

Conceptual, Traditional And New Media Training Needs: A Study of County Extension Agent Perceptions

by Clifford W. Scherer
and Steve Masiclat

This study examines the extent to which county Extension agents perceive their need for training in three broad areas—traditional media, new media, and conceptual areas. While the impact of the new communication technologies on Extension's internal information delivery system has been dramatic, Extension's publics also are reacting to changes in other delivery systems such as cable television, computers, and VCRs. The changing information environment in which agents currently operate suggests that our traditional communication training efforts may need to be modified. This study found that agents appear to be aware of these changing needs, and rank the need for traditional media training considerably lower than their perceived need for communication training in either new media such as desktop publishing, or conceptual areas such as communication planning and strategies.

The work of Cooperative Extension agents is complex, not only in subject matter content, but in the wide range of knowledge and skills needed to accomplish their goals successfully. Extension's mission of bringing information from research laboratories to the public requires creative, multi-disciplinary approaches.

The use of mass media always has been an important part of an agent's outreach activities. However, agents are seldom required to have a background in communication strategies and skills, and, only occasionally, are they provided in-depth training in these needed skills. Like other professionals, Extension agents need to update skills and knowledge as they grow in their jobs and responsibilities.

Changes in information systems impact on Extension's ability to deliver education programs to client audiences. Twenty or so years ago, for example, it was common to have Extension programs on local TV stations, even in metropolitan areas (Scherer, 1985). As this medium became more competitive, Extension gradually lost much of its former access. In addition, as cable systems invaded market areas, bringing distant TV stations to local areas and offering increased viewing opportunities to audiences, these same audiences have become even more fragmented. Similar changes in access

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have occurred with radio and newspapers. Other new communication technologies such as computers and video cassette recorders are influencing the way by which people get and use information.

Perhaps just as important, new communication technologies have influenced Extension's internal delivery systems—from centralized computer information systems, and office desktop publishing opportunities, to locally produced video cassettes. Because these changes in technology affect land-rant information delivery systems, it is logical to assume that agents' perceptions of their needed communication skills and abilities also are changing.

To what extent, for example, do agents feel a continuing need for communication training in skills related to the traditional media? Have new communication technologies created a need for training in some areas of the new media such as computers, desktop publishing, or video cassette production? Have these shifts in information delivery methods made agents more sensitive to conceptual areas such as communication planning and strategy or media selection? While one can argue that agents need continued training in all areas of communication, limited budgets and time schedules require that choices be made. Thus, these choices should be for training in high priority areas.

Unfortunately, in trying to address these questions, the limited research in the area makes comparison with other studies impossible. With more than 12,000 county Extension agents nationwide (Warner and Christenson, 1984) the lack of published literature in this area is surprising. Few studies have been conducted, or at least few studies have been published. It would seem that training agents to more effectively communicate educational information to audiences would be an important training and research activity.

Method

To help understand how new communication technologies have affected Cornell Extension's information delivery structure, part of a major study of Cornell Cooperative Extension agents was designed to gather information on perceived communication training needs. Agents were asked the extent to which they believed training was needed in 10 areas of communication. Five focused on currently-used, traditional communication methods: writing, photography, newsletter layout and design, radio, production, and meetings. Three areas focused on new media—computers, video, and desktop publishing—and two focused on conceptual skill areas—media selection, and communication planning and strategy.

Mail questionnaires were used to collect the data in the spring of 1987. The initial letter to agents was accompanied by a letter from the director of Extension encouraging agents to participate in the study. Two follow-up mailings were made. A total of 312 agents, or 66% of those contacted, responded. Thirty-eight percent of the agents worked in agriculture, 35% in human ecology, 17% were youth agents and 9% represented other areas such as Sea Grant agents.

Results

Figure 1 presents a summary of the findings. Overall, agents feel that they need more communication training in both new media and conceptual areas as opposed to traditional media skills. Perhaps, what is most surprising is the consistency of results. All new media and conceptual training areas

Figure 1: Percent of agents indicating interest in communication training

	Low or no need	Moderate need	High need
New technologies			
Computer	31%	44%	25%
Video	41%	41%	18%
Desk-top	62%	25%	13%
Conceptual areas			
Strategies	46%	34%	19%
Media selection	63%	24%	13%
Traditional methods			
Photo	58%	32%	10%
Design	73%	20%	7
Writing	74%	19%	7
Radio	76%	18%	6
Meetings	74%	20%	6

outranked all traditional media training areas in terms of perceived training need. Only photography received ratings nearly as high.

The highest training needs, in the rank order reported by agents, are: (1) computer, (2) communication planning and strategies, (3) video, (4) desktop publishing, and, (5) media selection. If high and moderate needs are combined the ratings change only slightly, with photography moving to fourth instead of sixth place.

