Abstract

Common wisdom tells us that English is the language of business—a wisdom that has negative implications for students and the larger public regarding the need to become proficient in other languages for business purposes. Common sense should tell us that the situation is far more complicated. Moreover, the literature and WPI’s experience tell us that spoken language is only one aspect of communication. For true understanding, in addition to hearing what is said, the recipient of the spoken word, also, must be able to process the messages and set them into context. To complicate matters further, the context is dictated by cultural cues. Thus, in business, native English speakers should bear significant responsibility for their ability to conduct at least part their work in the language of their hosts and cannot rely on translators to provide them with fully accurate translations.

This paper discusses WPI’s ten-year history at its project centers in Puerto Rico and Costa Rica and the impact of knowing Spanish on the student experience in organizational settings, on the outcome of their projects, and on their personal development. Such outcomes are tied to the literature regarding these issues as an effort to generalize somewhat from the local experience to the more general issues facing engineering education in global settings.

I. Introduction

For the past twenty-eight years all engineering students, in fact all students, at WPI, have been eligible to apply to one of the university’s competitive global project centers, which now exist in England, Italy, Thailand, Denmark, Puerto Rico, Costa Rica, United States, Australia, Hong Kong, and Switzerland. There, the more than four hundred who participate each year are provided project-based experiences with local sponsors as part of their degree-required socio-technical projects. The projects they undertake are those that have importance to the sponsoring organizations but for which the organizations may not have sufficient personnel or time.

The premise of the WPI project experience is that an understanding of the culture is tied to a range of communication modalities, both verbal and non-verbal. We assume that some knowledge of the local language is necessary when English does not serve as the unifying language—or even when it does. But we believe that language alone will not guarantee our students access to the host culture. For that reason, language training is an
integral component required of those students preparing for experiences in Italy, Thailand, and Costa Rica, but not necessarily sufficient. Our experience in those countries is that English has not proven to be the unifying language of commerce to the extent that common wisdom says it is. In some European countries, it is the unifying language, and English is used widely in the Far East for business. Therefore, the statement holds true for some countries but not for others.

The problem with the belief that English is the language of business is that the belief does not consider the wide variations in levels of use. Nor does it consider varying layers of an organization that may be involved in work done internationally, and, therefore, interculturally. Moreover, it is true that while many people at the top of organizations speak English, scratch the surface that same organization and one finds English speakers to be less common and not necessarily properly placed in the structure to accomplish the required work. Often, those who speak English as a second language, themselves, are poor at managing the cultural cues that emanate from native English speakers, leaving gaps in understanding between the parties.

So then, what are the examples of the complexities that belie the myth? And how do WPI students cope with the reality of a language deficiency when they must perform their projects within a cultural context according to cultural rules not their own? The resolution of those questions has several different forms in Puerto Rico and Costa Rica, mainly because Puerto Rico is very tied to the U.S. mainland, and Costa Rica is less tied.

This paper focuses on the situation in Latin America as WPI has experienced it over a ten-year period in our two project centers. In Puerto Rico, English is widely spoken. In Costa Rica, the situation takes the many forms more typical of what one might experience in other Latin American countries, including Mexico.

WPI’s students perform their project work in a variety of settings, some in the private sector—both in large and small companies, in government, and in non-profit organizations. In both centers, the type of organization has had impact on the use of English and on the students’ need, sometimes a desperate need, to use Spanish and to master the cultural cues. The dilemmas the students have faced raised the question for this author about how effective short business trips by English-speaking people are in accomplishing their goals in a Spanish-speaking environment.

II. Background

In Latin Trade, Piturro speaks of the proliferation of executive search firms, which seek executives willing to take on international assignments in Latin America. Executives they seek are bilingual and bicultural and have several years of international experience. Bicultural efficacy, the authors assert, assumes that effective communication of ideas and feelings, verbally and non-verbally, is vital to a person’s ability to perform in another culture.1
The above statement is representative of a body of thought that examines the notions of “bilingualism” and “biculturalism” separately. According to that theory, while one can be bilingual, one may not be equally skilled or knowledgeable in the two cultures. Language is considered to be only one, albeit an important aspect, of acculturation. For example, speaking a specific language may differentially trigger the use of collectivistic or individualistic responses to situations or may shape how youngsters perceive gender.

