ESL: Are We Really Communicating?

Ray FloydLife Senior Member
IEEE

Abstract

The U.S. Department of Labor publishes a number of reports indicating trends of increased injury incidents, especially in specific industry sectors. The reports, coupled with Occupational Safety and Health Administration (OSHA) incident reports citing training and language as major causes of the accidents, prompt the question of possible correlation between the incidents and the lack of understanding by the operators, with the lack being emphasized by the language difference. Of equal importance, the Census Bureau has forecast a large growth in immigration, both legal and illegal, in which the ethnic groups may be categorized as poorly educated, with little English speaking skill. If English-As-A-Second-Language (ESL) is a problem, is the answer as simple as teaching everyone English, or teach everyone in their native language? The most realistic answer is neither, but it is necessary to gather further insight into the problem to begin to form an approach to a solution. This paper looks at some of the problems that may be less understood about ESL speakers, and suggests some approaches that may help alleviate the problem.

Introduction

Since its foundation, the United States has welcomed the role of the amalgamator of the world's immigrants entering its borders. Generally, the new immigrants settled into enclaves of like interests, ethnic backgrounds, religious commonality, or simply areas where a living could be gained for them and their families. The accepted practices were for the family to learn English quickly and then become productive members of the community in which they chose to live [1]. However, there is less and less concern both by the immigrants and the federal government with making the change in the primary language of emphasis, and English as a Second Language (ESL) appears to have begun to impact the safety of the worker of today [1]. The importance is reinforced by the commentary in a U.S. Department of Labor report [2]:

The types and levels of literacy skills necessary for economic participation, citizenship, and individual advancement in 1800 are different from those required in 1900, which, in turn are different from those skills that will be important in the year 2000. We live in a technology advancing society, where both the number and types of written materials are growing and where increasing numbers of citizens are expected to use this information in new and more complex ways. (p. 1)

The significance of ESL is not immediately obvious. An interpretation of population trends within the United States reveals significant population growth in two cultural groups, Hispanic and Asian [3]. It has been estimated that the Hispanic community may comprise as much as 25% of the work force in the next 10 years [3]. While that number may not be reached, other estimates show Hispanic penetration into the work force increasing about 1% per year [4] and general Hispanic population growth estimates of 40 to 60% over the next 2 decades [5]. Coupling such rapid growth rates into the work force with estimates that some 12 million adults 16 years of age and older speak something other than English as their primary language at home [6] should cause concern among the members of industry. Employees without a command of the English language are more likely to be relegated to jobs in industries requiring less skilled operators, less educated operators, and, most likely, jobs with greater exposure to operations dangerous to anyone who cannot understand the operation or instructions given.

The problem, as noted by Pierce [1], is as follows:

Today, ethnic diversity in America's workplaces is increasing at a much faster rate than it has been during the past 75 years. America truly is a land of immigrants – a reality that is causing both political and business response. In fact, even with the decreased immigration numbers and heightened INS scrutiny since Sept. 11, 2001, ethnic diversity in the workplace continues to increase at double-digit rates across the country.

This phenomenon is being driven by the large ethnic distribution in the available labor pool. As one company CEO says, "Even though 95 percent of your job applicants don't have the English skills to complete the written application, you are still faced with the reality that you must hire workers. You hire them because there are no other options." The rise in the number of workers who speak little or no English places a significant expanded challenge on company management, especially regarding communication. How can benefits information or work rules such as accident reporting be communicated to these workers? How can they be trained on their jobs and how to safely perform those jobs? And how can changes and other important information – such as the hazards of a new chemical product – be shared with them? (p. 40)

The possibility of ESL as a language problem is reflected in the DOL report [7] noting that of the 5164 Hispanic worker deaths between 2000 and 2005, 65.4% of the fatal injuries incurred were to foreign-born workers. As previously noted, the underlying reasons for the disparity cannot yet be identified from the available data, but may become more apparent with the changes to the OSHA accident investigation reports to be made available in the future.

