Extension Education Methods

Managers of Latino Workers in the Iowa Horticulture Industry Want Educational Programs to Bridge Language and Cultural Barriers

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SUMMARY. Horticulture is the fastest-growing sector of the agricultural industry, and this is true particularly in Iowa where the number of private horticultural businesses has more than doubled since 1993. The industry is relying more on non-English-speaking employees, especially Spanish-speaking workers, for golf course maintenance, landscape installation, and nursery production. Determining and serving the educational and training needs of a workforce that is not fluent in English is historically difficult for university extension programs. This study assessed educational needs and technical issues of English-speaking managers of primarily Spanish-speaking workers in the horticultural industry in Iowa, with special attention to language and cultural issues. Four focus groups were conducted, with managers recruited in cooperation with state professional horticultural associations. Communication gaps and challenges interpreting cultural differences were cited as key difficulties experienced by managers of Latino workers. The study produced a list of ideas for educational initiatives that would improve lateral (two-way) communications and delivery of Iowa-specific horticultural education and job-site training between English-speaking managers and Latino employees.

The ornamental horticulture industry has seen tremendous growth nationwide in recent years (Hall et al., 2005; Shields and Willits, 2003). The U.S. Department of Agriculture (USDA) reported that

in 2006, total sales of nursery crops increased 17% from 2003, while the number of smaller producers decreased and the number of producers with sales over \$100,000 increased (USDA, 2007). The increased demand for horticulture products and services has led to growth in landscape goods, wholesale and retail trade operations, and the landscape service industry, which in turn has created jobs in agriculture (Shields and Willits, 2003).

Horticulture commerce is composed of nursery, greenhouse, fruit, and vegetable production, and service

sectors such as landscape design, installation and maintenance, lawn care, and tree care. Nationally, the production, horticultural services, and wholesale and retail trade products sectors of the horticulture industry contributed \$147.1 billion in total sales receipts in 2002 (Hall et al., 2005). The USDA reported that in 42 states, nursery and greenhouse crops rank in the top 10 commodities and rank as the fourth-largest crop group in the United States in terms of farm cash receipts (Jerardo, 2005). Horticulture is the fastest-growing segment of the agriculture industry in Iowa, and the number of private horticultural businesses in Iowa has more than doubled in the past 13 years (Haynes et al., 2007; Klein, 2003).

Iowa has experienced change not only in the importance of the horticultural industry to its farming profile, but a change in the profile of the agricultural employment pool. Within the last decade, Iowa has experienced an influx of employees able and willing to work in the horticulture and other industries who have arrived in the state from Latin America (Norman, 2008). Seasonal positions that begin in March or April and end before December are common in the horticultural industry, and it is common for Latinos to hold these jobs (Lacey et al., 2007; Waliczek et al., 2002). Word of mouth, referrals, and family contacts are recognized as effective recruitment techniques for seasonal, manual-labor positions filled by Latino workers (Waliczek et al., 2002). Because the majority of seasonal workers are not fluent in English, communication is an ongoing challenge for managers who are not fluent in Spanish (Bitsch and Harsh, 2004). Language, cultural, and educational barriers hinder productivity, efficiency, and safety in the horticultural industry (Martinez-Espinoza et al., 2003). Managers and workers experience improved working conditions and are more productive when the technical, language, and cultural educational needs of groups new to each other are fully addressed (Quigley, 1998).

USING FOCUS GROUPS TO ASSESS NEEDS. Needs assessment for adult employee education requires a long-term commitment and a multifaceted approach (Caffarella, 2002; Morgan

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and Krueger, 1993). Focus groups provide a way to collect a wide array of ideas about needs, and are considered a sound methodology with which to begin a needs assessment process. The focus group method can succeed in eliciting participation from all attendees in the conversational style (Morgan, 1997). Focus groups also permit respondents to provide data about strong feelings related to educational needs and cultural differences—both negative and positive. Such information is crucial to designing mutually satisfying and effective educational programming (Pearce, 1998; Quigley, 1998). Bitsch and Harsh (2004) used focus groups with English-speaking managers of greenhouses, nurseries, and landscape contractors in Michigan to identify risk factors in labor management of Latino workers. This study found that managers supported and encouraged Latino employees to learn English and supervisors to learn Spanish. The managers from the study also commented on traditional Latino values of strong sense of community, close family attachment, and caring for one another. However, these values can lead to workplace challenges when Latino employees unexpectedly leave the job because of family requirements (Bitsch and Harsh, 2004).

