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## **Institutional Barriers to Study Abroad Participation: The Perceptions of Undergraduate African American Students**

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### **Abstract**

The study abroad experience at the university level is an increasingly important developmental opportunity. Unfortunately, while campuses within the United States collectively enroll a growing number of international students, the number of American students studying abroad during an undergraduate degree program remains consistently low. This is especially true among African American students. This case study examines the perceptions of undergraduate African American students regarding institutional barriers to study abroad. Supporting extant literature, perceived cost and restrictions on financial aid for studying abroad topped the reasons for not pursuing study abroad. In addition, the largest influences on the decision by African American students to participate in study abroad are family and friends. However, minimal institutional awareness of these influencers was present. To increase African American participation in study abroad, the findings highlight the need for focused institutional actions that include involving African American campus resources, carefully considering study abroad destinations, and strategic communication.

*Keywords:* African American; higher education; study abroad; undergraduate

The development of intercultural competencies among undergraduate students is critically important within an increasingly interconnected world (Petzold & Peter, 2015). To foster intercultural competency, universities across the globe have implemented a wide variety of strategies in recent decades, with study abroad becoming the key strategy. The result has been a growing number of international students attending American universities for short term study. At the same time, however, the percent of American students studying abroad during an undergraduate degree program has remained consistently low. This is particularly true among African American students.

This study was conducted at a research university in the central United States. The authors collaborated with the university's Division of Institutional Diversity, the Office of Multicultural Affairs, and the Study Abroad Office. The intent was to assess the perceptions of undergraduate African American students regarding potential institutional barriers that impede participation in university sponsored study abroad. The study was thus designed as an intrinsic case study to inform senior policy makers at the host site.

### **Review of the Literature**

The following review of the literature briefly examines three aspects of the study abroad experience, namely, its beneficence, factors that influence students' decisions to participate, and contextualized participation rates at the research university associated with this study.

### **The Benefits of Study Abroad**

Numerous studies note the value of study abroad experiences. Savage and Wehman (2014) found that 76 percent of students who studied abroad thought that the experience increased their critical thinking skills, while 72 percent of students thought the experience improved their academic performance. Twombly et al (2014) pointed to multiple benefits derived from study abroad participation, including: increased intercultural competence; enhanced development of participant identities as students, individuals, American citizens, and global citizens; strengthened intellectual/cognitive development; and better academic outcomes such as graduation rates, time to degree, retention, and GPA.

Interestingly, Martin et al (2015) found that students who were the least open to study abroad might be those who benefit the most from it. They found in their research that, in contrast to previous studies, students who indicated the lowest openness to studying abroad subsequently displayed the greatest developmental benefits. They noted that this could be the result of cultural novelty; although students who had not traveled abroad were less open to doing so, their lack of experience lent itself to the travel experience making a greater impression.

The benefits of study abroad, however, do not immunize universities from criticism related to the opportunity. For example, Marinoni and De Wit (2019) noted that only 2 percent of the world's student population has the economic resources and the social mobility required to participate in study abroad and benefit from the experience. What, therefore, are the institutional responsibilities to address such disparities? Is it possible that the internationalization of higher education may contribute to inequities among marginalized and underprivileged students, including those in the United States? Such were the foundational questions that led to this research study.

### **Factors Impacting Study Abroad Participation**

Research demonstrates that a variety of factors impact the student decision to participate in study abroad. According to Simon & Ainsworth (2012), these include finances, habitus, social networks, cultural capital, and institutional considerations, with race and academic year yielding the greatest impact. Petzold & Moog (2017) note that language challenges and concerns about the supportiveness of host universities also impact the study abroad decision-making process. The latter is particularly relevant for this study.

Among minority and low income students, decision-making factors often include barriers to participation. For example, Simon & Ainsworth (2012) note that socioeconomic status plays a significant role, with the advantages and resources associated with middle and upper income levels making it easier for students to participate. In addition, students from these income levels are more likely to have previously benefitted from prior international travel opportunities and to

know friends who go abroad. According to Booker, Zhang, & Caplow (2001), study abroad participants often do not rely on financial aid and/or employment to attend college. More than a dozen studies point to finances as a barrier for minority and low income students, including Burkart et al (2001), Brux & Ngoboka (2002), and Lörz et al (2016).

Beyond these studies, Brux and Fry (2010) indicate that low income and minority students are often embedded in social networks that are less conducive to study abroad participation. They add that access to print and visual media, as well as to information about study abroad, impact the decision, noting that the lack of requisite information may inhibit participation among minority students. They further suggest that institutional factors [such as academic scheduling, encouragement, study abroad destinations, and financial issues], family obligations, family concerns related to study abroad participation, and racism impact the decision to participate. The latter barrier is echoed in Dessoiff (2006), who found that African American students, despite a strong interest in study abroad, often perceive the process as cold, distant, and lacking responsiveness to their concerns about potential racism. Jackson (2005) argues that the effects of historical exclusion—e.g., minimal history of sending youth abroad among minority families—impede participation. Finally, Simon & Ainsworth (2012) suggest that low participation of minority faculty and staff may discourage participation among minority students. These findings are buttressed by extensive research over multiple decades and across institutional type (Amani & Kim, 2017; Boggs & Irwin, 2007; Chama, Ramirez, & Mutepa, 2018; Chieffo, 2000; Doyl, Gendall, Meyer, Hoek, Tait, McKenzie, & Looiparg, 2010; Green, 2007; Peterson, 2003; Stroud, 2010; Vernon, Moos, & Loncarich, 2017; and Yuksel & Nascimento, 2018). Collectively, these studies reveal not only that multiple factors influence the decision to participate in study abroad but also that minority and low income students encounter barriers—many of which are institutional in nature—that majority and middle/upper income students do not.

### **Contextualized Participation Rates**

Although the percentage of U.S. undergraduate students who studied abroad was low compared to the percentages in most other countries, the number of U.S. students participating in study abroad actually grew in recent decades. According to the National Center for Education Statistics (2016), during the 2004-2005 academic year 205,983 U.S. students studied abroad. After 10 years of steady growth, the number reached 313,415, a 52.2 percent change. This trend did not occur, however, in the home state of the research site. Whereas the Association of International Educators (2016) indicated that the percentage of American students studying abroad was 1.55 percent during the 2014-2015 academic year, the percentage in the subject state was 1.23 percent. According to the Institute of International Education (2017), no college in the state was in the top 10 nationally. Focusing specifically on the research site associated with this study, participation rates also lagged in comparison to all other universities in the same athletic conference. During the year of comparison, only 1,195 students from the research site participated in a study abroad program (Study Abroad Annual Report, 2017), whereas other universities in the athletic conference enrolled over 3,000 students in study abroad programs.

Notably, only 28 African American undergraduate students participated in study abroad at the research site, representing the lowest percentage of any group within the university (Study Abroad Annual Report, 2017). This contrasted with the trend involving African American students participating in study abroad programs at other universities within the conference. Data from the National Center for Education Statistics (2016), for example, showed that the number of African American study abroad participants at the national level grew from 3.4 percent to 6.1 percent over the past 20 years, a significantly higher rate than the typical 2-3 percent participation rate at the research site. These numbers highlighted the need for the collaborative institutional research conducted in this study.

### **Methods**

This research study was an intrinsic case study designed to examine student perceptions of institutional support for study abroad participation. The researchers worked with three key institutional partners to promote and distribute an electronic survey soliciting input from all African American undergraduate students on campus.

The survey instrument replicated the instrument used by Wanger et al (2012) to assess Native American student perspectives regarding study abroad. The 29-question instrument included both closed-ended and open-ended items. Because the term “Native American” was changed to “African American,” the reliability and validity of the instrument were retested and confirmed. The instrument was subsequently distributed using the Dillman Method of Survey Research, with three sequential and timed email distributions. Respondents completed the instrument via the Qualtrics survey platform. A total of 63 students participated, which was more than double the number of African American students noted above (28) who had actually gone on a university sponsored study abroad trip. This fell within the recommended response rates for research involving college students, according to Fosnacht, Sarraf, Howe, & Peck (2017), who argue that the minimum rate for unbiased results should fall between 5 percent and 75 percent. As subsequently discussed, the study thus produced data from both study abroad and non-study abroad participants. The study was guided by the research question, “How do undergraduate African American students perceive institutional support for participation in university sponsored study abroad?”

Data analysis included two separate processes. First, closed-ended questions were quantified and cross tabulated using the Qualtrics platform to produce descriptive statistics. Second, open-ended questions were coded using open and axial coding to reveal emergent themes. Inter-rater coding exceeded 90 percent.

### **Theoretical Framework**

Social capital theory guided the study. The theory claims that the social contexts of students inform their educational choices. These contexts include the beliefs, attitudes, aspirations, perceptions, and values of the home and school environments of the students (Bourdieu, 1986). These are typically formed prior to matriculation in college and are continually

shaped while in college by family, peers, and others. Consequently, a student's decision about educational choices is informed by multiple non-controlled variables that influence how they perceive and respond to opportunities while in college. Related to this research study, therefore, students' perceptions of opportunities such as study abroad are influenced by their pre-existing and evolving social contexts.

## Findings

### Demographics

The following paragraphs briefly describe the demographics of the participants. All percentages are rounded to the nearest whole number.

Of the participants, 74 percent were female and 26 percent were male. Regarding age, 91 percent were within the 18-25 age range and 9 percent were 26 years of age or older. The breakdown for socioeconomic status of the household in which the participants grew up were as follows: Upper class/rich, 0 percent; Upper middle class, 11 percent; Middle middle class, 44 percent; Lower middle class, 30 percent; and Lower class/poor, 15 percent. The communities in which they grew up were divided this way: Urban, 33 percent; Suburban, 50 percent; and Rural, 17 percent. Tables 1 and 2 highlight participants' academic year and college enrollment, respectively.

**Table 1**

*Academic Year of Participants*

<u>Year</u>	<u>Percent</u>
Freshman	26
Sophomore	22
Junior	19
Senior	33

**Table 2**

*College Enrollment of Participants*

<u>College</u>	<u>Percent</u>
Agriculture	9
Arts & Sciences	35
Business	22
Education	4
Engineering	20
Human Sciences	11



Participants who had previously traveled to a foreign country (57 percent) outnumbered those who had not (43 percent). Of those who said they had traveled abroad before, only 12 percent indicated that they had gone on a study abroad program at the subject university. A strong majority of the participants (61 percent), however, indicated that they knew a family member or friend who had studied abroad.

### Perceptions

Regarding the perceived benefits of study abroad, 19 percent said the chance to “learn about another culture” was the main advantage of study abroad. Two additional benefits, at 13 percent each, were the second highest. These were “Increase my independence” and “Help me professionally in a globalized world.”

Interestingly, the study found that more than three-quarters of the participants (77 percent) agreed or strongly agreed that information about study abroad programs at the university was readily available, and 67 percent agreed or strongly agreed that the variety of study abroad programs was good.

Participants were asked to select the factors that might prevent them from participating in study abroad. They were given 11 options from which to choose and asked to check all options that applied to their situation. An “other” option also was included, with a dialogue box for input. Table 3 notes the most frequently reported responses; it is noteworthy that cost issues and the availability of financial aid, when combined, constituted nearly one-third of all responses.

**Table 3**

*Top 6 responses to: “The following factors might prevent me from participating in study abroad (check all that apply)”*

<u>Option</u>	<u>Percent</u>
Program cost	20
Family obligations	12
Restrictions on financial aid for study abroad	11
Lack of foreign language knowledge	9
Fear for my safety in other countries	8
Fear of racism in other countries	7

The responses to this question should be considered in conjunction with a related question about funding availability (below). In response to that question [see Table 4], fewer than one-third of the participants held a positive perspective of the institutional financial resources that were available for study abroad.

**Table 4**

*Likert responses to: “[Subject university] offers good sources of funding for students who want to study abroad.”*

<u>Option</u>	<u>Percent</u>
Neutral/no opinion	53
Strongly agree or agree	30
Strongly disagree or disagree	16

Another question queried students regarding their perception of the institution’s support for African American participation in study abroad. As Table 5 indicates, 51 percent opted for the “neutral/no opinion” option, nearly a third (32 percent) either disagreed or strongly disagreed with the statement, and only 16 percent either agreed or strongly agreed. Thus, fewer than one in six African American students perceived institutional support for their participation in study abroad as strong.

**Table 5**

*Likert responses to: “[Subject university] encourages international experiences for African American students.”*

<u>Option</u>	<u>Percent</u>
Neutral/no opinion	51
Strongly agree or agree	16
Strongly disagree or disagree	32

Finally, participants were asked to indicate with whom they were comfortable talking about student abroad opportunities (Table 6). They demonstrated strong comfort talking to administrators (academic advisors and study abroad advisors). However, comfort levels were noticeably higher with regard to speaking with family members and other African American students, at 84 percent and 76 percent, respectively. Participants were least comfortable talking with faculty (39 percent) about study abroad.