Agents ranked *microcomputer use* as the type of training they need most. Fully 25% of the respondents considered learning to use microcomputers a high priority, and an additional 44% said it was a moderately high need. Thirty-one percent said it was either a low need or no need at all. This trend appears uniform across all subject specialties and ages, and was supported by a consensus that microcomputers hold great potential for agents. Generally, agents who most desired training in microcomputer use also tended to feel less comfortable using a computer and could see greater potential for its use in Extension. While training in microcomputers may be outside the traditional domain of communication or editorial offices, one can effectively argue that computers are, at least in part, a communication tool, and thus communication specialists should be involved in some way with such agent training. Computers can be used to deliver news stories to the media, manage newsletter mailing lists, produce quality visuals, and many other communication activities.

Communication planning and strategy was the second highest training need area. Fifty-three percent reported training was needed in this area, with 19% expressing a high need and 34% a moderate need. Several communication specialists have argued for some time that it is strategy, not just technique, that is the most important and significant area for training (Kern, 1978; Evans, 1985). It is reassuring that agents also appear to recognize the importance of planning and strategy in their communication efforts.

Video production ranked third with 18% of agents indicating a high need for training and an additional 41% indicating moderate need. Human ecology and 4-H/youth agents were most interested in video training. This may be a function of the type of audience these agents are trying to reach as well as the content requirements of the messages they need to deliver to this audience.

Agents who want video training tend to believe that counties should produce their own videotapes and that they must be of high visual production quality. Whether county agents should do video production is, of course, an important policy question, but one that will not be addressed here.

Desktop publishing tied with media selection for fourth and fifth places. Thirteen percent of agents reported a high need for training for both. An additional 25% of agents expressed moderate training need to learn desktop publishing. Sea Grant agents were the most interested, perhaps, because of limited publications available for their use.

In addition, those agents who owned home microcomputers were more likely to report a need for desktop publishing training. In fact, the greater the potential perceived by an agent that microcomputers have in positively influencing information delivery to clients, the more likely he or she was to desire training in desktop publishing.

Channel selection strategies ranked fourth/fifth out of the 10 categories of training needs with 13% of the respondents indicating a strong interest in receiving this type of training and 24% indicating a moderate need.

Interest in media channel selection generally was shared by agents in all subject specialties, but was considered a higher priority by older agents rather than younger ones. This may suggest that agents who have been on the job longer tend to become more sensitive to their communication needs and have a better understanding of the role of delivery channels in successful communication.

Photography was ranked sixth, just ahead of writing in the overall list of subjects. While it was not a high priority need, those that did express a need for photography training tended to be either 4-H/youth or human ecology agents. Overall, only 9% of the agents indicated strong interest in this type of training.

Writing, design, meetings, and radio production finished in a virtual dead heat for last place, with only 6 or 7% of agents indicating high training needs in these areas. It is surprising, for example, that writing was ranked so low. Writing, after all, is the foundation of most media production. However, most agents either do not perceive the importance of writing in the preparation of written materials for all media, or they believe that their writing skills already are adequate. No study could be located that assessed agent writing skills, so any assessment must be left to future research. It is heartening to note, however, that new agents rate their needs for writing training higher than did other agents.

Organizing and conducting meetings also was low on the list of needed communication training. On one hand, this finding is surprising because only 31% of agents reported that meetings and workshops they organize are as effective as they could be. Virtually all agents reported using meetings as a delivery method, and reported spending an average of more than 20 hours a week either preparing for or conducting meetings. However, this familiarity with the use of meetings may suggest to the agents that their use of meetings is adequate and that other, more pressing training needs should be addressed first.

Conclusions

What these findings suggest is that agents appear to be sensitive to the structural communication and audience changes currently emerging in Extension. They appear to feel most inadequate in using the new media, and with the conceptual areas of communication planning and strategies and media selection. Whether they are adequately prepared to deal with the more traditional media such as radio production or writing, however, remains an unanswered but important question. If agents are not prepared with basic communication skills such as writing, though, providing training in new media methods may be futile.

Because we have no baseline from which to judge the results of this study, it is difficult to assess the extent to which New York agents may be unique in their training needs. As leaders in communication, we must be aware of these changing needs for training and be sensitive not only to those needs of our agents, but also to the changing technologies and audience patterns. If we conduct our training programs based on our limited world view of what is needed, we may, in fact, miss our target and be guilty of what we so often tell others to do—know your audience.

References

- Evans, J. (1985). International Communications Education and Training: A Look to the Future. *The ACE Quarterly*, 68(2):1-15.
- Kern, R. (1978). Communicator roles in extension. *The ACE Quarterly*, 61(2):3-10.
- Scherer, C. (1988). *Extension Professionals: A Study of Communication Perceptions and Needs*. (Report 3). Department of Communication, Cornell Rural Communication Research Program, Ithaca, NY.
- Scherer, C. (1985, September). *Audiences and Clientele: How Will They Differ in the Future?* Paper presented at the Extension Executive Seminar, Perspectives for the Future, Washington, DC
- Warner, P. and Christenson, J.A. (1984). *The Cooperative Extension Service, A National Assessment*. Boulder: Westview Press.

THE ALABAMA VEGETABLE GARDENER

Luscious, fresh, home-grown vegetables can be raised by most Alabamians. Careful planning, hard work, and attention to detail and the information in this tabloid will help make you successful. The reasons for gardening vary. It can be a recreational activity, it's good exercise, and you can take pride in your garden. It can be a recreational activity, it's good exercise, and you can take pride in your garden. It can be a recreational activity, it's good exercise, and you can take pride in your garden.

