
UNIVERSITY OF MISSOURI-COLUMBIA
COLLEGE OF AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
A. MAX LENNON, DIRECTOR

**Agricultural and Community Development
Extension in Missouri From an
Information Macrosystems Perspective**

Herbert F. Lionberger and Wei-Yuan Cheng



COLUMBIA, MISSOURI

ACKNOWLEDGEMENTS

Special recognition and thanks go to Melissa Baumann who provided the word processor skills, did the typing and some of the editing of the manuscript, to Tso Sang Wong for analytical work and assistance in writing earlier drafts of a paper concerning the performance of the integration function in community development, a shorter version of which was published in the Journal of the Community Development Society and to Lavern Pope also for analytical work and assistance in writing initial drafts of the role performance chapter. Tso Sang Wong is a post doctoral fellow at Miami University and Lavern Pope has chosen a career combining communication technology with engineering at Johns Hopkins University.

Finally the authors acknowledge the invaluable assistance of Associate Professor Donald L. Esslinger in making the manuscript more readable.

**Agricultural and Community Development
Extension in Missouri From an
Information Macrosystems Perspective**

Herbert F. Lionberger and Wei-Yuan Cheng

AGRICULTURAL AND COMMUNITY DEVELOPMENT EXTENSION IN
MISSOURI FROM AN INFORMATION MACROSYSTEMS PERSPECTIVE

Herbert F. Lionberger and Wei-Yuan Cheng

CHAPTER 1. INFORMATION DEVELOPMENT AND DELIVERY IN SOCIETY	1
I. <u>The Developmental Context</u>	1
<u>Antecedents in Society</u>	1
<u>The Emergent Systems Approach</u>	1
II. <u>Organization of Research and Extension on the Columbia Campus of the University of Missouri</u>	4
<u>Research</u>	4
<u>Extension</u>	5
III. <u>Nature and Scope of the Study</u>	6
CHAPTER 2. GETTING INTO EXTENSION FOR THE RIGHT REASON.	10
I. <u>Occupational Choice in Society</u>	11
<u>Things Considered in Choosing</u> (Attributes of an Occupational Choice)	11
<u>What Earlier College Freshman Contemporaries were Looking for</u>	13
II. <u>What the Extension Specialists were Looking For</u>	17
<u>In General</u>	17
<u>Choice Types</u>	23
People Oriented	23
Prestige Oriented	23
Development Oriented.	25
Self-fulfillment Oriented.	25
Status Achievement Oriented.	25

	<u>What the Staff Wanted Compared to What Their 1964 Freshman Student Contemporaries Wanted</u>	26
III.	<u>Satisfactions Obtained from the Extension Assignment</u>	26
	<u>Sources of Satisfaction</u>	30
	<u>How Satisfactions Compared with Reasons for Getting In</u>	31
	<u>For the People Oriented Specialists</u> . . .	31
	<u>For the Prestige Oriented Specialists</u> . . .	31
	<u>For the Development Oriented Specialists</u>	32
	<u>For the Self-fulfillment Oriented Specialists</u>	32
	<u>For the Status Achievement Oriented Specialists</u>	32
IV.	<u>Observations and Implications</u>	32
CHAPTER 3. PHILOSOPHY: THE IDEOLOGICAL COMPONENT OF EXTENSION		34
I.	<u>Problems and Issues</u>	34
	<u>Search for Views</u>	34
	<u>Sampling Views and People</u>	35
	<u>The Search for Philosophical Types</u>	35
II.	<u>The Types that Emerged</u>	36
	<u>Consensus Views</u>	36
	<u>Differences (The Types)</u>	37
	<u>The Incidence of Types</u>	41
III.	<u>Observations</u>	42
CHAPTER 4. EXTENSION ROLES: WHAT THE EXTENSION FIELD STAFF DOES		44

I.	<u>Diversity of Extension Roles</u>	44
II.	<u>Some Operational Questions at Issue</u>	46
	<u>Single or Multiple Roles</u>	46
	<u>Hard Sell vs Egalitarianism</u>	47
III.	<u>Methodology</u>	47
IV.	<u>Role Performance (What they did)</u>	48
	<u>Matters of Agreement</u>	50
	<u>Differences - The Types Identified</u>	50
	<u>Capacity Builders (Type I)</u>	50
	<u>Persistent Educators (Type II)</u>	52
	<u>Problem Solvers (Type III)</u>	55
	<u>Subserviant Servants (Type IV)</u>	55
	<u>Extension Activists (Type V)</u>	57
	<u>Incidence of Types</u>	59
V.	<u>Observations About the Issues</u>	60
	<u>Ideology</u>	60
	<u>Multiple Roles</u>	61
CHAPTER 5. ACHIEVING THE INTEGRATION FUNCTION IN AGRICULTURAL EXTENSION		62
I.	<u>Genesis of the Integration Problem</u>	62
	<u>The Differentiated Information Supply Systems Context</u>	62
	<u>Options for Performing the Integration Function</u>	63
II.	<u>Nature and Scope of the Inquiry</u>	64
	<u>The Integration Function Potential Focus</u>	65
	<u>Source of the Data</u>	65
	<u>Analytical Procedures</u>	65

	Farm Management Specialists	66
	Production Specialists	66
	Production Supporting Specialists	66
	<u>Operational Indicators of Potential for the Performance of the Integration Function . . .</u>	66
III.	<u>The Research Findings</u>	67
	<u>The Interpersonal Network at the Area Level .</u>	67
	Number and Nature of Contacts	67
	Purpose of Contacts	71
	Evaluation of Contacts with Fellow Subject Matter Specialists	77
	<u>The Interpersonal Network Between In-Field and On-Campus Faculty</u>	79
	Number of Contacts	79
	Support for their Formation	81
IV.	<u>Summary and Conclusions</u>	83
CHAPTER 6. ACHIEVING THE INTEGRATION FUNCTION IN COMMUNITY DEVELOPMENT		
		85
I.	<u>Salience and Nature of Integration Function Problems in the Community Development Setting</u>	85
II.	<u>The Research Design</u>	87
III.	<u>The Research Findings</u>	88
	<u>The Community Development Specialist at Work</u>	88
	<u>Performance of the Integration Function Role</u>	89
	<u>Integrating Capacity of the Specialists</u>	89
	<u>Results from the Operational Indicators . . .</u>	91
	Evidence from Specific Projects	91
	Evidence from Resource use in General .	94
	Evidence from How the System Operates at Center	102

IV.	<u>Conclusions and Observations</u>	103
CHAPTER 7. EXTENSION CLIENTELES		105
I.	<u>Problems of Definition</u>	105
II.	<u>The Situation</u>	105
	<u>In Agriculture</u>	105
	<u>In Community Development</u>	108
III.	<u>General Observations and Conclusions</u>	111
CHAPTER 8. SUMMARY CONCLUSIONS AND IMPLICATIONS		112
I.	<u>Addressing the Integration Function</u>	113
	<u>Options</u>	113
	<u>Potential of the Interpersonal Network</u>	115
	<u>In Agriculture</u>	115
	<u>In Community Development</u>	115
	<u>Prospects for Network Continuance</u>	116
II.	<u>Other Operational Issues</u>	117
	<u>Who are the clientele?</u>	117
	<u>What are the guiding principles in extension?</u>	117
	<u>What do field stationed specialists do and what are the likely consequences?</u>	117
	<u>What are the rewards from working in extension?</u>	119
III.	<u>Implications for Extension Programming</u>	119
	<u>Get into extension for the right reason</u>	119
	<u>Take steps to maximize the rewards from service to people</u>	120

<u>Encourage and facilitate the formation of interpersonal informational networks among extension and research professionals within the system</u>	120
<u>Maximize the formation and use of within extension system features that will facilitate joining bits and pieces of information into combinations to serve users needs.</u>	120
<u>Remember that elitist consequences can result from the use of thoroughly democratic extension methods</u>	121
IV. <u>Looking to the Future</u>	122
References	123
APPENDIX (Tables)	131

CHAPTER 1

INFORMATION DEVELOPMENT AND DELIVERY IN SOCIETY

I. The Developmental ContextAntecedents in Society

Until the turn of the century, all sectors of society had depended on individuals to develop new information and technology that they needed whether in the healing professions, public health, education or agriculture. In agriculture, farmers generally thought that when farm information worth using was developed, it would be done by farmers themselves and freely communicated to each other. Peers and own experience were accordingly regarded as their chief information sources.

Early in this century, it became evident that continuing supplies of up-dated science based information had become essential in agriculture. As in other sectors of society, folk knowledge alone was no longer sufficient. In a society committed to change and development, information generation and distribution could no longer be left to innovative individuals. These functions had to become the institutionalized responsibility of social systems that had the capacity to simultaneously extend the frontiers of scientific knowledge, transform a part of it into useful practice and get it disseminated to potential users. The solution tended to become a separate specially designed social system for that purpose. Perhaps the first of these comprehensive systems were our U.S. land grant (people service) universities (Edmond, 1978).

The Emergent Systems Approach

The comprehensive systems can be best understood in the historical context of how land grant universities were able to achieve the information development, transformation and delivery capabilities envisioned in their initial charge to teach agriculture and the mechanic arts to all who wanted to learn (Kellogg and Knapp, 1966).

The universities were initially established in 1862 by an act of Congress.¹ Naturally, the first problem encountered was finding some-

¹Although the enabling legislation was passed by the U.S. Congress in 1862 (Morrill Act), the University of Missouri was established at Columbia in 1839. The College of Agriculture was established under this enabling legislation in 1870 (Longwell, 1970:11).

thing to teach. This dilemma occurred at a time when farmers were heavily committed to using folk knowledge for farming and when science-based information was unknown to most farmers. After years of trying to cope with the "no-information" dilemma, in 1887 enabling legislation added a research component (Hatch Act). The research components were to generate the needed information.² Thus what we here refer to as the innovation function (information generating) in the theory-to-practice information development use sequence (dissemination) came into being (Lionberger and Gwin, 1982).

As the new information accumulated the problem of getting it out to farmers increased. Researchers concerned primarily with research were basically inept in communicating it to farmers and probably not much interested in doing so.

Finally, in 1914 enabling legislation to provide an extension to these universities was passed by Congress (Smith-Lever Act). These were to get the information out to people in the state then mostly populated by farmers. This addition provided for what we refer to as the dissemination function.³

But even with university representatives stationed in the outlying counties of the state and increased use of the mass media, farmers were distressingly slow to accept and use the information that was developed.

Research to find more effective ways of getting information to farmers and getting them to use it identified two additional functions -- the farmer becoming informed (information function) and persuaded (persuasion function) (Rogers and Shoemaker, 1971). Both had to be done mostly by the information user himself.

At the same time, communications researchers and extensionists came to realize the very difficult problems of getting the new knowledge and technology fitted into the users own plans of action for achieving their own goals. The process by which this occurs has been referred to by anthropologists as integration (Linton, 1936), and its achievement in practice as the integration function (Lionberger and Gwin, 1982). Although information users themselves must assume most

²Connecticut and California established agricultural experiment stations in 1875 before the nationwide system of agricultural experiment stations came into being (The Hatch Act, 1887 See Edmond, 1978:39). The Missouri Agricultural Experiment Station was established in 1888 under the provision of the Act (Longwell, 1970:45).

³The authors propose that an intervening function of "validation" should be added. Validation, an activity avoided by both researchers and extensionists, refers to testing innovations for local adaptability to insure that they work for their intended purpose before offering them to prospective users.

of the responsibility for integration, the information generating and disseminating system can help.

Each of the component subsystems to which researchers, extension workers and users are usually assigned must properly interact to make the larger macrosystem work properly. Although information is primarily developed and transformed, and flows from scientific theory to practice, there must be a return flow (feedback) from the user to the researcher. The flow is either directly or indirectly through intermediaries to enable the system to develop the information needed for users and get it disseminated to them. The volume of information flow from user to scientist may at times exceed the flow from scientist to user.

There are certain broad assumptions that are implicit in the emergence and continued existence of the information generating and disseminating system type described here; namely that,

1. A continuing supply of updated information is necessary to meet the specialty informational needs of people in modern society.
2. Development and delivery of the information cannot be left to users alone.
3. Most new information and technology needed necessarily draws heavily on basic science knowledge. This in turn poses the need for a continually expanded basic science knowledge base upon which to draw for new applied information and technology.
4. For a system to operate as a true information macrosystem, the information development, dissemination and use subsystems must collectively perform and link all essential functions.
5. The institutional support structure for supplying inputs other than information on behalf of information users must operate to see that the user's needs are supplied.

Some of the more basic ideas about how land grant (people service oriented) universities should operate are that they must:

1. Be a sanctuary for the greatest diversity of thought, the freest exchange of ideas, the most painstaking search for truth and thus a repository of knowledge second to none.
2. Be committed to the belief that there are extra-ordinary possibilities in ordinary people.
3. Provide two-way traffic of ideas and influence between the university and the people in the state.

4. Provide for integrated research, resident teaching, and extension programs that supplement and draw upon each other.
5. Create an understanding of the change forces and conditions that operate in society and their consequences.
6. Be a true knowledge system, in which highly abstract information developed at the university is transformed and flows downward to all points of practical concern to people.⁴

It is in the information macrosystem context that we examine agricultural and community development extension in Missouri.⁵

II. Organization of Research and Extension on the Columbia Campus of the University of Missouri

Research

Research in the colleges of agriculture, (including forestry, fisheries and wildlife) and home economics is mostly done in the Agricultural Experiment Station. Research is financed partly by assured federal and state funds and partly by research grants. Research in the other colleges is financed mostly by grant money obtained by enterprising faculty who may not be much concerned with applying knowledge outside of their own academic disciplines.

Although initiation of research projects is vested mostly with individuals attached to academic departments (all faculty and administrators must have an academic home), those researchers associated with the Agricultural Experiment Station are constrained by several forces. Constraints come from the associated professional colleges, national funding offices and special interest groups. The research projects must address important state, national or international problems and at the same time generate some information useful for the non-academic public. Each research project director is reminded of this obligation each time he prepares his annual progress report.

By virtue of the way the pursuit of knowledge becomes specialized most of the research undertaken is conceptualized and con-

⁴For a more detailed treatment of what these central concepts are and how they were determined see Lionberger, Pope and Reddy (1979).

⁵For a more complete description of this model see Lionberger and Gwin, (1982: Ch. 3).

ducted in the context of what is acceptable within the academic discipline or perhaps the sub-specialities therein. Despite admonitions to conduct interdisciplinary research on problem-related issues the inclination persists to confine research to an academic discipline. In the College of Agriculture alone there are 13 departments. The university of Missouri - Columbia includes 99 departments in 15 divisions.

The relatively discrete bodies of knowledge developed in each of the academic research traditions represented by departments provides much of the knowledge upon which extension must draw for servicing the informational needs of people in the State.

Extension

Initially, cooperative extension in Missouri was quite exclusively confined to providing information to farmers and later to youth through 4-H work and to housewives through home economics extension. But by 1960 the extension responsibility had been extended to all departments and divisions in the University and in theory to all people in the State (Longwell, 1970).

Responsibility for the campus-wide extension activity was vested in a dean whose office provided guidance, coordination and control of all university extension programs. These include community development, agriculture, home economics, continuing education, business and industry and youth related educational efforts, variously associated with departments and divisions within the University. Both initially and now, program responsibility for community development resides mostly in the Community Development Department of the School of Public and Community Services on the Columbia campus. Agricultural, forestry and home economics extension is headed by a director that intervenes between the divisional deans in charge of the overall effort and the respective academic departments in the various colleges.

The campus-based faculty with extension responsibilities have full or part-time extension appointments in the departments representing their academic specialities. The specialists are housed in the departments. Those with part-time extension appointments may also have teaching or research responsibilities. But all are expected to service the informational needs of the in-field specialists. For informational requests for which there is no appropriate on-campus specialist, a referral facility is provided to make searches, first within the university system, and then beyond, if necessary, to supply the information needed.

The basic field administrative unit is the extension planning area. The 21 extension areas range in size from 3 to 10 counties. Each is staffed by a director and sometimes an associate director and, in so far as resources will permit, a cadre of specialists to supply the recurrent informational needs in the area. The subject matter specialists closely

parallel those of the on-campus academic departments. An extension center in each county houses one or more specialist. The services of each are in turn made available to people in other counties in the area through regularly scheduled office visits, on site appearances, and telephone calls.

Although the number and kinds of specialists stationed in an area vary considerably there are some commonalities. One or more agricultural and home economics specialists and at least one for youth work are stationed in all areas. In the agricultural sector all areas have one or more specialists for farm management, livestock and agronomy. Community development specialists are available in most areas. Those in business and industry, continuing education, and some agricultural specialties are less frequently assigned (see Table 1).

Mechanisms that were initially built into the extension system to insure close ties with local residents are present today. From its inception extension had to be a three way cooperative undertaking involving the federal government, the university as the responsible state agency, and the county representing interests of the local people. The initial enabling legislation required that a local group be established and maintained to sponsor extension work in the respective counties. Local sponsors assumed responsibilities for providing local office facilities, clerical assistance, funds, and a degree of public support for the program. Currently the public support and advisement responsibilities are vested in county, regional and state councils variously composed of appointed representatives from the major farm organizations, municipalities and elected representatives from the general public. The county courts (county commissions) provide the required local funds and variously influence what the local extension program will be.

