

Evaluating Pork Producer's Acceptance of Distance Education Medias

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Introduction

Distance education is any instructional situation in which the learner is separated in time or space from the point of origin. It is characterized by limited access to the educator and other learners (Heinich et al., 1996). This allows educators the ability to reach learners of a more diverse and geographically dispersed audience, which is not accessible through traditional classroom or seminar instructional settings. Participation in this type of education can be a self-paced situation that can take place wherever the learner prefers.

Due to the continuum of change within the swine industry, producers have developed a need for educational resources to help them survive in such a fast-changing industry. One way to provide these swine producers the material they need is through the use of distance education, where the educational materials are provided in a more flexible manner. A survey conducted by the National Pork Producers Council (NPPC) concluded that producers are not willing to travel more than sixty miles to receive educational training (National Pork Producers Council, 1995). Distance education can be delivered to the producer and they will not have to leave their production site to be educated, eliminating the loss of additional production hours during travel for gaining the knowledge.

Distance education medias seem to be a very logical way to solve the educational need of the swine industry, but will the swine producers in the industry really accept it? Purdue University Cooperative Extension Service and Indiana Pork Producers Association joined together to expose pork producers to the technologies and medias of distance education and display educational material that had previously been developed for distance education.

Materials and Methods

The distance education information was presented to the producers through a tradeshow booth at the 1999 Indiana Pork Conference. In a recent national poll, respondents rated tradeshows as the most useful way of gathering information (Cain, 1999). The booth was created in a 10' x 20' space in a random area of the tradeshow, mixed in among industry suppliers. This allowed the introduction of educational media to the producers in a "non-traditional" education setting. Eight different media types were selected to expose producers to distance education: CD-ROM (CD), self-study manuals (SSM), video (V), multi-media kits (MMK), video conferencing (VC), chat rooms (CHAT), e-mail (EM), and World Wide Web (WWW). These were available for hands-on interaction by the producers attending the tradeshow. The booth was designed in a horseshoe shape layout to allow continual flow through the booth and also allow each producer to see each media type, try those they chose to, and look at the information provided.

Adult learners like to have material to take away from an educational situation for later review (Russell, Personal Communication). To give the producers more information about distance education, a handout was developed for them to take with them and read at their leisure. The handout was three pages in length, which gave the producers general information about distance education, media used in distance education, and contacts for more information about distance education.

A survey instrument was developed to help determine the producer's previous use of distance education and what they are willing to try as a result of further exposure to different distance educational medias. The survey consisted of 11 questions. The questions were made up of demographics, pre- and post-exposure to distance education medias, monetary contribution to educational programs, ranking of media types by preference, evaluation of whether specific questions could be answered adequately through distance education, and distance education being the future for information access. Upon completing the survey, the producer was able to enter a drawing, for Purdue University apparel, by submitting his/her survey and detaching the entry blank from the bottom of the survey. There were 38 surveys completed by people attending the tradeshow. Chi-square analysis and Cochran-Mantel-Haenszel statistics were used to determine associations and differences (SAS, 1989). The surveys collected were divided into three different categories: producers, allied industries, and other. Thirty-one producers completed the survey with two allied industry and five other.

To display the cost benefit of distance education, a "Money Saving Scenario" consisting of Distance Education vs. Live Face-To-Face Education costs was developed (Figure 1). This scenario was based around "Employee Management," which is a video series available from NPPC. The distance education data were taken from the 1998 NPPC price listing for educational material. The Live Face-To-Face education cost was derived from the amount it would take the Extension Specialist at Purdue University to deliver the quantity of information found in the video series used in the scenario, along with the estimated cost to replace the labor loss at the farm and travel costs when the employee would leave for the training.

Results

The media with the greatest amount of previous exposure was video compared to the other medias displayed ($P < .05$). After exposure to the medias in the distance education booth, producers were willing to try a majority of the medias except CHAT and MMK ($P < .06$ and $P < .004$, respectively). Producers previously exposed to one type of media are more likely to try different medias (Table 1). Also, once a producer was exposed to a specific media they would continue to try that particular media (Table 2).

Producers were asked if their questions would be adequately answered through distance education. Eighty-four percent of the producers felt their questions would be answered ($P < .001$). The producers were given the opportunity to rank Face-to-Face at Purdue University, Face-to-Face at Regional Site, and Distance Education Media. Although producers felt that their questions would be answered, they preferred live face-to-face training with Purdue University Specialists over distance education (Table 3). However, 87% of the producers indicated that distance education would be the future mode for information access ($P < .001$).

Producers were asked what were the limiting factors causing them not to implement distance education into their current situation. There were four components of this question: technical knowledge, technical equipment, technology expense, and technology accessibility. The producers did not indicate a limitation in implementing the technology needed for distance education into their personal situations (Table 4).

Finally, producers were asked how much they would pay for distance education programs. Producers would prefer to have distance education for free ($P < .001$), while twenty dollars was acceptable to all producers that were willing to pay (Figure 2).

Discussion

These results indicate a justification for using distance education in extension programming. The producers displayed a willingness to try the technology after being exposed and given the opportunity to have a hands-on experience with the medias. They also indicated that there were no limitations for implementing the technology into their personal situations, therefore giving evidence of distance education being more of an exposure problem than a limitation to the type of technology being presented to the producers.

Producers were asked to rank their preference on how they would prefer to have their educational training delivered. Even though it was indicated that distance education is not the preferred delivery method of educational material, it is an acceptable form of information access. Distance education has the potential of becoming a preferred delivery method once the producers feel comfortable learning on their own and seeing the benefits of not having to travel and lose production hours. To achieve this level of comfort, educators and producers are going to have to work together cooperatively to help one another close the gap caused by technological advances.