**Table 6**

*Participants that agreed or strongly agreed with the Likert statement: “I feel comfortable talking to \_\_\_\_\_ about study abroad opportunities.”*

<u>Option</u>	<u>Percent</u>
Family	84
Other African American students	76
Academic advisors	67
Study abroad advisors	63
Professors	39

### **Open-Ended Responses**

The responses to open-ended questions overwhelmingly indicated that study abroad was perceived as a great benefit. The four primary benefits stated were: (1) Learning about another culture, (2) Increasing experience, (3) Enhancing professional growth, and (4) Broadening one’s horizon. These benefits emerged in response to the question, “What do you believe is the value of study abroad for African American students?” One student wrote that the best benefit was “Experiencing different cultures and meeting different people of different backgrounds.” Highlighting the second benefit, a student stated, “Learning about different cultures around the world and experiences that are once in a lifetime.” This was echoed in the comments of a student who wrote, “See new things and experience different things you could not in the U.S.” One response in particular to this question stood out. The student replied, “It allows us to go to another country where we can learn about other cultures and also see the lenses of someone else being the minority.”

Although the students recognized the benefits of study abroad, their responses addressed the institutional barriers that negatively impact the decision to participate. One student stated, “Honestly, finances could possibly be one of the main obstacles.” Financial considerations, in fact, were the most frequently mentioned barrier. Another student voiced the same concern, writing, “I think that [the institution] should find programs that are affordable.” A student offered, “Help us to find ways to fund it because a lot of times we cannot afford it.” Not surprisingly, the availability of financial support was noted by numerous participants. Another student said, “Make sure they [students] are aware of the resources available to help them afford the study abroad trip.” A participant effectively conveyed the perception of financial support by stating, “I think for many it seems unattainable because of the cost associated with it. There are scholarships available, but it still feels like a lot of money out of pocket. Finding a way to make them realize that it is financially feasible for them is important.”

Finances, however, were not the only barrier. Notably, a perceived lack of targeted communication and promotion of study abroad was cited. One student noted a need for, “More direct outreach to African American students,” while another said, “You need to tell more African

American students about the study abroad programs, [sic] I did not even know about it.” Some students also highlighted the importance of who conveys promotional messages and where they are given. A student suggested, “Have speakers attend African American organizations to reach out to the students and tell them about the study abroad opportunities.” Another agreed, saying, “...more study abroad information should be presented at minority events.” And a student wrote, “Get a teacher/advisor that is African American to attend.” The participants also suggested that more African American students should be involved in promotional efforts. Said one, “More African American students going [to promotions/outreach] could increase numbers of other African American students [who] participate.”

### Discussion

The following paragraphs explore the meanings of the preceding findings. Because this study was conducted as collaborative institutional research, we focus in this section on the meanings of the findings for the subject university. This supports the role of institutional research as “a proactive management guide” (Peterson, 1999) and institutional researchers as “change agents” (Delaney, 1999). Due to the critical framing and analysis that social capital theory provided, we begin with a discussion of the findings through that lens.

As previously stated, social capital theory holds that students’ educational perceptions and choices are influenced by their social contexts, which are both pre-existing and evolving. This suggests that the findings are more than just facts, statistics, or research data—they represent meanings that inform what was found. Consequently, it is impossible fully to explicate here all implications and relevance. We proffer, however, that certain implications are critical.

For example, the participants included students with diverse experiences: those who had participated in a subject university sponsored study abroad, those who had not, those who had not studied abroad but knew a friend or family member who did, and those who had and had not previously traveled abroad. This strong mix of experiences suggests that regardless of their previous experiences, participants self-selected based on their perceptions—whether positive or negative—of the beneficence of study abroad. We suspect, in fact, that despite divergent social contexts related to study abroad or international travel, participants likely viewed study abroad as beneficial. Such a case would further heighten the meanings of the previously reported findings. For example, it is likely that students who had (a) previously traveled to a foreign country, (b) gone on a study abroad program at the subject university, or (c) knew a family member or friend who had studied abroad, perceived study abroad positively and chose to thus respond to the survey. Conversely, many of the students for whom none of these held chose to not complete the survey. Although a variety of reasons exists for this decision, among the most likely is the perception that study abroad was an unrealistic option for them. Regardless, these diverse prior experiences coalescing around a unified theme underscore the importance of student perceptions, particularly as minority students in a predominantly white institution.

That the findings reveal positive perceptions regarding the value of study abroad is thus not surprising. The participants of this study concur with participants (both majority and

minority) in previous studies that examined study abroad; they recognize the multiple values of study abroad. In this study, they even perceive the subject university as readily providing information about study abroad and offering a variety of study abroad opportunities.

However, social capital theory suggests that their social contexts contribute to their perceptions of barriers to participation in study abroad. Understanding these barriers, therefore, becomes important not only for equity but also for enhancing African American student participation. In subsequent paragraphs we focus on the perceived barriers.

The greatest perceived barrier to participation in study abroad is cost. The findings clearly echo prior research (Lörz et al, 2016; Simon & Ainsworth, 2012; Brux & Ngoboka, 2002; Booker, Zhang, & Caplow, 2001; and Burkart et al, 2001). The distinction, however, is not just that the costs associated with study abroad potentially impede participation, but that the awareness of financial aid and the perceptions of costs further impact the decision. Although this is particularly true for African American students, as attested here, it also applies to the findings of Wanger et al (2012) and likely holds true as well for students from other minority groups and low income families. The implication of this point is that the subject university needs to do more to advertise the availability of financial aid for study abroad. This includes addressing the perceptions that students bring with them that study abroad may be too expensive, potentially resulting in a premature decision against participation. Such institutional actions depend on developing greater awareness across the university of the social capital that students bring with them.

The participants of this study also indicate that family obligations influence their decisions. This again mirrors the findings of Brux and Fry (2012), Dessoiff (2006), and Wanger et al (2012). The latter found that family responsibilities significantly impact whether or not Native American students pursue study abroad opportunities. When combined with the fear of encountering racism in another country, these factors account for nearly 20 percent of the decision-making influence noted by the students in this study. Because this is significant for African American and other minority students, further institutional research is warranted. Although full exegesis is beyond the scope of this research study, we address this consideration in the recommendations that follow.

Similarly, the special role that family and friends play for African American students, with regard to study abroad, is critical for understanding the perceptions that inform decisions. Far greater than faculty influence, the thoughts, values, and input of family and friends sway the decisions made by African American students in this study. This again underscores the need for greater awareness and incorporation of social capital theory as it relates to study abroad. If the university desires to increase study abroad participation rates among African American students, it must better understand the values, beliefs, aspirations and attitudes of African American students and their families (Bourdieu, 1986).

Along these lines, the participants strongly recommend targeted promotion of study abroad to African American undergraduates. Such promotion necessitates understanding the recipients. Burt (2000) notes that in complex and intensive social networks [such as research

universities] there often is a relative lack of connections between people and the institution. He describes these deficiencies as “structural holes” and indicates—per social capital theory—that people of the same perceived group are more inclined to be in close contact with individuals within that group. Burt’s comments are relevant here; enhancing participation rates requires strengthening—and in some cases, building—social connections. The participants of this study recognize this. They recommend targeted promotion, encouraging the facilitation of greater numbers of African American faculty and staff in study abroad, and incorporating African American students in the marketing of study abroad. In essence, the participants recommend that the university bridge the structural holes that currently exist.

Bridging these holes also includes addressing the perception of institutional support. It is striking that 83 percent of the participants were either neutral/had no opinion or strongly disagreed/disagreed with the statement that “[Subject university] encourages international experiences for African American students.” Although further research is needed among all students at the subject university, this may suggest that inequality in study abroad opportunities exists, a reality that certainly transverses American higher education. As Petzold & Peter (2015) note, and as this chapter began, the development of intercultural competencies among *all* undergraduate students is critically important within an increasingly interconnected world. To limit opportunities for some is to limit the future for all. Ensuring equal opportunity for all students thus becomes the domain of researchers, administrators, and policy analysts at both the institutional and national levels. Accordingly, we think that this study holds meaning for policy, practice, and research.

### **Recommendations**

As previously stated, the purpose of this research study was to assess the perceptions of undergraduate African American students regarding potential institutional barriers that impede participation in university sponsored study abroad, with the goal of making specific recommendations for reducing the influence of these barriers at the subject university. The five subsequent recommendations thus address student perceptions and requisite institutional responses. The first four recommendations are based directly on the findings of this research study, while the last recommendation is closely related.

First, we recommend that the university president create an ad hoc committee to explore undergraduate African American student participation in study abroad in depth. The committee should be composed of members of the African American Student Association, the Study Abroad Office, the Division of Institutional Diversity, the Office of Multicultural Affairs, and the Office of the Provost. The latter should include one or more African American faculty member who is active in study abroad. The committee should be charged with: (1) addressing issues associated with perceived costs, the role of family and friends in the student decision to participate, student perceptions of encountering and navigating racism while abroad, and other issues that may emerge, and (2) offering specific recommendations to the president within 12 months.

Second, we recommend that the Study Abroad Office investigate strategies and related institutional processes to increase the leadership of study abroad opportunities offered by African American faculty and staff. For faculty, the investigation should include collaboration with the Office of the Provost and the university Faculty Council to incentivize study abroad leadership within institutional policies for Appointment, Reappointment, Promotion and Tenure (ARPT). For staff, the investigation should include collaboration with the Staff Advisory Council (SAC).

Third, we recommend that the Study Abroad Office, the Division of Institutional Diversity, and the Office of Multicultural Affairs collaboratively explore mechanisms and channels to deliver targeted, strategic communications related to study abroad to African American students. This exploration should be guided by the principles of social capital theory.

Fourth, we recommend that the president and the provost collectively charter an ad hoc committee that is charged with finding ways to promote greater understanding, across the university, of the roles that social contexts play in educational decisions. The committee should address the relevant stakeholders and/or interest groups on campus, outline specific implementation strategies, and report their findings within 12 months.

Fifth, we recommend that the Study Abroad Office assess the relevance of current international destinations for African American students and explore new destinations that will facilitate greater participation. Similar to the third recommendation, this assessment should be guided by the principles of social capital theory, particularly as they relate to social contexts.

### **Conclusions**

This study represents a snapshot in time of undergraduate African American students' perceptions of study abroad. Conducted during two semesters at a research university, it was exploratory in nature and designed as an intrinsic case study. Consequently, these site-specific findings are not generalizable to other universities. However, we suspect that the patterns these findings reveal likely hold significant meaning for more than the subject university. Our hope is that other researchers—including institutional researchers and policy analysts—will expand related research by further exploring, in additional contexts, the perceptions and barriers that impact the decision of undergraduate African American students to participate in or reject consideration of study abroad.

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## **Our Diverse U.S. Culture, Heritage Languages, and International Education**

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### **Abstract**

The article examines the importance of bridging the gap between America's collective cultural heritage and its citizens who speak a language other than English, and how this can be fostered and encouraged through foreign language and immersion programs, international education, and study abroad. Effectively addressing this disparity in order to build interest in international education among Americans is a priority for global citizens' ability to navigate our increasingly multilingual communities and to increase intercultural understanding both globally and locally.

Action steps include increasing the number of foreign language and immersion programs, especially at the elementary and middle school levels, to develop the language skills and cultural knowledge that interest students in other cultures and which will empower learners as global citizens and local cultural ambassadors. Our heritage languages can play a significant role in creating interest in global connection, while strengthening communication and relationships within our increasingly multilingual local communities.

It is concluded that, while the worldwide COVID-19 pandemic has exacerbated the budgetary and enrollment challenges facing foreign language programs in the US, providing access to language learning, as well as developing career and other pathways fostering the authentic use of additional languages in the US workplace and in our society, is essential.

*Keywords:* multilingualism, heritage languages, global competency, language learning

In a globalized and interconnected world whose interconnectedness has been powerfully demonstrated by the COVID-19 global pandemic, relatively few Americans speak another language in addition to English, and relatively few US students are learning other languages (AMACAD, 2017; American Councils, 2017; McComb, 2001). In addition, enrollment in foreign languages is declining, especially at the college and university level. and programs in public elementary and middle schools in the US, which already served a relatively small percentage of students, have also declined in number in recent years, despite the vigorous efforts of dedicated educators and other language stakeholders at the local, state, regional, and national level (AMACAD, 2017).

Although educational institutions are the first association many Americans make with foreign languages, and for many are their only source of potential exposure to them, it is important to look at languages in the US within the context of the whole of society. While languages may not be at the forefront of the public conversation today, they have been part of US history since before the nation even existed, and the US has always been a nation of immigrants. Yet the role and importance of many different languages in the US is largely unspoken in the

overwhelmingly British and English-language narrative of both the European colonial era and the history of our nation.

Despite its historical English-only narrative, the US is--and always has been--an English plus society, and more than 60M US residents speak a language other than English in the home today (Zeigler & Camarota, 2019; Ryan, 2013). While this number is impressive in itself, the fact that the majority of Americans, over 200M, have another language in their personal cultural background and their family history demonstrates the paradox of the US foreign language deficit. Well over 200M Americans reported ancestry outside the UK and Ireland in the 2000 census, implying a language other than English present in their personal cultural background and a possible interest in learning more about said culture and its language and in developing an international mindset and skills (O'Connor, Lubin, & Spector, 2013). In contrast, only 300K (347,099) American students studied abroad in 2019 (IIE, 2020).