For this reason, cultural sameness between the U.S. and Spanish-speaking Latin America, for example, cannot be assumed. Venezuela and Costa Rica, as well as other countries, are cultures that are more collectivistic than the U.S. Trafimow and colleagues speak about individualistic and collectivistic languages causing speakers to access self-cognitions differently as a result of using that language. Thus, teaching Spanish to a group of potential engineers and managers will give them access to another culture but will not necessarily make them comfortable in or knowledgeable about working in that culture. Comfort and efficiency will come only with experience in managing cultural cues.

Likewise, the greater the range of situationally appropriate behaviors, the higher the level of cultural competence, according to one group of authors. In a study comparing college students from Costa Rica and the United States, researchers found that Costa Rican students, because they represent a more collectivist society were significantly less comfortable than the students from the U.S. in expressing negative emotions. The authors suggest that people from the U.S., in dealing with Costa Ricans, may do well to curb their tendency to express negative emotions because such emotions may not be received well. That finding may carry important implications for U.S. business people operating in that country and perhaps in other Spanish speaking Latin American countries that have a collectivistic culture.

Being a Spanish speaker in the U.S., also, does not guarantee success in business in Latin America. If Dade County, Florida is an example of what happens to Latino children when they attend English speaking schools, it is possible that they, like children of other immigrant groups before them, are losing their native language, as well as access to their original culture.

III. Findings and Discussion

Firstly, the data collection for this paper took place via a series of interviews over a two-year period with sponsors of projects, with other organization heads and middle managers in Costa Rica, Puerto Rico, and, for comparison, Argentina, as well as with WPI students working inter-culturally in Costa Rica. The interviews addressed both the issues of bilingualism and biculturalism.

Secondly, the total population of students in our program in Costa Rica in 1998 were administered a questionnaire that was used in preparation for writing a needs assessment for a major grant proposal to the U.S. Department of Education’s Undergraduate International Studies and Foreign Language Program (Grant Award PO16A80007). The
grant has been used to develop the university’s Spanish language program to make it more responsive to our students’ needs on site at our Latin American centers, which, in turn would make them more effective in intercultural business dealings.

The sample was too small to draw statistical inferences, but the trends were very clear. All of the students recognized that they were lacking technical and business vocabulary and they acknowledged that business practices were different in Costa Rica compared to the U.S. Even the native Spanish speakers indicated a lack of knowledge about business culture in Latin America.

Lastly, the author of this article directs both Latin American project centers and has directly observed the experiences of more than two hundred WPI students at those centers as they acculturate, and has been on-site advisor to most of the students in Costa Rica. She learned Spanish as a second language as an adult and now uses it routinely in her work.

Speaking passionately about native English speakers’ need for Spanish in doing business, the head of the American Chamber of Commerce in a major Argentine city said, “Interpreters are liars.” When expanding, he explained that interpreters often paraphrase a speaker’s comments. In order to paraphrase, the interpreter uses his own cognitions to do so, often resulting in changed meaning. Thus, having knowledge of the host’s language allows the listener to absorb nuances and detail, reducing the loss of information and meaning. But it does not guarantee that the listener will be able to manage differences in culture.

One completely bilingual and bicultural middle manager at a U.S.-owned multinational health care products manufacturing plant in Costa Rica, provided an example of how misinterpretation occurs even when local personnel speak English. At his plant, English is a prerequisite for employment as a manager. In a training session for middle managers regarding a new product, the native English-speaking trainer from the headquarters in the U.S. gave instructions to the group to take apart a product before reassembling it with new components. The bilingual-bicultural participant was able to do the task easily, but not one of the others could. The problem was that although the group spoke and understood English sufficiently to become employed by the company, there were vast gaps in their vocabulary. Never having traveled to the U.S., they were also unfamiliar with the verbal shortcuts that native speakers use and were too timid to ask the necessary questions. The trainer was unable overcome the group’s desire to please him and to avoid appearing ignorant or uneducated. Only the bicultural participant was able to alert the trainer to the problem so that the training session could proceed. The aversion to appearing negative was a powerful force in the communication process.