It has been forecast that by 2050, the Hispanic population in the United States will account for one in every four people in the U.S. population [8]. In that large Hispanic population, more than half are foreign immigrants (legal and illegal), and ESL is common, if English is spoken at all. According to the U.S. Department of Labor [9] [10], of the almost 11,000,000 Spanish-speaking immigrants classed as speaking English poorly or not at all, approximately three quarters are foreign born, and half have entered the United States in the past 15 years. While the numbers noted primarily reflect Hispanic immigrants, similar problems emerge with all immigrant ethnic groups.

There have been a number of initiatives to establish training courses for ESL workers [11] [12]. However, they have met with limited success. Among the reasons noted for poor participation in the training were the following: (1) Workers could not afford to take time off for the training, (2) some workers had more than one job and thus were not available for the scheduled training session, (3) workers were unwilling to expose their lack of English for fear of losing current employment, and (4) undocumented workers were unwilling to expose their U.S. Immigration and Naturalization Service (INS) status for fear of being deported [13].

The problem is not new. In a 2004 speech to the Multi-Cultural Food Service and Hospitality Alliance, Assistant Secretary of Labor for Employment and Training Emily Stover DeRocco noted "the importance of providing occupational and language skills training to the Hispanic workforce for career in growth sectors" [14]. She went on to note that "Identifying and implementing solutions to workplace diversity issues and facilitating English as the primary language in the workplace" was a challenge in the growth industries, in this case, the service sector of the total labor pool. According to Assistant Secretary DeRocco, "Hispanics make up one out of every three new workers in the country and by 2025, this proportion will be one out of every two new workers."

Again noting the emphasis on Hispanic workers and their safety, the National Research Council held a workshop to discuss the need for better communication between workers and employers, especially where Spanish was the primary language of the worker [15]. In particular, the workshop concluded that the National Institute for Occupational Safety and Health (NIOSH) needed to focus on four groups of predominantly Hispanic workers, who were recorded as having higher injury incident rates over the national rates. These groups were:

- (1) workers and employers who speak and write little or no English;
- (2) recent immigrants rather than established populations;
- (3) workers with low literacy levels in both English and Spanish; and
- (4) workers with high-risk occupations and industry sectors.

Whether because of a lack of focus or because of being written off as not yet critical enough for attention, the problem will not simply go away. ESL and the work force need to be looked at in great detail now, not in the future. If such research is put off, the future may exact severe penalties on industry, penalties the public will have to bear.

Consider the following:

- 1.5 million new immigrants enter the United States each year.
- Of the new immigrants, approximately half will be Hispanic.
- Of the new immigrants, over a third will not speak English.

- Of the new immigrants, approximately a third will not have finished high school.
- One in four new jobs is being filled by Hispanics, with the forecast that this will increase to one in two in the next 10 years.
- With limited education and language skills, most workers will migrate to employment in low skill, low pay, and dangerous environment jobs.
- Failure to account for language deficiencies in training will continue to limit the effectiveness of the training.

Each of the items listed hints at a problem and, when considered more then one at a time, lend credence to the probability that a problem is forming, and the magnitude of that problem is not yet fully understood. The problem is that no significant efforts have been made to determine if there is a correlation between immigrant ethnicity, language barriers, training effectiveness, educational levels, and operator safety.

As noted by Vazquez and Stalnaker [13], "Latino language, literacy, and culture must be understood in order to overcome the problems that are causing high rates of death and injury among the Hispanic workers." (p. 24) Typical of the characteristics any study of the Hispanic worker would need to consider include, again from Vazquez and Stalnaker:

- Latino culture teaches that authority figures . . . are to be shown exceptional respect. Latinos rarely disagree with persons in positions of authority. . . even when those persons are wrong.
- Latinos tend to do as they are told. Latino workers usually say yes, regardless of whether or not they understand.
- Eagerness is not considered appropriate Latinos are more likely to accommodate the passage of time to their needs, rather than to let time control them.
- Latinos revere their jobs and fear employer punishment for any reason They do not like to "rock the boat" and tend not to report workplace incidents or injuries, unsafe acts or conditions, potential hazards, or harassment.
- Latinos place high value on family In the workplace, Latinos often view other Latinos as extended family and are likely to talk to each other about issues that they are unwilling to discuss with supervisors and non-Latinos.
- Developing trust requires time and depends on the development of personal relationships. (pp. 24-25)

Such cultural characteristics are rarely considered when training programs are being developed, the drive being primarily concerned with the information being presented, not necessarily the depth of understanding of the recipient [16].

