura, 1997) describes four main factors that affect self-efficacy for a specific activity. First, past successful experience with the activity. Second, direct persuasion from a reliable and capable figure including mentoring and feedback from an expert (Van Dinther et al.,

2011). Third, observing equal others performing the activity. Fourth, emotions and sensations that accompanies the activity. Self-efficacy affects choices, performance and perseverance (Schunk, 2003; Van Dinther et al., 2011).

The current model was expected to result in two advantages concerning the promotion of self-efficacy in intercultural competences. First, the mentoring by the instructors would activate the "direct persuasion" factor. Secondly, the involvement of each class in parallel intercultural relationships promoted the effect of "observing equal others." Further, it was expected that most students would have positive and successful experiences, thus promoting the other two self-efficacy factors: a successful experience and the related emotions and sensations. Therefore, it was expected that this technology-mediated collaboration would help to improve the PSTs' beliefs about their ability to use assessment strategies to support ELLs and other diverse learners, and their self-efficacy concerning their global competence, as embodied in the following hypotheses.

H_1: The American PSTs will report an increase in their self-efficacy concerning the use of assessment strategies at Time 2 compared with Time 1.

H_2: The American PSTs will report an increase in their self-efficacy concerning their intercultural communication skills at Time 2 compared with Time 1.

Support for H_1 and H_2 also reflects a successful and positive experience, which aimed to assist PSTs with broadening their instructional and assessment thinking from both the consultation process as well as their engagement with an ELL from another culture. A successful PST experience should also lead to the Israeli students reporting increased self-efficacy concerning their intercultural communication and English language skills, as reflected in the following hypothesis.

H_3: The Israeli OBs will report on increase in their self-efficacy concerning their intercultural communication skills at Time 2 compared with Time 1.

METHODS AND MATERIALS

Participants

Thirty-eight, and 33 American PSTs were enrolled ASMT 4000 in 2017, and 2018, respectively. Enrollment in the OB course during the same period was 27 and 23, respectively. The PSTs were in their junior (3rd or 4th) year and were preparing to teach Grades 5–12. The Israeli OBs were in their second semester of their first academic year in Tourism Management. Class size differences resulted in some of the Israeli students being matched with two American partners. Students consented to the use of related course data for research purposes.

Instrumentation

Two surveys, one each for the PSTs and OBCs, to measure self-efficacy were developed. Each survey was administered twice: at the beginning of and the completion of the collaboration. Though the common goal to develop the students' intercultural communication skills, questions were context-specific and aligned with each course's instructional goals and learning objectives. For example, the ability to communicate in English

was a part of intercultural communication skills for the Israelis but not for the Americans.

The American PST Questionnaire

The 2017 survey contained two set of questions for a total of 20 items, two of which were open-ended. The first set (Sub Scale 1) had 8 items related to the ability to communicate with someone from another culture, working with an international partner, asking about schools and culture, supporting the needs of diverse learners, supports the needs of ELLs, adopting assessment plans for ELLs, and diverse cultures. The second set (Sub Scale 2) had 10 items related to the value of the project as a learning experience and included improvements in communication and collaboration skills, learning about own culture, and whether the experience should be required for pre-service teachers. All items were measured with a four-point Likert like scale, ranging from 1 = strongly disagree to 4 = strongly agree. Cronbach's Alpha for the 18 items at Times 1 and 2 were 0.88, $N = 28$, and 0.92, $N = 20$, respectively, evidence that the items belonged to one scale. Sub-scale 1's Cronbach's Alphas at Times 1 and 2 were 0.68, $N = 28$ and 0.83, $N = 20$, respectively. Sub-scale 2's Cronbach's Alphas at Times 1 and 2 were 0.85, $N = 20$ and 0.92, $N = 20$, respectively.

