Communication Processes in the Texas-Mexico Initiative

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Abstract

Communication processes used to disseminate agricultural research results to the public in bi-national agricultural development projects may be the same today as were evidenced many decades ago, despite the prevalence of the Internet. The purpose of this study was to investigate communication methods currently used by university faculty, students, producers, producer associations and those collaborating with higher learning institutions to disseminate agricultural information to the public in northeast Mexico. Three main forms of communication processes were observed among the participating universities and organizations. Researchers primarily used electronic mail to communicate with other research partners, telephones were a very important method of communication, and collaboration with governmental agencies was a third form that researchers used to communicate the results of their research to the public. Scientific journals, academic conferences and collaborative research were the main sources of expert information received by professional investigators. Participating researchers, students and producer associations were very interested in pursuing bi-national collaborative research. Student and faculty exchange programs were viewed favorably and encouraged by all participants in the Texas-Mexico Initiative.
Introduction

Development programs in universities worldwide must consider their impact, relevance and effectiveness in a rapidly changing society moving toward globalization. A study of extension professionals’ perspectives on global programming introduced new ideas for professional and leadership development in Ohio. The study identified a need for extension program leaders to communicate the importance for incorporation of global perspectives into on-going extension programs. Research indicated a lack of experience and knowledge of how to add global dimensions to programming and curriculum (Ludwig, 1999).

Globalization should motivate individuals in well-financed institutions to be international, flexible, mobile, transparent and good at collaboration. “Universities and organizations are encouraged to globalize and to have an effective “brand” identity that describes what we do and how we are unique” (Etling, 2001, p. 77). Freund (1999) studied communication within the Texas-Mexico Initiative as part of a larger study of formal and informal communication infrastructure in the state of Nuevo León, Mexico. Freund identified a communication concern regarding livestock producers in Nuevo León. “The lack of communication leads to a lack of knowledge, creating a gap through which innovations cannot be diffused” (Freund, 1999, p. 52). Freund stated that further research was needed to see what changes, if any, had been made to methods of communication within the Unión Ganadera Regional de Nuevo León (UGRNL).

Texas A&M University has been involved in international research and development projects for many years. In 2000, eight bi-national agricultural development projects were initiated between the Texas A&M University Center for Grazinglands and Ranch Management (CGRM) and the Technical Consortium from Northeast Mexico (Consorcio Técnico del Noreste del País) (Consortium) (Piña, 2001). The Consortium is a legally constituted and recognized organization composed of five universities, research and development governmental and non-governmental organizations, and producer associations from northeast Mexico. Texas A&M University has been collaborating with the Consortium informally since 1992 and formally since 1997 (Piña, 2001).

In 1994, a strategy for working with Mexican counterparts was implemented through fourteen different bi-national projects. The projects involved 54 Texas A&M University faculty members and 35 Mexico counterparts. Each participant leveraged funds (Piña, 2001). Three universities in northeastern Mexico (Universidad Autónoma de Tamaulipas, UAT, in Ciudad Victoria, Tamaulipas; Universidad Autónoma de Nuevo León, UANL, in Monterrey, Nuevo León; and Universidad Autónoma Agraria Antonio Narro, UAAAN, in Saltillo, Coahuila) participated in the Consortium. The UGRNL was also directly involved in a bi-national effort called the Texas-Mexico Student and Faculty Exchange for Institutional Development and Sustainability, which occurred from June 2-20, 2003.

The Consortium developed relationships with farmers and ranchers throughout the northeastern region of Mexico. Different ranches serve as demonstration sites for workshops in the experiments. Some graduate and doctoral students who participate in the projects have formulated their theses and dissertations from those farms and ranches. The sites initially were chosen because south Texas and northeastern Mexico are environmentally similar. Both sides of the border have similar agricultural problems such as degraded grazing lands. The problems extend beyond those of physical agricultural problems, and so further investigation
was needed to study aspects of effective communication among those involved in the Texas-México Initiative (Folsom, 2001). Recent research has supported the idea that barriers to international involvement still exist even as university faculty are further encouraged to reach out and expand their influence on the academic international community (Andreasen, 2003). Texas A&M University’s participation with the Consortium includes student involvement in the collaborative research projects. Results from a study (Zhai & Scheer, 2002) at The Ohio State University suggested "that students’ global perspective was enhanced by the study abroad programs along with intercultural sensitivity, in which participants were more aware of and open to cultural diversity” (p. 28). Texas A&M University secured additional funding by the United States Agency for International Development (USAID) for two additional projects with the Consortium. Those projects included foreign student and faculty exchange trips (Piña, 2001).

