

# Bilingual, Digital, Audio-visual Training Modules Improve Technical Knowledge of Feedlot Workers

C.D. Reinhardt, BS, MS, PhD; D.U. Thomson, BS, MS, PhD, DVM; D.D. Retzlaff, BS, MS, PhD; J.A. Valles  
The Beef Cattle Institute, Kansas State University, Manhattan, KS 66506

## Introduction

As best management practices evolve and technologies are updated across the beef industry, a rapid method of implementing the updates in knowledge would facilitate more rapid and complete industry-wide compliance.

## Materials and Methods

Audio-visual modules have been developed outlining best management practices for cattle handling, processing, health management, and beef quality assurance. Two of these modules were presented to seven English-speaking, US-born cattle doctors (those responsible for daily monitoring and treatment of disease) and 10 Spanish-speaking, Mexico-born cattle processors (those responsible for initial post-arrival processing): proper handling of downed (non-ambulatory) animals, and proper methods of euthanasia. Modules were administered to the doctors in English and to the processors in Spanish, based on their respective preferred languages. Prior to and following viewing of each of the modules, workers were asked to complete a 10-question exam pertaining to each respective topic. Workers were also asked to complete a demographic survey which included questions about gender, age, nationality, primary language, and ultimate level of education.

## Results

Results of the demographic survey indicated that 6/7 US-born doctors had completed high school (or equivalent), but that only 1/10 of the Mexico-born processors had. Post-test scores were improved by 25% after viewing the modules (7.4 vs 5.9;  $P < 0.01$ ), across language and topic. Average pre-test (7.1 vs 4.5) and post-test (8.8 vs 6.0) scores across topics were higher for doctors than processors ( $P < 0.01$ ). There were no interactions ( $P > 0.30$ ) between language, topic, and between-test variation, indicating that the modules were equally effective at information delivery to both audiences in both languages. Based on the pre-test scores, the doctors began with a greater understanding of these two topics.

## Significance

Differences in ultimate level of education, nationality, preferred language, daily job duties, and prior training may all have contributed to the differences in level of topical knowledge. Regardless, digital media are effective at improving knowledge transfer to feedlot professionals.