

**Layers of Meaning and Message:
Pragmatic Models in Mediating an Industrial Meta Code,
Mexican Spanish and Middle English in a Manufacturing Move**

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In this paper the author analyzed the communication involved in a six-month industrial project occurring in southeastern Ohio. In this qualitative study, a global manufacturing entity successfully completed a relocation and production line transfer from a small, factory site in Ohio to a maquiladora site in a large border town in Mexico. Secured as consultants to help facilitate the move through language translation, the author launched an in-depth folknographic study of the pragmatics of meaning and perceptions of the communication involved between the Mexicans and Americans involved in the full scale, complicated process of transferring a manufacturing line from one plant to another, one country to another and one culture to another. The paper offers insights into the perceptions of the persons involved, the pragmatic language acquisitions during training, supervision and line transference, and the cultural exchanges that naturally occurred during the process and experience. The researcher engaged in layers of languages including an industrial Meta code, Mexican Spanish and Middle English. The work provides examples of pragmatic utility expressions, phrases and words employed throughout the process of transition. The resulting narratives of this study provide deep insight into the pragmatic expressions, learning and perceptions of meaning. The data demonstrate that context participants and message cooperatively construct layered communication to achieve the ultimate goal of change.

Introduction

The prompt for the initiation of this *folknographic* study came when a plant manager from a well-known global manufacturing requested that the writer provide translation and consultation services for one of their manufacturing lines moving from one of their US plants to a maquiladora in Mexico. This concept of moving one or more successful manufacturing lines to another culture and country to save labor, operation and overhead costs is not a new business tactic (Blecker, 2009). Actually, the reasons for moving

an operation off-shore or to another culture vary. Among the many factors that have caused this shift, however, the rapid change in dependable, affordable access labor remains chief.

The migration of jobs abroad continues because of countries fail to develop their work force skills and capabilities at a high national level or encourage, through liberal immigration policy, the influx of skilled workers for the various lines. In fact, there is an increased demand for a workforce that is highly adaptable and flexible to cope with the ever changing and more entrepreneurial economy. (Walker, Walker & Schmitz, 2003)

The project seemed simple enough. The plan called for about 20 employees of the global company to travel from Mexico to the US in two week increments in order to work alongside or shadow the laborers in the US plant in order to learn the assembly line skills. A global company shares resources on a global basis in order to access the best market with the highest-quality product at the lowest cost (Cross-Cultural International, 2011). Realizing that training and learning is a fundamental engine for sustained, competitive business growth, the company arranged for the travels, hospitality and training for the Mexico team in order to mold the individuals “into efficient and productive human capital capable of providing peak performance through effective management of their knowledge, capacities and abilities.” (Walker, et al.)

The importance of studying this specific problem in the plant involved channeling worker productivity, technology investment, worker efficiency and effectiveness, and communication in its workforce. In order to provide the foundation for an effective and efficient workforce, manufacturing entities must offer assembly training and instruction. This particular on-site, on-the-job training project, however, included numerous problems involving training in English, translations to Spanish, all the while engaging a manufacturing metacode taken straight from engineering, training, and instruction manuals. The complex issues in the communication and messaging of this training presented an excellent opportunity to study the complicated, but important process.

Teaching, learning and training remain the fundamental engine for sustained, competitive business growth. The quality of a company’s human

capital determines how well that business can produce, innovate and compete. Learning, development and training serve as the very best means to raise people's aspirations for self-improvement while diffusing knowledge, raising output and establishing effective management practices to ensure the critical transition of workforce values and processes for sustained success (The Manufacturing Institute, 2010). The idea of on-the-job training for these Mexican assembly line workers seemed simple enough. The training project followed traditional models followed by the company many times before. One plant superintendent remarked, "This training model has been followed by this company many times before. We have moved other lines to Mexico and we followed this training model. Sure we've had glitches but this is the way that headquarters wants it done so we will do it." (Interview notes, 2012)