In another example, a WPI student, whose native language is Spanish, recently completed a co-op in New York with a U.S. consulting firm doing business in Latin America. After a very short while, she was given responsibility for the communications with certain Latin-American customers, because although the customers could speak English, they expressed a strong preference for a Spanish speaking contact. The student said that as
soon as she was permitted to switch to Spanish, the tone and nature of the communications changed radically. She was able to use her knowledge of both Spanish and of the Latin American country’s culture to ensure that the communications were satisfactory on both sides. None of her work-colleagues spoke Spanish or were aware that their cultural assumptions were interrupting the interactions.

One Executive Director of a large farm machinery company in Costa Rica complained that the head office in the U.S. did not believe language or cultural differences were problems, but the employees in Costa Rica saw them as large problems. One problem is that engineers from the U.S. often cannot communicate with people on the floor of their plant. They may make a correct diagnosis of a problem but have great difficulty in communicating the solution, even when an interpreter helps. The reason is that people on the floor, who use the machine daily, had habits and needs that were not strictly according to the manual. Therefore, the “fix” did not constitute a solution. Moreover, conveying the purpose of a proposed solution is not always easy.

His second point is that networking in Costa Rica, which is routine and accepted as part of the culture, results in relationships that are based upon the ability to compromise and adapt to others’ needs. The U.S. perspective, which ultimately demands performance over relationships, is not the driving value to most Costa Ricans. Also, while English, he says, is highly prized and becoming increasingly common, close personal relationships in business are critical to success.

Teams of WPI students have conducted their projects both in English and Spanish in Costa Rica, but only in English in Puerto Rico. In both places, language has been an issue, and at times, critical to the success of a project.

However, in Puerto Rico, the knowledge of English is so widely spread that students almost never encounter problems in the office. The culture of organizations is similar to what they might encounter in the U.S., so the university is able to send large numbers of students there with the assumption that they will be largely unhampered by the lack of Spanish. Moreover, mastering the culture in Puerto Rico is not critical to performing the work effectively, for the most part because of the way the mainland U.S. culture coexists with Puerto Rican culture.

Yet, there have been numerous instances in which translators have been used to facilitate contacts with target populations of the students. Students still are unable to administer questionnaires effectively without having materials proofed and adjusted by Spanish speakers, and sometimes they have difficulty conducting interviews, because their subjects are uncomfortable in English. In a few instances, people who have great interest in the students’ findings do not attend the final oral presentations of the work because the presentations are always in English. .

In Costa Rica, however, there is much more need for students to have an integrated experience—speak Spanish and master the basics of the host culture—in order to have a successful work experience. The integration of the two components requires huge effort.
on the part of the students and is part of their explicit challenge. Many have studied Spanish as part of their humanities requirement, but not all have done so. However, all participate in a two-week intensive language course on site during the first two weeks in Costa Rica. For beginners, the course gives them survival skills. For the more advanced, the course helps them abandon their hope for perfection while speaking and it increases their ability to understand Costa Rican speakers and Costa Rican culture.

Each student project team is assigned at least one person whose Spanish is, at minimum, at lower advanced level. It is a certainty that they will be uncomfortable for large amounts of time until they have overcome the initial culture shock and mastered the basic cultural cues. Once having done so, they feel compelled to improve their Spanish in most cases in order to increase their effectiveness. But it is the fact that they are on site, working full time at their sponsors’ locations for several months that gives them the access and the time to develop language and cultural expertise that contributes to their success.