The Israeli OB Questionnaire

Since the goal of any consultation is to help the consultee (the client), it was decided that the degree of satisfaction of the American PSTs with the collaboration as reflected in their survey responses, would also serve as a measure of the Israeli OBs' effectiveness as consultants. Beyond being effective consultants, a 6-item scale was developed to assess the Israeli students' self-efficacy. OBs were asked to report their level of confidence in their ability to: (1) collaborate professionally with an American partner, (2) engage in professional oral conversation in English with their client, (3) write professional e-mails in English, (4) read relevant material in English, (5) understand their client's needs, and (6) make valuable suggestions to their clients. Items were measured on a 5-point Likert scale ranging from 1 = not confident at all to 5 = very confident. Cronbach's Alphas were calculated using the combined 2017 and 2018 responses. The Cronbach's Alpha for the 6 items in Time 1 was 0.813, $N = 45$ at Time 2 Cronbach's Alpha was 0.847 $N = 40$ indicating all items belonged to one scale.

RESULTS

The Year 1 (2017) results will be presented first. This will be followed by a discussion and refinements implemented in Year 2. Year 2 results will then be presented.

American Pre-service Teachers

One-tail paired-sample t-test comparisons failed to support H_1 and H_2 PSTs. On average, PSTs were more confident with working with an international partner, from pre ($M = 2.72$, $SD = 0.826$) to post ($M = 3.22$, $SD = 0.548$), [$t_{(17)} = 2.297$, $p = 0.015$, $d = 0.542$]. The remaining Time 2 scores were mixed, with changes from Time 1 being non-significant. Though PSTs were less positive about the value of the collaboration at Time 2, they

also thought it should be required for all pre-service teachers and recommended it for future pre-service teachers.

Israeli Hotel, Food, and Tourism Management

The American PSTs' reflection comments and low evaluation of the project outcomes indicated that the collaboration, though enjoyable, did not contribute to their learning. Hence, the Israeli OB consultants, on average, did not support their clients' needs. Surprisingly and contrary to the American results, the Israelis were satisfied with the collaboration and reported increased self-efficacy concerning their global competences, supporting H_3. One-tail paired-sample t-test comparisons (2017) showed a significant increase in the overall self-efficacy from pre ($M = 3.94$, $SD = 0.493$) to post ($M = 4.18$, $SD = 0.56$), [$t_{(23)} = 2.231$, $p = 0.018$, $d = 0.45$]. Further, self-efficacy significantly increased in three areas: in the ability to write e-mails: from ($M = 3.71$, $SD = 0.908$) to ($M = 4.13$, $SD = 0.797$), [$t_{(23)} = 2.32$, $P = 0.015$, $d = 0.48$], the ability to read material in English: from ($M = 3.96$, $SD = 0.806$) to ($M = 4.33$, $SD = 0.702$), [$t_{(23)} = 2.58$, $p = 0.008$, $d = 0.53$] and the ability to suggest valuable suggestions: from ($M = 3.9$, $SD = 0.797$) to ($M = 4.38$, $SD = 0.647$), [$t_{(23)} = 2.50$, $p = 0.01$, $d = 0.49$].

Discussion and Refinements for Year 2

The 2017 results were mixed, with Israeli OBSs reporting positive outcomes while American PSTs reported a low evaluation of the collaboration experience. Differences in academic circumstances and task requirements likely, at least in-part, led to different expectations. Both groups were in different stages in their degree programs with most OBs in lower division courses, while the PSTs were completing upper division coursework. The Israeli OBSs' main concerns focused on fulfilling English language communication expectations, as most of them mentioned in their reflections. Hence, they limited their expectations and sense of achievement to conducting a conversation in English successfully. The PSTs, on the other hand, had more complex requirements and needed more direct and authentic linkages to issues relate to teaching, learning and assessment, which they did not receive from the consultation. Some PSTs engaged in their own research on Israeli schools and integrated these findings in their assignment. Others remained frustrated about the time they wasted.

An analysis of the Israeli final project reflections supported the PSTs' experiences. Only three OBs provided quality feedback and suggestions. The remaining consultants provided superficial suggestions and obvious strategies such as giving extra time to ELLs students and using simple words. The OBSs who provided quality feedback expanded their assessment knowledge by comparing an Israeli assessment with their PST partners' assessment to identify specific characteristics such as type of questions, level of difficulty, length of the exam, etc. This facilitated a rich discussion with their PST about teaching and learning in each context, including the role and differences of each country's culture in education an also led to further mutual exploration and discussion of contextual differences and similarities related to class size and behavioral norms. Not

surprisingly, PSTs in these partnerships reported very positive collaboration experiences.