More recently, through changes in their investigative procedures [17], OSHA has begun to move beyond simply understanding the accident/cause relationship, and has begun to delve into the demographics of the individuals involved. Where are they from? What are their ethnic backgrounds? What are their cultural biases? A new area for investigation has been opened, but there are still few papers published on the problems and their underlying reasons.

The definition of Hispanic does not provide any indication of the language of preference to the Hispanic as an ethnic group. However, in the U.S. Census Bureau report [18], of the total Hispanic population of approximately 44.3 million, 5.4 million prefer to speak Spanish at home and 2.6 million report their command of English as being less than "very well". This total is more than 10 times the sum of all other ethnic groups combined. It was not until the 1990 census that the impact of the growth in Hispanic workers began to surface, becoming a concern as the number of Hispanic workers increased, with a disproportionate increase in worker injuries or fatalities. The significant growth rate in the Hispanic population is again reflected in the report on the population profile issued by the U.S. Census Bureau [19].

From the data collected and the analysis completed, a number of programs have been developed to address language differences in safety training. While such emphasis has helped, fundamental problems continue to exist, primarily in language differences and cultural bias. As noted by the Georgia Tech Research News report [9]:

But the majority of existing Occupational Safety and Health Administration (OSHA) standards and programs are written and delivered in English, which creates a problem for Hispanic workers who read or speak little English... Even when materials are available in Spanish there is typically so much technical jargon that the content is difficult to grasp...Workers who need jobs often won't admit they don't understand the content of safety materials. (pp. 1-2)

In some states, the problem is becoming a major concern as reflected in the Intersegmental Committee of Academic Senates (ICAS) ESL report [20] on the status of immigrants and their needs in the state of California:

Nowhere in the United States have educational issues concerned with ESL learners been more critical than in California, where language minority students comprise nearly 40% of all K-12 students and an ever growing population of postsecondary students. Many ESL learners have ESL problems that lead to special challenges when they need to use academic English in college and university classes. Therefore, there is a critical need for California colleges and universities to find effective ways of educating the rapidly growing population of learners who speak a language other than English at home in order to help them achieve a wide range of educational, professional, and career goals. (p. 4)

It should be noted that the problem of language barriers is not limited to Hispanics. The problems noted have existed for many years; however, they have recently attracted more attention, with special emphasis and investigations having been applied for less than 10 years. However, with the rapid influx of non-English-speaking workers, industry must act quickly to ensure greater safety among workers. Classes taught in the native language of the students are not necessarily the solution, and just because a class has been taught, there is no guarantee that the lessons taught have been learned [13]. Couple the nuances of language among the various Spanish-speaking countries with significant cultural differences, and there is a challenge to the industry to both understand and solve this critical problem. There are inroads being made, but publications addressing issues of safety, operator language, and cultural differences are practically nonexistent, even if only Hispanic workers are considered. There are many questions to be answered concerning a number of issues: what languages are used in the job training classroom, how classes are conducted, how classes are evaluated for worker understanding and retention, and what cultural problems need addressing.

Based on an earlier discussion, it was noted that the education level of most of the recent immigrants was a high school diploma, or less, for more than 60% of the total. From that, it was stated that such lack of education would force the immigrants into the more menial type tasks and more dangerous operations. This is also reflected in the comments by the Panel on Latino Workforce Injuries and Fatalities [21]:

"because foreign-born Latino workers are more often day laborers or temporary workers, they work in more hazardous occupations, they face cultural and language barriers at the worksite, their wages are often low and jobs precarious, and thus many fear retaliation if they report unsafe conditions, and they often work multiple jobs, which can lead to fatigue and errors. In other words, because of their economic position, Latino workers, and especially immigrant workers, are not only performing some of the most dangerous jobs, but they are working longer hours at multiple and often temporary jobs, they are moving constantly between jobs and job sites, all the while struggling with cultural and language differences." (p. 1)

Another aspect of group characteristics is the number of people who speak a language other than English at home and consider their command of the English language to be classed as less than "well." Such basic considerations could provide the basis for ESL as a problem in education, industrial training, and operator understanding of safe operation of equipment — even with well-intentioned training.

