

## *New Use of Phone Communication*

DONALD W. SWOBODA

*Effective communication between personnel is vital to the success of any organization. One important aspect is the channels available for communicating. In an attempt to improve its communication channels, the Nebraska Cooperative Extension Service is using a special telephone service to enable county agents to call university personnel directly rather than to use less direct means (such as writing a letter). An effort has been made to appraise the effectiveness of the system. This article reports the impact this new telephone service has had on agents' communication patterns with state staff. The author suggests that use of this service will improve cooperation and understanding between state and county personnel.*

EFFECTIVE communication is vital to the success of every organization, regardless of size. If the organization is to function properly and carry out its objectives, effective communication channels must be established within each level of the organization, as well as between the various levels. Because of the large numbers of people with which the Cooperative Extension Service deals, and because of the vast amount of technical information that is being produced, Extension is constantly trying to find new methods of increasing the effectiveness of its communication.

The inward WATS telephone line is one of the most recent methods established in Nebraska's Cooperative Extension Service. This is a special service provided by the Lincoln Telephone and Telegraph Company (LT&T) in conjunction with the Nebraska Extension Service. Cooperating county agents can call a specific number connected to the University of Nebraska switchboard, and in turn be connected to any university personnel. For this service a flat monthly rate is charged, regardless of the number of calls made.

The study reported here was designed to measure the impact

---

DONALD W. SWOBODA is in Extension Studies and Training, Cooperative Extension Service, University of Nebraska, Lincoln, Nebraska.

which this new service has had on the county agent's communication patterns with the state staff. Findings may be of further importance to personnel in Extension and other organizations in evaluating communication channels.

#### THE STUDY

Extension agents in 17 counties in southeastern Nebraska were included in the study—21 men and 6 women. In this report of the study, women county Extension agents will be referred to as "home agents," the men agents as "ag agents."

For purposes of this study, contacts with the state staff were limited to two area supervisors involved with these 17 counties and to five state specialists selected from subject-matter areas most contacted by the county agents involved (as determined from their questionnaire responses).

Primary objectives of the study were:

1. To determine who is usually called by the county agent via the inward WATS line.
2. To determine the type of information most commonly requested by the county agent and the way he uses this information.
3. To determine the impact of this line of communication on the county agent's correspondence with the state staff.
4. To determine the extent to which agents use this service, and their attitudes toward the service (i.e., personal opinions of the agents involved and their comments on any particular problems regarding some aspect of the system).
5. To determine the relative economic advantage or disadvantage to the county Extension office.
6. To determine the impact of this service on state supervisors and state specialists in regard to their activities with counties served by the inward WATS line.
7. To determine the amount of time this service is in use (e.g., the peak periods as opposed to average periods in a work day).

#### *Method of Study*

A questionnaire developed from these objectives was sent to each participating agent. An attitude scale of the Thurstone type<sup>1</sup> was also sent with the questionnaire. With this scale, the agent's attitude

<sup>1</sup>J. Stanley Ahmann and Marvin D. Glock, *Evaluating Pupil Growth* (Boston, Massachusetts: Allyn & Bacon, Inc., 1963), pp. 474-75.

toward the inward WATS service was measured on a continuum from "unfavorable" to "highly favorable." The attitude scale was developed by having a 15-member jury consider 40 statements about the WATS service and rank them from 1 (highly favorable) to 7 (unfavorable). Twelve of these statements were then selected—for each of the numbers one through seven on the continuum, two statements were selected whose median score closely corresponded to that number; for example, "Using the WATS line is more bother than it is worth" (unfavorable), and "The WATS line increases the efficiency of the county agent" (highly favorable). Extension agents were asked to check those statements with which they agreed. All attitude scores were then compared on the continuum, and the range of scores and average attitude scores were determined.

Each agent received a questionnaire with an opinionnaire. There was 100 per cent return.

#### FINDINGS

Data for determining the relative economic advantage or disadvantage of the system to the county office and for determining the amount of time this service was used, were obtained from the state Extension office and from LT&T computer print-outs. Data for determining the impact of the inward WATS line on state staff were obtained from personal contacts with the supervisors and specialists involved. Because of the small sample, all data were tallied and analyzed by hand. Responses from men and women were analyzed separately.

#### *Who Is Called*

Each questionnaire listed personnel county agents might possibly contact. Included were: state specialist, supervisor, state leader, experiment station personnel, and assistant director. All of the agents indicated they usually called the state specialists and their own supervisor. The other possibilities were checked by some respondents, but not unanimously. Agents also mentioned calling the Director of Extension, University of Nebraska Extension Division, and University of Nebraska Film Library.