The results of this analysis led to changes in all three layers of the collaboration model, the goal being to improve the collaboration experience for American PSTs while maintaining positive outcomes for the OBSs. The first change was clarifying the OB expectations by requiring each consultant to learn enough about the assessment topic to facilitate a successful consultation. The Israeli students were instructed to ask their American partners for tests from their assessment plans. Consultants were then required to conduct research comparing the American exam to local Israeli exams. This involved searching exam databases for the corresponding topic and grade level, contacting and interviewing local teachers and children in the same topics and grade levels, and using their research results to support their recommendation to their PST partners. The second change occurred on the American PST side with the integration of an additional unit and reading on the fair assessment of ELLs, which was sequenced the just prior to the collaboration period. PSTs were also reminded to do their own research about the Israeli context and were instructed to send their assessment plans to their partners during week one of the collaboration.

Insights from the 2017 experience enabled the instructors to improve the management of the collaboration process including being able to anticipate and prepare students for common issues such as non-responding partners, scheduling, time zone logistics, and time management. Weekly status reports facilitated immediate intervention where needed. Scaffolds in the form of email examples and communication tips were discussed in each course. Both groups of students were given additional concrete collaboration strategies such as the types of questions to ask and more importantly, to report non-responding partners sooner than later. PSTs were also required to send a final thank you message to their partners, which marked the end of the collaboration. Both professors agreed to monitor students' progress more closely, especially in the beginning. Students had to carbon copy their instructor in emails sent at the beginning of the collaboration and when problems occurred with their partners. The professors remained in constant contact via WhatsApp and email, which further enabled solving issues as they arose. Finally, the number of items on the PST survey was reduced to 16 with the removal of redundant questions. The wording of the remaining items was improved for clarity, alignment with course objectives, and alignment with culturally responsive teaching and assessment strategies (Gay, 2018).