Morgan (1998) describes focus groups, or group interviews, as “a way of listening to people and learning from them,” which opens lines of communication between the researcher and participant, and participants with each other. Focus groups allow participants to think more deeply about their responses because they listen to the responses of other participants. Focus groups give participants a chance to “share and compare” experiences in a way that provides high-quality data for the researcher regarding competing needs or compatible approaches (Morgan, 1998). Focus groups may be used as a principal source of data or, more commonly in needs assessment, as a complement to studies that employ other sources for data such as written sample surveys or individual interviews (Morgan, 1997). Haynes and Trexler (2003) used focus groups as the primary data collection method to assess training needs of volunteers at a public garden. Jutila et al. (2005) used focus groups and a written survey instrument for their research with

volunteers at a public garden. In the field of horticulture, focus groups have been used as a research method to understand the perspectives from landscape professionals, public garden volunteers, and growers in the commercial greenhouse industry (Barton et al., 1996; Haynes and Trexler, 2003; Jutila et al., 2005; Scoggins et al., 2004).

Little information is available about the English-speaking managers of the Latino workforce in the horticultural industry in Iowa. The objective of this study was to determine the educational and training needs of managers of Spanish-speaking horticultural workers in Iowa.

Materials and methods

APPROVAL AND PLANNING. Approval to conduct research involving human participants was obtained in June 2007 from the Institutional Review Board (IRB) of Iowa State University. The question guide was developed and revised using a panel of experts consisting of focus group methodologists and individuals familiar with the Latino communities in Iowa and elsewhere. Moderators were trained using guidelines outlined per Krueger (1998a). A pilot study was conducted with seven participants to ensure that preliminary questions produced relevant data, and to determine effective recruiting strategies for future focus groups.

RECRUITMENT. Four focus groups with a volunteer, self-selected sample were conducted in Iowa between Sept. 2007 and Mar. 2008. The target population was English-speaking managers of Latino workers from the golf course, nursery production, and landscaping sectors of the Iowa horticulture industry. In July 2007, 241 letters requested participation of managers who hired and managed Latino workers. The letters were sent to all active members of the Iowa Nursery and Landscape Association (INLA) and Iowa Turfgrass Institute (ITI). Two hundred twenty-three reminder postcards were mailed 2 weeks later. Respondents to the letters and/or postcards who were interested in participating and who fit the target population were contacted in Aug. 2007 by phone or e-mail to schedule a date and time for a focus group. A second phone call

or e-mail was made providing the date, time, and location of the focus group.

In Jan. 2008, additional participants were recruited during the INLA Annual Convention and Trade Show and the 74th Annual ITI Conference and Trade Show. To recruit participants from the INLA and ITI annual conferences, the organizers of the conferences were contacted, and permission to recruit was obtained. Flyers were distributed, and announcements were made about the study at both conferences to reach potential participants from the target audience.

DATA COLLECTION. The first focus group after the pilot study was conducted in Ames, IA, on 7 Sept. 2007 with four managers from landscaping and golf course firms/companies. The second focus group was conducted in Des Moines, IA, on 25 Jan. 2008 with six managers from landscaping and nursery firms/companies during the INLA conference. The third focus group was conducted in Charles City, IA, on 15 Feb. 2008 with 10 managers from a single nursery production company. The fourth focus group was conducted in Des Moines, IA, on 26 Feb. 2008 with five golf course superintendents and assistant superintendents from the golf course industry. The four focus groups were intended as replications to produce high-quality qualitative data across sites and to account for differential group dynamics (Morgan, 1997).

Twenty-five participants from the four focus groups represented three sectors of the horticultural industry: golf course maintenance ($n = 7$), landscape design and installation ($n = 6$), and nursery production ($n = 12$). Each focus group had four to 10 participants. Two researchers were present at each focus group, a moderator and an assistant moderator. At the beginning of each focus group, the moderator read directly from a script outlining the rules and procedures for the discussion. Each participant was asked to read and sign an informed consent form that stated the risks and benefits of participation in the focus group.