For more information about vegetable gardening contact your county Extension office.

CIRCULAR AN-49
ALABAMA COOPERATIVE EXTENSION SERVICE, AUBURN UNIVERSITY, ALABAMA 36849

HARVESTING YOUR OWN GROCERIES

To ensure high quality, maximum vegetable yields from your home garden are possible when proper harvesting at the right stage is essential. Harvest these vegetables when they exhibit the following characteristics:



ASPARAGUS—When spears are 4 to 6 inches tall before the tips start to open. Cut or break off spears at the soil line.



BEANS, SNAP—When pods are almost full size but before seeds are fully formed. Usually when seeds are the size of pea beans.

BEANS, LIMA—When pods are almost full size but are still firm and juicy. Use only the beans because the seeds are tough and fibrous.



BEETS—As greens, when leaves are 4 to 6 inches long in green and leaflets are 1 1/2 to 2 inches in diameter. When roots are 1 1/2 to 2 inches in diameter.



BROCCOLI—When flower buds are fully developed but before individual flower buds start to open. Cut off 1 1/2 to 2 inches before flower buds but do not exceed 2 inches, heads become bitter as they are very succulent.

BRUSSELS

When sprouts (leaves) are 1 1/2 to 2 inches tall, they are ready to harvest. Harvest when they are 1 1/2 to 2 inches tall, they are ready to harvest.

CAULIFLOWER

When the head is 6 to 8 inches in diameter and the leaves are 1 1/2 to 2 inches long, it is ready to harvest. Harvest when the head is 6 to 8 inches in diameter and the leaves are 1 1/2 to 2 inches long, it is ready to harvest.

CABBAGE

When the head is 6 to 8 inches in diameter and the leaves are 1 1/2 to 2 inches long, it is ready to harvest. Harvest when the head is 6 to 8 inches in diameter and the leaves are 1 1/2 to 2 inches long, it is ready to harvest.

CARROT

When the roots are 1 1/2 to 2 inches long and the leaves are 1 1/2 to 2 inches long, it is ready to harvest. Harvest when the roots are 1 1/2 to 2 inches long and the leaves are 1 1/2 to 2 inches long, it is ready to harvest.

COLLARDS

When the leaves are 1 1/2 to 2 inches long and the stems are 1 1/2 to 2 inches long, it is ready to harvest. Harvest when the leaves are 1 1/2 to 2 inches long and the stems are 1 1/2 to 2 inches long, it is ready to harvest.

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CORN, SWEET

When the ears are 1 1/2 to 2 inches long and the leaves are 1 1/2 to 2 inches long, it is ready to harvest. Harvest when the ears are 1 1/2 to 2 inches long and the leaves are 1 1/2 to 2 inches long, it is ready to harvest.

CHAY

When the leaves are 1 1/2 to 2 inches long and the stems are 1 1/2 to 2 inches long, it is ready to harvest. Harvest when the leaves are 1 1/2 to 2 inches long and the stems are 1 1/2 to 2 inches long, it is ready to harvest.

CUCUMBERS

When the fruit is 6 to 8 inches long and the leaves are 1 1/2 to 2 inches long, it is ready to harvest. Harvest when the fruit is 6 to 8 inches long and the leaves are 1 1/2 to 2 inches long, it is ready to harvest.

LETTUCE

When the leaves are 1 1/2 to 2 inches long and the stems are 1 1/2 to 2 inches long, it is ready to harvest. Harvest when the leaves are 1 1/2 to 2 inches long and the stems are 1 1/2 to 2 inches long, it is ready to harvest.

ONIONS

When the bulbs are 1 1/2 to 2 inches in diameter and the leaves are 1 1/2 to 2 inches long, it is ready to harvest. Harvest when the bulbs are 1 1/2 to 2 inches in diameter and the leaves are 1 1/2 to 2 inches long, it is ready to harvest.

PEAS, SOUTHERN

When the pods are 1 1/2 to 2 inches long and the leaves are 1 1/2 to 2 inches long, it is ready to harvest. Harvest when the pods are 1 1/2 to 2 inches long and the leaves are 1 1/2 to 2 inches long, it is ready to harvest.

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VEGETABLE INFORMATION

demanded by increasing temperatures. Lettuce is to be the earliest to be harvested. In the case of lettuce, it is to be harvested in 12 to 14 days after planting. The early harvest should be a preferred one and is the most desirable.

Lettuce can be picked for the early stage of leaf-growing crop, and some crops, especially the leafy ones, will be harvested by the time the leaves are 1 1/2 to 2 inches long.

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Other home garden vegetables...
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The Alabama Vegetable Gardener, a regularly circulated publication of the Auburn University Alabama Cooperative Extension Service, was awarded Superior recognition among popular publications in the 1988 ACE Critique and Awards Program. The entry was submitted by ACE member Jean Johnson, Extension technical writer. The publication also received an Excellent rating in the Graphic Design category as submitted by Johnson and ACE member Romaine Crockett, information specialist, art, at Auburn.