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Immigrants, English, and the workplace

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English, and the
workplace

Evaluating employer demand for language education in manufacturing companies

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Abstract

Purpose – The purpose of this study is to examine the impact of limited English proficiency on employee performance in manufacturing companies to help explain the degree to which employers are willing to invest in ESL or other initiatives designed to overcome language barriers.

Design/methodology/approach – While the primary emphasis of this study was to identify the costs associated with LEP for companies in an effort to explain their level of involvement and investment in ESL programs, it is also important to note that the results also suggest some significant costs for LEP employees too.

Findings – The findings of this study provide valuable insight into why organizations are reluctant to invest in language education and training for employees.

Originality/value – The quantitative nature of the study provides useful baseline data that can assist in providing evidence of the effect of LEP on performance in companies. It also provides a better understanding of where investments in education and training yield the greatest returns.

Keywords Immigrants, English language, Workplace learning, Education

Paper type Research paper

As immigrants leave their home countries in search of jobs and a better quality of life, language diversity in the workplace is becoming a reality for companies all over the world. The situation is particularly prominent in the USA where immigrants and their descendants are projected to account for 82 percent of the US population growth from 2005 to 2050 (Passel and Cohn, 2008) and where one of every two new workers was an immigrant during the 1990s (Sum *et al.*, 2002). A characteristic of this latest wave of immigration is a high proportion of individuals lacking adequate English language skills and educational credentials (Shin and Kominski, 2010; Wrigley *et al.*, 2003). Approximately 46 percent of immigrant workers are considered limited English proficient (LEP) and individuals of Hispanic origin have been shown to be particularly disadvantaged (Sum *et al.*, 2002). A strong relationship has been found between language proficiency and earnings (Chiswick and Miller, 1999; Greenberg *et al.*, 2001) and immigrants who do not speak English are generally “pushed down the occupational ladder” (Kossoudji, 1988, p. 218). It is estimated that three-fourths of all low-wage workers with less than a ninth-grade education are immigrants and that



nearly two-thirds of low-wage immigrant workers do not speak English proficiently (Capps *et al.*, 2003).

The types of jobs available to workers with limited language skills have also changed. Manufacturers have shifted from mass production to more flexible systems that require increased literacy skills (Carnevale, 1991; McGroarty, 1992; Mikulecky and Kirkley, 1998). Many US factory jobs that once required little English have disappeared due to outsourcing. Today, employers report they need entry-level workers who can read, write, compute, solve problems, and communicate effectively. The National Association of Manufacturers (2005) found that over 80 percent of their members surveyed reported experiencing an overall shortage of qualified workers that cut across industry sectors. A subsequent study by the association concluded that too few employers were working toward a systematic and sustainable approach to training immigrant workers (National Association of Manufacturers, 2006).

Given the potential impact that such investments have on the economy, federal and state governments historically provided primary support for adult, workplace, and basic skills educational programs. However, there is evidence to suggest that the level of public funding for adult education was inadequate relative to the need. In 1993, Crandall described the adult education system as the “stepchild of K-12 education and an afterthought in US educational policy” (Crandall, 1993, p. 497). More recently, a report suggests that spending on English instruction must quadruple to more than \$4 billion a year over a period of six years to make legal adult immigrants proficient in skills critical to both their own assimilation and the economic future of the US (McHugh *et al.*, 2007). Despite these statistics, convincing employers to invest in English as a second language (ESL) education for their workers has been an uphill battle. Most of the research in the field has focused primarily on the delivery and practice of workplace ESL education. Data related to the impact of LEP on work, job performance, and the productivity of organizations has been overlooked as a means to understand the nature of employee demand for ESL.