Employing the qualitative research method known as *folkography* (Lucas, 2006), the researcher decided to carefully research the entire project from beginning to completion, interviewing all parties directly involved in the training process. Over a six-month period the author interviewed, observed and held focus groups with 20 Mexican nationals, 22 American laborers, four line supervisors and two plant supervisors. The company involved operates as a manufacturing concern under the auspices of a larger, global company. The parent company operates these two plants included in the research project with one located in Appalachian Ohio (Southern Ohio) and the other in Northern Mexico (a border maquiladora). To protect the identities of the global company, the two plants, the laborers, the managers and all others concerned, this paper will not reveal the actual names in this publication. All names given will be pseudo labels created to provide a workable framework for the paper.

Only two of the Mexicans that came to Southern Ohio to participate in the training program had a working knowledge of English. None of the American workers, line chiefs or supervisors had Spanish as a second language. Thus, the company secured the author's services in order to provide the translation and consulting services needed for the general communication exchanges that would occur during the training experiences. The traditional industrial training model called for initial classroom training (two days) and the remainder of training would occur as on-the-job training with the Mexican workers shadowing the American laborers who had worked the line for several years producing an industrial specialty product.

The headquarters for the subsidiary operations is in a major city in Ohio while the plant providing the training is in rural, Appalachian Ohio.

Manufacturing, Meta Code and Training Models

In this paper the author uses the term *metacode* as a metaphor for terms, both technical and operational, used in the process of line assembly (Leavy, 2011). Manufacturing employs many technical terms that often are only understood within the context of the assembly plant, inventory or within the assembly team. For the purposes of this study, metacode means *the unique terms, labels and descriptions that go along or accompany the process of manufacturing in the assembly plant identified as **Plant US***. The Mexican workers involved in the study came from a large maquiladora located in a large city in *la frontera* of northern Mexico identified for this study as ***Plant Mexico***.

Industrial concerns, manufacturing entities, assembly plants, and other corporate operations create a language for that specific culture and context. This language is often labeled as a metacode. The terms used become important and relevant items of information that are context-effective. This also means that they are context-dependent. In communicative situations, context-dependence is inferred by the interpreter based upon evidence of the perceived intended message. The hearer has to infer the intended meaning, and the speaker has to effectuate the intended meaning (Pietarinen, 2005). In this case, the power of labels, terms and descriptors used within the context of the assembly plant required identification, definition and then translation before the Mexican workers could achieve clear understanding and learning. This truly became the first layer of meaning and message in this project because the author, not having the depth of understanding like all other plant employees, required review of all the vocabulary of terms before making the proper translations for the Mexican trainees. One supervisor explained. "We must convey the working terms used here within the plant. The competitiveness of an industrialized economy depends on worker productivity, which is a factor of technology investment and the efficiency and effectiveness of its workforce."

The model used in this project involves the Mexicans to shadow the American in order to learn the process of assembly of the unit. This approach requires workers who can learn new skills or learn how to operate new machinery quickly. Trainers must be able to communicate problems to

watch for, quickly demonstrate operation and safety rules and share the assembly process. Trainers are less able to accommodate workers who cannot speak English. Further, they need the workers who can and are willing to communicate suggestions ideas or observations about a faulty product, assembly process problem, or resolve emergent issues. The line leaders and supervisors need employees who can speak with coworkers or trainers to explain circumstances. For many of these employers, English serves as the common denominator not only among the Mexicans and Americans on the shop floor, but also between managers, engineers and workers. The English language serves as the key for these workers to succeed and advance. Translators turn the communication debacle into a workable means of communication, negotiation and cooperation.

Message and Middle English

The second layer of message and meaning in this study appeared in the actual English dialect spoken in *Plant US*. The dialect spoken by Appalachian people has been given a variety of names, the majority of them somewhat less than complimentary. Educated people who look with disfavor on this particular form of speech are perfectly honest in their belief that something called The English Language, which they conceive of as a completed work - unchanging and fixed for all time - has been taken and, through ignorance, shamefully distorted by the mountain folk. And, although there are no mountains in Southern Ohio, the geographic area makes up the northern border of the region known as Appalachian and the people of Southern Ohio speak the same dialect as those in the mountains of West Virginia, Eastern Kentucky and Tennessee.

