

## Interpersonal Communications in the Adoption Process

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## Interpersonal Communications in the Adoption Process

### Abstract

The traditional United States model of Extension work has demonstrated the utility of the generalized diffusion/adoption process.

# Interpersonal Communication in the Adoption Process

## C. Sivayoganathan and William E. Tedrick

The traditional United States model of Extension work has demonstrated the utility of the generalized diffusion/adoption process. The role of the 'opinion' leader in the diffusion of innovation in a social system has been demonstrated by a number of studies and summarized by Rogers (4). The manifestation of the 'two-step flow' of information in the diffusion process was critical to the successful implementation of the training and visit system of extension work in Sri Lanka and is related to effective use of volunteer leaders in extension.

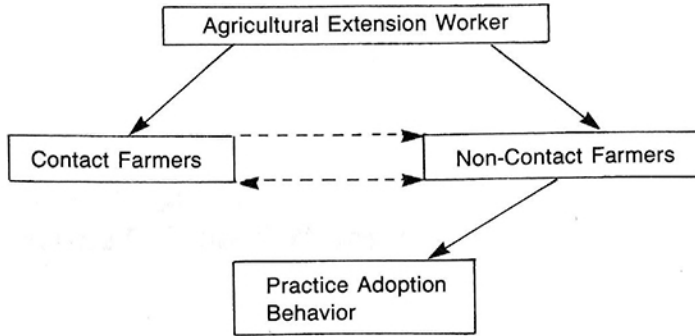
### Training and Visit System of Extension

The T&V System of Extension was introduced in Sri Lanka during the mid-seventies. The key components of the system at the local level are the agricultural extension worker (AEW), who works at the village level, the contact farmer (CF), who is identified as an opinion leader at the neighborhood level and the up to 30 non contact farmers (non-CF) who are associated with the CF in each neighborhood.

The village AEW meets once every 14 days with the CFs who in turn meets or works directly with the non-CFs to teach the information presented by the AEW. However, non-CFs may also have direct contact with the AEW. Figure 1 illustrates the direction and type of interpersonal communications assumed to be present in the T&V System of extension.

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- a - Flow of information between agricultural extension worker and contact farmer (may be one- or two-way).
- b - Flow of information between agricultural extension worker and non-contact farmer (may be one- or two-way).
- c - One-way flow of information from contact farmer to non-contact farmer.
- d - Two-way communication flow between contact farmer and non-contact farmer.
- e - Resulting practice adoption behavior.

FIGURE 1. A theoretical model of interpersonal communications present under the training and visit system of extension work as implemented in Sri Lanka.

## Study Objective

This study was designed to examine to what extent interpersonal communications between CF and non-CFs influenced the dissemination of agricultural information directly related to five rice production practices. Our communications model, illustrated in Figure 1, suggests that rice production information flow between the CFs and non-CFs would be largely through interpersonal communication channels either in a one-to-one or group communication situation.

## Method

In early 1982, personal interviews were conducted with a random sample of 100 CFs and 200 non-CFs living in a representative farming district of the dry zone in Sri Lanka.

Interpersonal communication patterns between the CFs and non-CFs in both one-on-one and group communication situations were determined for a 12 month period by measuring 1) the frequency of interpersonal contact, 2) place of contact, 3) subject matter discussed, 4) duration of contact, 5) who initiated the contact, and 6) the direction of communication flow.

The five rice production practices studied below were 1) variety selection, 2) fertilization, 3) planting methods, 4) weed control, and 5) insect and pest management methods. Individual practice adoption scores were obtained by recording the level of application of each practice as reported by the respondents. Adoption scores were computed for each practice and across all practices for both the CFs and non-CFs. The relationships between the measured communication variables and the adoption scores were determined by computing Pearson product-moment coefficients.

## **Results**

### **Interpersonal Communication Patterns**

The CFs and non-CFs met on the average of 54 times on a one-to-one basis and 12 times in a group situation during the 12 months studied. Most of these meetings occurred either in a common neighborhood meeting place or at the CF's home or farm. Meetings averaged 105 minutes compared to 39 minutes for one-on-one encounters. Nearly 70 percent of the contact time was devoted to content related to rice production. Contact Farmers were responsible for initiating most of the one-on-one contacts, while the CFs and non-CFs initiated about the same number of group contacts. Two-way communications were used during most of the one-on-one and group contact situations. Non-CFs showed a desire for more group meetings with the CF as a way to improve communications.

### **Adoption of Rice Production Practices**

Non-CFs reported a high level of adoption of the five rice production practices studied. Over 75 percent had high adoption scores for variety selection and weed control methods. Nearly 40 percent were rated high on adoption of fertilization

practices in Sri Lanka. Nonadoptors reported the lack of input items such as credit, supplies, or irrigation water were major factors influencing adoption of recommended practices.

### **Implications for Extension**

The relative advantages of group contact methods suggest that CFs should increase their use of group contact methods, particularly where two-way flow of information is encouraged. To achieve this goal, CFs should be given intensive training on how to use group learning methods effectively with appropriate incentives and promotion provided to encourage group participation. Group meetings should be held either at the CFs' place or at a common neighborhood meeting location.

Extension leaders should give special attention to improving the communications skills of the CFs in both one-on-one and group communication situations and encourage CFs to focus their discussion on the practices being introduced.

### **Summary**

The influence of interpersonal communication on the adoption of agricultural practices was found most pronounced in group communication situations among Sri Lankan rice farmers. To what extent this relationship might apply to American farmers is a question of considerable importance. It is important because we rely so much on individual contact methods to promote practice adoption, particularly in agricultural content areas. Are these individual contacts as effective as we believe they are? Is a combination of individual and group interpersonal communication situations necessary to maximize the rate of adoption of agricultural practices? The procedures and methods used in this study offer a methodological approach for studying interpersonal communications and their relationship to rate of adoption in our own extension programs.

### **References**

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## **Communications on Agricultural Research, Development, and Extension Teams**

**Donald L. Esslinger and Constance M. McCorkle**

### **Introduction**

Domestically and internationally, agricultural research, development, and extension (ARD&E) programs are experiencing a resurgent interest in interdisciplinary collaboration as a more effective approach to enhancing farm productivity and human well-being. This collaboration typically takes the form of a team of specialists and researchers from various physical and biological sciences, the social sciences, and agricultural extension.

Constant and effective communication, both internal and external to the program, is a criterion of success to operate an ARD&E effort. Effective communication becomes even more critical—and more problematic—when people from a variety of disciplines are expected to contribute to an integrated team effort.

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