In order to build our international mindset and global citizenship values, it is necessary to look beyond the classroom and to re-connect with our own history and our own personal cultural identities, with international and foreign language educators leveraging the desire among many Americans to re-connect with our heritage to inspire foreign language learning. While Americans may have varying degrees of knowledge about and/or interest in their family languages and histories, it is interesting to note that over 26M Americans have actively researched their ancestry through DNA testing (Bursztynsky, 2019). In addition, in a recent survey of US public opinion on the humanities, languages were one of the preferred categories among those surveyed (Redden, 2020; AMACAD, 2020). For international and foreign language educators, advocates, and stakeholders, it is equally important to highlight the role of language skills and cultural knowledge in the workplace and in individual careers and to provide specific opportunities for language learners to develop pre-professional and workplace language skills (ACTFL, 2019; NAE, 2017). In our schools and on our college and university campuses, we must also develop in-person and online opportunities for language and cultural learning.

### **The Current Status of Languages in the US – Language Learning and Heritage Languages**

While the personal and professional benefits of language skills are well known, as are the benefits of language retention and bilingualism among heritage speakers, foreign language enrollments have declined in recent years in the US, with 11M (fewer than 20% of) K-12 students studying a foreign language and 1.4M (a mere 7.5% of) college and university students enrolled in a course in a language other than English (American Councils, 2017; MLA, 2019). Compared to Europe, where virtually all students study one or more additional languages, US students "lag behind" (Devlin, 2018). There is also a question of equity in that not all US students have the opportunity to learn another language. Relatively few US elementary schools offer foreign languages, and many of the schools offering foreign languages are private schools, leaving students in US public elementary schools less likely to have the opportunity to begin continued study of a foreign language in the earliest grades. These public schools least likely to teach foreign languages are also the schools most likely to serve low-income students, who are also the students most likely to benefit from bilingualism (AMACAD, 2017; Hu, 2018).

While well over 200M Americans have a heritage language and accompanying culture in their personal family history, many no longer speak the language. Some may be proficient, even fluent, while others may have varying degrees of language skills, and still other may have only a few words and expressions. Causes for this wide range of language retention include individual differences, time that the family has been in the US, contact with the family language in the home and the community, and the availability of relevant language learning opportunities. Goals include the need to both expand the opportunity for learners of all ages to learn another language and awaken the interest in other languages among Americans of all ages.

Foreign language learning takes place in classrooms, through online learning platforms, and also through less formal learning environments like language labs, language tables, and conversation groups whether in person or online, as well as through study abroad opportunities.

### **Bridging the Gap between Our Diverse US Heritage and International Education**

The very diversity of our US heritage may be the key to increasing interest in and engagement with international education among Americans, and especially among US students. However, leveraging our diverse heritage in order to re-awaken interest in our personal cultural identity and in other languages and cultures requires negotiation of the time that may have passed since arrival in the US and of the prevailing cultural narratives during various periods of our history.

An important first step is at the community level, where cultural events can re-awaken interest in a family heritage or in a significant local culture. These events need to appeal to a wide range of interests and age groups, and may not necessarily include any linguistic skills or advanced education. This first step can build from the local to a state or regional, or even national, initiative, including media, popular culture, and opportunities for creativity and self-expression.

Parallel to these community-based cultural initiatives, language learning in local schools, whether through traditional foreign language programs or immersion programs, is a simultaneous goal, although it is important to remember that culture belongs to everyone, regardless of language skills and education.

Many students arrive on college and university campuses wanting to change the world, and to make the world a better place, but they lack the language skills to do so, little realizing that the language they may have spoken as a child, or in their family, could be the key to being able to make a real difference locally and globally. Ideally, a re-awakened interest in family cultures would lead to an interest in other cultures generally, eventually leading to interest in language learning, international education and study abroad. In all these settings, it is important to highlight the uses of the target language outside the classroom and in social, workplace, and community settings.

The issue is how to re-awaken the interest in other languages and cultures among heritage learners and the general public. It is important to bear in mind that many Americans of non-English-speaking heritages may not speak their heritage language, and that it may be a language that has disappeared recently or generations ago. It may also be valuable to remember that many Americans have embraced another culture through shared communities and be more

desirous of learning an adopted cultural language than one reflected in their own family's history; others may be interested instead in learning another language, to which they have no personal connection but which is part of our collective cultural heritage within the US or as global citizens. Cultural events related to sports, food, and music may provide an entry point for all, and interest in the language may--or may not--develop. However, these heritage communities can still be wonderful allies for both language learning and international education as they create an environment for the cultural conversation, no matter in what language. It is especially important to avoid any occurrence of "language shaming," or criticism spoken or implied, of those who may not know the language, as this reflects external historic events and forces, including our own "melting pot" cultural metaphor, and is in no way the fault of the individual. A positive attitude is key, and all should be welcome and encouraged to re-connect with their heritage, whether they speak the language or not.

Language educators and other language stakeholders promote language learning every day in the classroom, through professional engagement, and through a wide variety of initiatives. A key issue remains the relative reluctance of English-speakers in the US to learn other languages, due to a mistaken belief that English is the global *lingua franca*, and that if a person speaks English, then that no additional language is needed. In fact, 75% of the world population does not speak English (British Council, 2013). Not only do language advocates need to make a data-driven case for language learning, highlighting the personal and professional benefits of language learning, their use, and the ROI (return on investment) –model to demonstrate the value of language learning to an individualist populace, but language stakeholders need to connect interested English-speaking Americans with another language in their heritage, or within their interests, in order to broaden the marketing funnel for language learning and international education.

While language is a unparalleled window into another culture, it is important for those working to expand interest in language learning to be inclusive in planning, including all those with an interest in one or more cultures even if they do not have language skills. to cast this broad net, events can include both in person and virtual musical, sports-related, and food-related events intended to appeal to the broadest audience.

Events may be community and campus-based general interest events or curriculum-related learning activities. While community and campus-based events are limited only by the interests and aspirations of local participants, they may range from international food fairs, film festivals, and concerts to language tables and book discussion groups, and many more, intended to appeal to a broad audience.

More campus-related events can include many of the same, but also interdisciplinary collaborations involving team-teaching, cross-listing, and creative approaches to reading modules, creative writing, poetry, and theater. In addition, faculty collaborations with global peers can provide experiential learning opportunities across the disciplines and around the world. Courses in business with readings and experiential learning in an additional language, or courses in STEM with transnational collaborations on climate, environment, and health sciences are only a few of the examples that come to mind.

The goal of such events should be to awaken, to re-awaken, and to encourage and foster interest in other cultures through language as a communicative tool.

## **International and Foreign Language Learning on Campus and Online**

Colleges and universities have a unique opportunity to foster and encourage language and culture learning both on campus and through global faculty connections. On a daily basis, faculty interact with students both local and global, and a typical class may bring together students from around the world, a wonderful opportunity to build bridges between cultures and to approach complex topics and issues with a global perspective. In addition, a college or university campus offers an unparalleled opportunity for students and faculty from around the world to meet in an open environment to both interact and to discuss a wide range of issues across the disciplines.

Beyond the events relevant to all communities and faculty collaborations with global peers, educational institutions have the resources and connections to enact collaborative initiatives with institutions of higher learning in other nations and with international organizations like the United Nations.

Online learning, already a factor in language learning, has become exponentially more important due to the COVID-19 global pandemic, which has limited travel and study abroad opportunities.

Language courses at all levels have been offered virtually through a variety of online learning platforms, with entire degree programs at the undergraduate and graduate levels available virtually. This trend has accelerated due to the health crisis and is unlikely to abate in the future. In addition to university and vendor learning platforms, learners have access to an unprecedented amount of authentic language and culture, in addition to language learning, online.

For international educators, the new challenge now is to harness online learning so that students desirous of the international experience can achieve their goals while travel and study abroad are limited, as are traditional international events on campus.

While the experience of study abroad and of international events on campus cannot be overstated, the availability of online learning platforms, video-conferencing, and authentic materials freely available online can empower students at all levels, from small children to adult learners.

Another changed aspect of education during the current health crisis is that many students have chosen to take a gap year, and this alongside the large numbers of students and teachers participating in education remotely means that many of us are at home more than usual. This unexpected time away from the traditional classroom and/or office can be maximized as an individual self-directed learning opportunity either to re-connect with a family language and culture or to learn a new language or about a new culture of personal or professional interest.

One potential challenge to the development of language skills is the choice of language. Some heritage learners may lack interest in their family language, and therefore, not learn the additional language that they have access to at home, while simultaneously developing a current or potential interest in a different language and culture. As all languages have value, and so many languages may be part of our US culture or reflect a specific interest of the potential learner. The choice of which language to learn is purely personal and individual, and there is no wrong choice, although of course the available choices in any given setting may vary substantially based on local resources. It can be frustrating for learners to find that in-person language learning opportunities are limited to the few most popular in their region, but encouraging to

learn that online opportunities to learn other languages now abound. In considering the value of offering particular language choices to students, and considering flexible credit options, such as offering credit for less popular choices through transfer status, shared enrollments, or online-only programs, for example, it is important to remember that motivation is the best predictor of language learning success, and that intrinsic motivation is the strongest.

Immersion has long been considered the best methodology for foreign language learning, so immersive experiences, whether in person or virtual are the ideal. The power of online learning in terms of language acquisition has been even more strongly demonstrated within educational institutions since the beginning of the COVID-19 pandemic, but it has long been an area of growth in for-profit language centers because of its appeal to learners both in and outside of educational programs and its ability to offer a wider range of language options than many campuses can do in any given semester.

Key factors to consider in an discussion of multilingualism as a global competency and of the US foreign language deficit include the need for language skills and cultural knowledge in international understanding and in the development of a global citizenship mindset and skills, with MLOW an example, along with the relative lack of foreign language skills and knowledge of other cultures among Americans. In addition, the need for foreign language skills in the US workplace exceeds the supply both in terms of international business as well as within the local economy (ACTFL, 2019; NAE, 2017; Chan, 2016; Lauerman, 2011; LangMag, 2011).

### **Multilingualism and International Education: The Multilingualism-Global Citizenship Connection**

Despite the impressive numbers of Americans who have additional languages and cultures in their personal backgrounds, the number who speak a language other than English in the home, and the number who study another language-- over 200M, 60M, and 13M respectively-- only 300K US students study abroad each year. While these numbers have increased in recent years, the disparity remains, indicating the need to re-awaken interest in other cultures among the general public and among active speakers of other languages, and to stress the significance of multilingualism in the development of an international mindset and global citizenship values. This is an equity issue as well, and it is important to ensure that funding and support are available to any student interested in study abroad and who may not have the needed financial resources.

Interest in other cultures and languages can be fostered and encourage through study abroad, through international and global learning on campus and online, and through programs like the Many Languages, One World Global Youth Forum (MLOW) (UNAI, n.d.; NAFSA, n.d.). MLOW has brought together college and university students from around the world to spend a week on a US campus near the UN headquarters participating in a global youth forum that culminates in the opportunity to present in the UN General Assembly. Students are invited based on essays on the significance of multilingualism in global citizenship, and the essays must be written in a learned second language that is also an official language of the UN. Students in this program are able to interact informally during the global youth forum in addition to working together in transnational teams on their UN presentations, also delivered in the learned language of their essay.



Following their participation in the Global Youth Forum and their UN presentations, many participants have continued their international engagement in various initiatives of the UN and other international organizations, as well as continuing cross-cultural friendships through social media and in-person reunions.

### **Advocacy for Global Citizenship through Multilingualism**

It is important for foreign language and international educators to work together to promote and support language and cultural learning both within their institutions and professional associations and as part of the public conversation, work that can be best described as advocacy. In one apt description, advocacy is defined as “persuading people who matter to care about your issue. It is about getting listened to, being at the table when decisions are made, being heard by people who make decisions” (Daly, 2011).

Effective advocacy is strategic in that it brings together educators, stakeholders, and external partners in order to promote interest in and opportunities, in this case for foreign language learning and international education, as well as opportunities for students, parents, heritage communities, and institutional decision-makers to understand the potential for the use of language and cultural learning and to provide career pathways and opportunities for students to maximize their educational ROI. But simply bringing people together is not enough; effective advocacy “is about facing and overcoming resistance. It is about speaking and writing in compelling ways that make decision makers want to adopt your ideas” (Daly, 2011).

While localized advocates can be effective in advocating for a specific language, grade level, or study abroad opportunity, to name just a few examples, the importance of partnerships, among language educators and between language and international educators, cannot be overstated. It is also important to leverage the broad base of support among the general public for foreign language education. In a recent poll, 49% of the more than 5,000 American adults surveyed in the Humanities Indicators Project “wish they had taken more classes in languages other than English (Redden, 2020).

### **Action Steps for Heritage Languages as a Pathway to Global Citizenship**

Americans can bridge the gap between our own collective US cultural heritage consisting of the many cultures and languages that have been part of our US story, and the cultures and languages of all in the US who speak another language in the home through language learning--foreign languages classes, immersion programs, international education on campus, and study abroad. Doing so more widely will build interest in international education among Americans so that we can participate more proactively as global citizens and more effectively navigate our increasingly multilingual local communities; such progress would also undoubtedly increase understanding both globally and locally.

