

# The Effectiveness of Delivering Leader Training Lessons Via Satellite

Carl Mesecher

University of Nebraska Cooperative Extension provides educational programming through various methods of delivery. As part of the Family Community Education (FCE) Program, Extension specialists provide leader training lessons to Extension educators and assistants.

Survey data were collected from Extension educators and assistants involved in the FCE Program to find out their needs involving the delivery of leader training lessons. The data revealed that satellite broadcast is a viable source to deliver leader training lessons and other programming material to Extension educators and assistants throughout Nebraska. Sixty-three percent of the respondents preferred satellite delivery, as opposed to 35 percent who liked in-person training at district meetings.

## Introduction

According to the Nebraska Council of Home Extension Clubs, Inc. (1985), leader training lessons have been the educational framework around which Home Extension Clubs are built. The purpose of leader training lessons has been to provide the homemaker with information for improving skills and knowledge of the home and family life. Cooperative Extension has from the beginning carried the responsibility for developing lesson materials through the Family Community Education (FCE) Program.

Extension educators and assistants receive in-service training from specialists to teach leader training lessons to Extension Club Members. In past years, four Extension specialists would spend

---

Carl Mesecher, an ACE member, is an Extension communications associate-broadcast at the University of Nebraska-Lincoln. He presented this report to University of Nebraska Cooperative Extension Home Economic Specialists July 25, 1994.

about eight days traveling to University of Nebraska Extension district offices to present leader training lessons to Extension educators and assistants. The district offices are located in Lincoln, Clay Center, North Platte, Scottsbluff, and Concord.

For the past three years, Extension specialists have provided in-service training for leader training lessons to Extension educators and assistants via satellite. This change was made in an attempt to decrease travel time and expenses. Previously, satellite training consisted of four video presentations lasting 30 minutes each. After each specialist's video segment aired, ten minutes were allotted for Extension educators and assistants to ask questions via telephone to that specialist. The FCE Program Coordinator would moderate the question and answer period. This person would also spend about five minutes at the beginning and end of the satellite broadcast talking about the leader training lessons.

### Literature Review

Extension staff, many of whom have had to take on additional responsibilities due to budget cuts and the resulting lack of personnel, find it increasingly difficult to keep abreast using traditional Extension in-servicing. This in-servicing typically means travelling to the campus, a time and money expense that is ill-affordable (Eckles & Miller, 1987). Because of these time constraints and budget cuts, Extension is relying on satellite technology to provide the opportunity to enhance the program delivery system to gain greater efficiency and continue to serve people with quality educational opportunities (Rockwell, Furgason, Jacobson, Schmidt & Tooker, 1992).

Boland (1988) says satellite technology is most cost effective when used to teach a large number of widely separated sites equipped with downlinks. Within the last decade, University of Nebraska Cooperative Extension has developed a satellite delivery system to disseminate information from Lincoln (uplink site) to Extension offices (downlink sites). Eckles and Miller (1987) would agree that the University of Nebraska Cooperative Extension is capable of delivering educational programs and informational materials on a state, national, or international level with expediency and quality. The use of videoconferencing to involve large numbers of widespread staff holds considerable promise. The disadvantage of limited face-to-face contact is outweighed by the advantages of permitting much wider participation at a greatly reduced cost (Bower, Courson & Frazier, 1994).

Nebraska is not alone in this current trend of educational delivery. Virginia Tech has developed its own multipurpose satellite communication network. Murphy (1987) says this network has allowed

Virginia Cooperative Extension numerous opportunities to explore the areas of information dissemination, educational program delivery, and staff development. Oregon State University Extension Energy Program held a videoconference for architects, engineers, utility people, general contractors, and others involved in design and construction of new commercial buildings. Patterson and Wykes (1992) reported that the teleconference had an approval rating of 32%; compared to videotape, 26%; a publication, 22%; and the traditional speaker-audience format, 20%.

The Patterson and Wykes report shows the effectiveness of satellite delivery for leader training lessons. Eckles and Miller (1987) say satellite telecommunications for educational and Extension delivery shows much promise; it is probably the most recent and possibly the most influential current development in educational delivery. Businesses have also found that more people are inclined to sit attentively through training video presentations than lectures (Hausman, 1991). The emergence of teleconferencing promises to reduce not only the monetary costs of large-scale travel by individuals and organizations but also the personal costs of time away from home, lost work hours, and the fatigue inherent in travel (Gayeski, 1991).

Hausman (1991) also says that although many video meetings allow for extensive conversation and feedback, the technology does, by its very nature, tend to eliminate small talk. This elimination may be viewed as an advantage or disadvantage depending on the goals of a program. Hausman notes that there are few if any instructional tasks for which use of only one medium is the best choice. Ideally, an instructional videotape should be used in conjunction with other learning strategies. Satellite programs, for example, should involve a combination of resource materials and media. The leader training lessons delivered on satellite are to be used in combination with printed materials written by specialists.