Although approximately one-half the producers are currently not willing to pay for distance education, once they have greater exposure to the technology, they should experience the cost savings that distance education has to offer. This is especially true when this educational technology can be done in their own place at their own pace, allowing the producers to get educated without sacrificing production hours. When looking at this specific cost scenario, there is a savings of approximately \$53.40 with Distance Education, excluding the loss of managerial expertise for one day. In addition, the Distance Education may be reused for many employees, while the Live Face-To-Face seminar is a one-time occurrence.

Implications

The lack of producer exposure to situations involving distance education could be a reason for the lack of delivery preference of distance education. They know their questions will be answered but may lack confidence in learning on their own, or may feel they lack self-motivation to complete a program at their own pace in their own place. Finally, the producers may feel they will lose contact with the educator. As educators develop materials for distance education, they need to reassure the learner; placing a contact name, phone number, and an e-mail address on the developed material reduces the learner's fear of losing contact with the expert. Also, a picture of the contact might be a helpful visual for the learner to make a connection with the contact person.

Another way to expose producers to distance educational media would be through county or area meetings. The County Educators, with the help of State Specialists via distance education, could host technology nights to expose the producers to the medias and give them an opportunity for hands-on experience. The county or area meetings would be ideal for the comfort level of the producers due to their local interactions with one another. Also, having the specialists from those areas of distance education programs adds credibility to the issue that the learner is still important to the educator and that they will not be losing total contact with the experts.

References

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Table 1. Pork producer's willingness to try a new media after exposure to another media*.

Post-Exposure to:	Will Try	Significance
EM	WWW	P<.008
EM	CHAT	P<.045
CD	CHAT	P<.019
CD	SSM	P<.036
SSM	CHAT	P<.045
SSM	CD	P<.043
SSM	MMK	P<.048

* EM=e-mail, CD=CD ROM, CHAT=Chat Room, SSM=Self-Study Manual, MMK=Multi Media Kits, and WWW=World Wide Web.

Table 2. Pork producer's willingness to continue to use a particular media*.

Post-Exposure to:	Will Try	Significance
CD	CD	P<.039
VC	VC	P<.011
SSM	SSM	P<.002

* EM=e-mail, CD=CD ROM, CHAT=Chat Room, SSM=Self-Study Manual, MMK=Multi Media Kits, and WWW=World Wide Web.

Table 3. Preferred mode of delivery*.

Delivery Type	Preferred %	Mean Rank
Purdue University	48.6	1.78
Regional	37.5	2.0
Distance Education	13.9	2.38

* P<.001.

Table 4. Factors limiting distance education implementation.

Factor of Limitation	Limitation %	No Limitation %	Significance
Technical Knowledge	16	84	P<.001
Technical Equipment	32	68	P<.023
Technology Expense	42	58	P<.330
Technology Accessibility	26	74	P<.004

	Employee Management Training	
	<u>Distance Education</u>	<u>Live Face-to-Face</u>
Video	\$85.00	Registration \$40.00
Shipping and Handling	\$15.00	Travel \$38.40
		Labor Loss <u>\$75.00</u>
Total	<u>\$100.00</u>	\$153.40

* Scenario displays that Distance Education could provide a \$53.40 savings compared to Live Face-to-Face education.

Figure 1. Distance education money saving scenario*.

Monetary Contribution

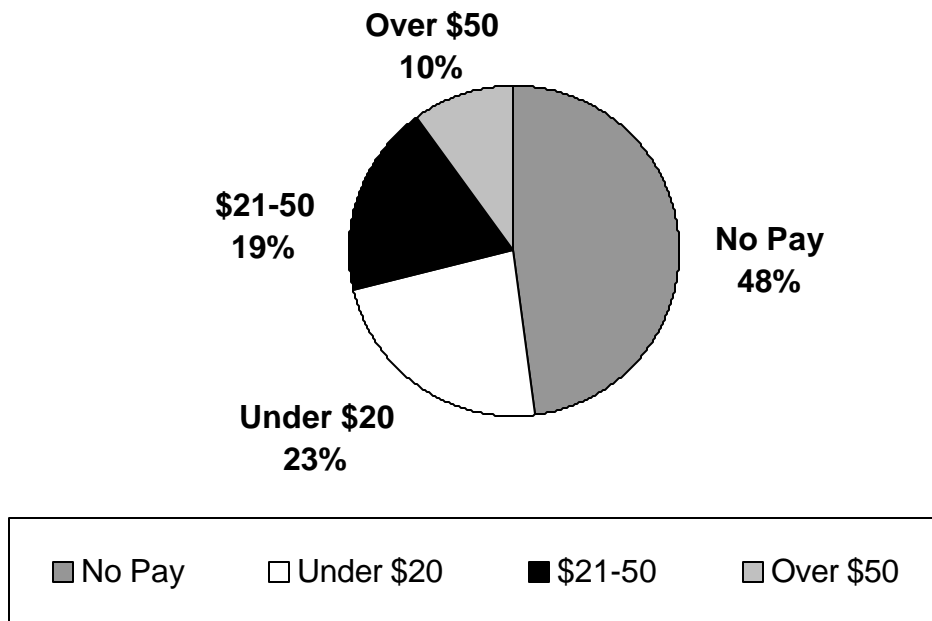


Figure 2. Distribution of producer's willingness to pay for distance education.