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The Global Geek: Language Training for IT Students' Study Abroad in Austria and Germany

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The Modern Language Association's (MLA) urgent appeal for the restructuring of the undergraduate language curriculum, "Foreign Languages and Higher Education: New Structures for a Changed World," emphasizes a need for language departments to enrich their upper-division course offerings beyond the traditional literary studies model in order to attract and retain broader interest in language learning among students with diverse academic interests and needs. Citing the National Science Foundation's *2003 Survey of College Graduates*, it stresses that only 6.1% of undergraduates whose primary major is a foreign language later achieve doctorate degrees and concludes that departments should provide upper-division language courses with interdisciplinary content within a culture-studies framework and forge relationships with programs across disciplinary bounds (MLA 5-6). In addition, the report calls for an increased promotion of study abroad experiences that include a language component and refers to classroom instruction and exposure through study abroad as "interdependent necessities" (8). Finally, the MLA appeal underscores the demand for broader and deeper language competencies within American society. It states,

Divergent views concerning language and its many functions are reflected in differing approaches to the study of language. At one end, language is considered to be principally instrumental, a skill to use for communicating thought and information. At the opposite end, language is understood as an essential element of a human being's thought processes, perceptions, and self-expressions; and as such it is considered to be at the core of translingual and transcultural competence. While we use language to communicate our

needs to others, language simultaneously reveals us to others and to ourselves. Language is a complex multifunctional phenomenon that links an individual to other individuals, to communities, and to national cultures (MLA 2).

The report continues by explaining that whereas most institutions' practices emphasize one method of language instruction over the other, the approach necessary in an increasingly globalized world is an integration of straightforward language communication instruction and the development of transcultural competence. In sum, in order to combat the decreased financial and rhetorical support for foreign language learning, departments should seek to a) diversify curricular content to appeal to students with a broader range of disciplinary interests and academic pursuits, b) promote study abroad to bolster interest in language learning, and c) integrate language and cultural training at all levels of instruction.

The GlobITPro (Global IT Project Management) Program is partnership among two American universities, the University of Wisconsin at Eau Claire and the University of Nebraska at Omaha, and two European universities, Technische Universität in Braunschweig, Germany, and Die Unternehmerische Hochschule in Innsbruck, Austria. This interdisciplinary program is funded by an ATLANTIS Mobility Grant from the U.S. Department of Education's Fund for the Improvement of Post-Secondary Education (FIPSE) and the European Union's counterpart agency, Education, Audiovisual and Culture Executive Agency (EACEA), and combines the aforementioned three goals of improving interdisciplinary interest in language learning, increasing participation in study abroad, and promoting transcultural competency. Recognizing the vital role of information and communication technology (ICT) in the world today, this transatlantic student and faculty mobility program in the area of global IT project management emphasizes entrepreneurship, global collaboration, and IT management and research. Students

participate in a one-year educational program, including a full semester of study abroad (30 ECTS¹ or 12 credits) at one consortium university. Special excursions to key local industry partners such as Valmont Industries, Union Pacific Railroad, SAP, Gallup Inc., and Volkswagen (VW) are embedded throughout the semester experience. Over four years, a total of 48 US and EU students and 18 faculty members will participate in the program. A total of 12 students are expected to study abroad per year (six from the EU and six from the US). American students receive German language instruction in the host countries, as well as training in the fundamentals of the language and German and Austrian cultures prior to departure. The key strategic content objectives, as designated by the program's original grant proposal are as follows:

- A. to foster purposeful learning to create structures and practices to support the development of purposeful, strategic students and educators,²
- B. to promote connected learning to expand experiential learning opportunities; promote learning that connects and transcends disciplines and connects the university with a larger community,
- C. to accelerate global learning to make possible an international and multicultural immersion experience for all students,
- D. to improve the quality of human resource development in both the European Community and the United States of America, including the acquisition of skills required to meet the challenges of the global knowledge-based economy, and

¹ European Credit Transfer and Accumulation System

² Ideas for goals A through C are adapted from the University of Wisconsin – Eau Claire Strategic Plan.

- E. to build a bridge of knowledge and understanding for further innovative IT driven project initiatives between the US and EU.

The language objectives for students of the program are as follows:

- A. to use conversational German vocabulary relating to business and the information technology (IT) discipline,
- B. to experience diverse aspects of the Austrian/German culture—ranging from social and political conditions to cuisine, sports, German theater, art, and literature,
- C. to access various media sources for personal enrichment, and
- D. to seek out opportunities to learn more about German language and culture.