### **Purpose**

Murphy (1987) says Extension's interest lies not only in direct programming to specific clientele groups and the general public but also in providing staff development opportunities for our Extension agents. Husmann and Miller (1992) add that throughout the last decade, colleges and universities have begun to focus increased energies and resources to offering courses and programs at sites other than those traditionally defined by campus walls.

The purpose of this report is to find out how Extension educators and assistants compare the two methods of delivery for leader training lessons: In-service attendance at a district meeting versus satellite broadcast. This report also compares the delivery cost of

each method. Issues that shaped this study are delivery preference, audience comfort, cost, and time.

## **Methods and Materials**

Eighty-three University of Nebraska Extension educators and assistants involved in the FCE Program were surveyed. A cover letter and questionnaire were mailed January 27, 1994 to the participants, and they were asked to respond by February 18, 1994.

The survey questionnaire asked the following questions:

- 1) Which delivery method do you prefer between "in-person" attendance at a district meeting and review via satellite?
- 2) How comfortable are you when teaching leader training lessons after reviewing them via the satellite broadcast?
  - a) Not comfortable
  - b) Somewhat comfortable
  - c) Very comfortable.
- 3) When comparing in-person attendance at a district meeting and satellite review session, which method of delivery is more cost effective for you?
- 4) When comparing in-person attendance at a district meeting and a satellite review session, which method of delivery is more time consuming for you?
- 5) What problems have you encountered when teaching leader training lessons after reviewing them by satellite broadcast?
- 6) What recommendations do you have for future satellite delivery of review sessions of leader training lessons?

Salaries and costs used in comparing the different methods of delivery are based on 1993 prices. An average was used to compute salaries for Extension specialists.

## **Response and Results**

Of the Extension educators and assistants surveyed, 63 percent returned the questionnaire. The results are highlighted below.

- Sixty percent preferred satellite, compared to 35 percent who favored in-person attendance at a district meeting.
- When asked how comfortable they were when teaching leader training lessons after reviewing the satellite broadcast, 60 percent were very comfortable, 36 percent were somewhat comfortable, and two percent were not comfortable.
- Eighty-three percent of those surveyed reported that reviewing leader training lessons via satellite was more cost effective, compared to six percent who favored in-person attendance at a district meeting.

- Eighty-three percent thought in-person attendance at a district meeting was more time consuming, compared to six percent for satellite.

Several comments were given when asked what problems Extension educators and assistants encountered when teaching leader training lessons after participating via satellite broadcast. The following problems were cited by various Extension educators and assistants:

- Sometimes the signal is not good, and educators get a snowy or unclear picture on the TV.
- The biggest disadvantage of viewing the training by satellite is that educators do not have the opportunity to brainstorm ideas for presenting lessons locally.
- There needs to be more background and in-depth information about content.
- Sometimes the materials have to be reworked to add more depth and hands-on activities to meet the needs of the club members.

Comments were also given when Extension educators and assistants were asked what recommendations they had for future satellite delivery of leader training lessons. The following recommendations were cited consistently:

- Satellite should continue to be the method of delivery for presenting leader training lessons.
- Specialists need to provide more in-depth background using materials that are easily accessible for Extension educators, assistants, and club leaders.
- Specialists should use other experts if necessary to provide additional background.
- Extension educators and assistants should be supplied with leader training lesson summaries at least three months in advance for club newsletters.
- Extension educators and assistants should be supplied with an outline of the satellite presentations in advance.
- Time should be scheduled for Extension educators and assistants to discuss and brainstorm the leader training lessons after the satellite broadcast—possibly at district meetings.

## Cost Analysis

	Total Costs	Out of Pocket Costs
District Meeting	\$7,380.00	\$1,598.00
Satellite (Neb*Sat)	\$4,065.00	\$82.50

**District Meeting** — Costs to deliver Leader Training Lessons at district meetings include specialists' salaries, meals, lodging, and transportation.

**Satellite** — There is no charge to the University of Nebraska for using Neb\*Sat satellite. Costs to deliver leader training lessons via satellite include specialists' and producer's salaries, tapes, field shooting, editing, studio, and production crew.

## Summary and Recommendations

Based on results from the survey and current trends reported by other universities, the satellite should continue to be the method of delivery for leader training lessons. Extension educators and assistants said they wanted more background and in-depth information about content from specialists; however, the purpose of leader training lessons is to train the trainer. Therefore, specialists should consider providing subject matter in-service to Extension educators and assistants to fill this need rather than do two things at once.

Satellite is more cost effective and requires 6.5 days less time for Extension specialists to present leader training lessons. Educators and assistants also spend more time traveling to in-person training sessions than downlinking the sessions on satellite.