It is important to consider heritage language an asset when planning for action, as well as to consider how we define heritage and heritage languages (ACTFL, 2020). As individuals, well over 200M Americans have a language in addition to English in their family, and learning more about those language and cultures may be a wonderful starting point for many in their lifelong personal journey of learning about many more languages and cultures. It is up to us to research

and study more what our own specific global and local heritage is, about how it affects us, how we relate to it, and how we communicate with others about it.

### Conclusions

The well over 200M Americans with another language and culture in their personal cultural identity and family history are potential supporters, stakeholders, and participants in international education, study abroad, and foreign language learning. It is important that all of us who believe in global learning work together to include them in our outreach and in the conversation. Multilingualism is not only our future, but also in our present (Montlaur, 2019).

Just as it is important to include all those who are--or who may potentially be--interested in languages and cultures in conversations about our diverse US linguistic and cultural identity, it is important to provide access through events that are inclusive, welcoming those who may have prior linguistic and cultural knowledge into the process.

Our heritage languages--even if they are not our personal heritage, but rather the languages of our collective American heritage or our aspirations for global citizenship --can play a significant role in creating interest in international education and study abroad while strengthening communication and relationships within our increasingly multilingual local communities. The challenge is to provide access to language learning to all interested students from the earliest age, to continue to offer those opportunities to citizens of every age, and to use other languages in an authentic manner in the US workplace and in our society.

Interested students, faculty and community advocates, and widespread educational initiatives can change the world, and our society, through multilingualism and international education.

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## **Internationalization of Hungarian Higher education – the contribution of the cooperation with foreign missions**

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### **Abstract**

In the last five years, the number of international students has increased significantly in Hungary, motivating the creation of a clear promotional strategy and involvement of other agents, such as foreign missions. The role of the national coordinating body, namely Tempus Public Foundation (National Agency, TPF), is inevitable in building a diplomat network with the contribution of foreign missions that could result in knowledge diplomacy. TPF is in charge of the management of most international mobility programs and grants in Hungary; it also manages the Study in Hungary initiative supporting the promotion of Hungarian HE abroad. TPF has started to build. The paper outlines the main trends and changes in the internationalization of Hungarian Higher Education, with the special focus on the role of cooperation of the national agency and foreign missions in supporting HEIs to boost their internationalizing activities.

*Keywords:* internationalization, foreign missions, promotion of higher education abroad, diplomat network

Internationalization is an essential part of the development strategies of Hungarian HEIs, therefore they become more and more active in the field of international cooperation, within Europe, and throughout the world.

Tempus Public Foundation is the national coordinating body in charge of the management of most international mobility programs and grants in Hungary. TPF has also managed the Study in Hungary initiative since 2013, with the aim to support the promotion of the Hungarian HE abroad. In the last 5 years, the number of international students increased significantly in Hungary, therefore there was a strong need to make a clear promotional strategy, and involve other agents, such as foreign missions. TPF has started to build a diplomat-network with the contribution of foreign missions that could result a knowledge diplomacy, knowledge transfer in certain respects. Regional diplomacy forums, national diplomats involved in regional promotion of the Hungarian HE, their participation in global educational expos, national workshops as common platforms for HEIs, and diplomats for discussing HE issues achieve a much more intensive and extended network based on personal connections and professional interest. Involving national diplomats, consulates and embassies could be an efficient way to expand general presence in a focus region of the world.

The purpose of this paper is to describe possible ways of cooperation with national consulates and embassies in country promotion from the practical point of view of a National

Agency by providing a brief history of the internationalization goals and recent processes of Hungarian Higher education.

### **Internationalization of Hungarian higher education**

In recent decades, the European integration and the Bologna process<sup>i</sup> have provided a strategic framework in Hungarian higher education settings by which universities could define their internationalization schemes. By joining the EU, Hungary has further increased its internationalization of Higher Education, and has also increased both its use of national funds and EU funds to enable international co-operation.

In its 2010 missive "Europe 2020 - A strategy for smart, sustainable, and inclusive growth," the European Commission identified the development of a knowledge and innovation-based economy as one of its priorities. The Commission has also launched a flagship initiative entitled "Youth on the Move" to increase the performance and international attractiveness of European higher education institutions to students from other nations by combining excellence and equity, encouraging the mobility of young people and improving their employment opportunities, and improving the quality of all levels of education and training (European Commission, 2010).<sup>ii</sup> This has made international mobility in higher education one of the EU's highest strategic priorities.

International student mobility is the most visible facet of higher education internationalization (Hudzik 2015). In the last decades, especially the 1990s through 2010, the intensity of international student mobility strengthened, and internationalization became the prevailing trend in higher education. According to OECD data, international student mobility has been expanding in the past twenty years, and as of 2018, 5.6 million international students pursue higher education abroad, more than twice the number in 2005 (OECD EAG 2020).

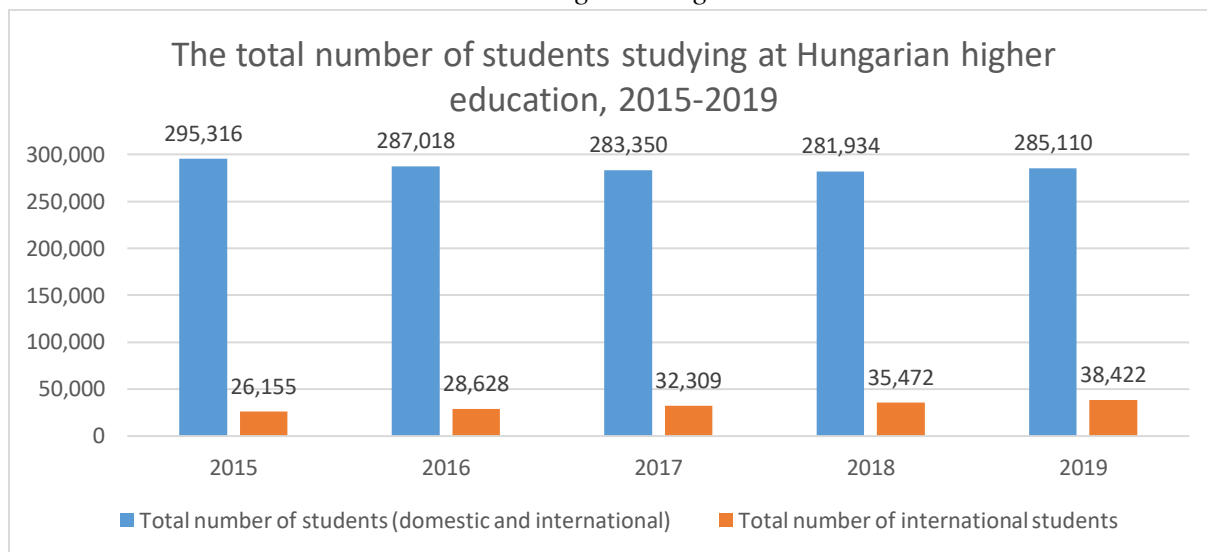
Especially in the past decades, Hungarian universities have faced major structural and strategic challenges. These changes have resulted in significant transformations in the governance, the organization, and the scope of the higher education institutions' international and national mission and activities (Kovács & al. 2018). Nevertheless, in these last few decades, internationalization in higher education institutions has been supported by many national and international initiatives. At the national level, it was a significant step that in 2013 the Hungarian government set up the Stipendium Hungaricum Scholarship Program, which aimed at supporting inbound student diploma and credit mobility from outside the EU, mainly from Asian and African countries. The increasing number of international students has had a considerable impact on the practices and policies of higher education institutions, and it has triggered changes at the system and at institutional level as well. Besides, between 2012 and 2015, the Campus Hungary, and later in 2015 the Campus Mundi Program was launched (co-financed by EU and the Hungarian government), with the aim of supporting higher education institutions in their internationalization activities and enhancing outbound student mobility as well (Kovács-Kasza, 2018).

As a result of internationalizing efforts, the proportion of international students studying in Hungarian higher education is becoming more and more significant: in the 2019/20 academic

year, their number is already 38,000, which is 10,000 more than just three years prior; they now represent 13.5% of all students (Figure 1). They come from nearly 164 countries, most of them from Germany, Serbia, and China; but also a significant number, more than a thousand, are from Slovakia, Romania, Turkey, Jordan and Iran. The number of Hungarians studying abroad is approximately 10,000.

Figure 1

*International and Domestic Students in Hungarian higher education 2015-2019*



Source: Educational Authority, Higher Education Information System

### **A vision for Hungarian higher education in 2030**

With regard to internationalization of Hungarian higher education, supporting two-way mobility of students and higher education institution staff between Hungary and other countries is an essential strategic step. This support includes scholarship programs, international marketing of higher education and the promotion of studies abroad of Hungarian students and outbound staff mobility that contribute to the international engagement of Hungarian HEIs, offers new learning opportunities and develops innovation.

Over the past 25 years, access to higher education has expanded, the institutional system and training structure of Hungarian HE has developed, and the need for quality development in higher education has emerged. However, this process of transformation took place in a way that led to a low-efficiency system in almost every element of higher education.

The Hungarian higher education needed to adapt the requirements of the global world by the renewal of training output requirements in terms of content and structure, focusing on to establish a higher education system that based on economic needs. This means that higher education institutions fulfill their role if the knowledge provided by them is relevant to the labor market. This is, ideally, beneficial to both society and the national economy. Since higher education acts as a catalyst for a certain regional, urban areas, it can become the engine of developments taking place around it, and its activities can have an impact on the environment.

Reducing the high drop-out rates in Hungarian higher education is also a central element of transformation. (Government of Hungary, 2016)

The government resolution on the adoption of the “Medium-Term Policy Strategy for Higher Education 2016” (1785/2016. (XII. 16.)<sup>iii</sup> makes it clear that growth in the quality of higher education is expected to increase by 2030. These expectations are related to the social and economic trends of recent years, such as technological revolution, globalization, demographic processes, and social needs.

The higher education strategy has four major areas of reform, the so-called support processes that contribute to the achievement of these strategic goals. The first major area is profile refinement and specialization. This means that it is necessary to reevaluate the educational and research focuses of the institutions to assess quality and goal compliance. The objectives for this area include the restructuring of training programs and the differentiation of the profile and designation of each institution. (e.g. the differences between a university and a university of applied sciences).

The next focus area is the transformation of the institutional system into one better geared to support regional cooperation between institutions, the pooling of resources, and the division of tasks. The objectives for this area include the rationalization of the institutional network, the development of Hungarian cross-border education, and the involvement of Hungarian institutions in international competition. A further objective in this context is to increase the mobility of students and teachers, which should also serve to strengthen relations with strategic partner countries.

Educational innovation--as a process of support--involves transformations designed to enable higher education to respond to the challenges of the 21st century, such as demographic changes, more intensive learning experience, methodological renewal, and spread of non-traditional forms of training. The last support process needed to achieve this innovation is the effective management of institutions and the adaptation of new business models (Government of Hungary, 2016).

The next section briefly introduces the National Agency and presents its two ongoing programs that strongly contribute to advance the internationalization of Hungarian higher education institutions.

### **The role of a national agency in internationalization of Higher Education**

Tempus Public Foundation<sup>iv</sup> – established in 1996 by the Hungarian government- is the national coordinating body in charge of the management of most international mobility programs and grants in Hungary.

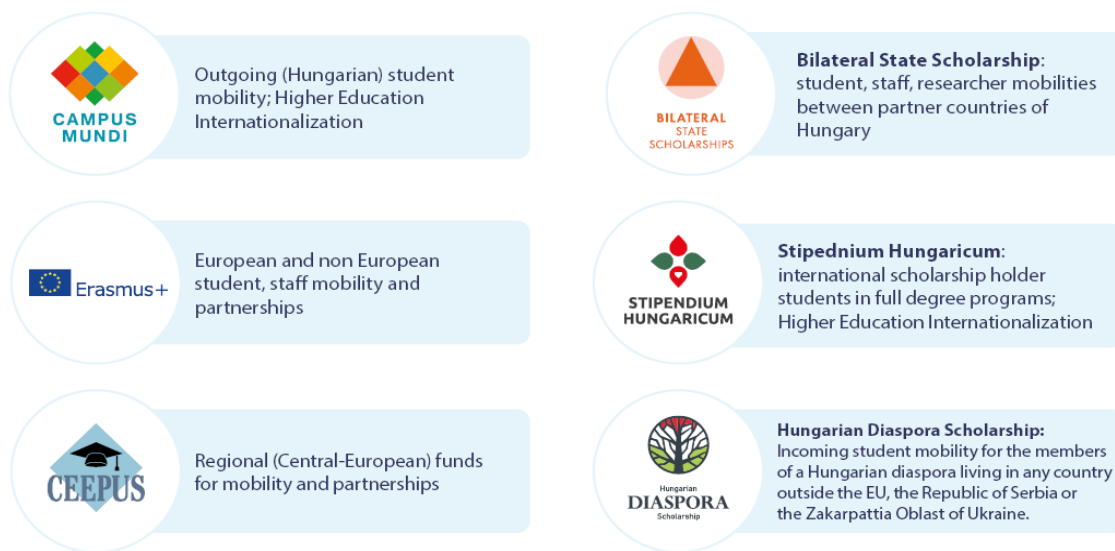
TPF’s role has been crucial in advancing the internationalization of Hungarian HEIs by encouraging international cooperation and mobility; the modernization and quality improvement of education, training, and human resources development; and the strengthening of European dimensions in these fields. (Tempus Public Foundation, n.d.)