III. Nature and Scope of The Study

The purpose of this study was to examine agricultural and community development extension in Missouri in an information macrosystem context. It is part of a broader effort to discover and understand alternative models to generate science based information and get it used. Agricultural extension in Missouri represents one example of a continually updated model that initially emerged and continues to exist in the land grant university setting. This system serves the needs of a clientele with readily identifiable problems for which much of the information generated from research done at the university is well suited. At the same time it represents a system which has frequently been labeled as traditional, elitist and pipeline in its approach (Bordenave, 1976; Beltran, 1976; Hightower, 1978; Rohling, Ascroft and Chege, 1976). This characterization, if accurate, would seriously limit the university's ability to supply information to farmers particularly those for whom information needs are uncertain and research findings are inadequate.

TABLE 1. NUMBER AND KIND OF SUBJECT MATTER SPECIALISTS ASSIGNED TO EXTENSION PROGRAM PLANNING AREAS IN MISSOURI 1977

Extension Planning Area—Number of Counties Served	Kind of Subject Matter Specialists Assigned to the Areas															
	Total	Farm Management	Livestock	Agri. Engineering	Agronomy	Dairy	Horticulture	Entomology	Family Farm*	Community Development	Local Government	Home Economics	Continuing Education	Business and Industry	Youth	Other**
Total	388	39	31	17	33	13	6	2	5	29	7	104	23	13	64	2
A.B.C.D.	4 22	2	1	1	2	5	1	—	—	1	—	5	1	1	2	—
Boonslick	3 9	1	1	1	1	—	—	—	—	1	—	2	1	—	1	—
Bootheal	7 26	2	1	1	4	—	1	2	—	1	—	8	1	—	5	—
D.O.W.	3 5	—	1	1	1	—	—	—	—	—	—	1	—	—	1	—
E-W Gateway	5 31	2	—	—	1	—	1	—	—	3	2	8	3	4	7	—
Green Hills	9 24	3	3	2	3	—	—	—	1	2	—	5	1	1	3	—
H.O.S.T.	4 11	1	1	—	1	1	—	—	—	1	—	3	1	—	1	1
Kansas City	5 33	2	2	—	1	1	1	—	—	3	1	8	2	3	9	—
Kaysinger Basin	6 15	2	1	1	1	1	—	—	—	1	—	4	1	—	3	—
Lakes County	10 31	2	2	1	2	3	1	—	1	2	1	10	1	—	5	—
Lake Ozarks	5 13	2	2	—	1	1	—	—	—	1	—	3	—	1	2	—
Mark Twain	8 26	2	3	2	2	—	1	—	1	2	—	7	1	1	4	—
Meramec	6 18	3	2	1	1	—	—	—	—	1	1	5	1	1	2	—
Mid Missouri	8 28	4	2	1	3	—	—	—	—	2	1	8	2	1	4	—
MO Valley	3 12	2	1	1	1	—	—	—	—	1	—	3	1	—	2	—
NE Missouri	5 12	2	1	1	2	—	—	—	—	1	—	3	1	—	1	—
NW Missouri	5 14	1	2	1	1	—	—	—	1	1	1	3	1	—	2	—
Ozark Foothills	5 7	1	2	1	1	—	—	—	1	1	1	3	1	—	2	—
Ozark Gateway	4 14	1	1	1	1	—	—	—	—	1	—	5	1	—	2	1
Showme	4 16	2	1	1	1	—	—	—	1	1	—	5	1	—	3	—
SE Missouri	7 21	2	2	—	2	1	—	—	—	2	—	6	2	—	4	—

* Faculty assigned responsibility for the Family Farm Program in the Area; academic specialty unknown

** Only agriculturalist designation reported

Community development extension provides a newer interface arrangement between the campus based informational resource system and information users in a situation where informational needs are less well defined, less well understood by researchers, and less well serviced, and where the information that is available is either not directly usable or usable only with considerable modification.

The focus in agricultural and community development extension is on the manner in which the field faculty (subject matter specialists) operate to service the informational needs of clientele, their underlying extension philosophies and the potential of the within-system interpersonal networks for helping put fragmented knowledge together on behalf of users. All issues are assessed in the context of the university based information macrosystem's ability to supply information to its clients and the validity of the alleged charges of dysfunctional consequences inherent in the way the system operates.

All agricultural and community development specialists were asked to complete questionnaires during the late summer and fall, 1977. Approximately 150 agricultural specialists and 36 community development specialists were available at that time. Of these, 131 and 36 respectively completed and returned questionnaires. With over 90 percent of their total number reporting, no statistical significance test were appropriate and none were computed. Most of the analyses required only contingency tables and simple statistics such as percentages, means, and medians.⁶ Semantic differential technique was used to assess the field staff's view of their relationships with their on-campus colleagues. Q-methodology was used to classify respondents on the basis of their reasons for getting into extension, the manner in which they operate in the field and their extension philosophy (Kerlinger, 1972; Stephenson, 1953).

Chapter 1 provides an introduction to problems of information development and use.

Chapter 2 looks at why the agricultural and community development specialists entered extension and how these reasons compare to job satisfactions.

Chapter 3 is concerned with extension philosophy. This provides the ideological base for the way the staff operates in the field.

Chapter 4 examines the role performance of the field staff, and the validity of the elitist and the pipeline extension charges sometimes made.

⁶Five local government specialists were included under the community development designation because of their limited number and because their mode of operation closely approximates the way community development specialists worked.

Chapter 5 addresses integration function issues in agricultural extension. A major emphasis is on how the informal interpersonal network among specialists contribute to the performance of this function.

Chapter 6 does for community development what Chapter 5 does for agricultural extension.

Chapter 7 takes a look at extension clientele, and

Finally, Chapter 8 is concerned primarily with summary, conclusions and implications of the study.⁷

⁷The linking role of the paraprofessional in an innovative Small Farm Family Program which employs methods to forestall increasing the gap between the "biggs" and the "littles" and thus lending support to the knowledge gap hypothesis (Tichenor, Donohue and Olien, 1970) and which makes use of recommended homophily - heterophily principles relative to farm advisor-client personal characteristics is the subject of a Missouri AES bulletin now in press.

Missouri Agricultural Experiment Station Research Bulletin 1033 by Lionberger, Pope and Reddy (1979) explains factors associated with high extension communication output of the social science faculty on the University of Missouri - Columbia campus and in two Taiwan universities plus their acceptance of land grant university concepts.

Another part of the ongoing information macrosystems research is directed to the University of Missouri - Columbia rural development program. It is viewed as an emerging appropriate model for university associated information, generation and use on behalf of clientele. The model has a potential for addressing informational needs much beyond the rural development context in which it is now being used (Wong, 1981).

CHAPTER 2

GETTING INTO EXTENSION FOR THE RIGHT REASON

Of the rewards that accrue from pursuing an occupation perhaps none are more important than the personal satisfactions that derive from doing the work itself and its consequences to others (Argyris, 1957; Likert, 1967; Lionberger, Pope and Reddy, 1980; Herzberg, 1968). Where rewards are high, they may partially compensate for low pay and the absence of other amenities. They provide an incentive for long hours of overtime work for which no monetary compensation is received. This is aside from the benefits that accrue to the extension service itself because of increased productivity.

Thus both the employee and the service can benefit from increasing personal on-job satisfaction. One way of increasing the prospects of this happening is to recruit people who are likely to enjoy their work. This can be done by encouraging proper selectivity for entering in the first place. To these ends, we examine:

- (1) reasons why the subject matter specialists got into extension,
- (2) the satisfactions that they derived from their employment,
- (3) how (1) and (2) are related,
- (4) what differences, if any, occurred between agricultural and community development specialists,
- (5) whether selectivity in hiring tended to occur in the "right" direction,
- (6) whether there appeared to be any emergent trends in reasons for getting into extension, and
- (7) Whether there were any differences between "oldtimers" and "newtimers" in regard to reasons for entering extension.

Respondents were divided into those who entered the service before 1960 (old timers) and those who entered 1960 or after (new comers). A new extension director in 1960 brought important changes in personnel policy, extension philosophy and organization. Before 1960, cooperative extension in Missouri was mainly the function of the Columbia campus and was concerned almost exclusively with agriculture and home economics. Beginning at that time the extension field staff and on campus faculty were strongly urged to get advanced degrees. Sabbatical leaves were granted to enable them to do so. Pay for the field staff was brought in line with that of the on-campus faculty as an additional incentive.

Multi-county extension administrative districts staffed with specialists gradually replaced the old generalist county agent. Community development and other non-agricultural specialties were added. Extension responsibilities were extended to all divisions of the University.

I. Occupational Choice in Society

In a society where achieved status predominates over ascribed, where the consequences of occupational choice has status and personal consequences much beyond "making a living", and where individuals are relatively free to choose the positions they wish to enter, choices are likely to be made for a variety of reasons. Some relate to the occupation itself, some to situational matters, and some to purely personal and social concerns.

Things Considered in Choosing (Attributes of the Occupational Choice)

Previous studies have shown that self-actualization, personal recognition, characteristics of the work, chances for advancement, status, pay, working conditions, relationships with peers, superiors and subordinates, security, personal life, etc. all contribute, more or less, to job satisfaction or dissatisfaction. These considerations were stated in 23 statements for assessing the importance of reasons for entering extension.

1. Good beginning pay.
2. Chance for advancement.
3. Working with people.
4. Working with things.
5. Work involving much use of tools and machine.
6. Work requiring much physical activity.
7. Work that requires much thinking about ideas.
8. Work that requires managing people.
9. Work requiring much responsibility for people and money.
10. Being able to keep the job as long as I want to.
11. Work out of doors.
12. Work inside (office).
13. Service to humanity.

14. How important people feel the occupation is.
15. Good retirement plan.
16. Being own boss.
17. How own interests and abilities fit in.
18. Openings in the field.
19. Selling ideas or things.
20. Kind of people one would likely be working with.
21. Opportunity to become involved in developmental work or helping people.
22. Little else available.
23. Personal situational reasons.

A set of conditions similar to the 23 reasons for entry were used to measure current job satisfaction. However, the questions were asked in slightly different way because the conditions for entering and in-position satisfaction were not always precisely the same. The conditions or occupational attributes on the satisfactions list included:

1. Pay.
2. Prospects for professional advancement.
3. Retirement plan.
4. Local living conditions.
5. Pleasure one gets from helping people with their problems.
6. The people one is associated with at work.
7. Opportunity to express own interests and concerns.
8. Security of tenure.
9. Location of the work.
10. The importance the incumbent attaches to his work.
11. The importance one thinks others attach to the work.
12. The opportunity that it provides for self education.
13. Personal satisfaction and fulfillment from work.

The 23 conditions for entering extension and the 13 potential sources of job satisfaction were stated in self-referent modified Q-sort form so that respondents could rate them in terms of their relative importance in relation to self. The modified Q-sort form is slightly different from ordinary Q-sorts described by Kerlinger (1973). For the 23 statements, respondents were asked to check first whether the conditions stated were very important, important, of little importance, or not a consideration. Then they were asked to pick first, second and third most important reasons for entering extension.

For the 13 statements for current job satisfaction, respondents were asked to check first whether they were a strong plus, a moderate plus, neither plus nor minus or a negative consideration. They were then asked to select, among the 13 statements, the one they considered the biggest plus, the next biggest plus, the least appealing, and the next least appealing. This provided a seven-category rating scale for the 23 statements and an eight-category one for the 13 statements. Also the rating scale for getting into extension was a none to very important scale rather than a strongly disagree through neutral to strongly agree scale with the midpoint basically neutral.⁸

At about the time many of our subject matter specialists were entering college, freshman at the University of Missouri-Columbia were asked to rate basically the same 23 attributes in terms of their own occupational ideal, i.e., how important they would regard each in selecting an occupation for themselves. This provided an opportunity to compare occupational ideals of entering male university freshman to those of our extension staff for getting into extension (Gregory and Lionberger, 1967).

What Earlier College Freshman Contemporaries Were Looking For

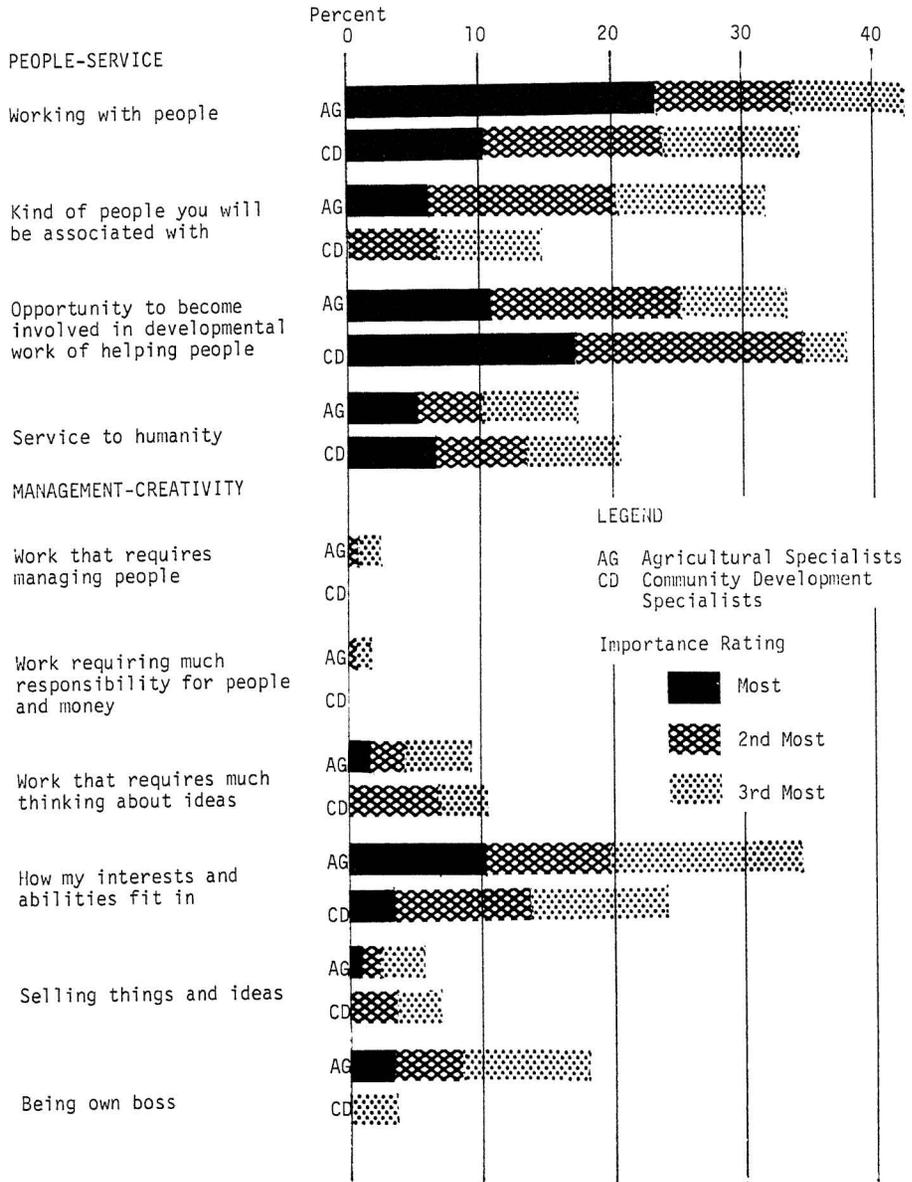
First we note what the 1964 entering college freshman saw as the occupational ideal. Four types emerged when their ratings were subjected to factor analysis; namely, Materialistic Doer, Management Creativity, Extrinsic Reward and Personality Fulfillment (Gregory and Lionberger, 1964, Lionberger and Heifner, 1969).