The agents unanimously indicated that the state staff members they most frequently called were the specialists. Of the 21 men agents, 18 indicated that calls to specialists represented 51 to 100 per cent of their total calls made on the WATS line. Four of the

home agents indicated that calls to state specialists represented 50-100 per cent of their total calls; one indicated supervisor calls as 76-100 per cent of the total calls; and one indicated the Extension Division as 26-50 per cent of the total calls.

#### *Type of Information Requested*

Four alternatives were listed as possible kinds of information agents might request: (1) short answers to current technical problems in regard to farm or office visits; (2) subject matter unavailable or outdated in the county office, requested for potential problems; (3) availability of state personnel for scheduling county meetings or other out-state visits; and (4) administrative or other information outside subject-matter areas. Space was also provided for "other" (to be indicated by the agent).

All ag agents checked "short answers to current technical problems." The other three topics were checked by a majority of ag agents. Other information requested included information from other colleges, information from university personnel, scheduling of films, and program information from the Nebraska Center. Of the 21 ag agents in this study, 20 ranked "short answers to technical problems" as the type of information most requested through WATS line phone calls, while one agent indicated "subject matter unavailable or outdated in the county office." Of the 20 indicating answers to technical problems, 13 (65 per cent) reported that 51-100 per cent of their WATS line calls were for this information.

Home agents agreed that all of the possible types of information listed were requested. However, there was little agreement as to the type requested most often.

#### *Subject-Matter Areas Called*

The researcher had anticipated that a large number of WATS line calls would be made to subject-matter specialists. Agents were asked to rate the frequency of calls as "very frequent," "frequent," "occasional," or "seldom," to each of the following subject-matter areas: agricultural economics; agricultural engineering; agronomy; animal science; dairy science; entomology; foods and nutrition; horticulture and forestry; information; plant pathology; poultry science; textiles, clothing, and design; veterinary science; and youth development.

Analysis of ag agent responses showed that five areas ranked substantially higher as to frequency of calls: agronomy, animal

science, entomology, plant pathology, and youth development.

Home agents indicated only four subject-matter areas with the greatest frequency of calls: foods and nutrition; information; textiles, clothing, and design; and youth development.

#### *Impact on Agent Communication*

To determine the impact of this line of communication on the county agent's correspondence and personal contacts with state staff, and on his communication patterns, three questions were asked. These determined: (1) use of the WATS line in lieu of letters (proportion of cases); (2) change in number and frequency of contacts with state staff; and (3) change in rate of effective communication.

One home agent and three ag agents were not working in their present situations prior to installation of the WATS service; their answers were not considered in the analysis of these three questions.

Ten ag agents and four home agents indicated a great reduction in personal correspondence with state staff, due to use of the WATS line. Seven ag agents and one home agent indicated moderate reduction, and one ag agent indicated little reduction.

Eight ag agents indicated a large increase in contacts (both phone calls and actual visits) with the state staff since the WATS line was made available. Nine ag agents and three home agents indicated a moderate increase in contacts. One ag agent and two home agents indicated a slight increase. Four home agents and 17 ag agents indicated that their communication pattern with the state staff is more efficient due to use of the WATS line, and one ag agent and one home agent indicated no change in efficiency in their communication pattern.

Agents were asked to indicate their personal feelings about the WATS line service and to comment on any particular problems. Some of their responses were:

"No problems, Extension Board is convinced that the WATS line is a good investment."

". . . saves office time, less expensive . . . allows the farmer to get his answer today, when he needs it . . . two-way communication."

"No problems . . . very much impressed with service."

"After I justified the cost to the Extension Board, they thought it was a good deal."

The only real complaint about the WATS line was having to wait because the line was busy.

*Agent Attitude*

County agent attitude toward the WATS line service was further tested through use of the attitude scale. The statements checked were weighted and scores compared on a continuum from highly favorable (1.40) to unfavorable (6.75). The range of attitude scores for the 27 agents was from 1.91 to 2.82. The average attitude score for all agents was 2.16, indicating that these agents had a favorable attitude toward the inward WATS line service.

*Economics of the Service*

To determine the relative economic advantage or disadvantage of the WATS service, a comparison was made between the cost of the service to the county Extension office and the amount which would have been charged for calls made during February, May, and September (Table 1). Cost of the WATS line for each county was either \$10.00 or \$12.00, depending on the normal charge of a three-minute call from the particular county office to Lincoln. If the three-minute charge was below 90¢, the cost was \$10.00 per month; if the charge was 90¢ or above, the cost was \$12.00 per month.