Year 2: 2018
American Pre-service Teachers

A significant improvement in the overall self-efficacy concerning the use assessment strategies and intercultural communication skills from Time 1 to Time 2 was predicted. Paired comparisons shown in **Figure 2** mostly support this prediction with PSTs reporting significant improvements in self-efficacy for both Assessment Strategies and Global Competences, from Time 1 to Time 2. Thirteen of the 16 items improvements were statistically significant. PSTs felt significantly more able to able to understand the assessment needs of racially and ethnically diverse students
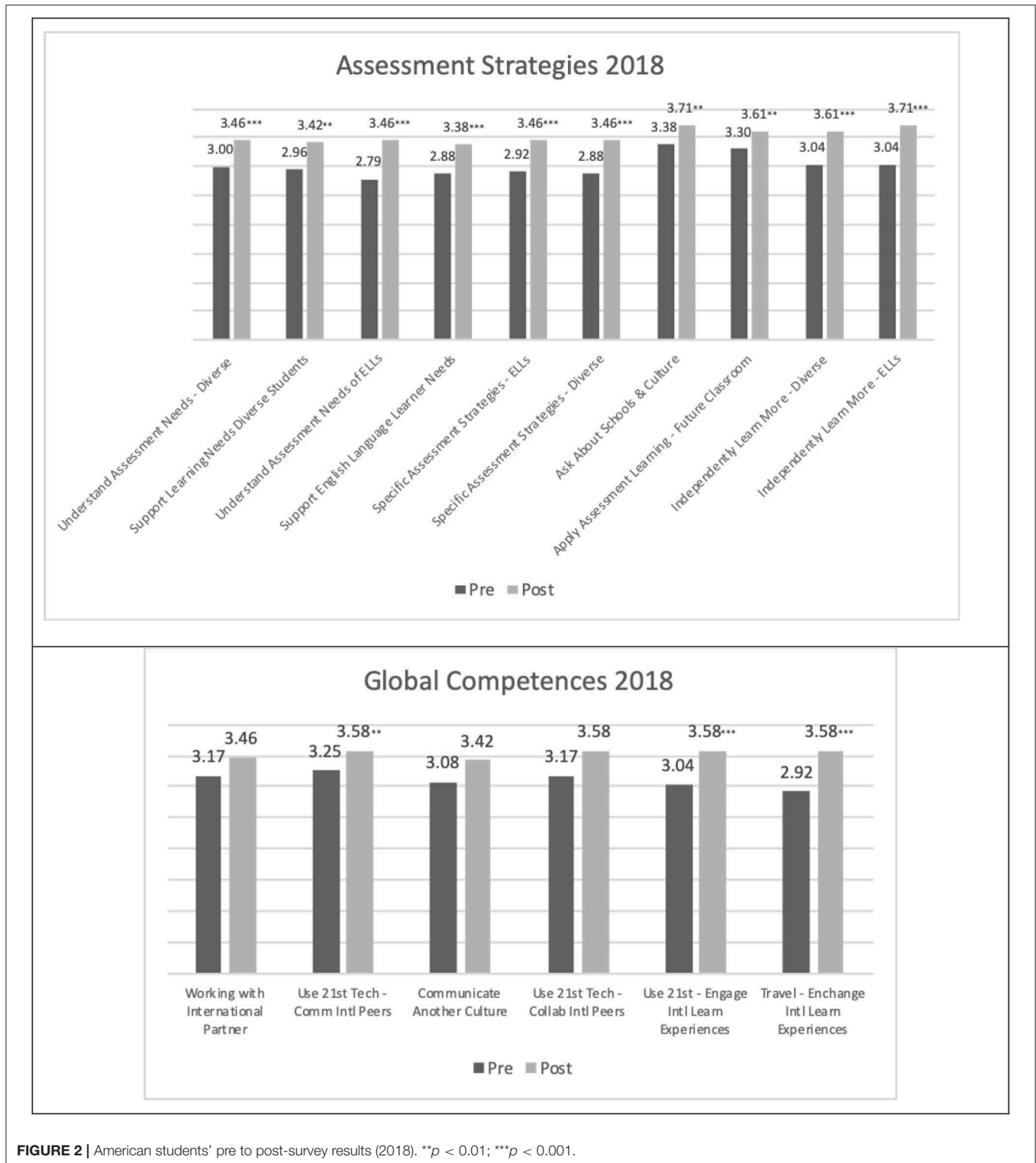
FIGURE 2 | American students' pre to post-survey results (2018). ****p < 0.01; ***p < 0.001.**

$[t_{(23)} = 2.882, p = 0.008, d = 0.83]$ and support their assessment needs $[t_{(23)} = 2.410, p = 0.024, d = 0.72]$ by applying specific assessment strategies $[t_{(23)} = 3.984, p = 0.001, d = 1.21]$. They felt significantly more able to understand the assessment needs of ELLs $[t_{(23)} = 4.290, p = 000, d = 1.21]$ and support

their assessment needs $[t_{(23)} = 2.269, p = 0.011, d = 0.84]$ by applying specific assessment strategies $[t_{(23)} = 3.380, p = 0.001, d = 1.07]$. They also felt more able to ask about the culture of schools and students $[t_{(23)} = 2.563, p = 0.017, d = 0.70]$, engage in the independent learning about racially and

ethnically diverse students [$t_{(22)}$ = 3.725, p = 0.001, d = 0.89] and ELLs [$t_{(23)}$ = 4.653, p = 0.000, d = 1.12], and apply the assessment strategies they learned in their future classrooms [$t_{(22)}$ = 2.299, p =0.031, d = 0.61]. In terms of Global Competences skills, they felt more able to use 21st century technologies to communicate with international peers [$t_{(23)}$ = 3.122, p = 0.024, d = 0.85], use 21st century technologies to engage in international, cross-cultural learning experiences [$t_{(23)}$ = 4.033, p = 0.001, d = 1.12], and more likely to engage in travel-based international learning experiences [$t_{(23)}$ = 4.653, p = 0.000, d = 1.14]. Gains were also marginally significant for working collaboratively with international peers: (M = 3.17, SD = 0.565)–(M = 3.46, SD = 0.509), [$t_{(23)}$ = 1.664, p = 0.055, d = 0.338] and communicating with international peers: from (M = 3.08, SD = 0.654) to (M = 3.42, SD = 0.584), [$t_{(23)}$ = 1.696, p = 0.052, d = 0.353].