A review was completed on some of the publications provided by OSHA, in particular OSHA Quick Cards. The intent of these publications is to provide brief, concise information concerning operator safety tips in one particular field of work or tool in use, e.g., chainsaws, trenching, heat stroke, and so forth. OSHA has 34 Quick Cards published on their Web site in English and Spanish (and one also printed in Vietnamese). A random sample of 17 cards, in English and Spanish, was pulled and examined by completing a Fog Index [22] on each sample. The Fog Index results ranged from 5.7 to 18.9, with an average of 11.6.

This would indicate an expected reading level equivalent to a high school graduate, which is a higher level of achievement than most of the immigrants in the work force. Thus, the flyers intended to assist workers in safe operation are written at a level most cannot understand, missing most of the intended audience.

OSHA has developed a number of Hispanic-oriented programs intended to help address the problems of worker safety. These are highly publicized as being available on the OSHA Web site for easy access. Unfortunately, in the report published by the Pew Hispanic Center [23], it was noted that less than one third of the Hispanic population where ESL was identified as being a major problem accessed the Web. This trend is in direct contrast to other Hispanics who are English-dominant or bilingual. In the latter two instances, more than 75% were Web users. Thus, the efforts to provide Web-based safety tips are missing the very audience they are intended to serve.

Fundamental questions must be addressed concerning the educational achievement, or lack thereof, of the immigrant. As noted in the two reports by Fry [24] [25], there are fundamental problems to be faced in assisting the immigrant student to continue in school and complete, at a minimum, a high school diploma. Problems associated with achieving the goal of a high school diploma are noted by Fry [26]:

students designated as English Language Learners (ELL) are among those farthest behind. The analysis of national standardized testing scores shows that about 51% of 8th grade ELL students are behind whites in reading and math, meaning that the scores for one out of every two will have to improve for the group to achieve parity. (p. 1)

As noted in the Survey Brief by the Pew Hispanic Center [27], language differences are important, but don't begin to solve the problems of assimilating ethnic groups into our society:

While the survey demonstrated that there were some important similarities among Hispanics of all language groups, it also highlighted key differences on important issues. Some of the most interesting variation was found in social issues such as divorce, homosexuality, and abortion, and attitudes toward the family. Other differences worthy of note also exist regarding beliefs about what it takes to be successful in the United States, attitudes toward the government and fatalism. (p. 1)

Conclusion

From the information available, a number of conclusions may be drawn.

First, the current rate of immigration is presenting industry a challenge in preparing the new immigrants to become safe, productive workers within particular industries, as reflected in the higher incident rates for foreign-born workers. The challenges of ESL-speaking workers, appropriate training, instruction in the appropriate language, and bridging of the cultural differences in the new worker base must all be solved by industry in an effort to reduce operator injury. With the large numbers involved, it will be a costly ongoing endeavor for industry, but a requirement if the injury rates are to be driven down.

There appears to be a number of research topics which could be developed for academic purposes (and serve industry by helping to improve training materials for the ESL operator). Topics which could be investigated include:

- The defined role of OSHA versus its impact on industry injury rates
- Training offerings, on an industry basis, and the effectiveness of those offerings
- Language demands by ethnic group by industry
- Cultural differences in ethnic groups and their impacts on worker safety
- Identification of ethnic groups and specific industry affinity (to allow for targeted training and safety material generation)
- Interrelations on the data collection, preparation, and release by various federal agencies, i.e., Bureau of Labor Statistics, the Census Bureau, and OSHA. How might the data be centralized for better sharing and determination of any missing pieces needed to solve industry safety issues?

There are probably a number of additional topics available, especially the more specific (and narrow) investigations. The cost of accidents and fatalities is a multi-billion dollar impact to industry, as noted by Everett and Frank [28], where, in the construction industry alone, the costs of accidents in 1995 reached \$31.9 billion dollars.