The fact is that this dialect works as a distorted form of English is completely untrue. The folk speech of Appalachia instead of being called corrupt ought to be classified as archaic. Many of the expressions heard throughout the region today can be found in the centuries-old works of some of the greatest English authors: Alfred, Chaucer, Shakespeare, and the men who contributed to the King James Version of the Bible, to cite but a few. Essentially, the people of Appalachia speak a form of Middle English (Habee, 2010).

Southern Mountain Dialect (as the folk speech of Appalachia is called by linguists) is certainly archaic, but the general historical period it represents can be narrowed down to the days of the first Queen Elizabeth, and can be further particularized by saying that what is heard today is

actually a sort of Scottish-flavored Elizabethan Middle English. This is not to say that Chaucerian forms will not be heard in everyday use and even an occasional Anglo-Saxon one as well. But, in essence, the people of Appalachia have retained old traditions, folk ways and a Middle English dialect (Habee, 2010).

When professionals and academics recognize that the first white settlers in what is today known as Appalachia were the so-called Scotch-Irish along with some Palatine Germans, there is small wonder that the language has a Scottish tinge; the remarkable thing is that the Germans seem to have influenced it so little. About the only locally used dialect word that can be ascribed to them is *briggity*. The Scots appear to have had it all their own way. The English today works as Middle English from days gone by (Dial, 1969).

Mexican Spanish and Manufacturing Moves

The third layer of meaning and message in this study emerged in the Mexican Spanish spoken by the learning employees. All Spanish is not created equal. Just because someone is Spanish speaking does not necessarily mean Mexican. In the United States there are Spanish speakers that come from many different Spanish countries; we have Cubans, Puerto Ricans, Mexicans, Chileans, Argentines, Spanish, as well as many others. This is important to know because not all Spanish countries have the same culture nor speak with the same accent, dialect or vocabulary. In fact many of the Spanish speaking cultures and dialects are very different. Just as you wouldn't fly a British flag on Independence Day in the United States just because we speak a similar language as compared to the British, so too you cannot assume that all Hispanic cultures appreciate the same fashions, traditions or language customs ("Spanish in," 2012).

While the comparison is not completely accurate, the differences between the Spanish of Spain and the Spanish of Latin America (including Mexico) are something like the differences between British English and American English. People from throughout the Spanish-speaking world can communicate with each other in much the same way as people throughout the English-speaking world can. There are differences, more so in the spoken language than in writing, but they aren't so extreme that prevent meaning conveyance (Erichsen, 2011).

Mexican Spanish speakers, especially those from the border towns, already have a peppered presence of English words within the vernacular of their Mexican Spanish. US media, music and tourists have carried terms, expressions and phrases in English that have integrated into the Mexican Spanish. This makes the northern Mexican Spanish dialect unique in Mexico much like the Appalachian dialect operates uniquely in Ohio (Dial, 1969).

These layers of meaning and message, then, complicate the process of communication, training and collaboration within the assembly plant. Working in triune, the Mexican Spanish meets manufacturing metacode which collides with Middle English. In order to find meaning in the myriad of messages, the translator must know the three languages in order to provide meaning. To specify what it is for the words and phrases of a natural language to have the meanings they have, one must know how to provide the correct interpretation of such a language without appeal to the notion of meaning, and without attributing to the speakers of that language the prior and further inexplicable grasp of the concepts those words express. For the most part the interpretation in question amounts to singling out and characterizing those features of linguistic expressions which constitute their meaning. Since what is at stake here is a meaning-theory for a given natural or meta-language, one cannot, more or less arbitrarily, stipulate the intended interpretation of that language, but one has to provide an account of how it is actually interpreted by its competent users. In other words, one has to explain how that language is understood, and in what that understanding consist. In this instance then this becomes the pragmatic theory of meaning and message for this study (Szubka, 2002).