Employers and language education

Over the past 20 years, many workplace ESL programs were developed in the US through partnerships between employers and government-funded adult ESL education providers. In most cases, the funding provided through these partnerships was considered “seed money” to introduce educational programs to workplaces and incorporate the programs into the organizational culture (Boyle, 1999; Nelson, 2004). The expectation was that businesses would experience positive outcomes and would choose to privately finance them after the funding period ended; however, few companies actually did (Levenson, 2001). Employers do often invest heavily in employee education and training, yet they spend relatively little on delivering language and literacy skills to immigrant workers (Gillespie, 1996). In 2008, the American Society for Training and Development estimated that US organizations spent \$134 billion on employee learning and development (Paradise, 2008), however, a 2002 *Training Magazine* survey ranked ESL 34th out of 34 types of training most frequently offered by employers (Galvin, 2002). A study by the US Department of Labor (1994) found that only 2.2 percent of companies offered basic skills training, the category that includes ESL education. A more recent survey of employers by the conference board discovered that 66 percent of respondents did not provide English language skills in

their training curricula even though 80 percent reported employing English deficient employees (Wooock, 2008).

Researchers have described direct and indirect benefits that employers realize as a result of improving language skills. Primary benefits include cost savings associated with experiencing fewer accidents and errors, the ability to report problems, suggest solutions, relate better to colleagues, and provide better customer service (Hayflich, 1998; Levenson, 2001). Secondary benefits include a positive impact on employee confidence and morale that positively affects performance, promotion eligibility, loyalty, and turnover. Offering educational opportunities to employees enhances a company's internal and external image (Boyle, 1999; Dicker, 1998).

Measuring these outcomes has proven difficult, however, and ESL providers realize that benefits based on personal observation, anecdotal reports, and unscientific means are not sufficient to convince executives focused on a bottom line. Some describe methods to eliminate subjectivity such as examining company records of waste, returned products, customer complaints, and employee performance appraisals before and after literacy instruction (Sticht, 1999), but there is little substantive evidence that such analyses have been conducted on a systematic basis. Other researchers offer cost-benefit and return on investment (ROI) models but such analyses generally require considerably more time and expertise than ESL educators or program administrators possess (Martin and Lomperis, 2002).

Despite potential benefits, there are a number of reasons why employers are reluctant to commit to and invest in ESL. Some have observed that employers and educational providers have different goals, ways of working, and philosophies regarding the purpose of education. These divergent approaches interfere with collaboration (Brooks, 2009; McGroarty and Scott, 1993). For example, language learning is more time intensive than the short-term training to which companies are accustomed (Boyle, 1999; Burt and Saccomano, 1995; Grognet, 1995). Employers favor workplace-centered curricula focused on specific skills necessary to make LEP employees more effective on the job. Conversely, educators favor worker-centered approaches focused on broader communication skills that can be used in diverse settings (Gillespie, 1996). Other common obstacles include high dropout rates, shortages of quality teachers, perceptions that immigrant employees are not motivated to learn English, and lack of convincing program success evidence (Burt and Matthews-Aydinli, 2007; Levenson, 2001). Like educators, employers are not willing to devote significant time to determining the return of investment of ESL or similar initiatives. In Boyle's (2001) study, not one company included in the sample reported conducting any sort of cost-benefit analyses and "few spoke about the programs in calculable terms" (p. 79).

Much of the discourse in the field focuses on LEP worker deficits as a means to justify ESL education investments. However, little scholarly and quantitative research has examined the negative or positive impacts of LEP on employee or organizational performance. As a result, not much is known about specific job performance criteria that are affected by the presence of LEP workers. Furthermore, the degrees to which company characteristics, practices, or workforce demographics influence or mitigate the effects of LEP are not well understood. In general, most research in the adult ESL field is qualitative (Matthews-Aydinli, 2008). Studies examining the impact of LEP on organizations have generally addressed a limited range of criteria collected from a

small number of stakeholders; often this included one manager or executive per company who is involved in training or human resources. Without data related to the impact of LEP from the frontlines of organizations, it is difficult to evaluate demand for and the potential returns of investments in ESL initiatives. It is further difficult for educators to demonstrate the value of language education to employees and employers. A better understanding of the deficits and the associated advantages of educating LEP workers is necessary to provide insight into the underlying level of employer interest in and commitment to workplace ESL.