Some of the most important programs managed by the national agency are displayed in Figure 2. Erasmus+ is the EU's program to support education, training, youth and sport in Europe that provide opportunities for over 4 million Europeans to study, train, gain work experience and volunteer abroad. (Tempus Public Foundation, n.d.) The Hungarian Diaspora Scholarship was established by the Hungarian Government for those who live in a Hungarian diaspora outside of Europe and wish to study at a Hungarian higher education institution to develop their personal, professional and cultural relations to Hungary. (Tempus Public Foundation, n.d.) Bilateral state scholarships are based on scientific and educational cooperation agreements signed by the governments of two countries. Similarly, to the foreign partner, the Hungarian side offers scholarships for foreign students, researchers or lecturers in higher education institutions or in scientific or art institutions. (Tempus Public Foundation, n.d.) CEEPUS is a mobility scholarship program in the field of higher education, designed to support student and teacher exchanges, the organization of summer schools, special courses and student excursions by developing long-term academic co-operation between partner institutions within the participating countries. (Tempus Public Foundation, n.d.) Campus Mundi and Stipendium Hungaricum programs will be discussed separately in the following sections.

Figure 2

*Programs for internationalization of Hungarian HE implemented by Tempus Public Foundation*



Source: Developed by Tempus Public Foundation

TPF has also been managing the Study in Hungary initiative since 2013, with the aim of supporting the promotion of Hungarian HE abroad. The Study in Hungary Division of the Tempus Public Foundation coordinate the unified participation of Hungarian HE at several international events in close cooperation with the Hungarian higher education institutions. It also

facilitates the cooperation between national promotion agencies, foreign affairs associates of the Hungarian Embassies, and international representatives of the Hungarian higher education institutions. (Tempus Public Foundation, n.d.)

Following the internationalizing goals, TPF is actively involved in encouraging foreign higher education institutions to cooperate with Hungarian partners. In addition, it is an important task how to make Hungarian higher education more widely known and to enhance its international visibility. Therefore, in the last years, TPF has developed its capacities in promoting Hungarian higher education and supporting HEIs to increase their international visibility. Under these activities, the promotion of Hungarian higher education abroad takes place under the unified Study in Hungary brand that enhances the coordinated effort to promote higher education abroad. Moreover, TPF has an extensive international network and cooperation with other national agencies; for example, the foundation usually organizes common events and receptions with the national agencies of the Visegrad Group<sup>v</sup> (Tempus Public Foundation, n.d.).

The main goal of these internationalization efforts is to support the international visibility of Hungarian higher education institutions, the Campus Mundi and Stipendium Hungaricum programs strongly contribute to the achievement of this goal.

### **Stipendium Hungaricum Scholarship Program**

Foreign missions support the promotion of the Stipendium Hungaricum program which is an important segment of the internationalization of Hungarian higher education since currently approximately 70 partner country are engaged with the program from diverse part of the world. Hungarian HEIs do not have the opportunity to present their course offers personally in each partner countries therefore the active participation of foreign missions is essential in provide information about Hungarian higher education and scholarship opportunities to students potentially interested.

The Stipendium Hungaricum Scholarship Program,<sup>vi</sup> which provides tuition-free education, monthly stipends, housing allowances, and health insurance for applicants from partner countries, was launched by the Hungarian government in 2013 with the declared purpose of improving the quality of higher education through internationalization, and strengthening the Hungarian scientific elite's international relations by increasing the cultural diversity of higher education institutions. The program is implemented in accordance with the Hungarian government's strategic goals regarding the structural development of higher education, and being a governmental program, its legislative background is set forth by a governmental decree. (Stipendium Hungaricum Scholarship Program, n.d.)

In line with the core idea of the initiative, the scholarship program aims not only to increase the number of incoming foreign students, but also to intensify higher education cooperation with international partner organizations. In 2019, 68 sending partners from 4 different continents participated in the Stipendium Hungaricum program. The selection of the participating Hungarian universities is based on tender: the call for application is open every two years, and the institutions are qualified to take part in a program after the assessment of their

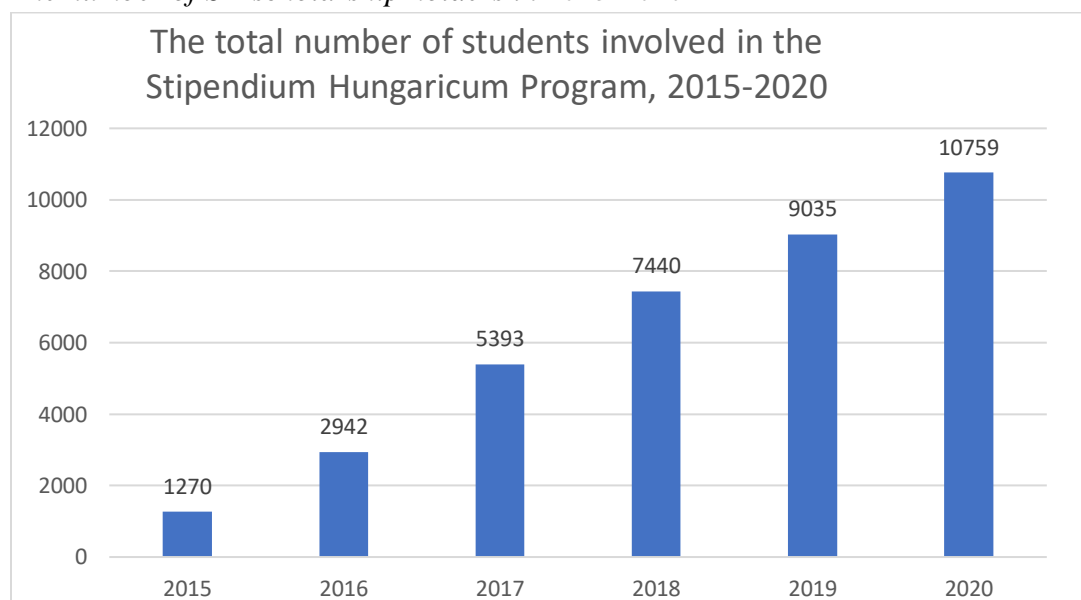
submitted proposal by independent external evaluators. In the 2018/2019 academic year, 28 universities took part in the program. (Stipendium Hungaricum Scholarship Program, n.d.)

In line with the increasing number of international students, the number of study programs taught in foreign languages (primarily in English) has grown significantly in all of the participating institutions, and internationalization has become a central issue of institutional development strategies.

Figure 3 shows the significant rise in number of incoming students with Stipendium Hungaricum Scholarship. In the 2020/21 academic year, their number is already 1059, which is 9489 more than just five years prior.

Figure 3

*The number of SH scholarship holders in 2015-2020*



Source: Educational Authority, Higher Education Information System

As a response to the increasing number of incoming students, universities have taken serious measures to cope with the emerging demands of their new inhabitants: curriculum development, quality assurance of student services, and increased intercultural awareness are just a few of the internationalization-related demands.

### **Campus Mundi Program**

Since 2015, the beginning of the Campus Mundi Program foreign missions have played more and more important role in supporting the international visibility of Hungarian higher education. In line with the aims of the Program the representatives of foreign missions assist in making more attractive the Hungarian higher education for foreign students.

In recent years, the role of the foreign missions has been expanded. Beyond their participation in international expos and student recruitment fairs, they have provided assistance in organizing several joint events (e.g. forums, alumni events, campus visits). Additionally, they

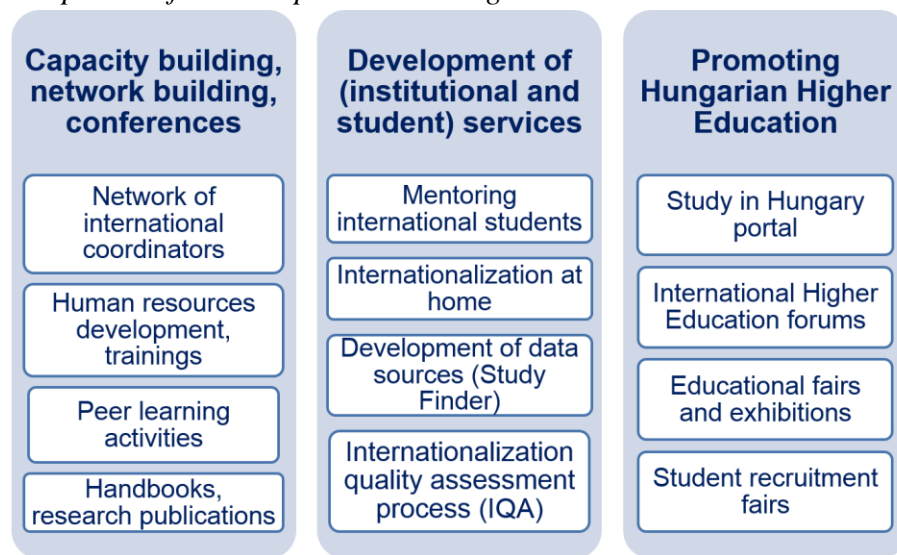
represented the Hungarian higher education in exhibitions independently, (without the participation of Hungarian HEIs and the national agency) in physical and virtual events as well. In 2020, this activity was limited to virtual events only during the pandemic.

The Campus Mundi program (co-funded by the European Union and the Hungarian government) - beyond providing outbound mobility opportunities for Hungarian students-mostly focuses on the strategic internationalization of higher education institutions. The aim of the Campus Mundi program is to improve the quality of higher education, to support the mobility of students and to strengthen the international reputation of Hungarian higher education institutions before its expiration in 2021. (Campus Mundi Program, n.d)

Figure 4 shows the pillars of the Campus Mundi Program that supports the internationalization of the Hungarian higher education. These actions are grouped around three priorities: capacity building, development of institutional and student services, promotion of Hungarian higher education. These activities provide the basis for stimulating cooperation among the national agencies, the higher education institutions and foreign missions, such as international promotion, training courses, workshops. Besides the other elements of the program, the activities of the third pillar, namely promoting Hungarian higher education contributes the most to tightening cooperation. This topic will be explained further in section: Main areas of cooperation.

Figure 4

*The pillars of the Campus Mundi Program*



Source: Developed by Tempus Public Foundation

### Cooperation with foreign missions

How can higher education institutions strengthen their competitive position among universities while intending to extend their professional networks? How can a national agency support this internationalization process while the competition is getting stronger, both locally

and globally? These questions made it necessary to search for ways to increase the effectiveness of existing and new partnerships.

In order to create a strong internationalization effort, the systematic cooperation of the National Agency with the various networks of foreign missions is an extremely important tool. The infrastructure of foreign representation for the development of international educational relations consists of the Network of Science and Technology (S&T) attachés, the Network of the Diplomats for Culture and Education, and the Hungarian Cultural Institutes.

### **Network of science and technology (S&T) attachés**

Hungary delegates S&T attachés to the partner countries that are the most important from the perspective of its scientific and technological policies. The attachés are primarily responsible for cultivating bilateral relations, coordinating RDI efforts, promoting the economic utilization of research achievements, networking, exploiting capacities, and sharing information between the partner countries. The network of S&T attachés works to the benefit of the entire Hungarian scientific community. Their activities include the representation of research in natural sciences and engineering, technological and product development, and innovation. The S&T attachés serve the institutions of Hungarian scientific research and management and the Hungarian research community as a whole. The network is operated jointly by the National Research and Innovation Office<sup>vii</sup> and the Ministry of Foreign Affairs and Trade. Like other diplomats, the attachés are directly subordinate to the ambassador or consul general in charge of the foreign representation. S&T attachés are currently delegated to the following 12 host cities: Berlin, Brussels, London, Moscow, New York, Paris, Beijing, San Francisco, Seoul, Tel Aviv, Tokyo, and New Delhi.<sup>viii</sup> (Network of Science and Technology (S&T) Attachés, n.d.)

### **Hungarian Cultural Institutes**

Hungarian cultural institutes abroad are important international institutions of cultural diplomacy. Minister of Religion and Public Education Count Kuno von Klebelsberg founded the first foreign Hungarian cultural institutes, the so-called Collegium Hungaricum, in the 1920s in order to build Hungary's international scientific relations (Vienna, Berlin 1924, Rome, Paris 1927).

The most important task of the Collegium Hungaricum is to improve international relations between Hungary and the host country in the field of cultural diplomacy, to foster international cooperation in the fields of culture and sciences, to preserve and popularize of national cultural heritage.