Israeli Hotel, Food, and Tourism Management

A significant increase in the overall self-efficacy at Time 2 compared with Time 1 was predicted. The results of a paired-comparison shown in **Figure 3** supported the prediction, with a significant increase in the overall self-efficacy from: (M = 3.46, SD = 0.923)–(M = 3.91, SD = 0.753), [$t_{(14)}$ = 2.781, p = 0.008, d = 0.72]. Further, self-efficacy significantly increased for the ability to: work together with an American partner: from pre (M = 3.27, SD = 0.884) to post (M = 3.93, SD = 0.594), [$t_{(14)}$ = 4.183, p = 0.001, d = 1.08] make an oral conversation in English: from (M = 3.32, SD = 1.291), to (M = 3.73, SD = 0.961), [$t_{(14)}$ = 1.871, p = 0.05, d = 0.48]; and, write an e-mail in English: from (M = 3.40, SD = 1.140) to (M = 3.93, SD = 0.961), [$t_{(14)}$ = 1.95, p = 0.05, d = 0.50]. Gains were also marginally significant for the ability to understand the client's needs: (M = 3.32, SD = 0.910) to (M = 3.73, SD = 0.961), [$t_{(14)}$ = 1.70, p = 0.055, d = 0.44] and the ability to suggest valuable suggestions: from (M = 3.53, SD = 1.060) to (M = 4.00, SD = 0.926), [$t_{(14)}$ = 1.61, p = 0.065, d = 0.41].

Comparing the 2017 and 2018 Cohorts
American Pre-service Teachers

The results of a one-way Analysis of Variance (ANOVA) of the 2017 and 2018 PST cohorts' responses provided further evidence of the superiority of the 2018 collaboration experience. The five common Year 1 and Year 2 items, shown in **Table 1**, were: communicating with international peers, collaborating with international peers, supporting racially diverse learners, supporting ELLs, and, asking about the culture of schools and students. On average, the 2018 cohort reported higher post-project self-efficacy on all items. Moreover, levels of efficacy on two items were statistically significant: support racially diverse students [$F_{(1,45)}$ = 6.546, p = 0.014], and, asking about the culture of schools and students [$F_{(1,45)}$ = 10.200, p = 0.003]. The respective effect sizes η^2 = 0.127 and η^2 = 0.185 indicate 12.7 and 18.5% of the variances are attributable to academic year differences.