As stated previously, a major research challenge in studying the impact of workplace ESL education is the ability to collect data on individual or organizational performance that is directly related to language. Although organizations typically do have objective, quantitative measures to track overall safety and productivity, they do not use such data to compare the performance of LEP and English-speaking employees. Furthermore, executives are likely reluctant to share confidential individual or company performance data. Stakeholders who are largely overlooked in workplace ESL research include frontline supervisors. Supervisors are a potential rich source of data concerning job and organizational performance; they observe and interact with LEP employees on a daily basis, have a stake in improving worker skills, and are abundant in large organizations. While experts in the field have suggested that workplace ESL programs would not succeed without the support of frontline supervisors (Archer, 1992), only one study – albeit limited in scope – used supervisors as primary subjects (Gage and Prince, 1982). Investigating supervisor attitudes as they related to LEP can provide an inside view of the need for ESL on the frontlines of organizations.

The purpose of this study is to examine supervisors' perceptions of the effects of LEP on job performance in manufacturing organizations to help explain employers' degree of commitment to workplace ESL programs. Specifically, the following questions are explored:

- What is the impact of LEP on employee performance?
- Do perceptions of LEP employee job performance differ based on company characteristics, practices, or supervisor demographics?

Methods

Participants

The population for this study was front-line supervisors working in manufacturing companies that employ a significant number of LEP workers. A total of 24 companies fitting this profile were identified through purposive company sampling in the Midwest region of the US. The selection of companies represents a cross-section of manufacturing sectors including vehicle construction, meat and food processing, printing, wire and cable solutions, apparel, and home products. Company size ranged from 142 to 6,000 employees of whom 10-80 percent were LEP ($M = 34$ percent). Within these companies, 345 frontline supervisors with experience supervising both LEP (predominantly Spanish-speaking) and English-speaking employees participated in the study (93 percent response rate). Demographic characteristics of supervisors are presented in Table I.

	Number of participants	%	Immigrants, English, and the workplace
<i>Gender</i>			
1. Male	261	75.7	213
2. Female	83	24.1	
3. Missing	1	0.3	
<i>Age</i>			
1. 20-30	47	13.7	
2. 31-40	130	37.7	
3. 41-50	112	32.5	
4. Over 50	54	15.7	
<i>Native language</i>			
1. English	316	91.6	
2. Non-English	25	7.2	
3. Missing	4	1.2	
<i>Race/ethnicity</i>			
1. White	292	84.7	
2. African American	15	4.4	
3. Native American	7	2.0	
4. Hispanic/Latino	25	7.3	
5. Other	5	1.5	
<i>Education</i>			
1. Some high school	35	10.1	
2. High school diploma or equivalent	131	38.0	
3. Some college	89	25.8	
4. Associate's degree	43	12.5	
5. Bachelor's degree	45	13.0	
6. Other	2	0.6	

Table I.
Demographic information

Instruments

Participants completed a questionnaire with a subset of 51 items that asked them to compare the performance on specific work tasks of LEP and English-speaking employees. The sources of these job performance items were previous ESL research and performance evaluations obtained from companies. Reflecting themes from the literature, the 51 items were grouped into ten categories: safety, quality, productivity, teamwork, general skills, training, promotion, communication, dependability, and company policies. Cronbach alpha coefficients for the categories of items ranged from 0.81 to 0.94. Additionally, one-hour interviews were conducted with executives to collect information related to individual company characteristics and practices and experience with LEP employees and ESL education.

Data analysis

Descriptive statistics and frequencies were computed for each survey item and category. To determine whether the performance of LEP employees was significantly higher or lower than English speaking employees, 95 percent confidence intervals were calculated for the responses to each item. If the 95 percent confidence interval included

the Likert scale rating 3 (about the same), the item was considered not significant. This was the case for only four of the 51 survey items. Multivariate analysis of variance (MANOVA) was used to examine the effects of supervisor and company characteristics on perceptions of job performance. Multivariate main effects were explored with one-way analyses of variance (ANOVA) to identify variables that contributed to multivariate significance. *Post-hoc* pairwise comparisons using Tukey HSD test examined mean differences between groups. For multiple comparisons, the significance level was set at .05 divided by the number of comparisons. The data approximated normal distribution and the large sample size allowed for the assumption of normality.

Results

The impact of LEP on job performance

The first research question examined the impact of LEP on employee performance. Means and standard deviations were computed for responses to items in each of the ten job performance categories as shown in Table II. Pairwise comparisons showed significant differences between dependability and productivity and all other categories. These analyses show that supervisors perceived that LEP front-line employees outperform English speaking employees in the categories of dependability and productivity, but perform worse than English speakers in all other categories (3 = same as English speakers). Comparisons of the ranked category means were significant for training and benefits, safety and promotion, and promotion and communication ($p < 0.001$).