In addition to performing their cultural, educational, and scientific organization tasks, some of the institutes maintain other service attributes as well, for example, a library, a Hungarian language teaching center, or a gallery. Today, the network of Hungarian institutes abroad represents Hungarian cultural and educational policy in 24 countries worldwide with 26 institutes. (Cultural Diplomacy, n.d.)

### **The network of the diplomats for culture and education**

Diplomats specializing in education and culture operate in those countries where there is no cultural institute, but the improvement of educational and cultural relations is a priority for Hungary. At present, educational and cultural diplomats work at the following foreign representations: Amman, Baku, Hanoi, Kiev, Madrid, Shanghai, São Paulo, Tel-Aviv. (Cultural Diplomacy, n.d.) Educational and cultural diplomats also can provide assistance in cultivate an increase in international students wishing to study in Hungary and in the number of joint research projects in higher education and to build relationships between educational and research institutes in Hungary and the recipient countries that support student and teacher exchange.

### **Main areas of cooperation**

In 2017, TPF started working with foreign missions to build a diplomat network designed to facilitate knowledge transfer—a sort of knowledge diplomacy, perhaps. Working with the previously mentioned existing networks of diplomats, including regional diplomacy forums, national diplomats' involvement in regional promotion of the Hungarian HEIs in global educational expos and national workshops as common platforms for HEIs and diplomats to discuss HE issues achieves an intensive and extended network based on personal connections and professional interest. Involving national diplomats, consulates, and embassies could be an effective way to expand the general presence of Hungarian HEIs in a focus region. There are several points of contact in which cooperation with foreign missions can make the implementation of the “Study in Hungary” concept more effective, increase the representation of Hungary at various international events, and arouse foreign students' interest in Hungarian higher education. (Tempus Public Foundation, 2021)

### **International visibility of higher education**

As a part of the Campus Mundi program, a Hungarian booth can be organized at global educational expos and fairs in diverse parts of the world at least 6 times a year. In the last few years, the representatives of foreign missions were actively involved in both directions of international exhibitions (student recruitment fairs and institutional-focused expos) in order to support the “Study in Hungary” exhibitors.

As shown in Figure 5, below, between 2013-2019 the national agency organized the participation of Hungarian higher education institutions at 161 international event worldwide. This number is divided into 115 student recruitment fairs, 27 exhibitions and 19 forums and alumni events.

Figure 5  
International events from 2013-2019



Source: Developed by Tempus Public Foundation

In the framework of institutional-focused exhibitions, institutions have the opportunity to present themselves in an international environment and to build partnerships that will develop student and teacher mobility opportunities and to develop joint training programs. Hungarian HE is annually represented at NAFSA, APAIE, and EAIE exhibitions, taking the advantage of their related conferences in order to disseminate internationally the Hungarian higher education system's offerings. The diplomats are able to effectively support the institutional representatives' participation and negotiation in order to gain successful and long-term institutional relationships.

Connected to the institutional partnership building several side events and international forums are also regularly organized jointly with foreign missions to support Hungarian higher education institutions in strengthening existing partnerships and developing new ones. Examples in the United States include the Hungary Higher Education Forum (Philadelphia 2018) and Branding for Success: How to become a TOP 15 destination for US students (Washington, D. C. 2019).

The student recruitment fairs are the most important aspect, of the joint work, allowing the institutional representatives to present their foreign language training to those interested (students, parents, teachers) and to reach potential students with a number of promotional tools. During the recruitment work, in addition to the professional representation of Hungarian higher education institutions in the participating partner countries, special attention is paid to the introduction and promotion of the mobility scholarship programs such as the Stipendium Hungaricum and the Erasmus+ programs.

Due to the situation caused by the coronavirus, the number of virtual fairs has increased significantly. Previously, there were one or two virtual exhibitions per year, but in response to the pandemic, the largest exhibition's organizers had to restructure their annual plans and put a new emphasis on recruiting via the internet. In the fall semester of 2020, in addition to the



exhibiting institutions, foreign missions took part in several online exhibitions in Latin America, the Southeast Asian region, and the countries of the Indian subcontinent.

Related to the student recruitment fairs, Tempus Public Foundation, in cooperation with foreign missions and local partners, also organizes other professional events such as workshops, campus visits, student briefings, and alumni meetings.

The joint work is well documented by the numbers of exhibitions on which foreign missions have participated. Figure 6 shows the rising number of the representatives of foreign missions in the different types of international events between 2016-2020. Although in recent years there has been an increase in the participation of foreign missions for all types of events, it can be said that more intense growth is observed in this regard at student recruitment and virtual student recruitment fairs.

Figure 6  
*Participation of foreign missions in international events*

	2016		2017		2018		2019		2020	
	number of events	foreign mission's participation	number of events	foreign mission's participation	number of events	foreign mission's participation	number of events	foreign mission's participation	number of events	foreign mission's participation
conference and expo	2	0	4	0	5	4	7	4	-	-
student recruitment fair	4	3	5	5	8	5	10	9	-	-
forum, workshop	2	2	3	3	3	3	12	12	-	-
virtual student recruitment fair	-	-	-	-	1	0	2	0	8	1
virtual conference and expo	-	-	-	-	-	-	-	-	3	0
student recruitment fair with the participation of foreign mission only	-	-	-	-	-	-	12	12	2	2
virtual student recruitment fair with the participation of foreign mission only	-	-	-	-	-	-	-	-	6	6

Source: Developed by Tempus Public Foundation

### Exchange of experiences

In the past three years, TPF has had the opportunity to assemble the Hungarian foreign affairs associates from around the world by inviting them to an annual workshop where they could pool their substantial knowledge of the Hungarian higher education system, the possibilities for recruiting students in their regions, and how to aid the HEIs in building institutional partnerships. (Tempus Public Foundation, 2021)



The main goal of these conferences is to provide the opportunity to the representatives of HEIs and foreign missions to discuss the plenty of issues they have in common. This platform serves as a direct communication channel and information flow between the participants.

The conference also gives an excellent opportunity for exchanging accurate reports about new strategies, presenting updates on new communication tools, and sharing experiences, difficulties, and needs particular to different regions. This year, great emphasis was placed on exchanging experiences relative to the impact of the COVID-19 pandemic on higher education and on internationalization activities.

The role of the national agency in facilitate this dialogue involves many challenges to cope with. Knowing each stakeholder's needs at the time of occurrence (i.e.: different needs related to the specific regions, diverse focuses of HEIs) requires constant communication, information flow and feedback from all the stakeholders all year round. The monitoring of the effectiveness of the many different channels through the communication and information transfer can be realized is also needed.

The national agency's task also to pass useful, evidence based information in a clear, understandable form to the representatives of foreign missions, by extracting relevant knowledge from research reports. In addition, TPF intends to provide this information through a learning management system (canvas) in the form of info graphics and short factsheets. In order to gather practical material a manual was prepared to the foreign missions.

Aside from the annual reunions, there are forums for further knowledge-sharing each year on a regional level. The focus of these events is the trends of inbound and outbound student mobility in each region, region-specific partnership building with domestic higher education institutions, participation in student recruitment fairs, and involvement with the Alumni Hungary Network.

Due to the training provided to foreign missions, it has become common for diplomats to organize preparatory events for inbound scholarship holders. These events provide personal consultation for those who are interested in studying in Hungary by involving members of the Alumni Network Hungary<sup>ix</sup>.

A website was designed for the representatives of foreign missions that supports them in the promotion of study abroad programs and provides online communication tools<sup>x</sup>. In addition to online communication, the related printed publications ("Study in Hungary" leaflets, brochures with partnership building and student recruitment focus) are also important elements of the promotion that can be sent upon request. (Tempus Public Foundation, 2021)

It is essential that international students with positive experiences about the country may well become a kind of ambassador promoting Hungary's image (Császár, 2020). Within the framework of the Campus Mundi program, the international alumni network Alumni Hungary started in 2016, aiming to maintain contacts with international students who have completed higher-level studies in Hungary, and to strengthen and build Hungary's professional, scientific and economic relations. Foreign missions play an important role in communicating with international students returning to their home countries by organizing local programs for the

members. It is therefore a common interest for both Hungary and the foreign missions to integrate international students graduating in Hungary into the Alumni Hungary Network creating a unified database and a base for building a deliberate community. This platform, facilitates the communication between alumni members in order to build international collaborations. In this way the number of opportunities were increased for alumni members to participate actively in internationalization-related activities by organizing local meetings, holding lectures, and participating in international educational fairs as “student ambassadors.” The embassies regularly inform the alumni members about the news and opportunities in the form of embassy newsletters and local meetings (Tempus Public Foundation, 2021).

### **Conclusions**

To conclude some lessons learned from the cooperation since 2017, the introduction of the annual conferences has made smoother the work and the direct exchange of experiences between the national agency the foreign missions and the Hungarian HEIs. However, it requires plenty of work, continuous monitoring, as well as collecting feedback and acting on it. The Hungarian higher education institutions wish to strengthen their ties with the representatives of foreign missions, in order to consulting regularly on substantial issues. (i.e.: recruitment agencies with whom it is worth to work with). Diplomats help to maximize the impact of a Hungarian HEI’s participation at international events and increase the chances of making high-quality connections. They do this by assisting in appointments between Hungarian and targeted foreign universities-

The process of internationalizing Hungarian universities can be aided by developing training in an online platform. This will have the effect of facilitating engagement by newly joined representatives of foreign missions. In addition, attention should be focused on creating interest from foreign missions of countries that do not often conduct international education expos.

In the past decades, following the internationalizing goals, higher education promotion activities have been carried out by several organizations, namely higher education institutions, national and international agencies, and foreign missions. However, there had not been a coordinated effort to increase the global visibility of Hungarian Higher Education. Since the 2010s, due to the various programs (e.g., Stipendium Hungaricum program, Campus Mundi program), the demand for integrated promotional activities has been strengthening. To achieve this goal, TPF, as a national agency, has taken an active role in developing the network of the various actors, namely diplomats, higher education institutions, moreover other national and international bodies, with the focus on the global visibility of higher education and the exchange of experiences. The study confirms that the roles and the importance of foreign missions in the promotion of higher education in the case of Hungary is inevitable, and it can include a various range of activities. It is essential to raise international student’s trust and confidence in Hungarian higher education in order to create partnership agreements between the Hungarian and

foreign higher education institutions. Foreign missions also have an important role to facilitate this process.

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Georgina Tweneboah completed her BA and MA studies in International relations. Throughout her studies, she has written two theses in connection with cultural policy (The development of the Hungarian-French cultural relations from 1919 to 2011 and the improvement of Hungary’s cultural relations from the change of regime up to now days). Georgina started to work in the field of internationalization of higher education institutions four years ago when she joined to the Study in Hungary department of Tempus Public Foundation. Besides organizing many recruitment fairs, she participated in numerous preparation training for representatives of higher education institutions and was involved in the network building of foreign missions.

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<sup>i</sup> Since 1999, by launching the Bologna Process, internationalization has become one of the main policies in higher education. The central element of the Bologna model has been the strengthening of international student mobility. In 2009, the Leuven/Louvain-la-Neuve Communiqué – adopted by all 48 participating countries by 2012 – defined a new strategic goal related to student mobility. The goal aimed to increase mobility with a specific target: by 2020, at least 20 percent of the graduates would have pursued higher education abroad. As is mentioned above, this goal was adopted by national governments in the last years ([www.ehea.info](http://www.ehea.info)).

<sup>ii</sup> <https://eur-lex.europa.eu/legal-content/HU/TXT/?uri=celex:52010DC2020>

<sup>iii</sup> <https://net.jogtar.hu/jogszabaly?docid=A16H1785.KOR&xtreferer=00000001.txt>

<sup>iv</sup> <https://tka.hu/english>

<sup>v</sup> The Visegrad Group (also known as the "Visegrad Four" or simply "V4") reflects the efforts of the countries of the Central European region to work together in a number of fields of common interest within the all-European integration. Czech Republic, Hungary, Poland and Slovakia have always been part of a single civilization sharing cultural and intellectual values and common roots in diverse religious traditions, which they wish to preserve and further strengthen. Further information: <https://www.visegradgroup.eu/about>

<sup>vi</sup> <https://stipendiumhungaricum.hu/about/>

<sup>vii</sup> <https://nkfih.gov.hu/about-the-office>

<sup>viii</sup> <https://nkfih.gov.hu/english-2017/diplomacy-at-foreign/network-of-diplomats>

<sup>ix</sup> <https://alumninetworkhungary.hu/>

<sup>x</sup> <https://tka.hu/nemzetkozi/5815/kulugyi-munkatarsaknak>

## **Digital Worlds and Transformative Learning: Google Expeditions, Google Arts and Culture, and the Merge Cube**

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### **Abstract**

Virtual and online learning arrived through a *force majeure* (French for “superior force”), the global COVID-19 pandemic. Google Expeditions, Google Arts and Culture and the Merge Cube are classified as simulated learning environments. Virtual Reality (VR) and Augmented Reality (AR) create simulated learning environments with the potential to increase student presence and engagement, thereby facilitating inquiry-based learning through location-independent meaning-making. The use of multisensory approaches in AR and VR enables additional pedagogical strategies for personalized content and differentiated instruction while connecting to learners’ diverse intelligences. In addition, such simulation environments provide pathways for training learners in 21st century core skills such as agility, complex problem solving, critical thinking, creativity, collaboration, and digital literacy. Transformative pedagogical approaches are called for to develop, implement, and deliver teaching for 21st-century curricula. Twenty-first century curricula needs to enable students to actively engage, explore, and experiment with contemporary technology and engage with lifelong learning processes. This article briefly traces the conceptualization of three tools particularly well suited for 21st century skills engagement: Google Expeditions, Google Arts and Culture, and the Merge Cube. More broadly, the article also explores the challenges and educational use cases of digital worlds and transformative learning experiences.