Methods, Manners and Motivations of Manufacturing Training

Industrial and manufacturing training should not be haphazard. The ideal training program includes the following concepts:

- (1) specific goals for the organization need to be clearly defined and translated into specific goals for the training programs;
- (2) organizations should not expect training programs to deliver unspecified and unidentified organizational goals;
- (3) training programs should consider the trainee as an individual with social needs (Pennathur, et al.).

Experts agree that workers in manufacturing, in order to make their companies successful and profitable, need exceptional performance in the following five competencies:

- (1) Managing resources.
- (2) Interpersonal skills for team problem-solving.
- (3) Information science, including identification, integration, assimilation, and storage and retrieval of information from different sources; preparation, maintenance and interpretation of quantitative and qualitative records; the conversion of information from one form to another and the communication of information in oral and written forms.
- (4) Systems, including understanding the interconnections between systems, identifying anomalies in system performance, integrating multiple displays of data and linking symbols with real phenomena (Pennathur, et al.).

This provides a framework for a successful training program. These points serve as curriculum goals and coveted outcomes. As the author moved into the *Plant US*, these points provided a road map for what to expect and seek. Because this serves as the strategy, action plan and training goals, the writer entered into the program and project with two purposes: first, to provide excellent translation and consultation services and second, to discover the perceptions of the individuals involved in the training of Mexicans in an Appalachian assembly plant.

Summary of Findings

Folkography, as a method, provides the perceptions of the folk of the studied culture. In this case, folkographers sought out the trainees from Mexico, the trainers from Appalachian Ohio, the plant line chiefs along with supervisors and managers. The grand tour question for the study was "What are your perceptions of the training and learning process engage by the company?" In Spanish, "*¿Cuáles son sus percepciones sobre el proceso de entrenamiento y aprendizaje contratar por la corporación?*" The other interview questions included probes and follow-ups about the process, planning, strategies and techniques.

Training began in a conference/training room appointed with medium grade technology. The Mexican workers had flown from Mexico to a major airport in the center of the state and then drove several hours to stay in a hotel and showed up early to sit through a safety requirements meeting. Most of the required training text the workers followed in the *Plant Mexcio*.

After the one day training on safety requirements, the next day Mexican workers were paired up with American counterparts in order to begin learning the task of assembly. Mexicans were assigned to a total of twelve different assembly stations. The American trainers had no formal instruction on training methods. As the author discussed the proposition of the training program one male commented, "They came around and asked us if we would train the Mexicans. I've never done this before but they told us we'd have a translator so I thought it wouldn't be too bad. I'll just show'em how I do this and hope they get it." Two of the trainers had previous instruction experience but no formal instruction on training.

During the six month process, the Mexicans were to learn how to run the various assembly stations which included brazing, electrical, components and quality control. The writer moved through the line all day long translating instructions, observations, documents, standards and safety requirements. All documents, computer print outs, read outs and instruction originated in English. From the interviews, focus groups and observations, the following emergent domains with the voiced comments of the respondents were recorded (Spanish comments translated to English):

Lack of Pre-planning

- "I hope he understands what I'm saying. No one gave us any idea how to do this so I don't know the right way. I know I wouldn't want to go there (to Mexico) and learn like this. They've got a lot of guts if you asked me." American Trainer
- "Are they gonna stay here all six months? Wow. Do they speak any English? I can't speak any Spanish. No one told me we'd have to speak Spanish," American Trainer
- "We can learn how to do this but they want us to go so fast. We need practice and we need to get our hands on the assembly plans. I don't know what parts I should be putting into the unit." Mexican Trainee
- "Our boss told us we were coming here to learn the way to assemble these units but we don't have a guide or instructions. How are we able to do this?" Mexican Trainee