Another way to view these ratings is to examine items in which half or more of the supervisors rated LEP employees as better, worse, and the same as English speakers. Extreme response categories were collapsed to simplify reporting of the data. There were only four items to which over 50 percent of the supervisors responded that LEP employees performed better than English-speaking employees. These four items were in the categories of dependability and productivity and are presented in Table III.

There were 16 job performance items to which over 50 percent of the supervisors responded that both groups perform equally well. Several job performance categories

	Mean	Standard Deviation
Dependability	3.57*	0.63
Productivity	3.37*	0.65
Quality	2.92	0.68
Teamwork	2.89	0.73
Training	2.80**	0.58
Benefits	2.64**	0.62
Safety	2.63**	0.64
Promotion	2.52**	0.72
Communication	2.39	0.69
General skills	2.30	0.81

Notes: *Significantly different from each other and all other categories at $p < 0.001$; **Ranked category means significantly different from one another at $p < 0.001$

Table II.
Means and standard deviations for supervisor ratings of LEP employee performance relative to English speaking employees

are represented and items include simple language tasks like reading pay stubs and following quality control procedures. Items are presented in Table IV.

There were 16 items to which over 50 percent of the supervisors responded that LEP employees performed worse than English-speaking employees. Seven of ten items were in the categories of communication and general skills, areas that require more complex language tasks such as understanding written instructions, writing reports, reading computer-generated information, speaking on the telephone, and accessing and understanding training materials. Items are presented in Table V.

Differences in supervisor perceptions of LEP job performance based on supervisor and company characteristics

The second research question explored whether perceptions of LEP employee job performance differ based on company characteristics, practices, or supervisor demographics. Demographic characteristics were collected through questionnaire items and included age, gender, race/ethnicity, education, native language, and LEP percent of total workers supervised. Company variables were identified through executive interviews and included industry and company size, level of LEP employees, company level of involvement in ESL initiatives, and participation in government-funded ESL program. Multivariate analysis of variance (MANOVA) was used to examine the effects of each of these independent variables on the ten job

Category	Item	Percent of supervisors
Dependability	Coming to work every day	68
Dependability	Coming to work on time	65
Productivity	Accepting extra work without complaints	58
Productivity	Speed of work	52

Table III.
Job performance items
with the most “better
than English speakers”
responses

Category	Item	Percent of supervisors
Dependability	Attending work area meetings	72
Safety	Performing job safely	71
Training	Attending training courses	69
Training	Applying new skills in training to job	68
Safety	Following safety procedures	64
Policies	Knowing where to get answers about benefits	63
Policies	Reading pay stubs	63
Training	Meeting requirements of training courses	61
Quality	Doing quality work	61
Quality	Inspecting products on an ongoing basis	60
Teamwork	Helping work area meet goals	60
Training	Learning to perform multiple jobs in work area	60
Communication	Responding to criticism	58
Policies	Taking advantage of company benefits	57
Quality	Following quality control procedures	55
Promotion	Meeting requirements for promotions	53

Table IV.
Job performance items
with the most “same as
English speakers”
responses

Table V.
Job performance items with the most “worse than English speakers” responses

Category	Item	Percent of Supervisors
Communication	Understanding written instructions	76
General skills	Writing brief reports	72
Communication	Understanding spoken instructions	70
General skills	Reading information generated by computer	66
Communication	Speaking on the telephone	66
General skills	Using computers to gather and analyze information	64
Communication	Communicating with English-speaking co-workers	64
Training	Accessing training materials	62
Safety	Reading safety warnings/instructions	59
Safety	Filling out accident reports	58
General skills	Keeping records	53
Training	Understanding training materials	52
Policies	Entering information on forms	52
Teamwork	Suggesting ways to improve work	52
Policies	Understanding company memos and documents	52
Communication	Giving information about what is occurring in work area	51

performance categories (dependent variables). Significant multivariate effects were found in the ratings of LEP employees for the variables supervisor native language ($F_{10,199} = 4.42, p < 0.001$) and level of LEP employees ($F_{30,585} = 1.77, p < 0.01$).