An opening introductory question was used to help all participants become familiar with one another. Participants were asked open-ended

questions from the IRB-approved list. Discussion questions, created by the authors (Table 1), were designed to determine training and resource needs of managers, and to understand how university extension programming can help managers improve working relationships, including communications, with their Spanish-speaking employees. Questions were sequenced from general to specific to maximize insight, which allowed the participants to become more familiar with the topic. Probing, or follow-up, questions were asked by the moderator during the discussions to clarify comments that may have been unclear.

Focus-group discussions lasted 60 to 90 min. The moderator led and facilitated the discussion questions and the assistant moderator documented comments from the participants in the form of field notes. Responses also were captured with digital and tape recorders. Participants were informed of the recording, and their identities were kept confidential by using their initials during transcription. At the conclusion of each focus group, the assistant moderator summarized the comments, and participants were asked to verify the accuracy of the summary.

DATA ANALYSIS. The researchers discussed the responses of the participants in a debriefing immediately following the focus group session, which began the process of identifying and modifying the question guide. The digital and tape recordings

were transcribed. Transcriptions were coded by attaching labels to ideas or themes that emerged from the discussions. The long-table approach was used for coding and analyzing the focus group transcriptions (Krueger, 1998b). This method required printing the transcriptions on paper of different colors for each focus group. Transcriptions were cut and organized under emerging themes across the four focus groups. Presentation of the findings was organized by background and demographics, communication with Latino workers, observations of culture, and future programming.

Results

BACKGROUND AND DEMOGRAPHICS. Participants discussed their backgrounds in relation to their current horticultural positions. Of the 25 participants, 21 were men and 4 were women. Discussions revealed that 80% of participants had farming backgrounds and were raised in rural communities. The majority of participants, 72%, were below the age of 50 years. When asked what their aspirations for the future were, 48% of the participants were content in their current positions; however, 32% of the participants also were looking forward to retirement. Job responsibilities of the participants included day-to-day operations of golf courses, managing staff, overseeing landscape installations, budgeting, and hiring/training new staff. Participants

enjoyed working outdoors, the variety of job tasks, growing plants, and designing landscapes. Challenges for the participants included criticism from golf course members and clients, long hours during the growing season, and the physically demanding nature of many of the tasks.

Managing employees for many participants was both a challenge and an enjoyment. Managers felt challenged, for example, when some employees were not present for work and had not notified the supervisor. Managers also said they were displeased when employees appeared to show limited creativity during landscape installation. However, participants also stated that they enjoyed working with employees and many reported that they had developed a bond—indicating a positive relationship—with their Latino employees. For one participant, Jane, this bond went beyond working hours to being “invited to all the weddings and the baptisms and everything. [They were] really, really kind and generous...and shared a lot of food.”

COMMUNICATION WITH LATINO WORKERS. Participants reported communication challenges when supervising Latino employees. When asked to state their level of Spanish language fluency on a scale of 1 to 5 (1 = poor/limited, 5 = excellent/fluent), 79.2% of 24 respondents rated their fluency as either 1 or 2 (54.2% and 25%, respectively). Participants reported using workplace Spanish handbooks, dictionaries, translation websites, and bilingual employees to translate instructions from English to Spanish. Although participants were aware of Spanish-language classes available through community colleges, only three participants had inquired about the classes and none had enrolled.

Managers also talked about the ways in which they stayed current in technologies in the industry. Many relied on coworkers, on-the-job training, and trade magazines for new information about management practices, including how to successfully work with employees. Golf course superintendent participants stated they often shared information at meetings about management practices with one another. Participants reported providing safety trainings to Latino workers; however, few participants, 36%, provided posters,

Table 1. Question guide used by facilitator during focus groups of managers of Latino workers in Iowa to determine resource needs of managers.

