

**A Case Study of the Texas Alliance for Water Conservation's Communication Efforts**

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### **Introduction/Need for Research**

An estimated \$20 billion worth of the world's food and fiber is produced in the eight states that span from Texas to South Dakota, also known as the High Plains region in the United States (Little, 2009). Below these states lies 174,000 square miles of groundwater known as the Ogallala aquifer. The necessary and intense use of this water supply combined with the slow recharge rate (Marsh, Peterson, & Williams, 2003) has created the need to place an emphasis on conserving the water available in the Ogallala aquifer.

One effort to address the need to research and communicate water conservation practices is the Texas Alliance for Water Conservation, established in 2006. The purpose of this non-profit organization is to educate West Texas farmers and ranchers about effective and efficient water management techniques to more efficiently conserve water from the Ogallala aquifer. TAWC producers and analysts keep records of crop yields, water usage, and other aspects of crop production. This information is analyzed to determine what the most efficient (both environmentally and economically) farming practices are. Then these TAWC producers communicate with fellow farmers about this information, with the goal to establish a behavioral change in how West Texas farmers and ranchers conserve their water (TAWC, 2016). The purpose of this study was to explore how agricultural producers use TAWC's communication efforts for water management decisions.

### **Conceptual and Theoretical Framework**

The conceptual framework for this study was based on social marketing, which refers to the "efforts focused on influencing behaviors that will improve health, prevent injuries, protect the environment, contribute to communities, and, more recently, enhance financial well-being," (Lee & Kotler, 2016, p. 8). When the goal of an organization is to foster a sustainable behavior, it is vital to emphasize personal contact because it is through personal contact that a person's attitudes and behaviors are influenced (McKenzie-Mohr, 2011).

The theoretical framework for this study was Rogers' (2003) diffusion of innovation theory. The process of diffusion refers to "an innovation communicated through certain channels over time among the members of a social system," (p. 5). For individuals to adopt something new, they must go through the Innovation-Decision Process (Rogers, 2003). The diffusion of innovations theory was an appropriate framework for this study because the implementation of water conservation practices into agricultural operations requires individuals to move through the innovation-adoption process.

### **Methodology**

This study used a case study research design. The lead researcher conducted semi-structured interviews, group observations, and analyzed TAWC documents (project summaries, final reports, and annual research reports) to answer the research questions. Using criterion, stratified purposeful, and snowball sampling, the lead researcher selected individuals who represented three distinct groups to interview to gain different perspectives regarding TAWC's communication efforts. The participants of this study are divided into the categories of TAWC

Staff ( $n = 5$ ), TAWC Producers ( $n = 3$ ), and West Texas Farmers and Ranchers ( $n = 3$ ).

Using a questioning guide, the lead researcher conducted 30-minute semi-structured interviews with these participants. Participants were asked about their awareness and opinion of TAWC and its communication efforts. At the conclusion of the transcription process, the data from the interviews were organized, read and noted, and classified into codes and themes (Creswell, 2013). To address the study's trustworthiness, the researchers followed Guba and Lincoln's (1985) recommendations to establish credibility, transferability, confirmability, and dependability.

### Results/Findings

Interview participants indicated having a personal contact within TAWC is key to awareness. One participant credited a large majority of his awareness and interest in the TAWC project to his relationship with key TAWC informants. These statements suggest there is an opinion leader influence from TAWC staff members. Some of the emergent themes from the interview process was that all participants want to conserve their water, know the importance of water conservation, and have already implemented water conservation techniques to some degree. Participants agreed that any program focused on conserving water while keeping farming profitable is a good thing and they would be open to whatever water conservation techniques the conservation organizations recommend.

Participants stated that they use various communication methods for different purposes; therefore, it is important for TAWC to use a variety of communication methods to deliver its information and reach stakeholders. The various methods of communications used included online media, interpersonal communications, and traditional media. Online media use was key to being aware of the TAWC and recent research, but interpersonal communication was necessary to learn about the TAWC project. To stay informed, one participant, Mr. E, credited the necessity of using a variety of these communication methods to the constant progression of technology and communication channels. Another participant, Mr. A said he believed that the different audience characteristics within TAWC's targeted group is the reason a variety of communication methods must be used.

### Conclusions

For agricultural producers to become aware of TAWC and interested in the organization's activities it was helpful to know someone else in the project. McKenzie-Mohr (2011) noted it is important to emphasis personal contacts when encouraging sustainable behaviors, and Rogers (2003) acknowledged the role of change agents in the diffusion of innovations. Communications use by the TAWC are varied in methods in order to serve a diverse audience and meet the different preferences of its stakeholders.

### Implications/Recommendations

TAWC should continue using a variety of communication channels to reach agricultural producers, but rely on interpersonal communications as its primary communication method. The TAWC could also host workshops or webinars for producer members of the project to help them become more effective communicators. Future research could determine how the TAWC project changes in terms of its communication efforts to meet its stated goals, as well as

determining the communication preferences and habits of its audience members.

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