**Purpose and Objectives**

The purpose of this study was to investigate communication methods used by university faculty, students, producers, producer associations and those collaborating with higher learning institutions to disseminate agricultural information to the public in northeast Mexico. Specific objectives guiding this study included:

1. Identify communication methods between university-related personnel and the public.
2. Determine university-related personnel’s sources of information for research purposes.
3. Describe changes in communication processes used to disseminate agricultural information.
4. Describe future communication methods, according to Texas-Mexico Initiative participants, used to disseminate agricultural information to the public.

**Methods**

This study utilized qualitative research methods. Data were collected via interviews (one-on-one and focus groups). The sample consisted of 12 students from the three universities, 21 researchers, six producers, four different associations and agencies, and one television producer. Tape recorders and a video camera were used during the interviews. The same set of questions was asked during the individual interviews.

1. How do you as a researcher/producer/association leader/student communicate with other researchers/producers/association leaders/students/public audiences?
2. How do you as a researcher/producer/association leader/student receive your information?
3. How has communication changed since you became a researcher/producer/association leader/student?
4. What do you foresee in the future regarding communication methods in your field?

The student exchange served as a basis for this study, providing Texas A&M University students with field experience in collaborative agricultural research projects conducted by the Texas-Mexico Initiative through the Center for Grazinglands and Ranch Management.
Direct field observation was used to study current communication processes. On one occasion, the researcher witnessed and tape-recorded an actual instance of knowledge and information transfer from university professors and “técnicos” (technicians, students who have completed two years of college) to a dairy producer in Nuevo León, Mexico. The researcher drew a parallel between técnicos and extension agents in the United States. Técnicos perform many of the same functions for the Consortium that extension agents and agricultural educators perform in the United States. Técnicos spend a majority of their time as disseminators of information and work consistently with university researchers.

**Findings**

1. *How do you as a researcher/producer/association leader/student communicate with other researchers/producers/association leaders/students/public audiences?*

   Participating researchers stated they primarily used electronic mail via Internet access to communicate with other research partners. Telephone calls are used widely as a method of communication. One participant said his main form of communicating with students was through informal channels of communication. Professors from UAT said they sometimes communicated their research results to the public through university radio stations and local newspapers. Other methods included taking students on field trips, requiring them to describe constantly what they saw in nature around them to increase knowledge retention.

   A majority of the investigators interviewed said they collaborated with governmental agencies to make their research results easy to understand and useable to the public and rural areas through development projects like ecotourism. One UAT professor explained different methods of communication as well as forms that did not work well for their purposes. “We use a lot of email. We use a lot of talking. We use almost all those methods, but …sending a letter to get information, sometimes that doesn’t work” (UAT professor).

   Producers stated they communicated with each other mainly through face-to-face contact. This method applied to their contact with university technicians when involved in development programs. It was important to establish the fact that Mexico does not have an equivalent to Texas’ Cooperative Extension Service. UAAAN officials said that the Mexican counterpart to the Cooperative Extension Service was disbanded about twenty years ago, thus shifting the burden of disseminating agricultural development and research results, onto the shoulders of universities.

   Participating producer association leaders said they primarily used electronic mail to communicate with other association leaders. They implemented official monthly meetings when communicating with members of their associations. Producer associations utilized pamphlets, magazines and decals for advertising their products and disseminating information. A major component of their communication process was the telephone. In the case that an association member did not have telephone access, monthly meetings and personal visits were important for information flow. In the case of one livestock association, the participant said communication between their association and universities remained underdeveloped, but that they did have good communication as well as relationships among individual faculty members at different universities.