All students are assessed quantitatively for their transcultural competence before and after the study abroad experience by means of a scale, referred to as the global readiness index adopted from Schermerhorn to evaluate the global readiness of participating students in terms of global mindset, global knowledge, and global work skills. Students also provide feedback on learning satisfaction, a scale adapted from Chou and Liu that measures the students' perceived skill development, self-reported learning, and learning interest. On their return home, students are also asked about the skills or proficiencies they acquired or enhanced while abroad. They are further assessed qualitatively by means of narrative questions on the online survey and travel blogs completed during the study abroad experience. In addition, the German language skills of the American students are assessed quantitatively with the STAMP (Standards-based Measurement of Proficiency³) assessment tool both before and after study abroad and qualitatively with an interview based on ACTFL proficiency guidelines after return to the U.S.

³ <http://www.avantassessment.com/stamp>

Evaluation of the first group of American students after return from study abroad in 2010 reveals a marked improvement in every tested skill.

Methods

At the time of writing, the program had had six American students complete the program. The figures in the results section below correspond to this original group of six students.

Global Readiness Index

Students participating in the program complete the global readiness index survey both prior to their departure and on return from their study abroad experience. The index assesses students' self-perception and self-awareness with regard to their knowledge of world cultures and systems ("global mindset"), eagerness to develop this knowledge ("global knowledge"), and ability to cope with difficulties that may arise due to cultural difference ("global work skills") (Schermerhorn). Students rate ten statements on a scale ranging from "very poor" to "very good," with corresponding numeric values of 1 and 5, with increments being "somewhat poor" (2), "neither very poor nor very good" (3), and "somewhat good" (4). All self-authored survey instruments are included in the Appendix of this paper.

Language Proficiency

Participating American students complete the STAMP test, administered by Avant Assessments, both before and after the study abroad experience. STAMP assesses students' abilities to interpret authentic and semi-authentic materials that simulate "real-world" uses of language, such as bus timetables, menus, and advertisements. It tests according to ACTFL's proficiency guidelines for novice and intermediate levels. STAMP assigns students scores in reading, writing, and speaking from 1 to 6, where 1 represents novice-low, 5 represents intermediate-mid,

and 6 represents pre-advanced. Furthermore, STAMP occasionally designates an intermediary level with a plus or minus sign. The authors have assigned a plus sign a numeric value of 0.33 and a minus sign a numeric value of -0.33, so that a STAMP value of 1+ would correlate to a numeric value of 1.33 and a STAMP value of 1- would correlate to a numeric value of 0.67. In addition to this quantitative assessment, students are interviewed by the German-language expert at the University of Nebraska at Omaha according to ACTFL's oral proficiency guidelines. Because almost all students in the program are absolute beginners, no interview is performed prior to the period abroad.

Results

The purpose of the collection of this data was to provide the program and its funders with a baseline means by which to assess the program's success in relation to its goals. Because the program is by design very small, the sample size is necessarily also limited, and therefore the study includes no control group. For this reason, these results should not be considered generalizable but rather demonstrative of the possibility for students' improvement in cultural awareness and language proficiency.

Global Readiness

The average rating of eight of the ten statements in the global readiness index increased for our group of six students; the rating for two statements remained the same, and none decreased. The average rate of increase for the ten statements was 10.9%. The average gain for statements 6-10, which assess in particular students' perceptions of their knowledge of and ability to cope with cultural difference, was 16.6%.

According to the learning satisfaction component of the survey, students rated the statement, “I was satisfied with this learning experience” at 4.33 on a 1-5 scale, 1 representing “strongly disagree” and 5 representing “strongly agree.” Ratings of satisfaction of individual aspects to the learning experience, such as “instruction model” or “learning environment,” were somewhat lower than the overall assessment of the program, but all were 3 or above, except for that of one negatively formulated statement. Finally, the Study Abroad Skill Inventory reveals that students perceived the following skills to have been most enhanced by their experience abroad, where “most enhanced” designates a score of 2.5 or higher on a 3 point scale, where 1 represents “not enhanced at all” and 3 represents “greatly enhanced”: cultural awareness, sensitivity to customs and cultural differences; German language proficiency; adaptability; increased confidence and initiative; greater flexibility; general travel skills; and resource management. Of the additional nineteen skills assessed by students in the survey, all but one skill were rated on average at 2 or better. The average increase in each of the index’s three main categories—global work skills, global readiness, and global mindset—can be observed in Figure 1.

Comment [G1]: PLACE FIGURE 1 ABOUT HERE.

Language Proficiency

The six students received, on average, an increase in STAMP score of 0.67 for reading, 1.445 in writing, and 1.555 in speaking, which correspond to an increase in almost one level of the ACTFL guidelines for reading and approximately a level and a half each for writing and speaking. Figure 2 illustrates the STAMP results. The qualitative results from the exit interviews reveal a close correlation to the results from the STAMP assessment done after the students’ return. The levels of oral proficiency assigned to the six students varied broadly, from novice

Comment [G2]: PLACE FIGURE 2 ABOUT HERE.

low to intermediate high, but these assignments match closely those given by the STAMP test for all but one student.