*Keywords: virtual reality, augmented reality, Google Expeditions, Google Arts and Culture, Merge Cube, multiple intelligences, experiential learning, e-learning ecologies, simulation environments*

Virtual and online learning arrived through a *force majeure* (French for “superior force”), the global COVID-19 pandemic. Teaching took a leap into the digital world as educational institutions closed locally and globally, forcing teachers, instructors, facilitators, and businesses to deliver classes or training completely online. Schooling went online to suddenly home-based students (from the prekindergarten level to the graduate level) and adults involved in corporate training and education. At the same time, there emerged an explosion of new apps, virtual classrooms, video platforms, and digitized learning activities with new learning management platforms that swarmed the EdTech market. Much hype and many broken promises litter the educational tech space of online teaching, with the demise of often-immature apps and discontinued, failed, or merged distance-learning tools. Even Google Hangouts and Google Expeditions will disappear in their current version. Other failed ventures are inBloom,

ConnectEDU, KNO, and SharpScholar, to name but a few.

The pandemic forced educators to adjust to hybrid or fully online learning environments and update their teaching toolbox with digital tools and educational technology. After months of at-home instruction, screen fatigue struck learners and educators alike. Experiential learning where students learn through socially engaging hands-on experiences and inquiry-based learning which aims to trigger student curiosity, became more important than ever for an online engaged student learning experience.

Prior to COVID-19, the epitome of inquiry-based learning was the student-favored field trip to an exciting location away from school or college. Merriam-Webster defines *field trip* as “a visit (as to a factory, farm, or museum) made (as by students and a teacher) for purposes of firsthand observation” (Merriam-Webster, n.d.). Beyond the obvious joy of getting out of an institutional setting, field trips complemented in-class learning through a wide range of activities from musical performances to tours of historical sites, from museum visits to science demonstrations in real laboratories such as the currently closed Sony Wonder Technology Lab in New York City. The goal of field trips is to actively engage students by stimulating curiosity, emotion, and a change in perspective. Educator and philosopher Herbert Spencer introduced laboratory teaching in 1911, stating that the study of “surrounding phenomena is immensely superior to the study of grammars and lexicons” (Spencer, 1911, p.8).

Virtual trips through Google Expeditions, Google Arts and Culture and Merge’s digital three-dimensional (3D) objects (holograms) are accessible, low-cost ways for educators to create student experiences that “act as a common experience for instructors and students making abstract concepts and ideas tangible and vivid” (Parmaxi A., 2017, p. 368). Virtual fieldtrips allow introduction of dynamic learning experiences, high-quality content, interactive views and interactive synchronuous experiences.

### **Virtual Reality (VR), Augmented Reality (AR), and the Merge Cube**

In my experience, virtual reality is a computer-generated simulation of images or environments allowing user interactions within a seemingly real or physical setting. Merriam-Webster (n.d.). defines *virtual reality* as “an artificial environment which is experienced through sensory stimuli (such as sights and sounds) provided by a computer and in which one’s actions partially determine what happens in the environment.” Google Expeditions, Google Arts and Culture, and the Merge Cube hold the promise that students will learn through engagement and experience through immersive learning. Jean Lave, an anthropologist, in his treatise *Situated Learning: Legitimate Peripheral Participation* takes a closer look at established immersive technologies with a positive view of their educational potential while pointing out drawbacks in the context of immersive student interaction (Lave, 1990).

Augmented reality (AR) experiences such as Pokémon Go and social media apps like Snapchat create interactive experiences by layering digital elements over the real world in a live environment around the viewer, who uses AR glasses or a smartphone camera. According to

*“What’s the Difference Between Virtual Reality and Augmented Reality?”* (Bardi, 2020, para. 2), in Augmented Reality, the computer uses sensors and algorithms to determine the position and orientation of a camera. AR technology then renders the 3D graphics as they would appear from the viewpoint of the camera, superimposing the computer-generated images over a user’s view of the real world.

The soft foam Merge Cube features unusual patterns on each of its six sides. When one of the sides is scanned with a compatible app, the Merge Cube enables an interactive AR experience. Moving and rotating the Cube in the hand can shift the AR object in every possible way. The Merge Cube requires apps to be used on either iOS® or Android devices. It can be used with or without a set of VR goggles, depending on how many free hands are needed to manipulate it. Smartphones and tablets with iOS 9+ and Android 4.4+ can be used to view content on the Merge Cube with the CoSpaces Edu mobile app (Al-Gindy, 2020). The Merge cube, an add-on to the CoSpaces platform gives developers the opportunity to create holograms in CoSpaces. CoSpaces is a Microsoft Education Partner that is “working to help teachers across the world upgrade their learning tools by integrating Microsoft technology like Immersive Reader and Teams with Merge EDU” (eSchool News Staff, 2020, para. 2). Merge’s app store titled the ‘miniverse,’ hosts around 50 apps, more than a dozen of which were created in-house (Carnett, 2020).

The Merge Cube is an AR experience which involves multiple sensory modalities. Other AR examples include AR Ruler, BBC Civilizations AR, Amikasa Design, Knightfall, and the Merge Cube. AR offers students the opportunity to apply their knowledge and skills to combine digital information with real-world environments (Wojciechowski, 2013). The study “The Effect of Augmented Reality Applications in the Learning Process” by Ozdemir (2018) analyzed learning and student engagement, coming to positive conclusions when using AR applications as compared to other educational resources. The study found greater achievement in AR relative to the use of traditional learning methods.

### **Cauldrons of Content**

Following the initial launch of Google Arts and Culture in 2011, the Paris-based Cultural Institute opened in 2013 using Google’s Street View technology to capture the interiors of acclaimed museums and the artwork on display. More than 1,200 museums spanning 70 countries, ranging from the Metropolitan Museum in New York City to the State Tretyakov Gallery in Moscow, participate. Google’s Cultural Institute has been able to “put the world’s cultural heritage in the hands of the world” (Marsh, 2020). Beyond museums and artwork, Google Arts and Culture offers virtual visits to more than 10,000 places, ranging from Ecuador to Saudi Arabia. Users can maximize and zoom in on any aspect of a famous painting and study every detail (Boyd, 2019) or experience cultural heritage sites through 360-degree photos or videos. Such free and universally accessible content is possible by partnering with and accessing the Smithsonian, The Wildlife Conservation Trust, and the Royal Collection Trust, and other

cultural institutions (Craddock, 2018).

Google Arts and Culture offers a wide range of interactive experiences and activities for learning beyond the classroom. These include doing virtual puzzles, coloring in art books, comparing cultural monuments across time, doing visual crossword puzzles, and projecting 3D models into real-world environments using a phone camera. In addition, it is possible to explore ancient artifacts and objects, visit museums across the globe, and see their entire collections in high definition. Google Expeditions offers exploratory, realistic, and first-person perspectives in life-like experiences (List of available expeditions, 2020). With Poly, Google's 3D asset library, users can create 360-degree panoramic images, sound, narration, points of interest, and image overlay, allowing for collaboration and knowledge sharing. Asset libraries are organized collections of digital files, vectors, icons, images, color palettes, fonts, and other available resources.

### **Authentic Experiences and Transformative Learning**

Virtual field trips lend themselves to the acquisition of subject-specific skills and enable learners to relate existing knowledge to new tasks while developing multiple viewpoints and cross-pollination to other areas in their studies and life. Virtual fieldtrips also improve epistemic knowledge and procedural knowledge acquisition. Epistemic knowledge involves knowing how to think and act like a practitioner, showing the relevance and purpose in students' learning. Procedural knowledge is the understanding of how a task is performed, and how to work and learn through structured processes. Procedural knowledge is particularly useful for solving complex problems.

The use of AR digital teaching aids helps teachers to find alternative means of providing hands-on learning in science, technology, engineering, and mathematics (STEM) subjects with a deepening of students' epistemic and procedural knowledge. Current health guidelines recommend that objects are not to be physically shared in classes, thereby limiting students' hands-on experiences in STEM projects. In response to these concerns, Merge Cube has released unique AR tools that allow users to hold digital 3D objects, including "rocks, minerals, animal teeth and skulls, cells, and more that cover a wide range of science topics" (eSchool News Staff, 2020, para. 6). Merge offers a curated and robust selection of digital teaching aids for every student, with multisensory, interactive simulations and engaging activities for remote or in-class use (Learn Science-Master STEM, 2020).

Transformative learning, a term coined by Jack Mezirow (Lulee, 2009), the father of the transformative learning theory, is the idea that learners can adjust their thinking based on new information. Therefore, setting a purpose for students as they explore their virtual field trip environments is important to foster robust student engagement with the experience. Interdisciplinary knowledge can be encouraged through virtual field visits of specific locations and targeted task setting such as identification of similarities or creating timelines to identify key events. For example, students can compare cultural moments in time to learn not only about



culture and history but also about timelines and disciplinary thinking (Buttet, 2020).

Students can also be directed to pick photos or artwork on the Google Arts and Culture site and delve deeper into their historical context (Bristol, 2020). Educators might be interested in the ‘Favorites’ feature of Google Arts and Culture, which allows teachers and students to create personalized resources by using bookmarks. Students can then create custom galleries for assigned topics, whether they be historical figures, art movements, or cultural heritage sites. Such student-created custom galleries can serve as a portfolio or backdrops for other school projects.

Virtual field trips lend themselves to jigsaw cooperative learning strategies. The jigsaw grouping strategy rearranges groups to collaborate and share their learning. Jigsaw grouping is an outstanding method for improving students' teamwork and communication skills. Teachers can divide virtual field trips into subtopics, with students working collectively to gather information for a final presentation or project. Such an instructional approach allows for information sharing and synthesis of the collected information through synchronous learner interactions in the virtual environments. Groups can also join forces to create what-if adventures based on Google slide presentations (“Resources teachers can use today,” 2020).

Virtual field trips might engage English Language Learners (ELLs) in language learning through visually rich environments, prompting the use of content-specific academic vocabulary, information recall, and purposeful conversations. Immersed in virtual field trips, ELLs can develop their ability to convey the meaning and intent of content while clarifying and evaluating information from multiple perspectives. Building student vocabulary might be another goal as an ELL language objective. Teachers, as virtual guides, can point out different objects in the panoramic views or ask students to find certain features or items. For example, imagine students are learning about ancient civilizations and their agriculture and food. A virtual field trip to Machu Picchu would concretize vocabulary like Incan citadel, and introduce food vocabulary such as maize, potatoes, grains, legumes, and fish.

### **Merge Cube Experiences**

Howard Gardner’s theory of multiple intelligences (MIs) states that MIs appear with varying degrees in each person. His book *Intelligence Reframed* lists these MIs as verbal/linguistic, logical/mathematical, visual/spatial, bodily/kinesthetic, musical, interpersonal, intrapersonal, and naturalistic, with existential/spiritual added later. The theory of MIs holds that human beings use, learn, and understand information in different ways and to varying degrees (Gardner, 1999). The Merge Cube incorporates multisensory learning experiences through which students can engage with digital content intuitively by using their visual, auditory, kinesthetic, and tactile senses. Spatial intelligence is fostered through the manipulation and inspection of digital 3D objects. Integration with free online software such Paint 3D and Tinkercad enables 3D creation and printing. Using these tools, students can hold 3D designs in their hands or preview their creations before 3D printing, allowing faster design iteration and easier collaboration

(Learn Science-Master STEM, 2020). The Merge Miniverse features free content on topics from dinosaurs to active volcanoes and from waking up in a space station to experiencing a museum remotely in 3D (Miniverse Categories, 2021).

Merge experiences provide students with opportunities to learn about earth science; life cycles and traits; ocean animals; space systems; the structure and properties of matter, energy, waves, light, and sound; and more. Such virtual learning simulations are designed to replace or amplify real-world learning environments by allowing users to manipulate objects and parameters in a virtual environment (Makransky, 2019). Using the Merge cube, students can view and manipulate a virtual solar system on a classroom table or visualize the process of photosynthesis from a variety of perspectives. One of these science experiences is INCELL VR, an action/racing game that explores the microworld of a carefully recreated human cell while unlocking technology that can stop the spread of a virus (Miniverse Categories, 2021).