   The Asociación Ganadera Local de Ciudad Victoria (AGLCV), a local sheep and goat producer association, contrasted this belief. A participating leader said they had a very good relationship with the UAT. Collaborative research often occurred between the AGLCV and
UAT faculty. Participating students said personal contact almost exclusively expressed their main method of communicating with other students involved in development projects within the Texas-Mexico Initiative.

2. How do you as a researcher/producer/association leader/student receive your information?

The majority of researchers interviewed indicated they received their information from scientific journals, academic conferences, and through collaborative research projects with other researchers. The Internet was a major technological tool used to access online scientific journals and other academic information. “I get most of my scientific information from outside sources. There are a lot of virtual libraries or the libraries from the United States, but mostly from the United States” (UAT professor).

Participating producers said they received the majority of their information from spending time with other producers. Such an observation concurs with the findings of Dowlath and Seepersad (1999), that farmers in the developing world still obtained their information via verbal and printed means and to a lesser extent, via radio and television.

One livestock association leader said that every morning producers show up at the association headquarters to check on their livestock corralled there and to spend time drinking coffee and catching up on the latest news. Contributing producers also said they attended workshops conducted by agricultural technicians and other university faculty members. Agricultural experiment stations conduct many of the workshops where knowledge and technology transfer takes place.

Interviews with participating association leaders revealed the perception of an increase in research collaboration between livestock associations and universities. One agency official said that this is a relatively new occurrence. In the past, the federal government had been responsible for all research. However, the government would use it in a manner they deemed appropriate. It was a much-separated process. Yet the official stated that communication still mainly takes place through personal interaction. Other comments revealed frustrations by some of the students regarding accessibility to online scientific journals.

“We have access to abstracts on the Internet, but for whatever reason, our university does not have full access to some of the online journals I need. So, we have to send for the articles through the mail. It is a very slow and expensive process. Sometimes the articles will cost up to $30 U.S. Sometimes it is too late by the time we receive the article” (UANL PhD student).

Another UANL student said that Internet accessibility was available only about 50% of the time, due to server failure. Carr and Abbott (1997) found the use of television for educational purposes was perceived to be too costly to produce, but that it must be used because of its large potential audience in Mexico. During the researcher’s time in Mexico, no conversations by interviewees about television use occurred at any of the universities. However, it cannot be assumed that the interviewees do not have plans to use television to disseminate information about their research.
3. How has communication changed since you became a researcher/producer/association leader/student?

Participating researchers held different views about the changes in communicating agricultural information to the public. One participant from UAT said that communication processes have changed dramatically. Problems encountered in the Consortium included misinformation and issues that resulted from short vision. The researcher said difficulties arose through people not perceiving the value of the Texas-Mexico Initiative because they were used to the Mexican government initiating development programs. Those involved in the Consortium are not paid, the researcher said.

One aspect of change in communication processes during the past five years within the Consortium was a concerted effort to secure private sector funding. Different world organizations have invited Consortium leaders to give presentations of their model for agricultural development to the public as a case study.

From 1985 to 1992, I taught undergraduate level genetics. Back then, I used to use a notebook and the students got all the information from taking notes. There were no computers, nothing more sophisticated than chalk and a blackboard. After 1992, we started doing things through computers. We would type up the information and print them out for the students (UAT professor).

Another participant said changes in communication between learning institutions have occurred much in the last five years. With better technology, i.e. videoconferencing and the Internet, they have seen improvements with previous problems in miscommunication. They are focusing more on creating formal agreements and commitments to complete goals agreed upon between institutions. This also includes better technology available to the UAT. Distance education has become a priority within the UAT’s agricultural division.

Participating producer associations from Tamaulipas said they wanted to focus their communication efforts through their government to finding bigger exporting markets for their sheep and meat goat producers. They also said they wanted to increase communication between their associations and universities because they felt they had information that would benefit the universities relating to their operations.