Two Many Bosses

- “I don’t know who they are supposed to listen to...they have two bosses here with them but we have a line chief and a supervisor. Everybody has an idea of what they’re supposed to do but them,” American Trainer
- “They get calls from Mexico, their boss here stands over them, their trainer tells them what to do and the supervisors tell them what to do. They have too many bosses!” American Inventory Specialist
- “I can do this job. They just need to leave me to do the job. I don’t need them to stand over me. I can learn and I can do it.” Mexican Trainee
- “I am the boss for these men. They must learn to listen to me. I want to work with the Americans but they must learn to listen to me and do what I say.” Mexican Line Chief

We Need Step by Step Instructions

- “I just wish they would give us the diagrams for the units with instructions. We need to know what we are building. How do I know what part to put on? The Americans know because they work on this line for many years. I don’t know and I need to know!” Mexican Trainee
- “I miss my home, my family and my food. I don’t eat the food here...I miss my food. They don’t tell us how to build this...they just make us stand and watch them build the unit. How can we do this? I miss my home and I feel lost.” Mexican Trainee
- “We have the steps there on the computer but I never look at it. I don’t need to look. I do this everyday. I think they will learn more with the hands-on instruction I’m giving. It’s all in English anyway.” American Trainer
- “They were supposed to have all of this in Spanish before these guys showed up, but they didn’t get it done. I’m not sure why.” American Line Leader

Is This Training Program Effective?

- “No. I don’t think that we can learn to do this without some sort of manual or instruction book. We need the diagrams. We need the steps.” Mexican Trainee
- “Heck no. I don’t speak Spanish and I don’t know how they can learn without someone standing here explaining all this in Spanish. I know you guys translate but you can’t be here all the time. You gotta go up

and down the line. Nah...they (the company) never plan ahead. It is a knee-jerk reaction. Always!" American Trainer

- "Yes...it has to work! This is the way I have to learn this. I could look over books and diagrams but this is the chosen path so I will follow up. I need this job and I must do it for my family. So yes..I am learning therefore it is effective." Mexican Trainee.
- "Well I guess so. I just know that I have to teach them how to do this so I will do it. They told me this is part of my job. It slows me down but I need to keep this job so I will teach them." American Trainer

Recommendations

The competitiveness of an industrialized economy depends on worker productivity, which is a factor of technology investment along with the efficiency and effectiveness of its workforce (The Manufacturing Institute, 2010). To provide the foundation for an effective and efficient workforce, manufacturing entities must offer assembly training and instruction. This particular on-site, on-the-job training project included compounded difficulties of having all instruction given in Middle English, translated into Mexican Spanish involving a manufacturing metacode that was site specific to the culture of the *Plant US*.

I offer some specific actions based on the original goals presented in this paper for training programs:

1. *Each training project should have specific goals for the organization which need to be clearly defined and translated into specific goals for the training program.*
 - a. In this case, the participants only knew that the assembly line process was to be moved from *Plant US* to *Plant Mexico*. They knew little more.
 - b. The company gave much attention to logistics (airline tickets, food and lodging, and transportation) but gave little attention to the pre-training of the instructors and little information to the trainees. More should be done here.
 - c. Line chiefs and supervisors only knew that training should take place. Again little seemed to have been shared before the program began as to the timetable, the specific objectives or goals for each week or the overall goals for the project. "All we know is that we have to train them," expressed one supervisor in frustration.

- d. Few, if any, documents, instructions, assembly manuals or assembly packets were translated from English to Spanish before the project began.
2. *Organizations should not expect training programs to deliver results without good strategy.*
 - a. In this case, the company and management of both the US and Mexican plants expected exactly that. Other than the general goal of seeking to train the Mexican workers, few if any other specific objectives or goals were itemized, published or announced to the trainees or the trainers. The management just said, “we want to train the Mexicans to run the line.”
 - b. In the company’s defense, there seems to be very little written by scholars concerning manufacturing training, curriculum, formats or best practices. The company in this case seemed to have followed a “give it a shot” model that appears to be typical in many manufacturing training programs.
 3. *Training programs should consider the trainee as an individual with social needs.*
 - a. The Mexican trainees seemed to have sensed this within their group. Their supervisor who accompanied them made sure that each weekend the trainees had a typical Mexican barbeque, a museum visit or some other event scheduled so to add some social significance to their training experience. The company, on the other hand, had no formal approach at seeking to provide for the workers on off hours.
 - b. Individuals from Plant US, including inventory specialists, supervisors and others also seemed to sense this need and provided various social experiences for the group. These events were not planned or funded by the company or the plant management.
 - c. The author saw no evidence of the company seeking to meet the social needs of the trainees or trainers.

