

Should language and culture be important to Latino engineering students and professionals?

By Edward T. Rincón, Ph.D.

Without question, engineering is one of the most demanding and competitive industries in the U.S. – intensified by the academic rigor associated with engineering schools and the shortage of individuals pursuing engineering degrees. For many years, this shortage of engineering talent has been partially met by importing engineering talent from other countries – not exactly the best long-term solution when considering the increasing presence of Latinos in the U.S., estimated at 52 million in 2011.

Why should the increasing Latino population matter to engineering professionals? Simply stated, because the quality of life for U.S. Latinos is likely to depend greatly on the solutions developed by engineers in areas such as housing, transportation, health care, high technology, the food supply, safety, and many others as well. Importing engineers might address our short-term labor demand, but it does not inspire a great deal of confidence knowing that these foreign-born professionals will know relatively little about the needs of U.S. Latinos -- delaying perhaps, innovations in their communities.

As a research psychologist that has conducted numerous studies of multicultural populations over the past 33 years, I have observed some parallels between the marketing and engineering worlds. I witnessed many instances, for example, where mistaken assumptions were made about the likely acceptance of a new product or service by Latinos. While such errors in judgment probably resulted from a multitude of factors, I noticed that they were more likely to occur when the decision-maker was: (a) a non-Latino who was not well informed about U.S. Latinos and used popular Latino stereotypes as their guide, (b) a foreign-born Latino who was very proficient in the Spanish language, but used their subjective experiences in their countries of origin as their guide, or (c) a U.S.-born Latino who pursued their professional career with little desire to understand or interact with other Latinos. These decision-makers may have obtained their jobs for many reasons, but knowledge of U.S. Latinos was definitely not one of them.

Yet another observation surrounds the tendency by industry professionals to somehow equate cultural heritage with knowledge of a culture. In announcing an employment opportunity, for example, it is a common practice for an employer to require bilingual skills and work-related experience with Latinos. Interestingly, though, language skills are rarely evaluated beyond just self-reports, while tests to measure knowledge of Latinos have been virtually non-existent. Apparently, employers have been willing to assume that being born Hispanic or speaking some Spanish automatically qualifies a job

applicant. But the results of a recent testing exercise questions this assumed connection between cultural heritage and knowledge of Latino culture.

To test this connection, I administered the *Test of Latino Culture™* to a non-random sample of 400 college students and advertising industry professionals. This 20-item multiple choice test measures six dimensions of U.S. Latino culture, including ethnic identity, language usage, demographic characteristics, immigration issues, lifestyles, and decision-making skills. On average, respondents got 10.7 items correct out of 20 items. Surprisingly, Latinos got 11.2 items correct compared to the 10.4 correct for non-Latinos – not exactly the competitive edge that one would expect from one’s cultural heritage. Are Latinos taking their cultural heritage for granted? Definitely not a good idea in today’s job market. And while the TLC did not measure language proficiency, our many past studies of U.S. Latinos clearly show that the majority of native-born Latinos are rapidly becoming linguistically assimilated – that is, a majority prefer to communicate in English and are quickly losing proficiency in Spanish.

There are skeptics who would argue that understanding Latino culture and speaking Spanish proficiently are not skills that are needed by professional engineers. However, I can think of a number of situations where it would be highly desirable to have an engineering professional that is proficient in communicating in Spanish in addition to English, and has a broad understanding of Latino culture.

Consider these scenarios:

- A corporate employer may assign you to lead a community environmental project planned for a predominantly U.S. Latino community. Knowledge of Latino sentiments regarding environmental issues would clearly be advantageous in such a project.
- The acceptance of a planned engineering project may depend on your ability to communicate and persuade key stakeholders in Spanish, who are more fearful of the project than English-speaking Latinos.
- You may be tapped to lead an engineering project in a Spanish-speaking foreign country because you are the only Latino engineer in your organization, and the assignment translates to a big promotion. Will you be up to the challenge?
- Your employer has been accused of being insensitive to the needs of Latinos residing near a company-owned hazardous waste site, and your knowledge of Latinos and their experiences with hazardous waste sites may determine the outcome of this conflict.
- The academic institution where you received your engineering degree needs your help in understanding the reasons that U.S. Latinos are not applying for admission to this engineering school. How prepared are you to be a productive member of this admissions committee?
- Considered a role model in your industry, you have been asked to conduct a presentation that describes the reasons that engineering would be a rewarding career choice for U.S. Latinos. Would you be prepared to accept this invitation?

Clearly, there are many choices that an engineering student or engineering professional will need to evaluate in their career development. Understanding U.S. Latinos, their culture and language may or may not have been a top priority among the many choices that you have considered thus far, but my experience tells me that it is likely to be a rewarding choice that will likely expand your ability to adapt to the demands of a country that is being impacted significantly by the growth of Latinos.

If you are still studying for your engineering degree, make it a point to supplement your education with courses outside of the engineering school, and get involved with Latino community organizations with first-hand knowledge about the needs of Latinos. If you are an engineering professional, start with a self-assessment by taking the Test of Latino Culture, and identify the areas of Latino culture that need more attention. Taking continuing education courses to further your knowledge of Latinos would be a good start, as well as reading the many books available today regarding Latino demographics, marketing strategies, social and environmental issues.

The bottom-line is that your engineering degree will impact the quality of life for many U.S. residents, but you have the added potential to make a significant impact on the quality of life for U.S. Latinos if you choose to remain linguistically and culturally connected to this community.