4. What do you foresee in the future regarding communication methods in your field?

A participating producer association in Tamaulipas indicated increased collaboration between their association and universities was necessary in order to increase effectiveness in production systems.

We have to teach them [students] that they can make a difference. I use a lot of peer education. I train the first one and that one trains the next one because between students there is another kind of communication. It is more open and free (UAT professor).

Researchers from UAAAN said they could not depend on former methods like their nonexistent extension service to inform producers of changes coming to their northeastern dairy producers. They are expecting to train their students (técnicos) to inform producers of the changes they foresee in the dairy industry.

I feel very privileged to be here (UAAAN). It makes me feel very proud when I go back home to my father’s farm in southern Mexico and help him implement what I have learned over the semester. Our neighboring farmers see what my father does
and when they see that it works, they want to use the new techniques on their farms, too (UAAAN student).

The participating students at UAAAN said their goal through bi-national research with the Consortium was to provide agricultural producers with better technology in a more economical manner and demonstrate the technology through hands-on workshops. One participating UAAAN professor said that future research success lies in alliances, securing funding that could be captured for research through different sources. An example was the private partnership between UAAAN and New Holland. New Holland provides farming implements to the university at no cost. The university in return provides New Holland free advertising through workshops with local producers and provides the company with valuable feedback about product quality.

Conclusions and Implications

The researcher found an affirmation of the previous communication process studies mentioned above among livestock producers in northeastern Mexico. Three main forms of communication processes were observed among the participating universities and organizations. Participating researchers said they primarily used electronic mail to communicate with other research partners. Telephones were also a very important method of communication. Collaboration with governmental agencies was a third form that researchers used to communicate the results of their research to the public and rural audiences.

Producers said they communicated with each other mainly through face-to-face contact. This contact applied to producer communication with técnicos as well. This observation supported Folsom’s (2001) findings that “although mass media channels are useful and convenient for service providers, they cannot completely replace interpersonal channels” (p. 80). Participating producer association leaders said they primarily used electronic mail to communicate with other association leaders. Telephones were a major method of communication of producer associations to their members next to personal contact. Participating students said they communicated with other students interpersonally almost exclusively.

Scientific journals, academic conferences and collaborative research projects were the main sources of expert information received by professional investigators. The Internet was a major tool used to access the scientific journals, academic information and collaborate with research partners. Some participants said they did not have sufficient access to all necessary online journals through their universities. Producers said they received the majority of their information from other producers, producer associations, and depending if they were involved in developmental programs, técnicos and workshops. Association leaders said they felt, because of increased interaction with universities, they were receiving more information from universities.

Changes in processes of communication included a push by research institutions and organizations to pursue funding from the private sector. Participating leaders in the Consortium have noticed increased communication and collaboration between the participating universities and less miscommunications. Formal agreements have become more commonplace among collaborating institutions. Better technologies have allowed participating universities to engage in more development projects with rural producers as distance learning has become a priority at some of the participating universities. Producers
said they were engaging bigger exporting markets than in the previous years. Producer associations would like to see more collaboration between their organizations and local universities. Research indicated a desire on behalf of the associations to share more information and expertise with universities. Research suggests an increased investment in técnicos on behalf of universities and private firms would be advisable. The researcher observed eagerness in participating students, especially at UAAAN and UANL, as técnicos to help in agricultural development projects.

The findings indicated that all participating researchers, students and producer associations were very interested in pursuing bi-national collaborative research. Student and faculty exchange programs were viewed favorably and encouraged by all participating researchers, producer associations, students and other participants. Discussion with the participants indicated the need for further research into communication processes among those who collaborate internationally in agricultural education and extension fields. “The opportunities to teach, study and serve internationally are increasing. As the borders between nations disappear and accessibility to people and culture increases due to improved communication, ease of travel, computer, internet, and satellite connections develop, we will see new avenues and prospects for international involvement arise” (Andreasen, 2003, p. 68).

The fact that changes occurred in UGRNL practices, because of specific suggestions made by Freund (1999), supports the call for future research to monitor areas of communication among the Texas-Mexico Initiative.

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References