Conclusion

Manufacturing entities can no longer take the gamble of hoping their training programs will hit the mark. The management must know that their efforts will pay off. It has become clear within the contemporary

period of capitalism and intensified globalization that knowledge, learning and innovation are vital elements for economic development and growth, and the capability to create and diffuse knowledge (also referred to as innovation) is therefore a key economic process that strongly influences national and regional economic performance (Hatch, 2013). By extension, a firm's ability to combine new and existing types of economic knowledge and training processes at a greater number of interfaces, both within and outside the firm, is a much more fundamental and strategic process than it was before, and central to economic change and growth (Lundvall & Johnson, 1994).

In this instance, the Mexican trainees were glad to get a trip to the United States even if the destination was in rural, Appalachian Ohio. The trainees were also very happy to have the assurance of work by learning the requirements for assembly for this product which eventually moved to *Plant Mexico*. The Mexicans were assured of their future jobs while the American Trainers might very well have been teaching their jobs away. In any case, the entire training project remained cordial, cooperative and civil throughout the time allotted for the program.

The successful and profitable global company seemingly thumbed the nose at conventional practice of heavy preparation, planning and strategy. The training project ended up resembling an exchange program where internationals were brought to the United States to learn by observation and experience about the culture of a particular assembly plant. The Mexicans created their own assembly manuals by writing notes, drawing diagrams and taking photos from their cell phones.

The Mexicans participated in the training venture because they saw the future of their jobs in the practice of the training project. The Americans sought to keep their jobs and followed the requirements as dictated by their bosses. All but one of the Mexicans continued to participate throughout the time allotted. One young Mexican worker was overheard to say that when the trainees returned from the United States the last time, he planned to “sneak away” so that he could stay in the United States. When word got back to the Mexican bosses - he was retained in Mexico and not allowed to return to *Plant US*.

Teaching, learning and training remain the fundamental engine for sustained, competitive business growth (Tuling University, 2009). The quality of a company's human capital determines how well that business can produce, innovate, and compete. For powerful business growth,

teaching, learning, and training remain as the foundation for any industry company and manufacturing plant. Satisfying the employee's aspirations for self-improvement through knowledge can raise output and production. I suggest "best management practices" ensure critical transitions from trainers to trainees. On-the-job training remains an effective tool for companies, but the agency must provide the resources, planning, and preparation that will allow rigorous control and effective learning. This training project followed traditional models pursued by many companies in previous projects of a similar nature. If any business (or industry) plans to implement this training procedure, then I suggest that trainers are well-equipped to explain all steps (or tasks) involved in the process of assembly and manufacturing. Next, the trainee must have coaches available to explain, translate, or re-confirm the pertinent instructions. All participants need to know the project schedule, expectations, and outcomes before and during the training program. Finally, trainers and trainees must be considered individuals who have normal social and human needs. The training program will fall short of expectations, objectives, and ultimate success without addressing any one of these components.