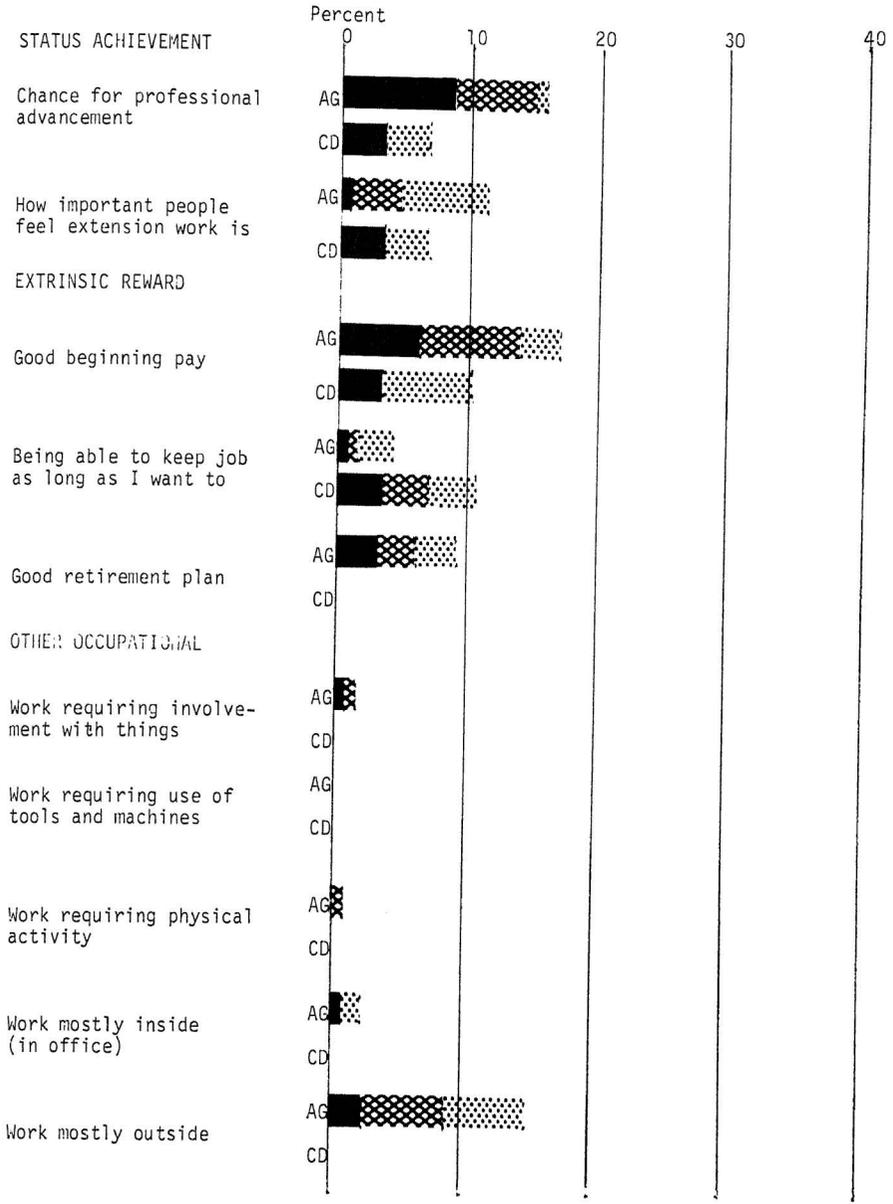
The occupational attributes emphasized by each were:

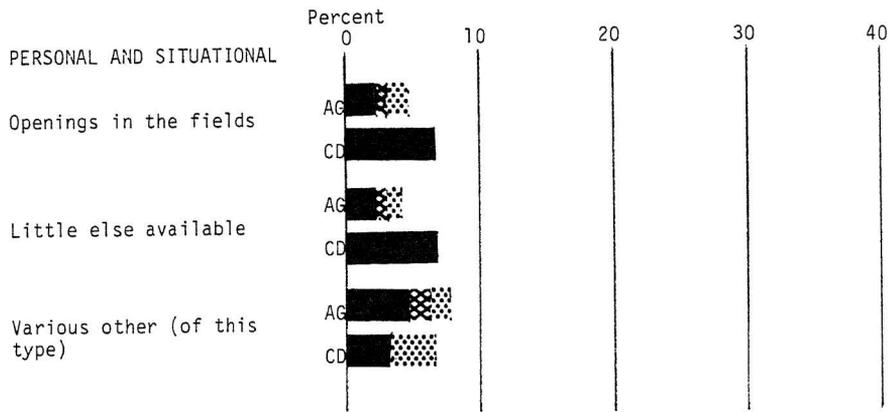
1. Materialistic Doer -- work requiring much physical activity, work out-of-doors, working with things, also use of tools and machines.

⁸Traditionally, and with few exceptions Q-sorts have been card sorting operations administered to small samples of persons selected for maximum diversity (Stephenson, 1953). For large samples this can be tedious and difficult. Our approach was to incorporate a modified Q-sort arrangement into the questionnaire which was administered to all extension field staff.

FIGURE 1: IMPORTANCE ATTACHED TO OCCUPATIONAL ATTRIBUTES BY AGRICULTURAL AND COMMUNITY DEVELOPMENT SPECIALISTS IN CHOOSING EXTENSION WORK







2. Management Creativity Oriented -- work that requires managing of and responsibility for people and money, selling ideas or things, working with people, thought, development of ideas and work associates.
3. Extrinsic Reward Oriented -- good retirement plan, good beginning pay, chance for advancement, being able to keep the job as long as desired, jobs available in the field.
4. Personality Fulfillment Oriented -- service to humanity, how own interests and abilities fit in, how important people feel the occupation is, people with whom one would be associated.

Even though Personality Fulfillment, Extrinsic Reward, and Management Creativity types of thinking were somewhat more prevalent than the Materialistic Doer, the last were substantial in number (Lionberger and Heifner, 1969). But the ultimate question was which ones tended to get into extension.

II. What the Extension Specialists Were Looking For

Now we turn to the importance that our 129 agricultural subject matter and 29 CD specialists assigned to each of the 23 occupational attributes.⁹ A graphic representation of most, second and third most important reasons are reported in Figure 1. More detail is reported in tables 2 and 3.

In General

For those in community development "opportunity to become involved in developmental work" headed the list by a small margin over "working with people". Thirty four percent gave this as either a first or second most (important) reason. The comparable percentage for working with people was 24.1. For agricultural specialists opportunity to work with people was first (44.0%). Thus, opportunity to work with people and to become involved in developmental work were the top considerations for both agricultural and CD specialists.

If we add to these "service to humanity" (10.2% for agricultural and 13.8% for CD specialists) a predominant humanitarian orientation is clearly apparent. For the rank and file of the extension staff, some mix of these three elements far outweighed any other reasons for entering extension.

⁹From this point on CD is used interchangeably to refer to community development.

TABLE 2: AGRICULTURAL SPECIALISTS CLASSIFIED BY THE IMPORTANCE THEY ATTACHED TO REASONS FOR ENTERING EXTENSION WORK IN MISSOURI

Categories and Specific Reasons for Entering Extension Work	Total (%) (N=127)	Importance							NA*
		Not A Consideration	Of Little Importance	Important	Very Important	3rd Most Important	2nd Most Important	Most Important	
PEOPLE-SERVICE									
Working with people	100	0.8	4.7	42.3	8.7	8.7	10.2	23.8	0.8
Kind of people you will be associated with	100	1.6	7.9	42.4	14.2	11.0	14.2	6.3	2.4
Opportunity to become involved in developmental work or helping people	100	0.8	7.1	47.2	10.2	7.9	14.2	11.0	1.6
Service to humanity	100	3.0	9.4	60.0	11.0	7.1	4.7	5.5	2.4
MANAGEMENT-CREATIVITY									
Work that requires managing people	100	20.5	37.8	32.3	3.1	1.6	0.8	0.0	3.9
Work requiring much responsibility for people and money	100	16.5	36.3	35.4	6.3	0.8	0.8	0.0	3.9
Work that requires much thinking about ideas	100	3.1	11.0	62.2	12.6	4.7	2.4	1.6	2.4
How my interests and abilities fit in	100	1.6	3.1	47.3	13.4	14.2	9.4	10.2	0.8
Selling things and ideas	100	7.1	22.0	52.0	10.2	3.1	1.6	0.8	3.2
Being own boss	100	6.3	19.7	41.0	12.6	9.4	5.5	3.1	2.4
STATUS ACHIEVEMENT									
Chance for professional advancement	100	10.2	22.0	44.1	4.7	0.8	6.3	8.7	3.2
How important people feel extension work is	100	7.9	24.4	52.0	3.9	5.5	3.9	0.8	1.6

TABLE 2: (Cont'd)

Categories and Specific Reasons for Entering Extension Work	Total (%) (N=127)	Importance							NA*
		Not A Consideration	Of Little Importance	Important	Very Important	3rd Most Important	2nd Most Important	Most Important	
EXTRINSIC REWARD									
Good beginning pay	100	11.0	26.0	41.7	1.6	3.1	7.9	6.3	2.4
Being able to keep the job as long as I want to	100	11.8	26.8	45.5	7.9	2.4	0.8	0.8	4.0
Good retirement plan	100	9.4	23.6	52.2	3.9	3.1	3.1	3.1	1.6
OTHER OCCUPATIONAL									
Work requiring									
Involvement with things	100	24.4	29.9	37.0	4.7	0.0	0.8	0.8	2.4
Use of tools and machines	100	62.2	29.9	4.7	0.8	0.0	0.0	0.0	2.4
Physical activity	100	40.2	43.2	12.6	0.8	0.0	0.8	0.0	2.4
Work mostly inside (in office)	100	22.0	52.7	19.7	0.0	1.6	0.0	0.8	3.2
Work mostly outside	100	0.8	9.4	59.8	13.4	6.3	6.3	2.4	1.6
PERSONAL AND SITUATIONAL									
Openings in the field	100	7.1	28.3	54.3	3.9	1.6	0.8	2.4	1.6
Little else available	100	49.5	33.9	9.4	0.0	0.8	0.8	2.4	3.2
Various other (of this type)	100	34.6	34.6	17.3	2.4	1.6	1.6	4.7	3.2

*Here and hereafter NA refers to information not ascertain

TABLE 3: CD SPECIALISTS CLASSIFIED BY THE IMPORTANCE THEY ATTACHED TO REASONS FOR ENTERING EXTENSION WORK IN MISSOURI

Categories and Specific Reasons for Entering Extension Work	Total (%) (N=127)	Importance							NA*
		Not A Consider- ation	Of Little Importance	Impor- tant	Very Impor- tant	3rd Most Impor- tant	2nd Most Impor- tant	Most Impor- tant	
PEOPLE-SERVICE									
Working with people	100	3.4	0.0	27.6	34.5	10.3	13.8	10.3	0.0
Kind of people you will be associated with	100	0.0	6.9	62.1	17.2	6.9	6.9	0.0	0.0
Opportunity to become involved in developmental work or helping people	100	0.0	6.9	41.5	13.8	3.4	17.2	17.2	0.0
Service to humanity	100	3.4	6.9	34.5	31.0	6.9	6.9	6.9	3.4
MANAGEMENT-CREATIVITY									
Work that requires managing people	100	17.2	58.8	17.2	3.4	0.0	0.0	0.0	3.4
Work requiring much responsibility for people and money	100	27.6	31.0	34.6	3.4	0.0	0.0	0.0	3.4
Work that requires much thinking about ideas	100	3.4	17.2	34.6	34.5	3.4	6.9	0.0	0.0
How my interest and abilities fit in	100	0.0	3.4	38.0	34.6	10.3	10.3	3.4	0.0
Selling things and ideas	100	13.8	17.2	45.0	13.8	3.4	3.4	0.0	3.4
Being own boss	100	3.4	20.7	45.0	24.1	3.4	0.0	0.0	3.4
STATUS ACHIEVEMENT									
Chance for professional advancement	100	10.3	24.2	38.1	17.2	3.4	0.0	3.4	3.4
How important people feel extension work is	100	13.8	17.2	48.4	6.9	3.4	0.0	3.4	6.9

TABLE 3: (Cont'd)

Categories and Specific Reasons for Entering Extension Work	Total (%) (N=127)	Importance							NA*
		Not A Consideration	Of Little Importance	Important	Very Important	3rd Most Important	2nd Most Important	Most Important	
EXTRINSIC REWARD									
Good beginning pay	100	17.2	31.1	38.0	0.0	6.9	0.0	3.4	3.4
Being able to keep the job as long as I want to	100	20.8	10.3	38.1	17.2	3.4	3.4	3.4	3.4
Good retirement plan	100	17.2	24.1	48.4	6.9	0.0	0.0	0.0	3.4
OTHER OCCUPATIONAL									
Work requiring									
Involvement with things	100	41.4	38.0	17.2	0.0	0.0	0.0	0.0	3.4
Use of tools and machines	100	72.6	17.2	3.4	3.4	0.0	0.0	0.0	3.4
Physical activity	100	55.3	27.6	10.3	3.4	0.0	0.0	0.0	3.4
Work mostly inside	100	31.0	51.8	6.9	6.9	0.0	0.0	0.0	3.4
Work mostly outside	100	31.1	27.6	27.6	10.3	0.0	0.0	0.0	3.4
PERSONAL AND SITUATIONAL									
Openings in the field	100	3.4	31.1	34.5	20.7	0.0	0.0	6.9	3.4
Little else available	100	51.8	24.1	13.8	0.0	0.0	0.0	6.9	3.4
Various other (of this type)	100	34.6	24.2	20.7	3.4	3.4	0.0	3.4	10.3

Occupation is a means of self-expression and self-fulfillment for the professions. Thus it is not surprising that "how my abilities and interests fit in" was second only to the predominant humanitarian concerns for entry. If first, second and third most important considerations are combined as indicators, the percentage adds to 24.0 for CD specialists and 33.8 for those in agriculture (See Figure 1). But for both, self-expression was found more in working with people than in endeavors looking to own status achievement.

Another set of occupational attributes were closely associated with status achievement or upward social mobility. These included "beginning pay", "chances for advancement", and "the kind of people one will likely be associated with". Although none of these were frequently accorded first or even second order importance, agricultural specialists were much more concerned about beginning pay and upward mobility than CD specialists.

Heading the "not a consideration" list for both agricultural specialists (62.2%) and CD specialists, (72.6%) was work that required use of tools and machines. Other than the escapest "little else available" reason, work requiring much physical labor came next on the "not a consideration" list for both. The percentage for CD specialists (55.3%) was a little higher than for agricultural specialists (40.2%).

Another occupational attribute at the low end of the continuum was opportunity to manage people. The percentage placing it at the low end was a little higher for CD (76.0%) than for agricultural specialists (58.3%). A great majority of both groups regarded work requiring much responsibility for people and money of little or no importance. The helping role was obviously more important to them.

Three-fourths or more of each group surveyed regarded working inside, presumably in an office, of little or no importance. But in marked contrast almost 90% of the agricultural specialists rated working outside as important or higher. The vast majority of the CD specialists (58.7%) rated it of little importance.

Job security, beginning pay, retirement plan, being own boss, openings in the field, selling ideas and things were low or intermediate concerns.

Newer employees of the extension service, those who entered since 1960, were likewise more concerned with pay and independence than the oldtimers (see appendix tables 1a and 1b). About 72 percent (71.6) of the newtimers considered beginning pay as important or very important compared to 53.2% of the oldtimers; 80% of the newtimers considered "being one's own boss" as important or very important compared to 65.6% of the oldtimers. A little over 28 percent of the newtimers gave "work inside" an important or very important rating. Only 15.7% of the older recruits did so. Somewhat in contrast to "beginning pay" more older recruits than the newer ones were concerned with "opportunity for advancement". Comparable important or very important ratings were 75% and 55%, respectively.

Choice Types

Next we asked whether the differences in relative importance assigned to reasons for entering extension by the field staff were such that they could be classified into relatively homogeneous types, and if so,

- (1) what they were like and
- (2) what resemblance, if any, they bore to the idealized views of an occupation held by freshman students when many of the presently employed specialists were making their occupational decisions, and
- (3) how reasons for getting into extension by types compared to on-job satisfactions.

To address the first question the relative importance that each respondent assigned to the 23 occupational attributes were subjected to factor analysis. A five factor solution provided the most internally consistent and logical classification of respondents; namely, people, prestige, development, self fulfillment and status achievement orientations.

Although intercorrelations among types were high (up to .71) there were few high rated consensus views (i.e. where item z-score differences among the entry types on views were less than one). Even these few consensus views were regarded by most as relatively unimportant. The low rated consensus items included work requiring physical activity, tools, inside or outside work, managing or responsibility for people. Differences in priorities assigned to each of the attributes reported in Table 4 provided the basis for describing the types which emerged, the descriptions of which follow.

1. People Oriented - This type of subject matter specialists was distinguished by a very strong people orientation. The 3.40 score accorded "opportunity to work with people" required almost complete agreement that this was the most important consideration for entering extension. Although much lower by comparison, the people oriented specialists, more than others, preferred an occupation that would permit the thoughtful consideration of ideas.

Like many others, they regarded being one's own boss and how own interests and abilities fit in, highly important. With service to humanity and opportunity to become involved in developmental work also very important, humanitarian and service orientation took strong precedence over self serving intentions.

2. Prestige Oriented - For the prestige oriented subject matter specialists social status and social climbing tended to take precedence, thus the very high importance placed on the pre-

TABLE 4: Z-SCORE IMPORTANCE RATINGS ASSIGNED TO OCCUPATIONAL ATTRIBUTES AS REASONS FOR ENTERING EXTENSION BY AGRICULTURAL AND CD SPECIALISTS IN EXTENSION CLASSIFIED BY FACTORED TYPES FOR ENTRY

Occupation Attributes (Kinds and Specifics)	Factored Types				
	People Oriented (z-score)	Prestige Oriented (z-score)	Development Oriented (z-score)	Self Fulfillment Oriented (z-score)	Status Achievement Oriented (z-score)
PEOPLE-SERVICE					
Working with people	3.40	0.30	1.64	0.38	1.55
Kind of people you will be associated with	0.42	1.98	0.53	-0.28	1.71
Service to humanity	0.63	0.03	1.58	0.13	0.26
MANAGEMENT-CREATIVITY					
Work that requires managing people	-0.71	-0.81	-0.28	-0.83	-0.34
Work requiring much responsibility for people and money	-0.67	-0.53	-0.33	-0.57	-0.89
Work that requires much thinking about ideas	1.00	0.49	0.43	0.70	-0.02
How my interests and abilities fit in	0.66	0.81	0.51	2.09	1.39
Selling things and ideas	0.31	-1.08	0.71	-0.65	0.11
Being own boss	0.77	-0.46	-0.03	1.98	0.12
STATUS ACHIEVEMENT					
Chance for professional advancement	-0.13	-0.49	0.15	-0.59	2.62
How important people feel extension work is	0.34	2.02	0.22	-0.34	-0.33
EXTRINSIC REWARD					
Good beginning pay	-0.33	-1.10	-0.36	0.41	0.50
Being able to keep the job as long as I want to	0.00	0.96	-0.45	1.31	-0.62
Good retirement plan	-0.01	0.95	-0.38	-0.18	0.02
OTHER OCCUPATIONAL					
Work requiring					
Working with things	-0.52	-1.30	-0.77	-1.27	-0.95
Use of tools and machines	-1.29	-1.89	-1.14	-1.36	-1.29
Physical activities	-1.06	-1.17	-1.07	-1.04	-0.95
Work mostly inside (in office)	-1.01	-0.47	-1.01	-1.20	-0.60
Work mostly out of doors	0.28	0.13	-0.55	-0.59	-0.16
PERSONAL AND SITUATIONAL					
Openings in the field	0.02	0.53	-0.22	0.85	-0.26
Little else available	-1.37	-0.21	-1.27	-0.28	-1.16
Various other (of this type)	-1.16	1.16	-0.91	-0.35	-1.24

sumed importance other people place on the job and the "kind of people that they would be associated with".