Israeli Hotel, Food, and Tourism Management

The 2-year comparison shown in **Figure 4** indicates that the OB students' increases in post-project self-efficacy remained high 2018. However, only one item, "working together with an American," showed a significant increase in 2018 as compared with 2017; from (M = 0.12, SD = 0.992, N = 24) in 2017 to (M = 0.67, SD = 0.617, N = 15) in 2018,[$t_{(37)}$ = 2.102, p = 0.042, d = 0.67].
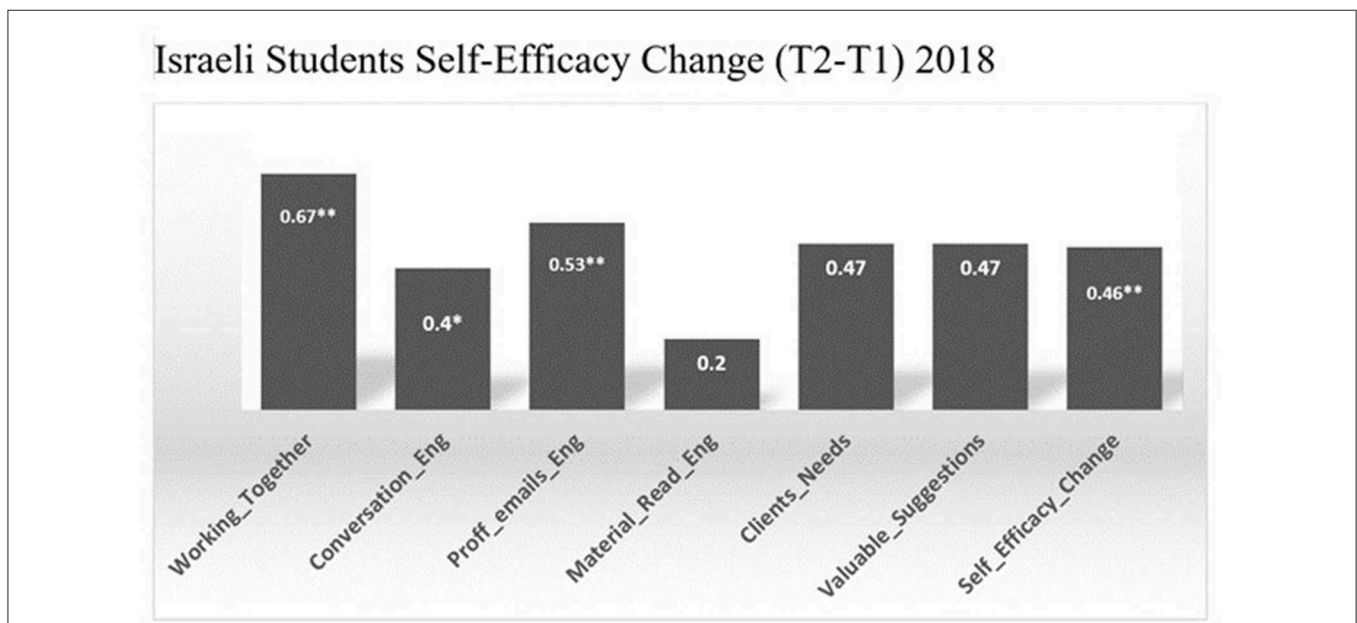

FIGURE 3 | Israeli students self-efficacy changes (T2–T1) 2018. *p < 0.05; **p < 0.01.

TABLE 1 | Pre-experience and Post-experience self-efficacy, Year 2 vs. Year 3.

|		Pre-experience			Post-experience		
Common items from 2017 and 2018 surveys		N	Mean	Std. Dev	N	Mean	Std. Dev
Communicating with Intl Peers	2017	26	3.35	0.562	17	3.24	0.562
	2018	28	3.04	0.637	30	3.40	0.563
	Total	54	3.19	0.617	47	3.34	0.562
Collaborating with Intl Peers	2017	26	2.81	0.694	17	3.12	0.600
	2018	28	3.14	0.525	30	3.43	0.504
	Total	54	2.98	0.629	47	3.32	0.556
Supporting racially diverse learners	2017	26	3.42	0.504	17	3.06	0.556
	2018	28	2.89	0.416	30	3.47*	0.507
	Total	54	3.15	0.529	47	3.32	0.556
Supporting ELLs	2017	26	3.12	0.766	17	3.29	0.588
	2018	28	2.93	0.466	30	3.43	0.504
	Total	54	3.02	0.629	47	3.38	0.534
Asking about culture of schools & students	2017	26	3.27	0.452	17	3.12	0.600
	2018	28	3.32	0.612	30	3.63**	0.490
	Total	54	3.30	0.537	47	3.45	0.583