Opening
How did you become involved in horticulture?
What is your agriculture history or background?
What dreams or aspirations do you have for the future?
Demographics
What position do you hold in your company?
What are your duties in this position?
What do you enjoy about this position?
What do you dislike about your position?
How much Spanish do you speak?
Training and resource needs
What training and information resources are available to you?
What training and information resources do you provide to your Spanish-speaking employees?
How do you access these resources?
Do you know about the extension service and extension programs?
Concluding
How can extension help make you more successful with Spanish-speaking employees?

videos, or technical literature in Spanish to Latino employees.

Four managers recommended a class on Spanish language for horticulture undergraduate students at Iowa State University. An Iowa State University alumnus from 2000 summarized the sentiment with the comment: "There was never any focus on taking Spanish at the college level. A little golf course fluency, that's all [the students] need, and then [the students] can go from there." Five participants discussed and recommended classes on Latin American culture and human resource management for horticulture students at Iowa State University.

OBSERVATIONS OF CULTURE.

Most of the participants emphasized the need for cross-cultural training for managers and employees. Managers said Latino employees placed great importance on family relationships. Also, nearly all participants agreed that Latino employees were hard working and dependable. Eight participants remarked that Latino employees often had second jobs in the evenings and that many relied on younger children in the family to complete English-language forms and translate oral and written communications for their Spanish-speaking parents. Three participants expressed concerns that Latino employees had difficulty finding addresses when working on landscaping jobs. Nearly half of the participants across the focus groups stated that Latino employees feared reporting equipment failure. Managers described societal characteristics of Latino employees in which those in positions of authority are respected and not to be questioned. This differed from the organizational culture of the United States in which lateral communications and "equality" norms were more typical, such as in the horticultural industry. Tony and Roy illustrated these societal characteristics with their comments:

Tony: "For [Americans], we like to think that we're equal. But for [Latinos], they usually have one dominant person. That's just the way their culture is."

Roy: "When we [managers] talk to each other, we look in each other's eyes. [Latinos] don't. In their culture, they don't look in our eyes. That's for managers."

Participants asserted that learning a few common Spanish phrases had helped to establish respect and remove cultural barriers with Latino employees. One participant used pictures instead of words to label and organize tools. To connect with employees and overcome cultural barriers, one supervisor used the following analogy to relate the importance of golf in the United States with soccer in Latin America to his Latino workers. "The little trick I use, the common denominator between everybody [who] speaks Spanish, is soccer. That's something that I take and I relate it to the golf industry. [Latinos are] so passionate about soccer; in the United States we're passionate about golf, especially at this place. For what it's worth, it seems to keep everybody on the same page, if we talk about soccer once in awhile."

FUTURE PROGRAMMING. When participants were asked if they were aware of university extension services and programs, most stated that they were familiar with programs such as Master Gardeners, 4-H, and plant pest management bulletins. The question also stimulated criticism. One participant remarked that Iowa

State University extension did not sufficiently promote their services because he was unaware of publications, classes, or the location of the county extension office. Participants said they were not aware of any university extension programs specially geared toward managers of Latino employees or extension programs or materials available in Spanish.

Focus group participants suggested a range of specific program topics that they believed were needed by Latino employees to be more successful workers in the horticultural industry (Table 2). Participants suggested developing educational materials for safe equipment operation, proper use of fertilizers and pesticides, and ways to identify harmful insect pests and common plants dangerous to workers, such as poison ivy (*Toxicodendron radicans*). All golf course superintendents agreed that explanations about golf, how it is played, why things are maintained or managed a certain way on the golf course, and golf etiquette were also needed so that employees would know why particular standards of care and quality were needed. Participants also made suggestions for delivery

Table 2. Recommendations for future educational programming for universities, cooperative extension, and industry associations to assist Latino workers in the horticultural industry. Recommendations originated from focus group participants who were managers of Latino employees in the Iowa horticultural industry.