Several teams each year are composed completely of students who have attained a level of Spanish proficiency that allows them to perform all aspects of their work in Spanish. Translators are used to help translate parts of the students’ final report when necessary, but their use on the projects, themselves, is limited to clarifying specific concepts or points. Those teams also participate in the intensive Spanish course and must overcome their culture shock. They, and the ones that clearly show the ability and desire to try to communicate in Spanish quickly become part of a social network, which allows them to integrate their experience. They find that they are invited to people’s houses and to after-work social events. Long-term enduring relationships develop and many students return in later years to visit the friends they made. Most of those students can articulate at the end of their Costa Rican adventure what the cultural differences are and the meaning of those differences when they are expressed in the work setting. Understanding the context of their work increases their effectiveness and their pleasure, but knowing Spanish gives them the ability to be part of the culture. To some degree, it becomes theirs, because they become open to the deeper levels of the culture.

For several years, the university has had at least one team at the Instituto Costarricense de Electricidad (ICE), the monopoly for electric power and communication, where none of the technical liaisons have spoken English. Indeed, the person at the top with whom the university negotiates projects does not speak English. So there are two tiers of potential misunderstanding that can occur: in the formulation of the project and in the execution. In the early years, the director of the WPI program was mastering Spanish and, therefore, had to rely on a translator. Understanding the intent of ICE required multiple contacts and constant reiterating of each other’s understanding of their agreement and of the focus of the projects. In the last several years, the director has been able to negotiate the projects smoothly because her ability to communicate in Spanish has reached a comfortable level and equally importantly because she has had many years to cultivate the necessary relationships within the organization that establishes confidence and trust.
All of the student teams assigned to ICE have had upper intermediate to advanced levels of Spanish facility. None have been composed of native Spanish speakers. During the first two weeks of the on-site portion, the students struggle to understand others at the office. By the time they leave after two months, they are speaking with great comfort and are using local expressions. Their hosts have seen their commitment and their efforts to speak Spanish well and to immerse themselves in the daily life of the country. As they improve their language ability, they expand their social networks at work and their knowledge of the culture. At work, their need for a translator is minimal and their instances of misinterpretation continually diminish as they learn how to understand the cultural cues.

At the Instituto Nacional de Seguros (INS), the students are likewise required to do all of their work in Spanish. In the second year of our contact, because of political unrest at our African center, we were forced to send an Africa-bound team to INS in Costa Rica. The team had very little Spanish capability. What saved the situation was the insistence of the personnel at INS that the students speak Spanish and the unqualified enthusiasm of the particular students for the challenge. Two had some low level Spanish, the other two made up for their lack of Spanish with their great sensitivity to the cultural cues. The students’ commitment to “trying” promoted the personal relationships that grew between liaisons and students. The fact that they had unbounded curiosity about Costa Rica and tremendous respect for their organization and for their liaisons made it possible to overcome the lack of common language. But without the sensitivity and desire to learn about the human and cultural side of Costa Rica, the project would have failed. In this case, Spanish was necessary, but its lack was overcome by the students’ desire to become acculturated. In fact, all four in the team delivered a polished and professional-level, well-practiced oral defense of their project to an audience of approximately thirty employees of INS—completely in Spanish.

IV. Conclusions

What is the lesson to be learned? We return to the central thesis of this article: namely, English is the language of business—except when it isn’t. Our experiences in Puerto Rico and Costa Rica are consistent with the literature that promotes the learning of other languages and the need for biculturalism. However, firms cannot always invest the time and money necessary to educate their employees in those skills. Universities can promote such skills, however, even among those on technical and scientific tracts. When visiting engineers and scientists breeze in to a foreign factory or lab to solve a problem or build a new widget, they may be solving the right problem with the wrong solution because they do not understand the context in which they do their work. How will they know of that danger unless their education has exposed them to the notions of cultural context, appropriate technology, bilingualism, and biculturalism? As educators, we have the responsibility to expose as many budding engineers and scientists to the realities of work life internationally as we can and give them sufficient credit to motivate them to go. The lessons will stick with some and enrich their lives, but the impact they can make as a result will be multiplied many fold.
Bibliography


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