$*p<0.05; **p<0.01.$
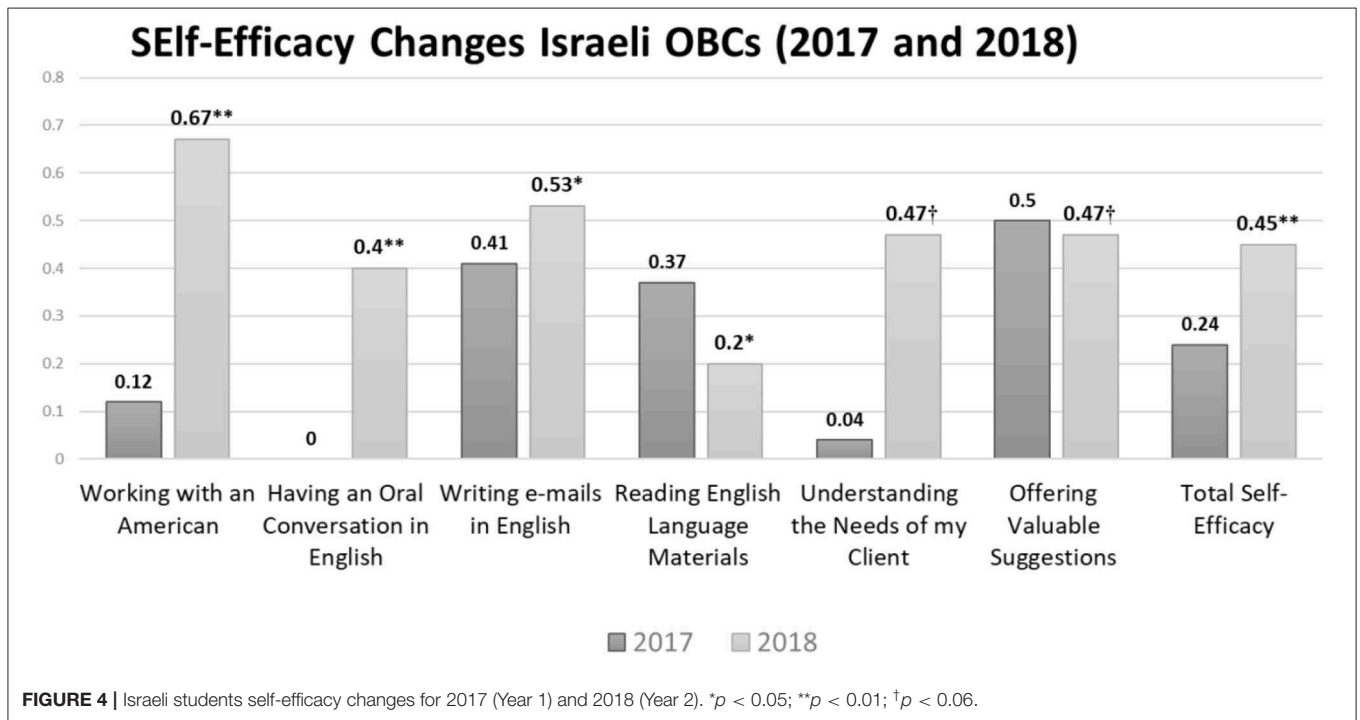
FIGURE 4 | Israeli students self-efficacy changes for 2017 (Year 1) and 2018 (Year 2). $*p < 0.05; **p < 0.01; ^{\dagger}p < 0.06.$

DISCUSSION

This paper described the development, implementation, and results of a short-term, technology-mediated, local-global international collaboration between two courses in different bachelor's programs, one in an American Teacher Education Assessment and the other in an Israeli Organizational Behavior. The collaboration was built on a three-layer collaboration model. The instructor level (Layer 1), in which one professor from each program agreed to collaborate and subsequently worked together to develop, implement, and manage the experience. A joint task (Layer 2) and related assignments and assessment

were co-developed and implemented, leading to modifications in each course's curriculum. The student-level (Layer 3), in which students from both courses worked together to compete the joint task and related assignments.

This project, like others of this nature, had limitations. The non-experimental nature of the project design and implementation could not account for other confounding factors (Creswell, 2013) that may have influenced gains in self-efficacy. Relatively high levels of writing in English was required. Closely monitoring and evaluating the project was time and effort consuming. The impact of cultural differences greater than those experienced by Americans and Israelis on this project is unknown. The current implementation aligns with known cultural differences between Americans and Israelis. Americans are individualistic, lower in power-distance, that is, they are less accepting of social inequality, and less tolerant of uncertainty (Hofstede, 1980; Pines, 2004). Power-distance differences are not relevant where two students have similar social status. Israelis children are higher in their coping-self and social-self factors on the 5-Wel Scale (Myers and Sweeney, 2005), which are related to coping with stress and the creation of social contacts, respectively (Tatar and Myers, 2010). Further, despite having more stressful lives and generally lower standards of living in Israel, Israelis exhibit lower levels of burnout than Americans (Pines, 2004). Thus, given the known differences in tolerance of uncertainty and coping with stress, we assumed that Israelis are cable of handling a task with a high degree of demands and uncertainty. Indeed, the project task-design, was demanding and uncertain for the Israelis, because they were instructed to handle a consultation in a foreign language with a teacher on a subject matter that will be revealed later. This was expected to work within this context. Thus, in the case of other two cultures, this model should be adjusted to the relevant cultural differences.