Conclusions

A response from one student on the qualitative portion of the global readiness index survey illustrates effectively what the authors feel to be the primary strengths and benefits of uniting two fields, IT and language instruction housed in a humanities department, that conventionally have little contact on campuses:

My intended career field is in the IT service learning area. The experience abroad has exploded my understanding of career opportunities in this field. Although it was an experience in Austria, Germany, and other nearby countries, the most exciting revelation was the need for non-profit organizations in China. This was sparked by the course "Rise of Asia and Implications in the West" [. . .] My understanding of the Eastern hemisphere and the entangled web of all the world's countries economic dependencies skyrocketed and really opened my eyes.[...] At TU Braunschweig, we worked with the TUgether team on building a more demanded online social network. The different style of teaching, interesting lectures, and relaxed atmosphere taught me a lot about the culture and I was glad to be a part of the team. Overall, the experience of being in foreign countries, feeling what it's like not being able to communicate at a verbal level and being forced to adapt has made me a more powerful person. It has given me a greater understanding of different cultures, perspectives and academic topics as well as a greater self-awareness. If someone tried to express the effects that I would get from studying abroad, their words would never suffice.

Programs such as this one can mutually benefit the IT management and foreign language disciplines that support them. Students of IT management receive the international training many professionals know is necessary for effective global interaction (see, for instance, Ferraro; Hymowitz). They also help achieve the goals of the report of MLA Ad Hoc Committee on Foreign Languages. Indeed, they combine the three most emphasized components of the committee's vision for the transformation of foreign language departments. They reach out to students outside of the humanities, they promote study abroad to increase interest in language learning, and they integrate transcultural learning at all levels of language instruction. Students whose academic interests may lie outside of the humanities receive the opportunity to broaden their international scope, and in providing them this opportunity, institutions increase student motivation for cultural and language learning. The qualitative and quantitative results of this study demonstrate that IT and management students can gain much during an academic program abroad in terms of both transcultural knowledge in itself and an enthusiasm for enhancing this knowledge, just as do the students who traditionally fill the ranks of foreign language majors and minors.

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Figure 1

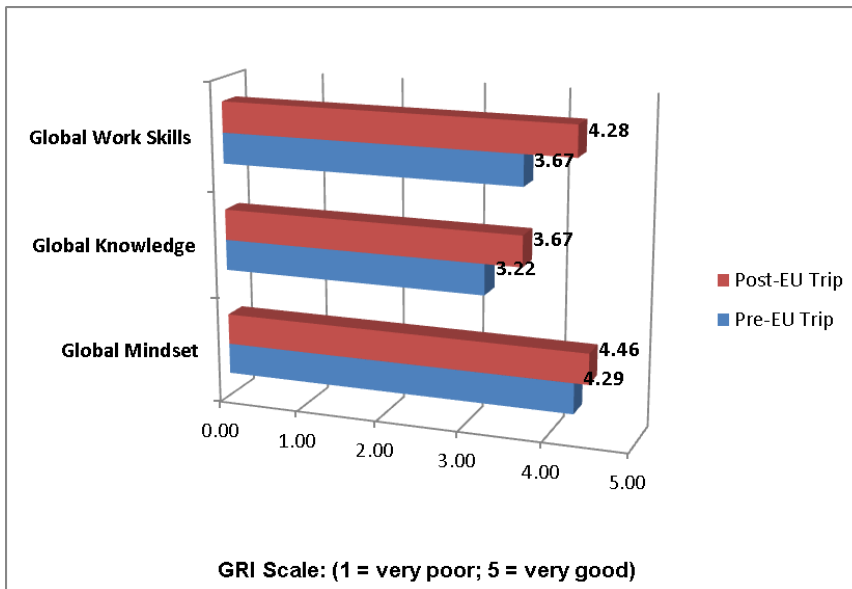
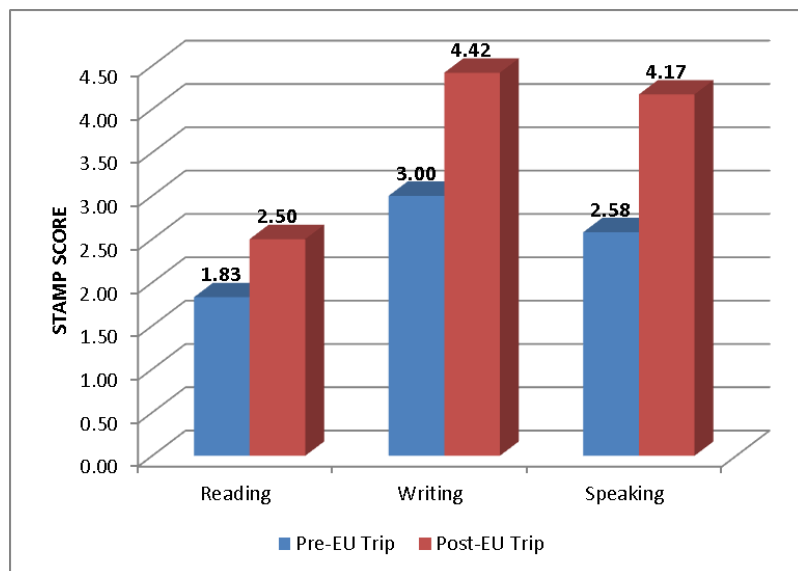