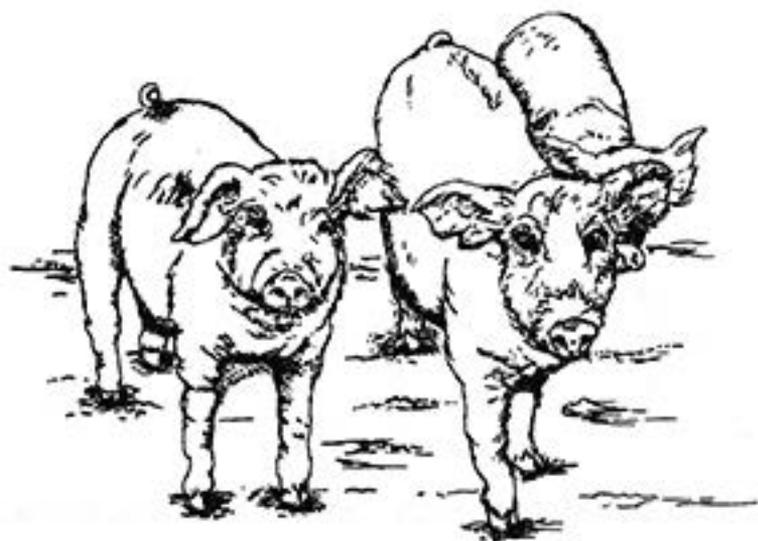
### Recommendations for delivery of future leader training lessons via satellite.

- Eliminate the ten-minute call-in after each video segment. Extension educators and assistants can call the specialists on an individual basis.
- Extension educators and assistants should be encouraged to discuss the leader training lessons among themselves.
- Publicity materials should be supplied to Extension educators and assistants about three months before the videoconference.
- An outline of the videoconference should be made available to Extension educators and assistants prior to the program.
- The four individual video segments should be 25 minutes each with the FCE Coordinator recording the transition into each one. The total length of the conference should be changed to two hours.

## References

- Boland, D.S. (1988). *Virginia telemedia systems for administrative, training and educational uses*. (Report No. IR014407). Richmond, VA: Virginia State Department of Information Technology. (ERIC Document Reproduction Service No. ED319388)
- Bower, D., Courson, J., & Frazier, J. (1994). Personnel interviewing via videoconferencing. *Journal of Applied Communications*, 78(2), 32.

- Eckles, S.G., & Miller, W.W. (1987). *Perceptions of 1987 Master Gardener participants toward the use of satellite telecommunications for educational/Extension delivery*. (Report No. CE049213). Ames, IA: Iowa State University, Department of Agricultural Education. (ERIC Document Reproduction Service No. ED289042)
- Gayeski, D.M. (1991). *Corporate and instructional video* (p. 237). Englewood Cliffs, NJ: Prentice-Hall.
- Hausman, C. (1991). *Instructional video: Planning, budgeting, production, and evaluation* (pp. 5, 59). Belmont, CA: Wadsworth Publishing Company.
- Husmann, D.E., & Miller, M.T. (1992, October). *Strategies for improving instructional delivery in distance education programs*. Paper presented at the Midwest Research Annual Conference in Adult and Community Education, Manhattan, KS.
- Murphy, W.F. (1987, October). *Telelearning for Extension agents: The Virginia experience*. Paper presented at the Annual Meeting of the American Association for Adult and Continuing Education, Washington, DC.
- Nebraska Council of Home Extension Clubs, Inc. (1985). *A golden milestone 1936-1986: A history of Nebraska Council of Home Extension Clubs, Inc.* (p. 16). Dallas, TX: Taylor Publishing Company.
- Patterson, J., & Wykes T. (1992). How effective are video teleconferences? *Journal of Applied Communications*, 76(2), 73.
- Rockwell, S.K., Ferguson, J., Jacobson, C., Schmidt, D., & Tooker, L. (1992, October). *Restructuring cooperative Extension from single into multiple county units to facilitate delivering educational programs*. Paper presented at the Midwest Research-to-Practice Annual Conference in Adult and Community Education, Manhattan, KS.



**Illustration by Melanie Eirich**

Melanie hand illustrated each graphic on tracing paper with pencil and then transferred the image to Bristol board with ink. She then scanned the illustrations on a flatbed scanner and imported them into Adobe Photoshop. Once the sizing and resolution was set, the illustrations were exported to Fractal Painter to paint. She then used watercolor, pastel, chalk, and ink techniques by setting friskets for individual areas. Each illustration was then imported back into Photoshop and, by using the Paste-Into commands and Paste-controls, placed on the appropriate marble-textured backgrounds. Each separate illustration was placed on the background with a 75% opacity rate to achieve a transparent and subdued effect. (See page 45.)