Univariate analyses of variance (ANOVA) were conducted as a follow-up to the multivariate analysis (Table VI). The variable supervisor native language was significant for all job performance categories. *Post-hoc* comparisons indicated that supervisors for whom English was not a native language rated the performance of LEP employees significantly higher than English-speaking supervisors in each of the ten job performance categories ($p < 0.001$) (Figure 1). The level of LEP employees a company had significantly correlated with nine of the ten categories. This variable divided supervisors into four levels based on their companies' percentage of LEP employees. These levels were determined by dividing the companies in the sample into quartiles. Analysis of variance showed a significant correlation between these

Table VI.
One-way analyses of variance (ANOVA) for effects of “supervisor native language” and “level of LEP employees” on job performance categories

Category	Supervisor native language		Level of LEP employees	
	df	F	df	F
Safety	(1, 337)	57.55***	(3, 339)	6.94***
Quality	(1, 338)	57.22***	(3, 340)	6.70***
Productivity	(1, 338)	28.46***	(3, 340)	3.14*
Teamwork	(1, 338)	71.98***	(3, 340)	12.09***
General skills	(1, 279)	36.98***	(3, 281)	11.06***
Training	(1, 327)	26.30***	(3, 329)	4.62**
Promotion	(1, 319)	29.39***	(3, 320)	4.67**
Communication	(1, 337)	62.55***	(3, 339)	5.99***
Dependability	(1, 337)	28.41***	(3, 339)	0.01
Policies and benefits	(1, 332)	51.12***	(3, 334)	5.31***

Notes: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

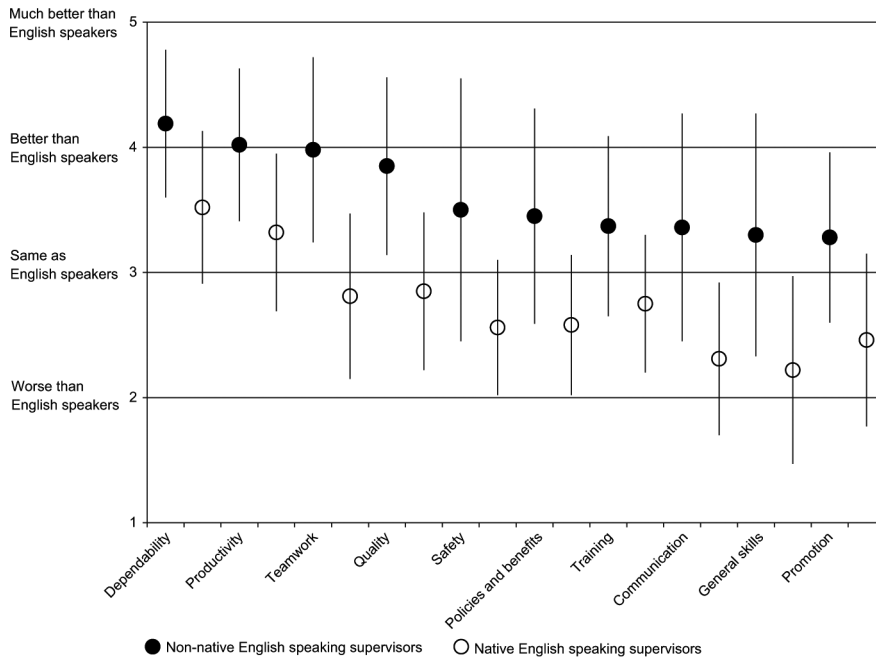


Figure 1.
Means and standard
deviations for ratings of
LEP frontline worker job
performance by
English-speaking and
non-native
English-speaking
supervisors

categories and all of the job performance categories excepting dependability, where all supervisors rated the performance of LEP employees highly. *Post-hoc* comparisons revealed that the most significant differences ($p < 0.001$) were between level 2 and 4 in the categories of teamwork, general skills, quality, safety, and benefits. This means that supervisors in companies with over 60.4 percent LEP workers rated LEP employee performance significantly higher than those with between 13.6 to 29.4 percent. Means and standard deviations for significant differences are provided in Tables VII and VIII.