Next in close order of importance were job security and things of a personal situational nature. Only the self-fulfillment oriented faculty placed a higher priority on the "good retirement plan" attribute. All of this was in distinct contrast to all other types for whom attributes inherent to the occupation itself were central.

3. Development Oriented - For them, opportunity to become involved in developmental work and in helping people, far outweighed all other reasons for entering extension. This was supplemented by a strong emphasis on working with people and service to humanity.

The strong developmental interest carried an impatience with the status quo. This view was further fortified by a high importance placed on opportunity to sell ideas and things.

Along with these concerns, but not central, were the kind of people one would become associated with. How own abilities and interests fit in and opportunity to become involved in thinking about ideas.

Finally, it is no wonder that physical activity, tools, working inside or outside and such matters as "nothing else available" were virtually off the list as a consideration.

4. Self Fulfillment Oriented - The self fulfillment oriented staff displayed a kind of self centeredness not manifest in any of the others. For them how interests and abilities fit in and being one's own boss were strong and central. But also high were opportunities to become involved in developmental work and helping people.

As for most, such considerations as opportunity to work with things, tools or inside-outside were very low on the priority scale. A concern for work requiring physical activity was almost as low.

5. Status Achievement Oriented - This orientation was characterized by a very high emphasis on chances for in-position advancement and a secondary concern for work associates. Down the line, but nevertheless still of high priority, was the concern with how own interests and abilities fit in. As for most other types, the fatalistic "little else available" attribute and matters of a personal situational nature were very low on the considered list.

What The Staff Wanted Compared to What Their 1964 Freshman Student Contemporaries Wanted

Either the college experience of the freshman students socialized them away from the predominant Materialistic Doer way of thinking (1964) or Materialistic Doers did not choose to enter extension. All that appeared to remain of this type was a lingering preference of agricultural specialists for work out of doors. The concern for working with tools and things was gone; likewise, the good beginning pay, occupational security and good retirement plan concerns of the Extrinsic Reward oriented freshmen. These receded to matters of little importance in choosing to enter extension. Humanitarian and service concerns came to the fore. Thus the Materialistic Doer and Extrinsic Reward types which appeared among freshmen were distinctly absent from our extensionists ranks.

For the Management Creativity ideal type of the freshman years the results were mixed. Desire to manage or assume responsibility for people or things did not emerge as highly important for any group, nor did any group appear to be unduly excited about intellectual matters. But such peripheral attributes of this idealized view as "service to humanity" and "desire to work with people" achieved positions of dominance in the occupational choices of the Missouri extension specialists.

There was some similarity between the self fulfillment extension specialist and the personality fulfillment oriented freshman students. Both had strong desires for an occupational experience that would permit personal fulfillment as indicated by a shared strong concern for how own interests and abilities would fit in. But self-fulfillment for our extension specialists seemed to be found in developmental work and helping people.

In general, humanitarian orientations came to the fore and situational and self-serving concerns receded in importance. Whether this occurred as a result of the socializing influences of the college experience or by self selection, we cannot say. But the important thing to note as we turn to a look at in-position satisfactions is the selectivity that did occur greatly enhanced prospects for satisfactions from doing those things most central to extension; namely helping people.

III. Satisfactions Obtained From the Extension Assignment

First we look at the sources from which in-position satisfactions were derived and secondly how this compared by types with reasons for entering extension (see tables 2 and 3). Most and next most sources of satisfaction for each are graphically illustrated in Figure 2 (for more detail, see tables 5 and 6).

FIGURE 2: RELATIVE AMOUNT OF SATISFACTION RECEIVED FROM DESIGNATED SOURCES BY AGRICULTURAL AND COMMUNITY DEVELOPMENT SPECIALISTS

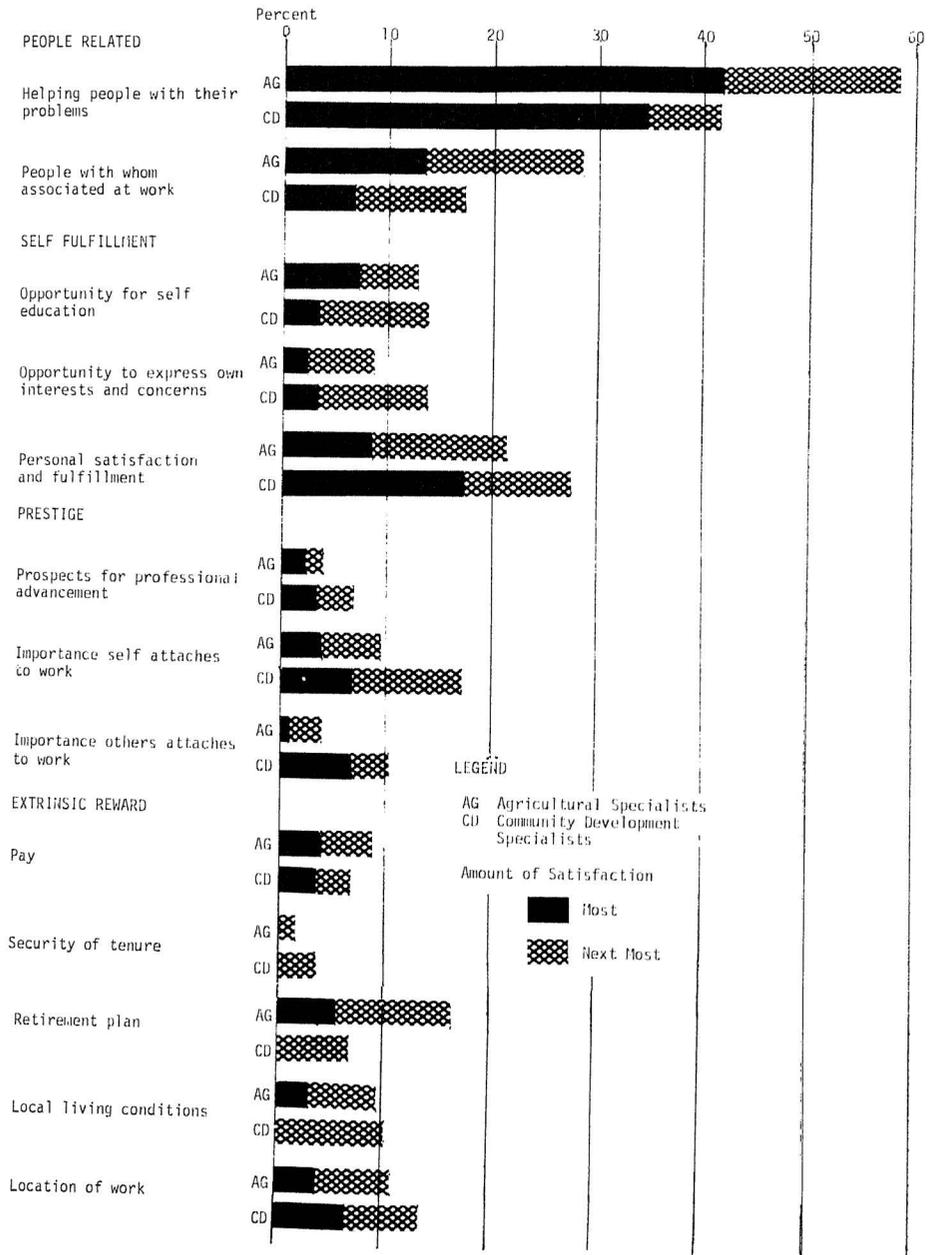


TABLE 5: PERCENT OF AGRICULTURAL SPECIALISTS CLASSIFIED BY AMOUNT OF PRESENT OCCUPATIONAL SATISFACTION FROM DESIGNATED SOURCES

Source	Amount of Dissatisfaction - Satisfaction									
	Total (%) (N=127)	Strong- est Ne- gative	Next Strong- est Ne- gative	Ne- ga- tive	Neither Plus nor Minus	Moder- ate Plus	Strong Plus	Next Strong- est Plus	Strong- est Plus	NA
PEOPLE RELATED										
Helping people with their problems	100	0.0	0.8	0.0	1.6	22.8	15.7	16.5	41.8	0.8
People with whom associated at work	100	0.0	2.4	0.0	5.5	38.5	23.6	15.0	13.4	1.6
SELF FULFILLMENT										
Opportunity for self education	100	1.6	2.4	0.0	12.6	48.0	22.0	5.5	7.1	0.8
Opportunity to express own interests and concerns	100	1.6	1.6	1.6	8.7	50.2	26.8	6.3	2.4	0.8
Personal satisfaction and fulfillment	100	0.0	0.0	0.8	5.5	42.5	29.1	12.6	8.7	0.8
PRESTIGE										
Prospects for professional advancement	100	20.5	20.5	3.1	17.3	32.2	1.6	1.6	2.4	0.8
Importance self attaches to work	100	1.6	1.6	0.0	8.7	42.5	34.6	5.5	3.9	1.6
Importance others attach to work	100	9.4	7.9	1.6	13.4	45.7	17.3	3.1	0.8	0.8
EXTRINSIC REWARD										
Pay	100	28.4	15.0	3.1	12.6	26.8	4.7	3.9	3.9	1.6
Security of tenure	100	18.1	12.6	7.1	15.0	29.0	14.2	1.6	0.0	2.4
Retirement plan	100	1.6	5.5	1.6	7.1	47.2	18.9	11.0	5.5	1.6
Local living conditions	100	4.7	7.9	4.7	13.4	34.7	24.4	6.3	3.1	0.8
Location of work	100	3.9	7.1	0.8	12.6	37.8	25.2	7.1	3.9	1.6

TABLE 6: PERCENT OF CD SPECIALISTS CLASSIFIED BY AMOUNT OF PRESENT OCCUPATIONAL SATISFACTION FROM DESIGNATED SOURCES

Source	Amount of Dissatisfaction - Satisfaction									
	Total (%) (N=29)	Strong- est Ne- gative	Next Strong- est Ne- gative	Ne- ga- tive	Neither Plus nor Minus	Moder- ate Plus	Strong Plus	Next Strong- est Plus	Strong- est Plus	NA
PEOPLE RELATED										
Helping people with their problems	100	3.4	0.0	0.0	6.9	27.6	20.7	6.9	34.7	0.0
People with whom associated at work	100	0.0	0.0	3.4	6.9	27.6	44.9	10.3	6.9	0.0
SELF FULFILLMENT										
Opportunity for self education	100	0.0	3.4	0.0	17.2	34.7	27.6	10.3	3.4	3.4
Opportunity to express own interests and concerns	100	0.0	3.4	0.0	6.9	31.0	41.6	10.3	3.4	3.4
Personal satisfaction and fulfillment	100	0.0	3.4	0.0	3.4	38.1	27.6	10.3	17.2	0.0
PRESTIGE										
Prospects for professional advancement	100	31.2	20.7	6.9	13.8	10.3	10.3	3.4	3.4	0.0
Importance self attaches to work	100	0.0	0.0	0.0	3.4	24.1	51.7	10.3	6.9	3.4
Importance others attach to work	100	3.4	13.8	3.4	31.2	24.1	13.8	3.4	6.9	0.0
EXTRINSIC REWARD										
Pay	100	17.2	10.3	3.4	20.8	34.7	3.4	3.4	3.4	3.4
Security of tenure	100	31.1	20.7	6.9	13.8	17.2	6.9	3.4	0.0	0.0
Retirement plan	100	0.0	3.4	3.4	13.8	38.1	31.0	6.9	0.0	3.4
Local living conditions	100	0.0	6.9	3.4	17.2	41.6	17.2	10.3	0.0	3.4
Location of work	100	3.4	3.4	3.4	6.9	45.0	20.7	6.9	6.9	3.4

Sources of Satisfaction. "Helping people with their problems" was by far the strongest source of job satisfaction for both agricultural and CD specialists. However, percentages were somewhat higher for the former (41.8%) than for the later (34.7%). But when "next strongest plus" ratings were added to the "strongest" for agricultural specialists the resulting 58.3% places "helping people with their problems" far above other sources of satisfaction. The combined most and second most mentions were at least three times higher than for the second rated "persons with whom one is associated at work" (see figure 2 and tables 5 and 6).

"Personal satisfaction and fulfillment" with 21.3% of the strongest and next strongest plus mentions would rate third in order. Another 29.1% rated it a strong plus. Another source high on the list was the importance that staff members themselves attached to extension work.

For CD specialists also, any source of satisfaction that would even remotely rival the first place "helping people with their problems" had to be sought in the "strong plus" category. By this measure the "importance that one attaches to extension work" would best qualify for the second order position. "Pleasure derived from associating with work associates" followed in close order. Other sources high by this secondary measure were the opportunity that extension provided "to express own interests and concerns" and for "own self fulfillment".

For both agricultural and CD specialists dissatisfaction centered primarily on three things - (1) prospects for professional advancement, (2) security of tenure, and (3) pay (see tables 5 and 6). Over half (51.8%) of the CD specialists designated "security of tenure" as their strongest (first and second) source of dissatisfaction. About an equal number (51.9%) rated "prospects for professional advancement" in this strongly negative position. Pay was at the top of the dissatisfaction list for agricultural specialists (43.4% by the same measure). But "prospects for professional advancement" was a close contender (41.0%). Other than some concern about the importance they thought that others attach to extension work, sources of dissatisfaction were few and obviously greatly overshadowed by satisfactions.

Newcomers to agricultural extension (the sixty with less than 15 years of service) derived the greatest satisfactions from about the same sources as the oldtimers (those with 15 or more years of service). Both rated "helping people with their problems", as distinctly the strongest plus (see appendix tables 2a and 2b). Even though the highest plus percent for the long tenured specialists (46.8%) was a little higher than for the shorter tenured ones (38.4%), they evened out at about 59 percent when the next strongest plus percentages are added.

However, at a secondary level of importance there were some variations. A few more of the new recruits (33.3%) than the older ones (25.0%) derived first and second most satisfactions from "persons with whom they were associated at work." By the same criteria, more of the

newer recruits than the old ones (18.4% and 6.3%, respectively) extolled "opportunity for self education."

Conversely, a few more of the old (29.7%) than the new recruits (13.3%) got first and second most satisfaction from self fulfillment on the job; and as might be expected, from the retirement plan that the job offered, 21.9 and 8.4 percent, respectively.

The two sources of greatest dissatisfaction for the shorter tenured specialists (measured by what they said dissatisfied them "most" and "second most") were: "pay" (48.4%) and "lack of security of tenure on the job" (41.7%). For the older recruits "prospects for advancement" was first (45.3%) and "pay" (40.6%) second.

How Satisfactions Compared with Reasons for Getting in. This type of comparison can be sharpened by looking at satisfactions obtained by each of the entry types. Details by type are reported in appendix tables 3a through 3d. But the concern in their text is with the more salient observations and their implications for recruitment of the extension staff and their in-field job performance.

A look at satisfactions derived in each case is preceded by a brief reminder of main reasons for entry into extension.

For the People Oriented Specialists - The people oriented staff got into extension for an "opportunity to work with people." Although much less important, they looked forward to an opportunity to serve humanity and to become involved in developmental work. "Being one's own boss" and "how one's own abilities fit in" were positively rated but not highly salient.

In accord with their most salient initial expectations they got most satisfaction from helping people with their problems. This of course was congruent with the chief concern for getting into extension in the first place. The total of their most and second most satisfaction mentions was 64.8 percent. Just under 30 percent rated "people with whom they would be associated at work" at the combined most and second most level and 20.6 percent "opportunity to express one's own interests and concerns." The last two percentages were the highest for any group. Thus, the entry expectations of the people oriented specialists were essentially fulfilled from satisfactions on the job.

For the Prestige Oriented Specialists - The two most salient reasons that prestige oriented specialists selected for entering extension were the "importance that they thought the staff thought others attached to extension" and the "kinds of people with whom they would be associated at work." But neither provided a high source of satisfaction. Satisfactions that come from "helping people with their problems" headed their list. This was true even though their 41.2 percent strongest plus, next strongest figure was substantially lower than for either the "people" or "development oriented" specialists. Thus, they entered extension mostly for one set of reasons and derived their satisfaction from others.

For the Development Oriented Specialists - The most salient reason for development oriented specialists getting into extension was perceived "opportunity to become involved in developmental work." Like the people oriented specialists, they got most satisfaction from "helping people with their problems." They derived a lower order of satisfaction (as indicated by the most and second most mentions) from the opportunity provided to "express their own interests and concerns."

Both were congruent with their priority reasons for entering extension. Thus like the people oriented specialists, the development oriented ones found most satisfaction in basically the same salient reasons as they got into extension for in the first place.

For the Self Fulfillment Oriented Specialists - The top entry considerations selected by specialists who were self fulfillment oriented were, "how own abilities and interests fit in" and "being one's own boss." "Opportunity to become involved in development work" rated lower, but important. To the extent that they sought and expected satisfaction through self expression, the extension assignment did not appear to be highly rewarding. The satisfaction that comes from helping people with their problems was highest for them but lower than for any group. In general, reasons for getting into extension and sources of occupational satisfaction were less congruent for this group than any other and probably at the same time most diffuse.