*Table 1.* Comparison of the number of calls, minutes in use, actual and normal costs, and economic advantage of the WATS service in Nebraska during February, May, and September, 1966.

Month	No. of calls	Minutes in use	Actual cost of service	Normal cost of calls	Economic advantage
February	493	2135	\$214	\$ 365.93	\$151.93
May	697	2779	214	488.07	274.07
September	535	2079	214	383.11	169.11
Total	1725	6993	\$642	\$1237.11	\$595.11

Figures in Table 1 refer to the entire WATS service, which includes the 17 county Extension offices contacted in this study and three other offices which also had access to this service. On an individual county analysis, for February, May, and September, the majority of the counties received an economic benefit (actual cost of the service was less than the normal cost of the calls made). In a few cases there were slight economic losses. However, there was no indication that this economic disadvantage occurred monthly so that it reflected an economic loss over a period of 12 months.

Data in Table 1, taken from the LT&T computer print-outs, show that as a whole for the given months there has been a substantial economic advantage to the Cooperative Extension Service personnel served by the WATS line. A district representative of the Company informed the researcher that these three months were representative of the WATS service to date.

#### *Impact on State Staff*

To determine the impact of the WATS service on state supervisors and state specialists, the two supervisors involved and several of the specialists were contacted. They were asked about (1) changes in number and frequency of contacts by agents involved and (2) change which took place or could take place in their own job activities (according to their personal opinion).

The supervisors reported receiving more calls from their counties after the service was installed. However, the nature of the relationship of the supervisor to the county agent is such that the agents have much less contact with supervisors than with area specialists. The specialists reported that in most cases much less correspondence time was required with the use of the inward WATS, and the added number of phone calls seemed to develop a greater feeling of closeness between the agent and the specialist. The specialists also indicated that communication on technical questions was much improved through use of phone calls, because both parties could be sure that a mutual understanding had been achieved. The specialists further stated that they received more telephone calls from the counties after the WATS service was installed.

No real disadvantages were reported by state personnel as a result of the WATS service. However, one specialist stated that in some instances county agents may not be doing as much advanced planning for programs that required the presence of state personnel. Prior to the WATS line service, most personnel requesting was done through mail correspondence, which required more advanced planning of programs so that confirmation of the request could be received well in advance of the event.

#### *Use of the Service*

LT&T computer print-out records provided data for determining the actual amount of time the service was used, and the peak time periods it was used. Again, the months of February, May, and September were analyzed as to total number of calls made each month

and the number and per cent of the total made each hour, relative to the hours of a normal work day (8:00 A.M. to 5:00 P.M., Monday through Friday). The total calls each month were spread relatively equally between morning and afternoon hours. The three-month total, except for the noon lunch hour, shows that no single hour of the normal work day received less than 10.21 per cent, nor more than 15.84 per cent of the total calls. Percentage-wise, therefore, calls made during these hours were distributed relatively evenly.

### CONCLUSIONS

Based on the findings of this study, the following conclusions were made:

1. The county Extension agents in this study tended to place the majority of their calls via the inward WATS line to state specialists, requesting short answers to current technical problems.
2. Use of the WATS line service tended to reduce the personal correspondence of county agents with state staff personnel.
3. The county Extension agents studied held a generally favorable attitude toward the WATS line service.
4. The inward WATS line service as a whole yielded a substantial economic benefit to the Cooperative Extension Service.
5. The use pattern of the WATS line, by the agents involved, indicates calls were distributed in a relatively even manner over the hours of a normal work day.

The researcher further concludes, on the basis of the data collected, that the inward WATS line service is an effective communication channel for county Extension agents. Further implications for Extension include indications that this service will improve the cooperation and understanding between the agents and the state staff through the increased personal contacts involved. The system should also improve Extension programs by providing answers to farmers' questions immediately, when these answers are needed. In a broader sense, the WATS line study demonstrates the value the entire Extension organization places on "feedback,"<sup>2</sup> as a necessary element in two-way communication.

<sup>2</sup> Erwin P. Bettinghaus, "The Communication Process in Administration," Robert C. Clark and Roland H. Abraham (eds.), *Administration in Extension* (Madison, Wisconsin: National Agricultural Extension Center for Advanced Study, University of Wisconsin, 1960).