Universities

- Develop and implement a Spanish and Latin American cultural class for undergraduate horticulture majors
- Encourage participation in a human resource management class for undergraduate horticulture majors

Cooperative extension

- Develop publications about Latin American societal characteristics
- Develop publications about proper use of fertilizers and pesticides in Spanish
- Develop publications about ways to identify harmful insect pests and harmful plants in Spanish
- Work with industry associations to create bilingual safety trainings, manuals, and guides with pictures
- Provide bilingual educational materials to managers at workshops and trainings
- Translate existing publications from English to Spanish
- Deliver trainings for Latinos through visual aids, digital video discs (DVDs), and workshop leader who speak Spanish

Industry associations

- Offer seminars and workshops for Latino employees during winter months
- Develop publications about golf, how it is played, and golf etiquette in Spanish
- Develop publications about nursery production and landscaping in Spanish
- Create links from industry associations to extension websites
- Offer general labor management seminars and workshops about cultural differences during annual conferences

methods of educational materials that included visual aids, digital video discs (DVDs), and a workshop leader who spoke Spanish. To work even more successfully with Latino employees in the landscaping industry, participants suggested that INLA offer educational opportunities for Latino employees in the form of seminars or workshops during the winter months.

Slightly more than half of the participants across all focus groups agreed that access to extension materials should be more straightforward. Moreover, to better connect university extension research with private industry, participants suggested creating links from extension websites to associations such as ITI and INLA. Participants also suggested that extension educators could provide information in trade magazines about cultural differences between communities in Latin America and those in the United States. Participants also endorsed the creation of general labor management classes, provision of publications about nursery and golf course technical features in Spanish, and workshops about cultural differences.

Discussion

Focus groups are especially useful for illuminating complexities on sensitive topics such as manager-employee relationships and for topics that are poorly understood (Morgan, 1998). The complexities of the new Latino presence in the Iowa agricultural industry, including horticulture, qualify as a sensitive and poorly understood topic. The research successfully identified the challenges and needs of managers who supervise and work with Latino employees. The data provided a well-rounded portrait of admiration and satisfaction, as well as frustrations and limitations experienced by managers who rely on Spanish-speaking employees on a daily basis. The findings point to opportunities and strategies that would make the workplace and the industry stronger and more satisfying for the cultural and language groups currently dominant in the industry.

Focus group methodology has limitations, however, and the results from this study should not be extrapolated beyond the sample. The ethnic diversity of the state of Iowa is

not comparable to states with larger Latino populations, therefore, the results conducted from studies in other states may vary. Furthermore, our study did not address issues from the perspective of the workers. To strengthen and add depth to the research, a needs assessment of Latino horticultural workers would be beneficial.

Our focus group discussions showed that managers observe and identify language and cultural differences that enhance and conflict with job performance of employees. These findings are similar to the findings of Bitsch and Harsh (2004) in Michigan. The findings showed that the language barrier between English-speaking managers and Latino employees poses daily challenges for the managers (Bitsch and Harsh, 2004). Recognizing and learning about these differences could help managers of Latino workers in Iowa build better work relationships with their employees.

Focus group discussions suggested that managers would benefit from learning and using Spanish vocabulary specific to golf courses, production nursery, and landscape installation. These findings are similar to a survey of arborists who hire Latino workers in Connecticut (Ricard et al., 2008). The study showed that managers were interested in workshops, videos, training materials written in Spanish, and a manual with a list of common words used in the industry in English and Spanish for their Latino employees (Ricard et al., 2008).

Focus group discussions suggested that universities, industry associations, or cooperative extensions may want to consider developing programs addressing language and cultural differences (Table 2). University extension programs and services could use this information to develop publications or workshops tailored to managers of Latino workers. Providing bilingual educational materials to managers at trainings and workshops sponsored by cooperative extensions and industry associations would help managers improve communication with their employees. Universities, industry associations, and cooperative extensions also may want to consider collecting resources, such as horticulture words in Spanish or training manuals in Spanish, and

making them easily accessible through the Internet. Using pictures instead of words to address safety concerns could reduce on-the-job accidents. In addition, existing publications could be translated to Spanish for distribution among Latino workers. These suggestions would help managers make connections with their Latino employees, whether the managers speak Spanish or not.

If implemented, the suggestions of focus group participants for future programming could help improve communication and cultural understanding between managers and Latino employees. Past research involving the horticulture workforce supports the need for educational programming for horticultural industry workers (Haynes et al., 2007; Mathers, 2003; Scoggins et al., 2004).

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