Category	Native English-speaker		Non-native English-speaker	
	M	SD	M	SD
Dependability	3.52	0.61	4.19	0.59*
Productivity	3.32	0.63	4.02	0.61*
Teamwork	2.81	0.66	3.98	0.74*
Quality	2.85	0.63	3.85	0.71*
Safety	2.56	0.54	3.5	1.05*
Policies and benefits	2.58	0.56	3.45	0.86*
Training	2.75	0.55	3.37	0.72*
Communication	2.31	0.61	3.36	0.91*
General skills	2.22	0.75	3.3	0.97*
Promotion	2.46	0.69	3.28	0.68*

Note: * $p < 0.001$

Table VII.
Differences in means and
standard deviations for
the effect of “supervisor
native language” on job
performance categories

Table VIII.
Means and standards
deviations for the “level
of LEP employees” on job
performance categories

Category	Level 2 13.6-29.4 percent		Level 4 Over 60.4 percent	
	M	SD	M	SD
Productivity	3.28	0.63	3.60	0.68
Dependability	3.55	0.66	3.57	0.63
Teamwork	2.66	0.73	3.35	0.70*
Quality	2.74	0.63	3.23	0.69*
Training	2.62	0.56	3.01	0.53
Safety	2.62	0.57	2.92	0.71*
Policies and benefits	2.46	0.54	2.89	0.68*
General skills	1.98	0.67	2.82	0.82*
Promotion	2.35	0.79	2.81	0.74
Communication	2.28	0.57	2.72	0.74

Note: * $p < 0.001$

Discussion and implications

The purpose of this study was to examine the impact of limited English proficiency on employee performance in manufacturing companies to help explain the degree to which employers are willing to invest in ESL or other initiatives designed to overcome language barriers. The first research question explored the degree to which LEP affects specific job performance criteria. Data collected from frontline supervisors showed that although LEP employees were perceived to perform worse than English-speaking employees in eight of the job performance categories including communication, safety, training, teamwork, quality, and the ability to access promotions and information about company benefits, they outperformed English speakers in categories of dependability and productivity. This suggests that although employers are most certainly incurring negative outcomes or costs related to hiring LEP employees, these may be offset by higher levels of dependability and productivity. Data related to the relative importance of dependability and productivity to the success of their companies was not collected from supervisors. However, this was revealed in interviews with executives who expressed how valuable LEP employees are to the success, if not the survival, of their businesses. For example, two managers had this to say about LEP employees:

Whether it be the Pacific Islanders, Vietnamese, or the Hispanics, they're just good hard workers with good attendance.

Our company sees the effect of the bottom line with these employees, they appreciate the job, and if treated well, they are very serious and do the very best job that they can.

Many executives contrasted this with the challenges associated with the pool of English-speaking workers (generally American) available to them, including a weakening work ethic and dependability. Two managers had this to say about such employees:

It's difficult to find people who want to work every day.

The younger generation value their free time more than work time. There is no question that the Hispanic work ethic is twice the American.

As a means of advocating for ESL, literature in the field takes the position that LEP employees are deficient relative to English speaking workers. This study suggests that in manufacturing contexts, English-speaking workers are perceived as being deficient relative to LEP employees in areas critical to business success. This may help to explain employers' lack of motivation to invest and participate in ESL education.

These results do not mean that investments in ESL and other initiatives are not worthwhile for companies. In fact, the analysis of areas where LEP employees are performing poorly shows that they are particularly disadvantaged when it comes to tasks that involve reading, writing, and speaking English. Therefore, the negative effects or costs associated with limited English proficiency described anecdotally in the literature do exist (Burt, 1997; Dicker, 1998; Hayflich, 1998; Levenson, 2001). It appears that even minor improvements in English proficiency and communication can improve employee and organizational performance and data related to specific job performance tasks can be useful in targeting areas for education and training likely to yield significant returns for organizations. There are, however, many challenges associated with the delivery of workplace ESL – including quality of instruction, differing educational philosophies, and employee participation – that must be overcome to be effective and valued by employers and employees.