For the Status Achievement Oriented Specialists - High priority reasons selected by status achievement oriented specialists for entering extension were: (1) the chances that extension presumably provided for professional advancement and (2) the people they would be associated with at work. Strong occupational satisfaction came only from the last. Those looking primarily for opportunity for professional advancement in extension apparently found no cause for satisfaction. In fact, prospects for professional advancement and pay were their most and second most salient sources of dissatisfaction. Again high order satisfaction came mostly from helping people with their problems (52.7% by the most and second most mentions criteria). Thus, for the most part they got into extension for one set of reasons and obtained satisfactions mostly from others.

IV. Observations and Implications

The "Materialistic Doer" contingent of the 1964 freshmen of the University of Missouri (Columbia Campus) who were looking forward to jobs requiring physical activity outdoors and working with things, tools and machines were notably absent from the current extension staff. Indeed it is well that they either changed their minds or didn't choose to work in extension. Even though some of the agricultural specialists retained a preference for working out of doors, this provided neither a major source of in-position satisfaction nor a reason for getting into extension in the first place.

Of the occupational ideals that the 1964 freshmen had in mind those of the "materialistic doers" were most absent among the reasons given by the extension staff for entering extension. There were vestiges of the freshmen "management creativity" and "self fulfillment" ways of thinking present. But in general, humanitarian reasons for entry came to the fore and "extrinsic reward" and self serving ones receded in importance.

Of the factorially defined types of extension specialists based on reasons for entering extension only the "people service" and the "development oriented" specialists achieved high on-job satisfactions from the same occupational conditions as those rated high as reasons for getting into extension. For both high priority entry considerations and sources of satisfaction centered around working with people. Although by all odds at the top of the list for both, people service emphasis was somewhat higher for agricultural than CD specialists.

Thus, students who contemplate a career in extension are reminded that satisfaction from their work is most likely to be first and foremost enhanced by a very strong desire to work with people in a developmental context as reasons for entering. Those interested primarily in own self-fulfillment, opportunity to learn on the job or quick professional advancement may not find the satisfactions they had hoped for unless they can get it from their opportunity to help people either within or outside of a developmental context. Perhaps those with self oriented inclinations are best advised to seek other occupational alternatives.

CHAPTER 3

PHILOSOPHY: THE IDEOLOGICAL COMPONENT OF EXTENSION

Underlying philosophy provides the ideological base from which an extension program proceeds. At the system level it provides a justification for what is prescribed on the one hand and reasons for and direction of changes that need to be implemented on the other. For the practitioner in the field, it provides broad guidelines for doing what one does and evaluation of its worth. At issue here are the salient features of philosophies held by the field staff, the variations that exist, and the implications of their existence.

I. Problems and IssuesSearch for Views

The first problem encountered was to determine the kinds of extension philosophies that prevail. This was sought in what proponents and critics of extension have written and what those with strong opinions communicated verbally. In this idea mix there were views having to do with

- teaching approaches,
- extension clientele,
- obligations for meeting the needs of economically by-passed people,
- whether extension should be taken to the people, or whether people should come to extension,
- whether extension personnel should assume advocacy stances or not,
- whether they should go to the field as experts confident of their superior knowledge and of the good they can do for society or whether they should go as facilitators of interpersonal interaction believing that local people can help generate the information they need and solve most of their problems. This, of course, approximates the elitist-egalitarian dimension of extension teaching.

In the absence of either a well formulated theory or a comprehensive treatise of what constitutes the dimensions of extension philosophy our intent in the idea sampling procedure was to be as broadly selective of views as possible within the constraints that 50 items would permit. All of those included were concepts variously debated and at issue in extension circles.

Many philosophy statements were collected from in-depth interviews with on and off-campus faculty and administrators in Missouri, and critiques of extension of which the views of Beltran (1976) and Bordenave (1976) are typical and the more general treatments of extension philosophy by Carey (1970) and Rothman (1970).

Sampling Views and People

From the variety of statements collected in which the following categories tended to emerge 50 views were selected; namely, feelings about:

self (the change agent himself)

clients

knowledge

planning

political structure

the "establishment"

educational approaches

An approximate balance between elitist and egalitarian orientations was maintained within each of the categories.

The next problem to be addressed was to select a small sample of in-field subject matter specialists who would represent the kind of diversity of views that existed in the state. The sample had to be large enough to include the existing diversity and small enough to minimize inclinations for identifiable differences to diminish as the sample size increases. Since a high degree of diversity in the way CD specialists think was assumed and since there were only 29 of them, all were included.

To sample the diversity of views among the much more numerous agricultural specialists, area directors were asked to designate those who tended to hold different extension philosophies and whose mode of operation in the field tended to be different; not good or bad different, just different. From those named, an additional 24 were selected to complete a diversity sample of 53 subject matter specialists for initial type identification of views. However, all of the agricultural specialists also answered and returned the same questionnaire.

The Search for Philosophical Types

By use of a questionnaire, each respondent was asked to indicate his agreement or disagreement with each of the 50 statements on a

seven point scale ranging from highly disagree through neutral to strongly agree. Having done this the respondent was then asked to indicate two views that he agreed with most, and three that he agreed with next most. This procedure was then repeated on the negative side of the rating scale. This forced choice procedure provided a distribution of views along a 11 point, most disagree-most agree continuum. Their responses were then factor analyzed to determine what types of people, if any, tended to prevail. A six factor solution that provided the lowest intercorrelation among the types seemed to offer the greatest prospect for describing reasonably discrete types. Even so there seemed to be much commonality in thinking from one type to the others as the reader will see from the z-scores of ratings assigned to each of the 50 views by the six philosophy types (see Appendix Table 4). However in the description of types which follow emphasis is placed on views which tend to distinguish each from the all-sample average.

II. The Types That Emerged

Consensus Views

From the six factor solution, only one moderately strong held positive view emerged (i.e. where z-scores assigned between the types were less than 1.0); namely, that extension can gain valuable information from its capable clients (36).¹⁰

But important views upon which there was strong agreement can be addressed in another way. If we take only those views

- (1) about which respondents held either strongly agree or strongly disagree views operationally defined as over 1.0 z-score in either the agree or disagree direction, and
- (2) upon which 70% or more respondents strongly agreed or disagreed

positive consensus views are extended to include:

- Local people should be involved in extension programs and plans (39).
- People involvement in planning and action is the key to extension success (44).
- Extension should feel that they have something worth promoting (15).

¹⁰The numbers at the end of statements, here and subsequently are the statement identification numbers entered in Appendix Table 4.

- There are extraordinary possibilities in "ordinary" people (30).
- Programs are more likely to succeed when a special effort is made to involve people to whom others look for information and than when this is not done (40).

On the negative side most (70% or more) strongly disagreed that:

- What local people need most are plans developed by experts and blueprints for carrying them out with education being secondary (25).
- Helping people and groups become what they are capable of becoming is of minor importance in extension programming (14).

If the criterion was changed so that only 60% of the respondents strongly agreed/disagreed, a few more could be included:

- Emphasis should be placed on self-help and use of own resources for quality of life improvement effort (42).
- Other things being equal, clients using extension services will be better off than those who don't (8).
- Learning can best be achieved through actual experience (35).

No additional items would be added on the negative side.

Thus it was that the foregoing views would appear to be quite consistently manifest in most of the philosophy types.

As we turn to differences we see that only a few views tended to distinguish each of the types from the others (see appendix table 4).

Differences (The Types)

Type I (confidence in ordinary people) - Type I respondents were most distinctly characterized by their very strong belief that there are extraordinary possibilities in "ordinary" people (30). Like most others

they strongly held that involvement of people in extension is necessary for extension success (39).¹¹

Consistent with their very strong confidence in the abilities of ordinary people they were strongly favorable to increasing the capacity of people for effective interpersonal relations (7), self help (42) and using what people learn from experience as an extension informational input (38).

No wonder then that they were negative to:

- Leaving local people out of the planning process (25).
- Downgrading their capacity for solving their own problems (47).
- Negating the importance of upgrading the capabilities of people to manage their own affairs (14).
- Assuming elitist stances in extension (6, 45, 23, 18, 5).

Being neutral to extending extra help to disadvantaged people (34) while others were strongly opposed also fits into the pattern of the Type I respondent. Thus it was that people involvement and increasing the capacity of people to deal with their own problems was central to this philosophy type. In a sense they were an exhalted replica of the consensus views.

Perhaps somewhat as a function of the community development experience Type I respondents felt that there are still geographic areas where program planning is possible and from the broader experiences to share in the belief that extension does indeed have something important to offer (15). Some lack of confidence in the ability of existing social institutions to deal with problems of the day (6). This provides yet an additional reason for increasing the capacity of people to bring about structural changes in society.

¹¹Although 24 of the 53 persons in the diversity sample of 53 loaded on this factor (fell into this classification) the relative numbers of persons loading on particular factors cannot be taken as a valid indicator of their relative incidence in the population from which they were drawn even though there is generally a tendency toward such a relationship.

Use of Q-methodology to classify people into types requires achieving maximum diversity of statements concerning the matter at issue and a small sample of persons chosen for diversity of views in relation thereto. A random probability sample required for generalization to a larger universe is quite another matter.

Type II (missionary spirit) - The 10 (of the 53 chosen for diversity of views) who fell into this category saw themselves as educators with a mission. They very strongly felt that extension has something worth promoting (15) and that people involvement in extension is essential (39), especially local leaders (40).

On the negative side Type II respondents were most distinguished by their adamant opposition to any belief that local people are incapable of solving their problems through democratic means (47), and that higher level plans should never take precedence over their interests of local people (32).

Also they are strongly opposed to:

- Leaving local people out of extension program planning in deference to so-called experts (25, 32).
- Emphasizing sound plans and administration over education as developmental techniques (18).
- Disregard for building people capacities (14).
- Authoritarian extension tactics (5, 45).

Neither did Type II respondents ascribe to an assumption that local problems result mostly from faulty relationships with the larger society (13) i.e., that mostly what is wrong is someplace else, not here.

Type III (develop and deliver) - The one Type III specialist was distinguished by a very strong belief that information from the university needs no further testing for local use. Secondly he had a strong belief that improvement in the economic base of a community is the key to all development whether individual or community (49). In line with his confidence in the ability of ordinary people, he recognized that he could get needed information from his clients (36) as well as deliver it.

On the negative side, he was most distinguished by being very much opposed to negating education to well worked out and administratively executed developmental plans (18) but at the same time to confining extension only to education (21). Thus the Type III extensionist was strongly committed to providing services to clients in addition to education and accordingly also to the performance of multiple extension roles.

Type IV (Anti-activism) - Type IV specialists, of whom there were five, were perhaps most distinguished by a strong reaction against organizing by-passed and powerless people for joint action against their oppressors (41). Although most others were too, Type IV respondents were adamant in this view. Secondly, they were more strongly opposed to advocacy positions than most others (33). Most were only mildly opposed to assuming such positions.

They had moderately positive views about what extension has to offer (8) and confining extension to education only (21). They felt most strongly, and more than most, that local people should be involved in formulating extension programs and plans (39) and that their involvement is a key to extension success (44); they were also more inclined to believe that involving the local power structure and influentials were keys to this success (19).

Thus on the strong positive side Type IV respondents believed in what most others believed in, i.e., people involvement. What seems to distinguish them most was their strong views against social activist and advocacy stances in extension.

Type V (don't count too much on the abilities of ordinary people) - Type V extensionists were unique in not ascribing to the commonly held view that there are extraordinary possibilities in ordinary people (30). Furthermore, they saw little need for trying to enhance this capacity (14). They were information oriented in that they believed in working disproportionately with people from whom others generally get information (40). This is in contrast to working with influentials and through the local power structure as an assumed success guarantee in extension (19).

Somewhat in line with their lack of confidence in the ability of ordinary people, Type V specialists more than others, thought that what local people needed most were developmental plans by experts, operational blueprints for carrying them out (25) and good administrators, with the last two being regarded as more important than education in extension work (18). Their lack of confidence in the ability of "ordinary" people was reflected in their belief that many people need protection from their own inadequacies and potential exploiters (2); also in figuring out what they want (43).

Despite this questioning of the ability of ordinary people, they were not inclined to be promoters of information or causes or to proceed from a position of assumed knowledge superiority (29). Also, they did not believe that people who use extension are necessarily any better off than those who don't (8).

(Nothing special for the poor) The two specialists ascribing to the Type V philosophy, as those in Type IV were adamantly opposed to working disproportionately with disadvantaged people (34). Also in contrast to others they thought what local people needed most were developmental plans, blueprints for carrying them out and good administrators for doing it. Others were generally opposed but not strongly so. Also, they were not unique in their strongly held belief that people should be involved in planning and carrying out extension programs (44, 39) nor in recognizing that they can obtain valuable information from their more capable clients (36).

Type VI (dedication to education) - Type VI respondents of whom there were 11 were strong believers in education. A strong belief also in the ability of ordinary people provided a logical base with which to

work and a hopeful outlook. Thus given the appropriate information they thought that ordinary people would make the "right" decisions (16). This would also support the strongly held belief that extension is likely to be most successful when locally influential people initiate programs and take the lead (26).

When the positive belief in the capability of people and education as an appropriate extension technique is coupled with disbelief in the use of pressure tactics (5), inclinations to discount the ability of local people to solve their own problems (9), and own knowledge superiority (1) a very strong confidence in the ability of people to solve their own problems given the right information emerges. This makes getting the right information to people as an extension strategy very important. They presumably would proceed in an egalitarian interactive manner to deliver it (25, 39, 44). At the same time they, like Type II respondents, would proceed with confidence that extension has something valuable to offer (15).

The Incidence of Types

With a factor loading of at least .40 and differences from all other types of at least .10, CD and agricultural specialists were classified as indicated in Table 7. Thus it was that a majority of community development specialists adhered to the Type I confidence in ordinary people view while the vast majority of the agricultural specialists were mixed. In this mix all of the types but Type III figured strongly.

TABLE 7: DISTRIBUTION OF PHILOSOPHY TYPES BY KIND OF SUBJECT MATTER SPECIALTY

Kind of Subject Matter Specialty	Total (%)	Types						
		I (%)	II (%)	III (%)	IV (%)	V (%)	VI (%)	Mixed* (%)
Community development (N=29)	100	55.2	6.9	0.0	0.0	0.0	6.9	31.0
Agricultural (N=128)	100	2.3	9.4	0.8	5.5	0.0	3.1	78.9

*Those whose highest factor loading was less than .40 or whose highest loading was less than .10 more than any others.

Thus perhaps the collective views of all types tended to approximate those on which consensus tended to emerge. In this, belief in the capabilities of ordinary people, the need for involving them in extension programs, and belief that extension personnel should feel they have something worth promoting are central.

III. Observations

Although inclinations to consensus in philosophical views were more predominant among the extension specialists than differences, the last were sufficient to identify six philosophical types, but usually only in terms of a few salient differences.

The first, Type I and most predominant one was characterized most by a super confidence in the extraordinary possibilities of ordinary people, and secondarily a felt need for increasing their capacity to solve their own problems; also to involve them in the extension work. They saw people involvement as offering the greatest prospects for extension success. Most community development specialists were of this type.

A second type, Type II emphasized a feeling that extension has something worth promoting. This they thought should be implemented by emphasizing self help, own experience and involving people in extension, particularly local leaders.

Philosophically Type III shared a strong view that extension has something to offer, and were more inclined than others to promoting the adoption of locally validated ideas by learning through own experience and involving local people especially their leaders in the extension effort.

Type IV was characterized perhaps more by their opposition to social activist approaches than anything positive and distinctively different.

Type V, few in number, was characterized by a lack of confidence in the abilities of "ordinary" people. They, in contrast to others, believed that what local people needed most were developmental plans by experts and operational blueprints for carrying them out.

Type VI combined confidence in the ability of people to solve their own problems with high expectations for positive results that could accrue from providing ordinary people with the "right" information.

Yet cross cutting and perhaps superceding differences, there was in most cases a strong belief in the ability of ordinary people to address

their own problems and in the potential that is likely to accrue from:

- (a) involving them in extension programs and
- (b) increasing their capacity to help themselves.

Whatever elitist thinking (that did exist) occurred in the context of an overwhelming confidence in the ability of ordinary people to solve their problems and a prime need for involving them in extension work. Those things that were contrary to these themes got very low negative ratings.

Thus whether by socialization in the ideals of Jeffersonian democracy, as a product of the society in which we live or by socialization into humanitarian and egalitarian ways of thinking by virtue of the college experiences, or otherwise the people orientation of the land grant university ideal was alive, well, and presumably operative (Lionberger, Pope and Reddy, 1979). Thus the most deeply held aspects of the philosophy of our extension specialists was perhaps what they needed most as guides in carrying out their in-field educational responsibilities in accord with the land grant university ideal (Ensminger, 1981).

CHAPTER 4

EXTENSION ROLES: WHAT THE EXTENSION FIELD STAFF DOES

I. Diversity of Extension Roles

Role refers to what people do in positions in life, in this case what subject matter specialists in the field actually do. This is in contrast to extension philosophy which provides the ideological base for deciding what to do and evaluating what has been done.

Since the roles that subject matter specialists can perform are many, any effort to define them must be exhaustive if the diversity that exists is to be discovered, and its significance for the generation and utilization of information assessed.