References

- Blecker, R. A., & Esquivel, G. (2009). NAFTA, Trade, and Development, Mexico and the United States: Confronting the Twenty-First Century (Working Paper No. 2009-24). Retrieved October 4, 2012 from <http://usmex.ucsd.edu/assets/025/12092.pdf>
- Cross-Cultural/International Communication. In *Reference for Business Encyclopedia of Business*. Retrieved from <http://www.referenceforbusiness.com/encyclopedia/Cos-Des/Cross-Cultural-International-Communication.html#b>
- Dial, W. P. (1969). The Dialect of The Appalachian People. *West Virginia Archives and History*, Volume 30, No. 2, pp. 463-71. Retrieved from http://www.wvculture.org/history/journal_wvh/wvh30-2.html
- Erichsen, G. (2011). Varieties of Spanish — Differences Between Spain and Latin America. *Spanish Language: Learn Spanish grammar, vocabulary and culture*. Retrieved from <http://spanish.about.com/cs/historyofspanish/f/varieties.htm>

-
- Habee. (2010). The Real People of Appalachia. *habee on HubPages*. Retrieved from <http://habee.hubpages.com/hub/The-Real-People-of-Appalachia>
- Hatch, C. J. (2013). Skills Gap or Training Gap? The Role of Manufacturing Firms in Solving the Skills Problem. Center for Community and Economic Development, EDA University Center for Regional Economic Innovation, Michigan State University. Retrieve from http://www.reicenter.org/upload/documents/colearning/hatch2013_report.pdf
<http://www.tandfonline.com/doi/citedby/10.1080/13662719400000002#tabModule>
- Leavy, P. (2011). *Oral History Understanding Qualitative Research*. New York: Oxford University Press, USA. Retrieve from
- Lucas, D. M. (2006). *The Handbook of Folknography: A Qualitative Research Method for Giving Voice*. Boston: Pearson Publishing Company.
- Lundvall, B., & Johnson, B. (1994). The Learning Economy. *Journal of Industry Studies*, 1(2), 23-42. doi: 10.1080/13662719400000002
- Pennathur, A., Mital A., Rajan V., Kaber D., Ray P., Huston R., ... Sule D. (1999). A Framework For Training Workers In Contemporary Manufacturing Environments. *Int. J. Computer Integrated Manufacturing*, 12(4), 291-310.
<http://utminers.utep.edu/apennathur/papers/training/ijcim.pdf>
- Pietarinen, A. (2005). "Relevance theory through pragmatic theories of meaning." Proceedings of the XXVII Annual Conference of the Cognitive Science Society (July). Stresa (Italy). Eds. B.G. Bara, L. Barsalou and M. Bucciarelli. Retrieve from <http://www.helsinki.fi/~pietarin/publications/Relevance%20theory-Pietarinen.pdf>
- Spanish in today's workforce, the importance of bilingual communication: Manufacturing Info. (2012). *Business building articles*. Retrieved from http://www.businessknowledgesource.com/manufacturing/spanish_in_todays_workforce_the_importance_of_bilingual_communication_021398.html
- Szubka, T. (2002). "Justificationist And Pragmatic Theory Of Meaning: Prospects And Problems." Retrieve from http://hektor.umcs.lublin.pl/~zlimn/jtb/jtb/papers/ts_japtom.pdf
- The Manufacturing Institute/Center for Workforce Success, Jobs for the Future. (2010). *"Improving Workplace Opportunities For Limited English-*
-

Speaking Workers. An overview of practice in the Manufacturing Sector". Retrieved from

<http://www.jff.org/sites/default/files/ImprovWplaceELL.pdf>

Tuling University. (2009). *Manufacturing ROI: The Impact of Concrete Metrics on Training Returns*. Retrieved October 4, 2012, from

http://www.toolingu.com/images/whitepapers/ToolingU_ROI_White_Paper.pdf

Walker, D., Walker, T. & Schmitz, J. (2003). *Doing Business Internationally: The Guide to Cross-Cultural Success* (2nd ed). McGraw-Hill, New York.

Personal Biography

Dr. David M. Lucas identified and developed the qualitative method of research known as folkography. He has directed research projects using this method in Costa Rica, Mexico, Australia, Vietnam, and the United States. Dr. Lucas teaches communication studies as an associate professor at Ohio University. Dr. Lucas has developed a large number of online courses in communication studies. He also has done extensive research in Appalachian Ohio.