While the primary emphasis of this study was to identify the costs associated with LEP for companies in an effort to explain their level of involvement and investment in ESL programs, it is also important to note that the results also suggest some significant costs for LEP employees too. This study shows that although these employees may be able to satisfy the minimal communication requirements of entry-level manufacturing jobs, their language and literacy skills are likely to limit their access to promotions, training, or even the ability to take advantage of company benefits, all of which can potentially improve their quality of life. This suggests that if employers are serious about offering promotions and other opportunities to LEP employees, both companies and employees are likely to benefit from ESL education. These data also suggest that delivering ESL education to working adults should be a component of any public policy intended to advance low-income, immigrant groups up the occupational ladder.

The study also explored whether perceptions of LEP worker performance differed based on supervisor demographics or organizational characteristics and practices. This question has not been sufficiently addressed in the literature. Interestingly, demographic factors such as gender and education were found to have no effect on supervisor perceptions of LEP employee performance, nor did company practices such as differing levels of involvement in ESL initiatives or participation in a government-funded program. The most significant factor was whether a supervisor was a native or non-native (bilingual) speaker of English. Non-native English speaking supervisors rated LEP employee performance better than that of English-speaking employees across all ten job performance categories, versus native supervisors who rated them better in only two areas, dependability and productivity. These results have important implications in recruiting and training decisions at both the management and supervisor-level. For example, hiring bilingual supervisors and creating more bilingual workplaces may be efficient and cost-effective ways to boost employee performance, as suggested in the literature (Brooks, 2009; Woock, 2008). These results also raise interesting questions that warrant further investigation. For example, are

native speaking supervisors less effective than non-native speakers at maximizing the performance of LEP employees because of the language barrier, or are they less empathetic toward their assessments of LEP employees? These data reinforce the possibility that there are biases in performance appraisals that need to be examined in organizations where there are different ethnic, cultural, or language backgrounds ([Jeanquart-Barone, 1996](#)).

These data also show that the percentage of LEP workers a company employs has the greatest effect on perceptions of LEP performance. The more LEP employees there are in an organization, the more they appear to be valued for their performance. There are several reasons why this might be the case. Supervisors in these companies may be required to adapt more quickly to the skills and needs of LEP employees. These companies may purposely hire supervisors experienced and comfortable with LEP populations. At higher levels of LEP employees, companies might be investing in initiatives that help mitigate the effects of language (e.g. training, translation, more bilingual supervisors and executives). This suggests that companies have different needs for ESL education depending on the percentage of LEP workers they employ and the stage of a company's development. It also suggests that as organizations become bilingual, the need for English proficiency and ESL education may diminish. Additional research in this area may yield interesting findings related to whether choosing a holistic approach that fixes the workplace instead of fixing the worker has a greater range of positive benefits for both employers and employees (Katz, 2000).

Study limitations

There are a number of limitations associated with this study that should be addressed in future research. First, the study was limited to one geographic region and industry sector; it also addresses particular ethnic groups. Second, LEP worker performance appraisals were based on supervisor perceptions instead of more objective measures. This approach was selected because companies do not often employ objective measures to assess performance across the range of criteria examined in this study. In addition, most decisions related to LEP workers and ESL education are made based on supervisor and executive perceptions of performance rather than formal job performance or language assessment data. Finally, while the purpose of this study was to understand the impact of language on work, it is difficult to separate language and culture. Employees' cultural backgrounds as well as their level of English proficiency may influence supervisor perceptions of employee performance or motivation. To minimize this effect, survey items were constructed in a way that focused exclusively on language. In addition, a large number of supervisors across multiple organizations were included in the sample.

Conclusion

The findings of this study provide valuable insight into why organizations are reluctant to invest in language education and training for employees. Although there are potentially costs associated with employing workers with limited language proficiency, some benefits offset them including high levels of productivity and dependability. Results suggest that organizations are likely to improve performance with targeted investments in education or other initiatives to overcome language barriers and that these initiatives should be a priority for organizations serious about

offering career paths and promotions to immigrant workers. The quantitative nature of the study provides useful baseline data that can assist in providing evidence of the effect of LEP on performance in companies. It also provides a better understanding of where investments in education and training yield the greatest returns. Due to migration patterns, language diversity is becoming an issue in workplaces all over the world. This study highlights the need for additional research in the field to better understand the effects of language, culture, biases, and education, in an effort to maximize organizational performance.

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