Science labs have a long history in science education, “so it is reasonable that the advances in computer-based learning would include the development of computer-based simulations of science labs and learning experiences” (National Research Council, 2011, p. 35). Merge Explorer’s free components enable students in kindergarten through Grade 8 to investigate the anatomy of the human body, the solar system, the inner earth, matter and chemical reactions, ecosystems and the food web, water cycles, weather and the atmosphere, and the life cycles and traits of plants—they can even dissect a frog virtually. These interactive experiences are aligned with the Next Generation Science Standards (NGSS) a multi-state effort in the United States benchmarking science content standards that set expectations for what students should know and be able to do in science. The NGSS standards emphasize students to learn science by doing what scientists and engineers do. When students both understand how scientists and engineers practice their craft and have opportunities to carry out investigations and design solutions, they become more engaged in their science learning. Planning and carrying out investigations through a variety of sources including simulations supports learner engagement and transformative learning experiences. (DCI Arrangements of the Next Generation Science Standards, 2013). The science content standards for kindergarten through Grade 12 were developed to strengthen and define science standards as part a multistate effort of the National Research Council, the National Science Teachers Association, the American Association for the Advancement of Science, and other critical partners (Improving Science Education Through Three-Dimensional Learning, 2021).

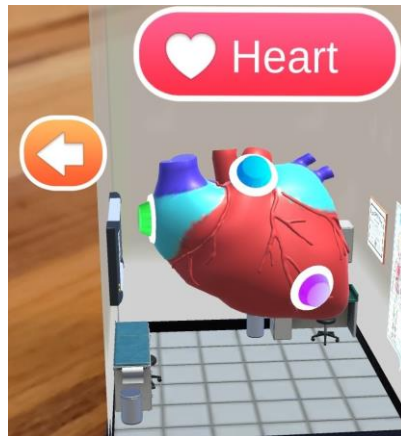
Other educational applications of the Merge cube include uses in the social sciences, architecture, and STEM (such as coding). In the social sciences, students can create infographics with CoSpaces using a special grid canvas for object alignment and creating charts using premade building blocks. In architecture and interior design, students can design and model floor plans or build a virtual 3D house or apartment. In STEM and coding, they can recreate and manipulate lab experiments, such as those that demonstrate and test Newton’s laws of motion.

Four free filters are available using Merge Cube:

1. The human body: features a pulsing, beating heart, skull, brain, or lungs.
2. Cells: up-close explorations of microscopic plant, animal, fungal, and neural cells.
3. Viruses: viruses such as the common cold and COVID-19 with a 360 view.
4. The solar system: axial tilt, rotation, and revolution of the earth and moon. (Carlton, n.d.)

Figure 1

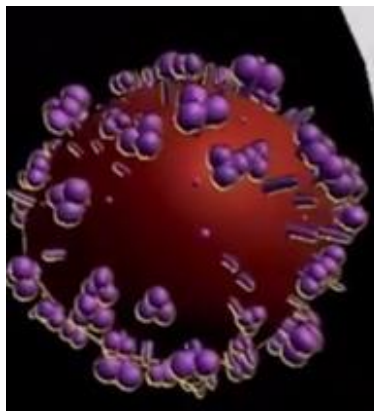
*Mr. Body - Merge Cube Anatomy*



Source: Photo credit: Jasmin Cowin, Ed.D.

Figure 2

*Merge Cube Viruses: The Corona Virus*



Source: Photo credit: Jasmin Cowin, Ed.D.

Further Instagram content is abundant, such as 57° North, an AR Merge branching narrative conceived, designed, and created by The Mighty Coconuts, an animation, and visual effects studio. A branching story structure is a story graph, featuring directed graph of nodes connected by arcs that represent user choices. Every possible path through the graph represents a

story that can be told depending on user choices. *57° North* tells a spellbinding story about surviving in the wilderness with hundreds of decisions for users to make and multiple endings that depend on those individual choices (Mighty Coconut, 2017).

### **Engagement in Learning**

Virtual field trips are most effective when “partnered with [a] unit’s content as a means to provide students with a more in-depth understanding of the subject matter by presenting it in an interactive and engaging way” (Brownridge, 2020, p. 98). Google Expeditions (scheduled to merge with Google Arts and Culture in June 2021) features several hundred virtual field trips, from Ancient Rome, in which students can experience the daily life of a Roman citizen, to ocean acidification (What is Expeditions?, 2020).

Google Expeditions, Google Arts and Culture, and the Merge Cube use elements of constructionism, an inquiry-based approach to knowledge creation (Constructivism as a Paradigm for Teaching and Learning, 2021) with topics of Google AR tours ranging from the animals of the Mesozoic to space stations. Both Google Arts and Culture and Google Expeditions lend themselves to practical digital skill acquisition in domains such as the arts, social studies, communication and collaboration, and critical thinking. Google Arts and Culture can be integrated to unit and lesson planning aligned with the National Core Arts Standards for dance, media arts, music, theater, and the visual arts such as anchor standard 8: “Interpret intent and meaning in artistic work.” (National Core Arts Standards, 2020) Using Google Arts and Culture, teachers can assign art and performance aligned with artists, media, or movements in teacher-directed lessons. Studio art courses can simulate modeling different styles that students will learn about and practice in virtual environments (Bristol, 2020).

History courses, often heavily text based, can be connected to meaningful virtual tours of historical sites or museum exhibits related to an event, thereby bringing content-specific knowledge, academic vocabulary, and meaning-making to life (Bristol, 2020). In classes on environmental science, teachers might assign experiences such as the #CleanSeas AR or deep dives into subject-specific artifacts. As a result of such realistic experiences, “the gap between the virtual and real world in terms of realism and accuracy is rapidly diminishing and at some point, in the near future, those lines will start to become blurred” (Cliffe, 2017, p.10). Training learners to function in these tech environments boosts learner’s mental agility preparing them for 21<sup>st</sup> Century challenges.

### **Discussion**

John Dewey, an influential educational reformer in the 19<sup>th</sup> Century, developed a model of structured, experience-based training and education programs. In his model of experiential learning, students of all abilities take on new active roles. Dewey emphasized that students should participate in real activities with real consequences. Today, there is general pedagogical agreement by educators on the value of experience-based learning such as field trips. Dewey as

the initiator of the “hands-on learning” movement opposed the “lecturing” approach. He created a laboratory school where teachers functioned as guides, and students learned by doing (Tim, 2012). Google Expeditions, Google Arts and Culture, and the Merge Cube are a contemporary answer to Dewey’s hands-on philosophy.

While technological innovation is in and by itself pedagogically neutral, it fundamentally transforms education through offering ubiquitous and universal access to experiences while changing the ways learning communities interact and work. New digital tools such as AR and VR need to become part of 21<sup>st</sup> century curricula. Current educational curricula cannot remain static, as digital ideations happen ever faster, in a non-linear trajectory. Educational institutions, vocational schools, technical training centers, and higher education need to provide both in-depth subject knowledge and opportunities for learners to create inter-disciplinary connections. Simulation environments provide pathways to train for 21<sup>st</sup>-century core skills such as complex problem solving, critical thinking, creativity, collaboration, and digital literacy.

### **Conclusion**

One of the main functions of education is to broaden and deepen students’ interest in life-long learning. To ignite this spark, teachers must become experienced at incorporating tools into their instruction “that allow for student exploration of, manipulation of, and immersion into subject matter to increase comprehension, enthusiasm, and engagement with the instructional material” (Gregory, et al., 2016, p. 222).

William Winn (1993), in *A Conceptual Basis for Educational Applications of Virtual Reality*, states that immersive VR furnishes first-person, non-symbolic experiences that are specifically designed to help students learn material. The development of VR and AR simulations, games, and other digital tools by both Google and Merge has great potential to catalyze and support inquiry-based approaches to learning. According to MIT Press’ *Digital Humanities* the implementation of playful, imaginative, participatory work is learning’s exuberant and vital engine. (MIT Press, 2012, p. 24).

Simulation environments, virtual and augmented worlds, and games have the potential to enhance science learning in both formal and informal contexts (National Research Council, 2011) as many of the abstract concepts in natural science courses can be concretized in an AR learning environment. Both VR and AR facilitate students’ access to content in 3D or 360-degree panoramic images while creating opportunities for ubiquitous, shared, and situated learning. Ubiquitous learning refers to always accessible opportunities for learning. In addition, learners’ senses of presence, immediacy, and immersion are engaged by visualizing the invisible with technology that bridges formal and informal learning (Wu, Lee, & Liang, 2013, p. 43). Google Expeditions, Google Arts and Culture, and the Merge Cube promote application of 21st-century skills such as agility, decision making, problem solving, creating, innovating, and critical thinking.

Teaching with AR and VR develops students’ 3D knowledge, creating experiential

learning experiences that would be impossible or unfeasible in real world scenarios. By opening up new avenues for creativity in learning through role play and mentoring (Dalgarno & Lee, 2010), students come to feel more connected to the content through personal interaction with the possibility of spatial manipulation, 3D visualization of complex ideas, and the creation of personal content. Collectively, these tools are a starting point for creating 21<sup>st</sup>-century learning spaces while providing to learners safe places of discovery, experimentation, combined with rich content.

In conclusion, adopting, mastering, and implementing digital content, digital aids, and digital teaching techniques with a thoughtful, student-centered curriculum requires analysis, planning, and practice. Simulation environments such as Google Expeditions, Google Arts and Culture, and the Merge Cube empower learners to take ownership of their learning by allowing them to collaborate, work at their own pace, access a variety of resources, and extend their learning beyond the four walls of the classroom.

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### **About the Author**

Professor Cowin serves as an Assistant Professor of TESOL and Bilingual Education and TESOL Practicum Coordinator at Touro College, GSE in New York. She also lectures at MISIS, Russia's National University of Science and Technology, on technology integration in education. In addition, she holds the Conference Chair position for the New York State Teaching English as a Second Language 51st conference, fall 2021. Professor Cowin's interests are on programs and processes preparing today's generation of educational institutions, educators, and learners for the Fourth Industrial Revolution and beyond. Planning for profound shifts of pedagogical skills is critical to the educational needs of successful 21st Century populations and future workforces.

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## Journal Description

*International Research and Review* is the official journal of the Phi Beta Delta Honor Society for International Scholars. It is a multidisciplinary journal whose primary objectives are to: (1) recognize, disseminate and share the scholarship of our members with the global academic community; (2) provide a forum for the advancement of academic inquiry and dialogue among all members and stakeholders; and (3) cultivate support for international education among campus leadership by working with university administrators to expand the support for international education among campus leaders.

IRR is a peer-reviewed electronic journal providing a forum for scholars and educators to engage in a multi-disciplinary exchange of ideas, to address topics of mutual concern, and to advocate for policies that enhance the international dimension of higher education. Articles should focus on studies and systematic analyses that employ qualitative, quantitative, a mixture of both methods, and theoretical methodologies from an international scope. Both pedagogical and andragogical perspectives in teaching and learning are welcome.

The Journal reaches out to an audience involved in matters touching all areas of international education, including theoretical, empirical, and normative concerns and concepts as well as practices. It includes stakeholders, practitioners, advocates, as well as faculty, independent researchers, staff, and administrators of programs and institutions engaged in the field. The editor welcomes manuscripts that address the following concerns:

*International studies and perspectives*  
*Review of current literature pertaining to international studies*  
*Initiatives and impacts in international education exchange*  
*International program development at American colleges and universities*  
*Internationalizing of curricula: policies, programs, practices, and impacts*  
*International business education*  
*Comparative international education issues*  
*Curriculum development in area studies*  
*Legal issues in the development of international programming*  
*Other related topics*

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The IRR is intended to be published twice per year, but will be published more often as additional articles are received. The *Proceedings of Phi Beta Delta* will be a separate publication of Phi Beta Delta but published in the same volume as the IRR. It will include conference papers, speeches, commentary, and other information about the society.

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The increasing interest in international opportunities and promotion of scholarship in this shrinking world create new challenges. This purpose of such a publication is to contribute and engage in the conversation related to the broad frames of international education, internationalization, and international scholars. It is hoped that the Phi Beta Delta annual conference and will provide an environment where students, staff, faculty and interested groups can highlight their scholarship in these areas. The conference also serves as a forum for acquiring new ideas, conceptualizations, best practices, as well as discussion on these and other issues of international education.

Research articles may employ qualitative, quantitative, plural (mixed-methods), and theoretical methodologies from an international scope. Both pedagogical and andragogical perspectives on the international experience of teaching, learning, and cross-cultural interchange are welcome. It is recommended that manuscripts be submitted with less than 10,000 words. As of the Fall 2020 issue, submitted articles must use the bibliographic and formatting standards found in the **APA 7th edition (Publication Manual of the American Psychological Association, 7th edition)**.

Authors whose articles are accepted for publication are required to ensure that their data are fully accessible. Authors of quantitative empirical articles must make their data available for replication purposes. A statement of how that is done must appear in the first footnote of the article. Required material would include all data, specialized computer programs, program recodes, and an explanatory file describing what is included and how to reproduce the published results. The IRR is published four times a year on-line by Phi Beta Delta, Honor Society of International Scholars.

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1. The submission has not been previously published, nor is it before another journal for consideration.
2. The submission file is in Microsoft Word document file format.
3. All URL addresses in the text are activated and ready to click.
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- Brief bio of each author (one paragraph, no more than 100 words)
- References

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Phi (philomatheia) -love of knowledge

Beta (biotremmonia) -valuing of human life

Delta (diapheren) -achieving excellence