Roles to be performed in the information development and supply system may be conceptualized in terms of the total information development, transformation and delivery process (Clark and Hopkins, 1966; Lionberger, 1977), in terms of the linking process only (Nielson, 1967), or in terms of the larger information dissemination sub-system requirements (Lionberger and Gwin, 1982). The latter perspective is the one taken in this study. The conceptual scheme for encompassing this comprehensive view was presented in Chapter 1. This broader perspective recognizes that the extension staff does many things and that some of the things that they do (roles) overlap or supplement those assigned to other units in the total information development, transformation and delivery process.

To discover what the broad range of roles are, the authors have drawn heavily on agricultural extension studies and those concerned with entire systems to develop, transform, deliver and use information, particularly the exhaustive work of Havelock (1971, Ch. 7). The review of written records was supplemented by in-depth interviews with professionals either working as linking agents or lay leaders who work in close collaboration with them. After noting the roles and activities that have been conceptualized by others and the additional ones detected from the interviews we will take note of charges being made and questions being raised about how the extension field staff are alleged to operate.

Although those occupying agricultural extension positions seem to have disagreed, they sometimes have been viewed mostly as conveyors of information (Abraham, 1963; Wilkening, 1956; Stone, 1952). In fact, this over-simplified conception of the linking role, built into early attempts to establish linkages between research resources in education and in-field users may have been one of the reasons why attempts to use the so-called "agricultural extension model" was not particularly successful (Rogers, Eveland and Bean, 1977).

Teacher trainer roles have been identified by Havelock (1971:7-9), and others; a kind of information funneling role by Ashby (1962);

gatekeeper roles by Lewin (1963); facilitator roles by Reiff and Riessman (1964); and translator or adapter ways of operating by Wilkening (1956). A process facilitating and/or catalyst mode of operation was observed by Lippett, Watson and Westly (1958) and a consultant role by Havelock (1971:7-6). The last is assumed to include such additional roles and/or activities as facilitator, helper, objective observer, problem diagonistian, resource finder, and information retriever.

A client defender role which urges caution in accepting questionable innovations has been seriously posed by Francis and Rogers (1960). This role is also implicit in the admonition to assess consequences carefully before acting (Rogers and Shoemaker, 1971). Even innovator (demonstrator of new things), legitimation and opinion leadership roles have been suggested, but usually with some question as to whether a professional change agent can really serve in any of these ways (Havelock, 1971:7, 10-15; Rogers, 1962). Brown and Deekens (1958) add student, promotor, interpretor, writer, administrator, evaluator, and program organizer-developer roles. Perhaps most recently of all is the social activist role implied in the structural change stance of Beltran (1976).

Also, extension appointed personnel are occasionally expected to administer government programs. This is true of the public office extension worker in Tawian (Lionberger and Chang, 1970) and in considerable degree also, in such U.S. agency programs as those designed to get soil conservation practices on the land and to provide loans to low income farmers who are expected to accept farm management supervision as a condition for getting a loan.

Sometimes the extension staff is asked to do things that they regard as nothing more than chores, e.g., serving as a club secretary, putting on a feeder calf sale, or filling out government forms for clients. Such chore-like activities were common in the early days of agricultural extension in Missouri (Longwell, 1970).

In talking with specialists about their in-field activities still other roles or activities were evident. Teaching needed skills to clients was often encountered. Also, it was quite obvious that the extension staff was occasionally involved in boundary maintenance and public relations activities. There was an additional more subtle therapist-ego enhancement role manifest especially in the way educational assistants related to their clients. Allegedly, they spent much time listening to,

visiting with, taking note of achievements and encouraging the clients with whom they worked.¹²

How then can a study dedicated to an exhaustive treatment of extension roles be conceptualized and operationalized for research purposes. The authors chose to do this in the context of the following role designations:

- Catalyst
- Social facilitator (people involvement)
- Linking role (systemic linkage)
- Information conveyor
- Protector
- Therapist-ego enhancement
- Teacher (personal development)
- Teacher (trainer)
- Boundary maintenance
- Generalized helper (choreboy)
- Administrative director
- Lobbyist (public relations)
- Social action (activist)

In addition to the general role types for which three to five representative statements each were provided, there were additional matters of general orientation, namely; an elitist versus egalitarian stance in the teaching effort and the matter of whether extension is mostly taken to clients or whether clients are expected to come to extension. The last poses a more general question of whether extension works primarily with those who request help or those most in need of it.

II. Some Operational Questions at Issue

Single or Multiple Roles

Some questions and charges about appropriate extension roles and consequences seem never to be resolved. One centers around the consequence of restricting extension roles by specialization and professionalization of the staff. Another concerns elitist vs egalitarian modes of operation and their consequences. In regard to the first, the inclination has been to replace generalists by specialists with masters or PhD degrees in technical subject matter areas. The generalist county agent of times past performed many roles (Longwell, 1970). In fact, this inclination to multiple roles has been extolled as a major

¹²One important activity in which extension personnel in the United States have long been involved is that of institution building. Much of the activity directed to helping people organize to achieve goals not otherwise attainable and help rendered to service and supply agencies are of this nature (Lionberger and Gwin, 1982). However, this is a function which we were reminded of since this study was done. It therefore is only incidentally included.

reason for the high success achieved by change agents in agriculture (Havelock, 1971:7-3). Conversely an inclination to define roles too narrowly has sometimes been suspected of contributing to the lack of extension success (Rogers, Eveland and Bean, 1977).

With the professionalization of extension there has been an additional inclination to restrict extension roles essentially to educational matters. In this sense professionalization may at the same time have unintended dysfunctional consequences. The inclination to restricted roles has tended to exclude other things that need to be done and to reduce the capability of field agents to assist in the performance of the important integration function on behalf of clients. Although we could not address this issue directly, it is one that we have kept in mind as we formulated the extension roles part of this study and attempted to assess the consequences of what we found.

Hard Sell vs Egalitarianism

The second issue derived from an elitist charge is one that has been directed quite often in recent years to entire agricultural research and extension systems. Extension in the agricultural setting has been accused of an elitist stance, i.e., a top down kind of operation in which information developed at separate research centers is presumed to be the message about which clients are to be persuaded. This is in contrast to an egalitarian stance presumed to be a more appropriate ideal (Roling, Ascroft and Chege, 1976). The most ardent critics regarded extension as part of a system that exploits the masses to benefit the privileged few (Bordenave, 1976; Roling, Ascroft, Chege, 1976, Beltran, 1976). It has been suggested that the net result of the continued elitist stance is to create an information gap between those who know much and those who know little (Shingi and Mody, 1976; Tichenor, Donohue and Olien, 1970; Rogers, 1974).

As accused, agriculturalists who are well supplied with locally validated information from reputable research sources could easily resort to this mode of operation. Also, in accord with the inclination to specialization in the advisement function, extension roles might well become more restricted than those of the generalist county agent of years past. In contrast, CD specialists trained mostly as generalists and strongly dedicated to a social process and interactional type of approach may be expected to embrace a more egalitarian mode of operation.

Although the foregoing questions are not posed as general hypotheses to be tested, they were considered in the selection of role statements to be included in this study.

III. Methodology

Q-methodology plus factor analysis was chosen to determine whether different extension specialists perform their duties in

distinctly different ways (Kerlinger, 1973). Q-methodology permits a broad definition of extension activities and interviewee responses in terms of the relative frequency with which each activity was stressed or avoided by the respondents. The forced choice placement required in the sorting process closely approximates the mix and order of importance that the raters attribute to each of the 56 role statements. These are enumerated in Appendix Table 5.

Each of the 56 activities was followed by a five level frequency scale (never, seldom, occasionally, generally, always). The respondent was asked to check for each activity the frequency with which he or she performed it. After having read and checked the frequency of all activities the respondent was asked to designate the three statements that most represented the way he or she worked. Then, the respondent was asked to pick the four statements that next most represented his or her manner of operation. At the other end of the continuum, the respondents then picked the three statements that least represented their operational mode and the four that next least represented their mode. This provided nine categories into which all role statements were placed in a manner approximating the way they actually worked in the field.

In laying the basis for defining extension role types and ultimately their incidence care was taken to obtain (1) high diversity in role statements to respond to and (2) a maximum diversity of respondents. Since the 34 educational assistants were a diverse lot and since the community development and government specialists were only 29 in number all were included. Only 24 of the 131 agricultural specialists were included. The 24 were identified by area directors who were aware of their somewhat distinctive modes of operation; not good or bad different; just different. The item ratings of all 87 respondents provided the data base for the Q-factor analysis used to detect and define typical modes of operation or extension role types. Z-scores were computed for each item to indicate the general frequency of each activity. The approximate range was from -3 (strongly avoid doing) to +3 (very frequently do).

A five factor solution was chosen for describing types because it seemed to capture the major ways of operating without exaggerating small differences. The items were arranged on a "most represents" to "least represents" continuum for each factor or extension role type identified. Item arrays plus those identified that differentiated each type most from all others provided the basis for describing each.

IV. Role Performance (What They Did)

Item ratings for each type on selected high and low rated statements (relative to others) plus the ones that most distinguish each type from all others are in tables 8 through 12. How each type rated each of the role statements is recorded in Appendix Table 5 which also identifies items on which there was high consensus. Intercorrelations among types are reported in Appendix Table 6. The five types

TABLE 8: Z-SCORE RATINGS OF CAPACITY BUILDER TYPE SUBJECT MATTER SPECIALISTS ON ROLE STATEMENTS RATED HIGHER THAN 1.0 OR LOWER THAN -1.0

Extension Role Statements	Statement Number	Z-Scores Capacity Builder	Assigned by Others*
Visit with your clients and listen to what they have to say.	33	2.02	
Encourage clients to consider possible alternatives before acting.	1	1.98	1.13
Help clients think through their problems, consider alternatives and act on their own initiative.	37	1.69	.99
Help clients define what their problems really are.	3	1.32	0.36
Raise questions to help clients clarify their thinking.	7	1.21	
Help clients think through the consequences of the new things they are about to do.	26	1.06	
Mobilize by-passed people for joint action against those who take advantage of them.	30	-1.02	
Work mostly at carrying out directives from your superiors.	2	-1.04	
Help clients make agency contacts, apply for and fill out forms to get the supplies and services they need.	24	-1.22	-.13
Organize clients so they can better demand their rights.	31	-1.53	
Serve as a local club leader or secretary when urged to do so.	15	-1.68	-.87
Encourage clients to depend on you for answers to their problems.	36	-1.82	-.65
Tell clients what to do and leave it up to them to do it.	45	-1.88	
Teach clients how to keep income and expense records.	51	-2.11	-.22
Remind clients that extension help might be withdrawn if they don't show sufficient progress.	40	-2.29	
Put pressure on those who get in the way of carrying out extension programs.	9	-2.33	

*On items which most distinguish Capacity Builders from all others. Where differences from the type score were less than .5 the "All Others" average was not reported.

identified were descriptively titled Capacity Builder, Persistent Educators, Problem Solvers, Subservient Servants and Extension Activists. The reader should note that naming types is a subjective process, showing differences of opinion.

The procedure in describing the role types is to first note areas of agreement and then look at the differences among the types. Consensus items, provided the basis for doing the first.

Matters of Agreement

Most of the 19 consensus items identified were in the "seldom" or "occasionally do" range. The major exception was that all types consistently listened to and visited with their clients (33) (see Table 8). They emphasized taking extension to the people (35) and helping clients think through the consequence of what they are doing (26). They were all inclined to take note of and express recognition of clients for their achievement (18); help create an awareness of needed changes (22); convey research results from the university to clients who could use them (48); work to achieve the goals that clients have set for themselves (11); urge caution in the adoption of questionable innovations (8); and promote the adoption of recommended practices (12). There were no activities that all five role types tended to consistently and strongly avoid.

Differences - The Types Identified

Capacity Builders (Type I) - Capacity Builders emphasized activities conducive to the personal development of their clients.

Aside from visiting with and listening to clients, which characterized all role types, they most stressed activities conducive to personal development of clients. This included encouraging clients to

- consider alternatives (1);
- think through their problems (37);
- raise questions in order to clarify their thinking (7);
- help them define what their problems really are (3);
- and to think through the consequences of what they are about to do (26) (see Table 8).

Their mode of operation was basically egalitarian and oriented to capacity building rather than serving as purveyors of university generated information and ideas. This is contrary to a contention by some that the extension staff act as if research generated ideas, practices and/or technology is the message about which clients are to be educated and persuaded.

TABLE 9: Z-SCORE RATINGS OF PERSISTENT EDUCATOR TYPE SUBJECT MATTER SPECIALISTS ON ROLE STATEMENTS HIGHER THAN 1.0 OR LOWER THAN -1.0

Extension Role Statements	Statement Number	Z-Scores Persistent Educator	Assigned by Others*
Visit with your clients and listen to what they have to say.	33	1.84	
Give the answers that clients seek or find someone who can.	4	1.59	
Encourage clients to consider possible alternatives before acting.	1	1.52	
Encouraging clients to establish a working relationship with their cooperative extension service.	39	1.39	.54
Take extension (what it has to offer) to the people.	35	1.31	
Help clients define what their problems really are.	3	1.23	
Convey research results from the university to the clients who can use it.	48	1.05	.53
Put pressure on those who get in the way of carrying out extension programs.	9	-1.24	
Accept credit for extension program achievement as a means of obtaining needed public support.	17	-1.24	-.15
Remind clients that extension help might be withdrawn if they don't show sufficient progress.	40	-1.33	
Serve as a local club leader or secretary when urged to do so.	15	-1.35	
Tell clients what to do and leave it up to them to do it.	45	-1.35	
Train local leaders to help with the extension program.	19	-1.51	.05
Mobilize by-passed people for joint action against those who take advantage of them.	30	-1.59	
Help clients organize groups to achieve their own objectives.	13	-1.60	.24
Organize clients so they can better demand their rights.	31	-2.50	-1.26
Start working mostly with highly innovative and influential clients.	14	-2.66	-.82

*On items which most distinguished Persistent Educators from all others. Where differences from the type score were less than .5 the "All Others" average was not reported.

Type I extension personnel were further characterized by what they tended not to do. At the top of the avoid list, were such authoritarian tactics as putting pressure on those who get in the way of carrying out extension work. Neither were they inclined to stress carrying out orders of their superiors (9), and using the threat of withdrawal of services for noncompliance (40). They avoided such chore-like activities as serving as local club leader or secretary (15); teaching clients to keep records (51) and helping clients make agency contacts (24). They also avoided encouraging clients to depend on extension for answers to their problems (36) and tactics like telling clients what to do and leaving the rest up to them (45). Neither were they social activists. They looked with disfavor on such tactics as organizing clients to demand rights (31) and mobilizing by-passed people for joint action against those who would take advantage of them (30).

Persistent Educators (Type II) - Somewhat like capacity builders Persistent Educators were also characterized by an emphasis on activities that were conducive to the personal development of clients, i.e. strongly encouraging them to consider alternatives (1) and define their problems (3) (See Table 9). But unlike Type I, they also strongly emphasized supplying answers to client questions (4). Thus, they also placed high emphasis on taking what extension has to offer to the people (35) and conveying research results from the university to those who could use it (48). Their emphasis on establishing working relationships with local people and their emphasis on training local leaders to help with extension programs suggests an inclination to people involvement in extension. Yet they were less inclined than other types to helping clients organize to achieve their objectives (13), organizing clients to demand their rights (3), and training local leaders to help with extension programs (19).

An egalitarian stance was suggested by avoiding disproportionate attention to innovators and influentials in getting extension programs started (14). Like capacity builders they were not inclined to confrontation tactics, e.g. organizing clients to demand rights (41); mobilizing bypassed people to better demand their rights (30); and helping them organize to achieve their objectives (19); and serving as a local club leader or secretary (15). To a somewhat lesser degree they avoided

- accepting credit for extension program achievements (17);
- putting pressure on those who get in the way of extension (9);
- threatening to withdraw extension help if the client does not show sufficient progress (40);
- leaving matters up to clients after telling them what to do (45); and
- serving as a local club leader or secretary. (15)

TABLE 10: Z-SCORE RATINGS OF PROBLEM SOLVER TYPE SUBJECT MATTER SPECIALISTS ON ROLE STATEMENTS RATED HIGHER THAN 1.0 OR LOWER THAN -1.0

Extension Role Statements	Statement Number	Z-Scores Problem Solver	Assigned by Others*
Help clients think through their problems, consider alternatives and act on their own initiative.	37	1.53	
Encourage clients to consider possible alternatives before acting.	1	1.43	
Give the answers that clients seek or find someone who can.	4	1.28	
Visit with your clients and listen to what they have to say.	33	1.27	
Take note of and express recognition for achievements that your clients make.	18	1.09	.57
Involve clients extensively in planning and carrying out the program.	20	1.08	.38
Help clients define what their problems really are.	3	1.06	
Tell clients what to do and leave it up to them to do it.	45	-1.20	
Help keep things as they are if clients want it that way.	16	-1.32	
Work mostly at carrying out directives from your superiors.	2	-1.48	-.04
Teach clients how to best confront those in power to achieve their own ends.	38	-1.95	-.77
Organize clients so they can better demand their rights.	31	-2.29	
Put pressure on those who get in the way of carrying out extension programs.	9	-2.41	-1.61
Remind clients that extension help might be withdrawn if they don't show sufficient progress.	40	-2.46	-1.38
Mobilize by-passed people for joint action against those who take advantage of them.	30	-2.77	-1.21

*On items which most distinguish Problem Solvers from all others. Where differences from the type score were less than .5 the "All Others" average was not reported.