Future research should include testing and implementing this model in other cross-course, cross-cultural, and cross-national settings especially those with greater cultural differences. The limited success in the first year of the project suggests that an action research component must be a part of project implementation and changes made as necessary. Three major curricular changes resulted from the year 1 action research: adding an inquiry learning task to the organizational behavior course; adding more content on fair assessment of ELLs to the assessment curriculum; and, adding a closing communication requirement for the American PSTs. It is likely that any implementation of this model will require similar curricular and pedagogical changes.

The implementation of this model required committed faculty (Hulstrand, 2006) and the following steps outlined in **Appendix 1**. (1) Select one course from each country in which both joint and course-specific goals can be derived. While the courses do not have to be from the same discipline, the class ratios should be up to 1:2, and cross-course communication should be feasible. (2) Create an authentic scenario in which technology-supported collaboration (Smith, 2016) between the two cultures is required to complete a joint task and achieve both the joint and course-specific goals, including guided reflections (Hulstrand, 2006; Schuerholz-Lehr, 2007). (3) Develop and implement communication and collaboration guidelines and scaffolds, monitor the process closely, and intervene immediately to address the student-related collaborative issues that arise. Results from the second year confirm the value of the guidelines, scaffolds, and closer monitoring. Results from this pedagogical model also support the instructional value of local-global international experiences as alternatives to traditional study abroad (Schuerholz-Lehr, 2007; Soria and Troisi, 2014).

Despite the limitations, the evidence indicates that this short-term, technology-mediated experience provided democratic access to an international experience (Dessoff, 2006; Altbach and Knight, 2007) and met important cross-cultural goals. Beyond cost and travel logistics, local-global experiences have advantages over traditional traveling abroad models. First, course-based experiences enable all students to participate and not just those with pre-exiting global competence and interests in other cultures, and supportive personal circumstances. Second, successful technology-mediated communication and collaboration is not only the best replacement for face to face contact, it is also a valuable skill in itself that has currency in professional settings in an increasingly inter-connected world.

CONCLUSION

Having intercultural communication skills is an important higher education outcome, which supports professional readiness for careers in diverse settings. Global competency-type skills have always been an essential component of academic work even in the pre-globalization era (Altbach, 2004). Thus, given the barriers to traditional international experience (Green, 2003; Knight, 2005; Dessoff, 2006; Altbach and Knight, 2007), university teachers, where feasible, should consider collaboration models that facilitate at-home global experiences. However, technology mediated cross-cultural communication is not simple and has limitations such as relying on written communication and time zone related difficulties. Also, the lack of direct face-to-face interaction can lead to misconceptions about success as happened with the Israelis in the first year. Therefore, such projects demand close monitoring, scaffolding and the use of action research to improve the results.

The current collaboration model provided American PSTs and Israeli OBSs the opportunity to practice successfully cross-cultural communication. A practice that by all predictions, will be necessary for their future in the global world.

DATA AVAILABILITY STATEMENT

The datasets generated for this study will not be made publicly available per IRB approval terms and conditions.

ETHICS STATEMENT

The studies involving human participants were reviewed and approved by University of Toledo's Institution Review Board. The patients/participants provided their written informed consent to participate in this study.

AUTHOR CONTRIBUTIONS

NH and MS developed the model and the assessment tools, collected the data, analyzed the data, and reported the results. Finally, the paper was written collaboratively by both authors.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/feduc.2020.00024/full#supplementary-material

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