Figure 2



**APPENDIX:
ASSESSMENT INSTRUMENTS**

I. GLOBAL READINESS INDEX (GRI)

Instructions: Using the scale provide below, please rate yourself on each of the following items. This question attempts to assess your readiness to participate in the global work environment. (This concept is adapted from Schermerhorn, 2005).

Very Poor ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 Very Good

1. I understand my own culture in terms of its expectations, values and influence on communication and relationships.
2. When someone presents me with a different point of view, I try to understand it rather than attack it.
3. I am comfortable dealing with situations where the available information is incomplete and the outcomes unpredictable.
4. I am open to new situations and always looking for new information and learning opportunities.
5. I have a good understanding of the attitudes and perceptions toward my culture as they are held by people from other cultures.
6. I am always gathering information about other countries and cultures and trying to learn from them.
7. I am well informed regarding the major differences in government, political and economic systems around the world.
8. I work hard to increase my understanding of people from other cultures.
9. I am able to adjust my communication style to work effectively with people from different cultures.
10. I can recognize when cultural differences are influencing working relationships and adjust my attitudes and behavior accordingly.

Scoring GRI:

To be successful in the 21st century work environment, you must be comfortable with the global economy and the cultural diversity that it holds. This requires a **global mindset** that is receptive to and respectful of cultural differences, **global knowledge** that includes the continuing quest to

know and learn more about other nations and cultures, and **global work skills** that allow you to work effectively across cultures.

The goal of the tool is to assess how close you score to a perfect “5” as possible on each of the three dimensions of global readiness.

- Items 1, 2, 3 and 4 are totaled and then divided by 4 to determine your “Global Mindset” score.
- Items 5, 6 and 7 are totaled and then divided by 3 to determine your “Global Knowledge” score.
- Items 8, 9 and 10 are totaled and then divided by 3 to determine your “Global Work Skills” score.

II. Learning Satisfaction

Instructions: Please reflect on your GlobITPro study abroad experience the past semester. On a scale from 1 to 5 (“strongly agree” to “strongly disagree”), indicate your level of agreement with the following eight statements. (1 – “strongly agree”, 2 – “agree”, 3 – “neutral”, 4 – “disagree”, 5 – “strongly disagree”). This scale is adapted from Chou and Liu (2005).

1. I was satisfied with this learning experience.
2. A wide variety of learning materials were provided in the program.
3. I don’t think that the program would benefit my learning achievement.
4. I was satisfied with the immediate information acquisition.
5. I was satisfied with the learning flexibility and independence of this course.
6. I was satisfied with the instruction model.
7. I was satisfied with the learning environment.
8. I was satisfied with the overall learning effectiveness.

Scoring Learning Satisfaction:

Learning Satisfaction is generally measured in terms of its three components: perceived skill development, self-reported learning, and learning interest. Students were asked to reflect on their GlobITPro study abroad experience in the past semester and answer questions on a 5 point Likert-type scale relating to their overall learning satisfaction with the program. This shortened 8 item scale was used with the arithmetic mean of the items providing a score for learning satisfaction.

III. GlobITPro Program Reflections

Instructions: When you look back over the experiences relating to the Global IT Project Management study abroad program you participated in over the past semester, what skills or proficiencies have you acquired or enhanced while you were abroad? Rate each question on a scale of "1" (Not enhanced at all) to "3" (Greatly enhanced). (Some of the ideas for this question were adapted from <http://www.studiesabroad.com/alumni/careers>).

- Cultural awareness, sensitivity to customs, and cultural differences
- German language proficiency
- Adaptability
- Ability to identify and achieve goals
- General improvement in communication skills
- Increased confidence and initiative
- Greater flexibility
- Sense of humor
- Awareness of global, economic, and political issues
- Ability to maintain an open mind and be tolerant of others
- Clarification of goals and improved self-awareness
- General travel skills
- Resource management
- Organizational problem-solving
- Crisis management
- Patience
- Listening and observation
- IT skills
- IT management skills
- Other, please specify: _____

(Essay Question on Reflections): To what extent did your Global IT Project Management study abroad experience enhance your knowledge, skills, and understanding of your intended career field? Please consider this question and provide your thoughtful response in a short paragraph.