TABLE 11: Z-SCORE RATINGS OF SUBSERVIANT SERVANT TYPE SUBJECT MATTER SPECIALISTS ON ROLE STATEMENTS RATED HIGHER THAN 1.0 OR LOWER THAN -1.0

Extension Role Statements	Statement Number	Z-Scores Subserviant Servant	Assigned by Others*
Work mostly with those who ask for help.	5	1.95	.42
Give the answers that clients seek or find someone who can.	4	1.67	1.17
Concentrate mostly on being on hand if requested and needed.	21	1.59	.18
Encourage clients to consider possible alternatives before acting.	1	1.30	
Visit with your clients and listen to what they have to say.	33	1.20	1.82
Help create an awareness of changes clients ought to make.	22	1.15	.55
Help clients think through the consequences of the new things they are about to do.	26	1.08	.93
Take extension (what it has to offer) to the people.	35	1.05	
Help clients organize groups to achieve their own objectives.	13	-1.01	
Enlist the help of local groups and agencies in carrying out extension programs.	44	-1.15	.18
Organize clients so they can better demand their rights.	31	-1.16	
Accept credit for extension program achievement as a means of obtaining needed public support.	17	-1.22	
Serve as a local club leader or secretary when urged to do so.	15	-1.30	
Teach clients how to best confront those in power to achieve their own ends.	38	-1.33	
Start working mostly with highly innovative and influential clients.	14	-1.40	
Plant ideas at strategic places where you have reason to feel action will be taken on behalf of extension.	54	-1.47	-.14
Remind others (people, groups and agencies) about what extension does as a means of cutting down interference from other agencies.	34	-1.51	-.67
Enlist the help of local leaders in informing the public about what extension and other public agencies should do and in issuing reminders if necessary when the rights of extension are being infringed.	50	-1.91	-.51
Put pressure on those who get in the way of carrying out extension programs.	9	-2.23	
Enlist the help of the county court and extension councils in keeping lines clear between what extension is supposed to do and what other agencies think they should do.	52	-2.56	-.30

*On items which most distinguish Subserviant Servants from all others. Where differences from the typescore were less than .5 the "All Others" average was not reported.

Problem Solvers (Type III) - Problem solvers strongly emphasized helping clients think through their problems (37); considering alternatives (1); visiting with and listening to clients (33); answering their questions (4) and taking note of and expressing recognition of their achievements (18) (see Table 10).

Two other activities stressed but not as strongly as those above were helping clients define what their problems really are (3) and involving them in planning and carrying out extension programs (20). Type III extension specialists never or seldom mobilized by-passed people (30); organized people to demand their rights (31); or taught them to confront those in power (38). But at the same time felt that things should not be kept as they are even if that is what clients want (16). They never or seldom resorted to such authoritarian tactics as

- reminding clients that help might be withdrawn if they did not show sufficient progress (40);
- putting pressure on those who get in the way of extension (9);
- telling clients what to do and leaving them to do it (45); and
- carrying out directives from superiors (2).

In a sense people oriented problem solvers differed from others most on those things that they refrained from doing or seldom did than on what they did consistently. First of all, on the "do" side they differed from others by being neutral rather than strongly opposed to working disproportionately with highly innovative and influential clients (14). They were mildly inclined to teaching clients how to keep records (41). Other types were negative. They more than others strongly avoided social action or reform activities in carrying out their extension responsibilities.

Subserviant Servants (Type IV) - Subserviant servants were characterized by deference to the wishes of their clients and a very strong aversion to pressure tactics (see Table 11).

The first was exemplified by a very strong emphasis on working mostly with those who ask for help (5); answering questions raised by clients (5); and concentrating mostly on just being on hand to help if and as needed (21). A somewhat protective stance was indicated by an inclination to helping clients think through the consequences of what they propose to do (26) and a secondary inclination to creating an awareness among clients of changes they need to make (22); and taking what extension has to offer to the public (35).

Nevertheless their characteristic lack of aggressiveness was further indicated by

- a de-emphasis on action to counter infringement on extension's prerogatives (52);

TABLE 12: Z-SCORE RATINGS OF EXTENSION ACTIVIST TYPE SUBJECT MATTER SPECIALISTS ON ROLE STATEMENTS RATED HIGHER THAN 1.0 OR LOWER THAN -1.0

Extension Role Statements	Statement Number	Z-Scores Extension Activist	Assigned by Others*
Visit with your clients and listen to what they have to say.	33	2.17	1.58
Raise questions to help clients clarify their thinking.	7	1.84	.71
Give the answers that clients seek or find someone who can.	4	1.57	
Take extension (what it has to offer) to the people.	35	1.53	.91
Help clients organize groups to achieve their own objectives.	13	1.27	-.48
Help clients define what their problems really are.	3	-1.24	1.00
Encourage clients to depend on you for answers to their problems.	36	-1.27	
Teach clients how to best confront those in power to achieve their own ends.	38	-1.36	
Mobilize by-passed people for joint action against those who take advantage of them.	30	-1.36	
Start working mostly with highly innovative and influential clients.	14	-1.57	
Teach clients how to keep income and expense records.	51	-1.70	
Keep a critical eye on what people propose and how they propose to do it with the view of warning them when they are about to go wrong.	23	-2.27	-.12
Help keep things as they are if clients want it that way.	16	-2.60	-.60
Tell clients what to do and leave it up to them to do it.	45	-2.90	-1.14

*On items which most distinguish Extension Activists from all others. Where differences from the type score were less than .5 the "All Others" average was not reported.

- putting pressure on those who get in the way of extension (9);
- enlisting the help of local leaders in protecting extension (50); and
- reminding others of what extension does to diminish outside interference (34)

Subserviant servants seldom planted ideas at strategic places where action might be taken to help extension (54) or accepted credit for extension success (17). Like most others they were not inclined to organizing people to achieve their objectives (13) demand their rights (31); or the use of confrontation tactics (38).

Consistent with their subserviant stance, they were not inclined to work mostly with innovative and influential clients (14) or even to enlist the help of local groups in carrying out extension programs (44). However their subserviance did not extend to doing chores like serving as a local club leader or secretary (15).

Subserviant servants were neutral toward telling clients what to do and leaving it to them to do it (45) and were favorable to encouraging clients to depend on extension for answers (36). Other types rejected both. Subserviant servants strongly favored working mostly with those who asked for help (5). All others were only mildly so. Subserviant servants strongly emphasized being on hand to help if requested (21). The others were at most only marginally so inclined.

Extension Activists (Type V) - The activists were not content to leave things as they were even though people wanted it that way (15). They were strongly committed to taking extension to the people (35) and to helping them achieve their goals (13) (See Table 12). They were only slightly less committed to finding and giving answers to questions raised by clients (4) and to raising questions to help them clarify their thinking (7). In this respect they differed from most other types.

They strongly avoided

- keeping an eye on what people proposed to do and how they intended to do it (25);
- telling clients what to do and leaving it to them to do it (45); and to
- helping clients define what their problems are.

They were less adverse to the use of pressure (9, 40) and social activists tactics (31, 30) than most of their colleagues.

Their unwillingness to leave things as they are even though clients want it that way (15) and their opposition to depending on them for answers to their problems (36) suggests a high estimate of what

TABLE 13: PERCENT OF AGRICULTURAL AND COMMUNITY DEVELOPMENT SPECIALISTS AND EDUCATION ASSISTANTS CLASSIFIED BY ROLE PERFORMANCE TYPES

Type of Extension Staff	Total (%) (N=)	Role Performance Type					
		Capacity Builders (%)	Persistent Educators (%)	Problem Solvers (%)	Subserviant Servants (%)	Extension Activists (%)	Mixed (%)
Agricultural specialists	100.0 (129)	0.0	0.0	42.6	0.0	0.0	57.4
Community development	100.0 (29)	62.1	0.0	3.4	0.0	3.4	31.1
Education assistants	100.0 (34)	0.0	41.2	2.9	5.9	0.0	50.0

extension has to offer despite their alleged habit of visiting with and listening to what people have to say (33).

Incidence of Types

Respondents (other than those included in the small diversity sample) were classified into types by determining how their own item Q-sorts correlated with those most representative of each of the factored types. Additional requirements were that:

- (1) No factor loading of less than .40 be accepted, and
- (2) A respondent's loading on one factor would have to be at least .10 higher than on all others.

All respondents that had loadings of .40 or more but did not meet the .10 difference criteria were classified as mixed. Persons who had no loading on any factor as high as .40 were also included in the mixed category. The results of this classification are reported in Table 13 which shows that type assignments varied considerably by subject matter specialty. Thus it was that a majority of the CD (62.1%) specialists were of the Capacity Builder type. Agricultural specialists tended to the Problem Solver classification (42.0%) and education assistants to the Persistent Educator type (41.2%).

Many specialists fell into the mixed classification. But in the context of the mix, salient elements of the more rigid classification tended to prevail for both the agricultural and CD specialists. Thus, for the CD agents, an additional 27.6% is added to the 62.2% (who were Capacity Builders) by using the highest personal factor loading on types as the criterion without the .10 or more difference stipulation. By the same criteria an additional 22.5% would be added to the 42.6% of the agricultural specialists classified as Problem Solvers. In a like manner, 35.3% would be added to the 41.2% of the education assistants labeled as Persistent Educators. Thus CD specialists were mostly personal Capacity Builders, agricultural specialists, Problem Solvers, and education assistants, Persistent Educators.

The inclination of each case is quite in accord with the respective job requirements. CD specialists have a less firm research base from which to draw the information they need, encounter more problems than answers, and have a greater need for either generating new information or putting what does exist into unique combinations. They were therefore confronted with the need for developing an information generating and integrating capacity in their clients over and above that needed in agriculture.

Agricultural specialists, working from a substantial informational base and aware of the need for listening to their clients in whose capability they had much confidence, proceeded in an egalitarian manner to make the information they possessed available to farmers often in a context of helping them solve their problems.

Education assistants mindful of and impressed with the knowledge base from which they can draw, took great care to see that lines for acquiring this information remained open and available for own self enlightenment and that of their clients. But this was done in an empathetic atmosphere in which they listened, encouraged and motivated their small farmer clients with whom they identified closely.

V. Observations About The Issues

Perhaps most noticeable was the absence of elitist, deliver and sell tactics from an assumed position of knowledge superiority and unwillingness to listen. Both elitist and "hard sell tactics" are charged frequently and persistently directed against extension on the world scene (Bordenave, 1976; Beltran, 1976; Roling, Ascroft and Chege, 1976). As one reviews the history of extension in the United States and examines the evidence from this study, one wonders whether this attributed elitist stance isn't something of a straw man or a stereotyped way of thinking that we have somehow talked or reasoned ourselves into believing. One would hardly think that extension in Missouri is all that different from extension in most states in the United States.

However, it should be recognized that the kind of research and extension system that exists in this State, if run by a set of rules and assumptions that do not recognize the unusual potential of ordinary people and their ability to address their own problems, could indeed operate in a very elitist top down manner with some of the undesirable consequences often attributed to extension (Ensminger, 1981).

Also we must recognize that when extension specialists allow people to choose whether or not they ask for help, and work mostly with those who do ask, the long term result can be a wider gap between those who know much and those who know little and probably also between the "haves" and "have nots."

Ideology

It is not surprising that most field staff believe that extension has something to deliver and feel some obligation to deliver it. This could hardly be otherwise considering the research base from which the information comes, the respect that accrues to the way it is generated, and the time that specialists spend learning it. But the highly significant thing is that even those who harbor elements of a "tell and sell" stance do so in a context where they listen and interact with their clients very much on an egalitarian basis in an atmosphere of mutual respect.

One wonders whether the high confidence exemplified in the extra-ordinary possibilities of ordinary people and the egalitarian mode of thinking exemplified in the staff are the products of indoctrination into the ideals of Jeffersonian democracy or the socializing experiences

of a land grant university in which one of the highly extolled ideals is faith in the common man (Lionberger, Pope and Reddy, 1979).

Multiple Roles

Another significant observation from this analysis of role performance by the extension staff is that they did many things of a service nature on behalf of their clients. It is to the performance of multiple roles that much of the high achievements of county agents in years past has been attributed (Havelock, 1971). The significance of the performance of multiple roles is highly apparent when compared to the results that accrue from over simplified versions of the linking activity between information sources and users. While avoiding chore-like activities, the extension field staff still performs multiple roles.

Furthermore, the major extension objectives and the manner in which the in-field staff operates are conducive to building the management capacity of clients. Back in the "Balanced Farming" days and again with the Small Farmer Family Program, graduating farmers is extolled as the ultimate extension teaching goal. This implied building a capacity for making own superior management decisions. Today the most stressed extension activities of both agricultural and community development specialists is generally conducive to this end.

CHAPTER 5

ACHIEVING THE INTEGRATION FUNCTION IN AGRICULTURAL
EXTENSIONI. Genesis of the Integration Problem

The inclination in the developmental processes generally is for functions to become differentiated and assigned to specialized agencies (Smelser, 1963:12-15, 102). This is as true for technical information as it is for the development and delivery of other inputs that people use.

Thus, the situation is for frontiers of knowledge to be explored and extended on many fronts by specialists in organizations specially equipped to do the needed research. Some of these research units exist in land grant universities where a degree of coordination of the total research and extension effort is possible. But science-based information increasingly is created by professionals who deal quite exclusively with their own academic concerns (Havelock, 1971:Ch. 3). Even though a portion of what researchers develop is transformed into a potentially usable product and tested and delivered to potential users, this too is often done in a piecemeal manner not directly applicable to the needs of users who themselves are not scientists.

The Differentiated Information Supply Systems Context

By necessity, basic science knowledge continues to be generated mostly in the highly differentiated specialty sections of what has been called the autonomous part of land grant universities (Trow, 1975; Castle, 1980), mostly its academic departments. The relationships that do exist among departmental bodies of knowledge often bear little relationship to the combinations needed by non-scientist users. This knowledge, highly differentiated along academic lines, is what is available for the extension sub-system to deliver.

Responding to the differentiated informational needs of a pluralistic society and in accord with the system created to supply it, the generalist representative of the university in the local community (county agent) has been mostly replaced by specialists. They are attached to academic departments more suited to extending the frontiers of basic science knowledge than to solving the problems of people. Thus the same differentiated organization that is used to generate the information is extended to the field to deliver what is potentially usable. The only professionals in the system that have any formal training in putting specialty information together seems to be the farm management specialists attached to the Agricultural Economics Department. While providing an ideal arrangement for delivering highly specialized information, the highly differentiated organizational arrangement greatly intensifies the problem of getting the isolated bits and pieces properly integrated into individual farming operations.

Placement of specialists in the field further intensifies the problem. Missouri has 21 extension program planning areas comprised of three to ten counties (see Table 1). Each is staffed by an area director and a corps of specialists variously selected from the agricultural, home economics, community development, continuing education, business and industry, labor, local government, and youth services specialties. One or more specialists are officed in each county of the extension (administrative) area. Irrespective of their location, they are expected to service the specialty informational needs of the people in the counties in their area without the specialty. Thus again, the delivery system complicates the problem of integrating informational inputs at the local level.

Options for Performing the Integration Function

Putting the informational inputs together into a workable plan for users constitutes, in practice, the integration function in the information generation-use developmental process sequence. Achievement of this function has been addressed in a number of ways. The most traditional, and least appropriate has been to leave it exclusively to the users.

However it is more realistic to assume that the agricultural research and extension systems can and should assume some responsibility for performing this function. One approach is to provide information users with packages of practices rather than bits and pieces of disassociated information (Rogers and Shoemaker, 1971:153). Sometimes these packages are put together exclusively by specialists and sometimes with the help of the users. In any case, it is a step in the direction of providing some assistance in helping to put together different and separately delivered information on behalf of users.

A second way that integration problems have been addressed is through creating specialists who have the capacity for putting things together on behalf of users. The farm management specialist and the community development specialist, both in this state, are more broadly trained generalists than narrowly trained academic specialists. In addition to learning a little about many things, both develop a capability for helping clients (individuals and groups) put diverse informational inputs together into usable new combinations for themselves (Lionberger and Wong, 1980).

Third, extension specialists may try to increase the clients' management ability so they can manage their own affairs without outside assistance. This, which represents the highest order of extension teaching, is included in non-formal educational programs generally (Lele, 1975). Missouri Balanced Farming of years past and the current Small Farmer Family Program in the state (Enlow, Holik and Wiggins, 1979; University of Missouri-Columbia Extension Division, 1974) are other examples.

Fourth, mechanisms can be built into informational development and use system to facilitate integration of new informational inputs into user goal achievement efforts. This may occur anywhere between where information is generated, usually in research agencies (e.g., the experiment stations in agricultural universities), to where it is put to use in the users' social system. These, of a relatively institutionalized nature, in descending order of complexity, are:

- (1) University associated professional schools that are dedicated to making use of research generated information.
- (2) Academic departments in universities that specialize in helping users integrate new knowledge into their own plans.
- (3) Offices or positions in the agricultural research - extension system that link a variety of university resources with user needs.
- (4) Interpersonal communicative networks among subject matter specialists that facilitate the integration of specialty informational inputs into workable plans for users of the information.

The last may be of a relatively enduring nature, based upon needs to serve the informational needs of a particular type of recurrent or temporary problem. They may take the form of interdisciplinary task forces or committees that are dissolved when the issue to be addressed is solved.

Finally, professionals frequently operate as information integrators by writing textbooks, and/or serving as consultants. The practice of jointly formulating packages of practices on behalf of clients is an illustration of how professionals can bring together a diversity of informational inputs to bear on recurrent needs that non-scientist information users have.