References

- 1. Pierce, F. (2003, August). Low English proficiency and increased injury rates. *Professional Safety*, 40-45.
- 2. Kirsch, I. S., & Jungeblut, A. (1992). *Profiling the literacy proficiencies of JTPA and ES/UI populations*. Washington, DC: U.S. Department of Labor, Employment and Training Administration.
- 3. Gibson, C., & Jung, K. (2002). *Historical census statistics on population totals by race, 1790 to 1990, and by Hispanic origin, 1970 to 1990, for the United States, regions, divisions, and states.* Working Paper 56. Washington, DC: U.S. Census Bureau, Population Division.
- 4. Kochhar, R. (2006). Latino Labor Report, 2006. Washington, DC: Pew Hispanic Center.
- 5. Georgia Hispanic Chamber of Commerce. (2005). *Statistics and information on the Hispanic population and market*. Atlanta: Georgia Hispanic Chamber of Commerce.
- 6. U.S. Department of Education. (1998). *Adult participation in English-as-a-second language (ESL) classes*. Institute of Education Sciences, NCES 98-036. Washington, DC: Author.
- 7. U.S. Department of Labor. (2005b). Census of fatal occupational injuries, 2005. Washington, DC: Author, Bureau of Labor Statistics.
- 8. U. S. Census Bureau. (2007, September). *Population Estimates* 2006. Washington, DC: Author, Population Division.
- 9. U.S. Department of Labor. (2006f). *Nonfatal Occupational Injuries and Illnesses Requiring Days Away From Work*, 2005. Washington, DC: Author, Bureau of Labor Statistics.
- 10. [10] U.S. Department of Labor. (2006g). The LEP special tabulation of Census 2000 data on limited English proficient adults Table 1 Total population. Washington, DC: Author, Employment and Training Administration
- 11. Georgia Tech Research News. (2003). *Life-and-death learning: Georgia Tech develops safety training program for Hispanic workers*. Atlanta: Georgia Institute of Technology.
- 12. South Carolina Department of Labor, Licensing and Regulation. (2005). S.C. Hispanic workers turn out in large numbers for safety training programs. *Hispanic Task Force News*. Columbia, SC: South Carolina Department of Labor.
- 13. Vazquez, R. F., & Stalnaker, C. K. (2004, June). Latino workers in the construction industry. *Professional Safety*, 24-28.
- 14. U.S. Department of Labor. (2004a). *Labor official addresses the importance of training Hispanic workers for careers in growing industries*. Washington, DC: U.S. Department of Labor.
- 15. National Research Council. (2004). Safety is seguridad. Washington DC: National Academies Press.
- 16. National Safety Council. (2004). *Injury facts 2004 edition*. Itasca, IL: National Safety Council.
- 17. U.S. Department of Labor. (2005c). *Fatality/catastrophe investigation procedures CPL 02-00-137*. Washington, DC: Author, Occupational Safety & Health Administration.
- 18. U.S. Census Bureau. (2006a). 2006 American Community Survey. Washington, DC: Author, Population Division.
- 19. U.S. Census Bureau. (1999). *Population profile 1999*. Washington, DC: Author, Population Division.
- 20. Intersegmental Committee of Academic Senates. (2006). *ESL students in California public higher education*. Sacramento, CA: Academic Senate for California Community Colleges.
- 21. Panel on Latino Workforce Injuries and Fatalities. (2005). *Latino Workforce Injuries and Fatalities in Illinois*. Chicago: Office of the Governor.
- 22. Gunning, R. (1952). The technique of clear writing. New Your: McGraw-Hill.
- 23. Fox, S., & Livingston, G. (2007). Latinos online. Washington, DC: Pew Hispanic Center.
- 24. Fry, R.. (2005a). *The higher dropout rate of foreign-born teens: The role of schooling abroad.* Washington, DC: Pew Hispanic Center.
- 25. Fry, R. (2005b). *The high schools Hispanics attend: Size and other key characteristics*. Washington, DC: Pew Hispanic Center.
- 26. Fry, R. (2007). how far behind in math and reading are English language learners? Washington, DC: Pew Hispanic Center.
- 27. Pew Hispanic Center. (2004). Survey brief: Assimilation and language. Washington, DC: Author.
- 28. Everett, J. & Frank, P. (2007, April). Cost of Accident & Injuries to the Construction Industry. *Journal of Construction Engineering and Management, Vol 122 No. 2*, pp. 158-164. Reston, VA: American Society of Civil Engineers.