Yet, despite numerous options available to the information development-delivery system to contribute to the performance of the integration function, there inevitably remains an inclination to so-called "pipeline" (from source of origin to user) information delivery (Beal, 1978). This is in contrast to a more egalitarian interactive approach to the generating and using of information more respectful of the indigenous knowledge of clients.

II. Nature and Scope of the Inquiry

In the absence of an opportunity to study the performance of the integration function either in process or of its specific content, we relied on indicators of potential to perform this function.

The Integration Function Potential Focus

The focus here was primarily on (1) the integration potential exemplified by agricultural specialists who occupied positions within the information generation and use (research and extension) system (Option 2), and (2) the within-system interpersonal network of information specialists (Option 4a). The role of CD specialists in the performance of the integration function is discussed in Chapter 6.

The quest for the integration function potential in both cases was sought in the (1) number and diversity of contacts that field positioned subject matter specialists had with each other and (2) the unidirectional vs interactive nature of these contacts.

Conditions within a highly differentiated informational system conducive to the formation of enabling interpersonal communicative networks of specialists of an enabling nature are the existence of:

- (1) A mutually recognized need among them for informational exchange with others not of their own kind.
- (2) An administrative structure and/or philosophy that allows free interpersonal exchange of information to happen or insures that it does.
- (3) Personal rewards for information exchange among subject matter specialists.

Source of the Data

As we have noted all agricultural and community development specialists, and education assistants assigned to the Missouri Small Farmer Family program were asked to complete lengthy questionnaires in which they indicated the contacts they had with on-campus faculty and their own area based subject matter specialist colleagues. These questionnaires provided most of the information needed for examining the potential of the interpersonal network for contributing to the performance of the integration function.

Information about the more tangible system features (programs and organization) was obtained by personal observation and from interviews with extension administrators; thus something of a case study approach.

Analytical Procedures

Because different agricultural specialists were deemed to have different integrating potential, they were divided into the following categories:

- (1) Farm management specialists who are integrators of information by definition and assigned responsibility. They, in contrast to others, address the integration issue created by a highly differentiated information, development, and delivery system.

They do this by helping clients put informational inputs together into a workable plan for achieving their goals. Farm management specialists, new by comparison to other specialists, are attached to the Agricultural Economics Department of the College of Agriculture.

- (2) Production specialists who are primarily concerned with a particular agricultural commodity or class of commodity. Agronomy, livestock, dairy, and poultry production subject matter specialists are included in this group.

Their expertise is likely to be most directly usable by farmers specializing in their own area of expertise.

Their to-campus contacts were expected to be quite exclusively confined to own academic department.

- (3) Production supporting specialists who render services to farmers primarily in an agricultural production context.

These include specialists in agricultural engineering, and entomology.

Although somewhat of a residual category, professionals in this category were expected to have more varied informational contacts than the production specialists.

Within this general context, farm management specialists were expected to exemplify the greatest integration function potential.

Operational Indicators of Potential for the Performance of the Integration Function

Indicators of potential were deemed to center primarily in the number, nature and diversity of personal contacts of an informational servicing nature that in-field subject matter specialists had with each other and with their on-campus colleagues. More specifically the following were regarded as indicators.

1. Number and diversity of contacts that agricultural specialists (agronomy, livestock, horticulture, dairy, agricultural engineering, and farm management) had with:
 - a. In-field specialists other than their own kind.

- b. The on-campus faculty other than their own academic departments; also in this case the number of different departments and faculty involved.

Diversity of contacts were regarded as the prime indicators of integration potential. Number is an indirect indicator in that it is a measure of intensity.

Where differences in the availability of particular kinds of specialists in the field was very limited the possibility for making contacts with them e.g. for dairy, horticulture, and agricultural engineering, these facts were noted (see Table 1 for a distribution of specialists by area).

Contacts with all area specialists were reported even though only those in agriculture, and community development completed questionnaires about their own contacts made.

2. Nature and purpose of the contacts made.

Because of their interactive nature, contacts made for planning joint programs and idea exchange were regarded as having potential increment over mere acquisition of information or seeking direction.

High intensity use and high value placed on cross-disciplinary information sources were regarded as additional evidence of support of integration function potential.

III. The Research Findings

What is the nature of interpersonal network in which the in-field subject matter specialists were involved? What can be inferred about its potential for integrating diverse specialty informational inputs on behalf of users? First, we looked at the cross disciplinary contacts among specialists in the field and their own assessment of the networks utility for supplying the information they needed for their in-field users. Secondly, we look at contacts that different kinds of specialists made with the on-campus faculty within and outside their own specialty areas. Their evaluation of them for their own work was also noted. The central question was whether the networks were such that they provided an information integrating potential in an otherwise highly differentiated system for information development and delivery.

The Interpersonal Network at the Area Level

Number and Nature of Contacts - Table 14 reports the percentages of subject matter specialists within the respective districts who reported making weekly or more frequent contacts with the different specialists assigned to the administrative areas. Table 15 reports the percentages with at least monthly contacts of each with the

TABLE 14: PERCENT OF AGRICULTURAL AND COMMUNITY DEVELOPMENT EXTENSION SPECIALISTS WHO REPORTED WEEKLY OR OFTENER CONTACTS WITH OTHER SPECIALISTS IN OWN EXTENSION ADMINISTRATIVE AREA DURING THE PAST YEAR

Kind of Specialists Reporting Contacts	Area Specialists With Whom Weekly Contacts Were Reported										
	All Agri. (%)	Farm Mgt. (%)	Agronomy (%)	Livestock (%)	Agri-Engineering (%)	Dairy (%)	Comm. Dev. (%)	Youth (%)	Home Econ. (%)	Continuing Ed. (%)	Business & Ind. (%)
Farm management	x	25.0	53.2	37.5	25.0	6.3	31.2	40.5	50.0	12.5	6.3
Agronomy	x	36.7	26.7	46.7	26.7	10.0	10.0	46.7	50.1	6.7	6.7
Livestock	x	42.3	65.4	26.9	34.6	15.4	30.8	65.4	42.4	11.5	3.8
Agri engineering	x	42.9	71.4	57.2	21.4	21.4	21.4	42.9	57.2	7.1	21.5
Dairy	x	50.0	50.0	33.3	50.0	0.0	0.0	33.3	33.3	0.0	0.0
Community development	58.7	x	x	x	x	x	x	51.9	55.3	48.4	20.7

other specialists. It is accordingly readily apparent from tables 14 and 15 that the intensity of interpersonal contacts among farm management, agronomy, livestock and engineering specialists was high. Weekly or more often contacts were highest between agricultural engineering and agronomy specialists (71.4%). Yet this very high frequency interpersonal contact pattern also extended to relationships between agricultural engineering and livestock specialists and between livestock and agronomy specialists. Also agricultural specialists generally had frequent contacts with youth and home economics specialists, not centrally concerned with agricultural production.

Our initial assumption was that farm management specialists with a built in capacity and operational need for integrating bits and pieces of specialty information from many sources would be in more frequent contact with other agricultural specialists than those more narrowly trained in technical agriculture. This did not occur in the within-area interpersonal contacts. Agricultural engineers were more integrated into the interpersonal cross-disciplinary communication network than other subject matter specialists. A possible explanation is that agricultural engineering expertise was applied mostly in the context of other specialties - e.g., livestock or crop production than singly within own field. It is also quite possible that farm management specialists were already sufficiently versed in production agriculture knowledge to take care of most of their farm management needs.

Aside from the production agriculture specialists among whom person-to-person contacts were disproportionately frequent, there were also frequent contacts with production supporting specialists; and with specialists in youth services and home economics, none centrally concerned with agriculture. Contacts of agricultural with CD specialists were generally more frequent than for continuing education and business but much below those with fellow agricultural specialists. Weekly or more frequent contacts with CD specialists ranged from 10 percent for agronomy specialists to 31.2 percent for those in farm management. Comparable percent ranges were 7.1 to 12.5, respectively, with specialists in continuing education and 3.8 to 21.5 respectively, with business and industry specialists (see Table 14).

Thus the information integration potential of the interpersonal network of agricultural specialists within the area was confined mostly to agricultural and home economics specialties. Contacts with youth specialists were probably more in the nature of servicing youth projects than for providing knowledge inputs for farm or home use. But when viewed in the community development context and thus from the vantage point of the CD specialists the potential of incorporating agricultural inputs into their operations was much greater than the reverse; also the initiative for establishing cross disciplinary information exchange was more often taken by the CD than the agricultural specialist. Thus it was that 58.7 percent of the CD specialists reported weekly or more frequent contacts with agricultural specialists of one type or another.

TABLE 15: PERCENT OF AGRICULTURAL AND COMMUNITY DEVELOPMENT EXTENSION SPECIALISTS WHO REPORTED MONTHLY OR OFTENER CONTACTS WITH OTHER SPECIALISTS IN OWN EXTENSION ADMINISTRATIVE AREA DURING THE PAST YEAR

Kind of Specialists Reporting Contacts	Area Specialists With Whom at Least Monthly Contacts Were Reported										
	All Agri. (%)	Farm Mgt. (%)	Agronomy (%)	Livestock (%)	Agri Engineering (%)	Dairy (%)	Com n. Dev. (%)	Youth (%)	Home Econ. (%)	Continuing Ed. (%)	Business & Ind. (%)
Farm management	x	65.6	93.8	75.0	75.0	37.6	56.2	71.8	84.4	40.7	25.0
Agronomy	x	73.4	50.0	86.7	76.7	33.3	46.6	86.7	83.4	53.4	26.7
Livestock	x	73.1	80.8	50.0	84.7	38.5	53.9	76.9	77.0	34.6	23.0
Agri engineering	x	85.8	100.0	92.9	21.4	42.8	50.1	71.5	85.8	42.8	42.8
Dairy	x	100.0	100.0	100.0	100.0	16.7	0.0	83.3	83.3	33.3	0.0
Community development	82.8	x	x	x	x	x	51.7	82.9	72.5	72.5	55.3

In general the same contact frequency pattern prevailed among subject matter specialists in the less intense monthly or more often relationship but with an inclination to bring community development and continuing education specialists into the sphere of interaction at this intensity level (see Table 15). Specialists in business and industry remained peripheral to the interpersonal informational exchange even at this frequency of contact level.

Purpose of Contacts - Purpose of contact was regarded as an important integrating potential indicator because of its unilateral vs interactive potential. Interactive contacts offer more opportunity to get borrowed information adjusted to user needs than mere one way contacts. Response options permitted and their integrating function potential were:

Low integration potential - contacts for

direction

guidance and advise

confirmation of own views

getting information

High integration potential - contacts to

exchange ideas

plan joint programs

Since very few of any group of specialists made contacts primarily for the purpose of direction, advice or confirmation of own views (most reported none at all) these responses were excluded from the analysis except to note their general nature (see tables 16a, 16b, 16c). In a sense all are ego deflating to admit. A farm advisor would seldom be expected to go to a colleague to find out what to do or perhaps even for confirmation of a decision already made. However, one or all may occur as a latent consequence of conversations primarily for other purposes. Contacts to get information, like the ones above noted are basically unidirectional in nature.

On the other hand, contacts to exchange ideas and to plan joint programs, are necessarily interactive in nature.

Looking first at the chief purpose of contacts that farm management specialists made with their area specialist colleagues, it is apparent from Table 16a that contacts with other farm management specialists in the area were mostly for planning joint programs (43.8%) and for idea exchange (28.1%). Thus with the farm management specialist the relationship with others of their own kind tended to be highly interactive. This was in marked contrast with their chief purpose for contacting other agricultural specialists which was mostly

TABLE 16a: CHIEF PURPOSE OF CONTACTS THAT FARM MANAGEMENT SPECIALISTS HAD WITH SELECTED COLLEAGUES AND OTHER PERSONS IN OWN EXTENSION ADMINISTRATIVE AREA

Kind of Subject Matter Specialist or Person	Chief Purpose of Contacts									
	Total (%)* (N=32)	For Direction (%)	Get Information (%)	Guidance or Advice (%)	Exchange Ideas (%)	Confirm Own Views (%)	Plan Joint Programs (%)	Other (%)	Not Applicable or No Answer (%)	Availability within the Area (%)
Farm management		0.0	9.4	3.1	28.1	9.4	43.8	3.1	25.0	95.2
Livestock		0.0	37.5	3.1	25.0	6.3	28.1	3.1	12.6	95.2
Agronomy		0.0	46.9	3.1	31.3	9.4	21.9	0.0	12.6	100.0
Dairy		0.0	31.3	0.0	3.1	3.1	12.5	0.0	53.1	33.3
Agricultural engineering		0.0	40.6	0.0	21.9	3.1	15.6	0.0	25.0	71.4
Community development		0.0	34.4	0.0	31.3	0.0	3.1	18.8	18.8	95.2
Home economics		0.0	31.3	3.1	31.3	3.1	28.1	12.5	15.7	100.0
Continuing education		0.0	15.6	0.0	21.9	0.0	15.6	12.5	37.5	85.7
Business and industry		0.0	21.9	0.0	12.5	0.0	9.4	18.8	37.4	38.1
Youth		0.0	34.4	3.1	21.9	3.1	12.5	12.5	25.0	100.0
Vocational agri. teachers		0.0	3.1	0.0	21.9	0.0	18.8	6.3	56.2	100.0
Leading farmers		6.3	18.8	3.1	21.9	15.6	3.1	0.0	56.2	100.0

*Percents generally exceed 100.0 because of multiple answers given.

TABLE 16b: CHIEF PURPOSE OF CONTACTS THAT AGRICULTURAL PRODUCTION SPECIALISTS HAD WITH SELECTED COLLEAGUES AND OTHER PERSONS IN OWN EXTENSION ADMINISTRATIVE AREA

Kind of Subject Matter Specialist or Person	Chief Purpose of Contacts									
	Total (%)* (N=69)	For Direction (%)	Get Information (%)	Guidance or Advice (%)	Exchange Ideas (%)	Confirm Own Views (%)	Plan Joint Programs (%)	Other (%)	Not Applicable or No Answer (%)	Availability within the Area (%)
Farm management		4.3	33.3	8.7	46.4	8.7	27.5	0.0	15.9	95.2
Livestock		4.3	40.6	11.6	37.7	5.8	15.9	1.4	18.8	95.2
Agronomy		2.9	36.2	8.7	37.7	8.7	21.7	0.0	24.6	100.0
Dairy		0.0	21.7	4.3	23.2	0.0	10.1	4.3	53.8	33.3
Agricultural engineering		1.4	46.4	10.1	36.2	8.7	24.6	0.0	14.5	71.4
Community development		0.0	31.9	5.8	34.8	1.4	13.0	11.6	21.7	95.2
Home economics		0.0	39.1	4.3	40.6	5.8	13.0	7.2	14.4	100.0
Continuing education		0.0	26.1	2.9	23.2	1.4	10.1	11.6	36.3	85.7
Business and industry		0.0	18.8	0.0	23.2	0.0	7.2	13.0	43.5	38.1
Youth		1.4	26.1	2.9	39.1	5.8	40.6	8.7	11.6	100.0
Vocational agri. teachers		1.4	8.7	2.9	29.0	2.9	24.6	8.7	42.2	100.0
Leading farmers		14.5	13.0	15.9	31.9	2.9	8.7	5.8	43.5	100.0

*Percents generally exceed 100.0 because of multiple answers given.

TABLE 16c: CHIEF PURPOSE OF CONTACTS THAT PRODUCTION SUPPORTING SPECIALISTS HAD WITH
SELECTED COLLEAGUES AND OTHER PERSONS IN OWN EXTENSION ADMINISTRATIVE AREA

Kind of Subject Matter Specialist or Person	Total (%)* (N=16)	Chief Purpose of Contacts								
		For Direction (%)	Get Information (%)	Guidance or Advice (%)	Exchange Ideas (%)	Confirm Own Views (%)	Plan Joint Programs (%)	Other (%)	Not Applicable or No Answer (%)	Availability within the Area (%)
Farm management		0.0	37.5	0.0	50.0	6.3	31.3	6.3	0.0	95.2
Livestock		0.0	25.0	6.3	50.0	0.0	50.0	0.0	0.0	95.2
Agronomy		0.0	43.8	12.5	37.5	6.3	56.3	0.0	0.0	100.0
Dairy		0.0	18.8	0.0	18.8	0.0	25.0	0.0	58.9	33.3
Agricultural engineering		0.0	12.5	12.5	25.0	0.0	12.5	0.0	64.7	71.4
Community development		0.0	31.3	6.3	56.3	0.0	6.3	12.5	5.9	95.2
Home economics		0.0	18.8	0.0	43.8	0.0	37.5	18.8	5.9	100.0
Continuing education		0.0	37.5	0.0	31.3	0.0	6.3	18.8	17.6	85.7
Business and industry		0.0	18.8	0.0	12.5	0.0	6.3	18.8	53.0	38.1
Youth		0.0	18.8	0.0	62.5	0.0	43.8	18.8	5.9	100.0
Vocational agri. teachers		0.0	0.0	0.0	25.0	0.0	12.5	6.3	64.7	100.0
Leading farmers		0.0	0.0	12.5	37.5	6.3	6.3	6.3	47.0	100.0

*Percents generally exceed 100.0 because of multiple answers given.

to get information. As might be expected these percentages were especially high for contacts with specialists representing the major production enterprises in agriculture; namely, agronomy (46.9%) and livestock (37.5%). But information seeking contacts were also very high with agricultural engineers (40.6%). Contacts either for planning joint programs or exchanging ideas were rated second in all cases.

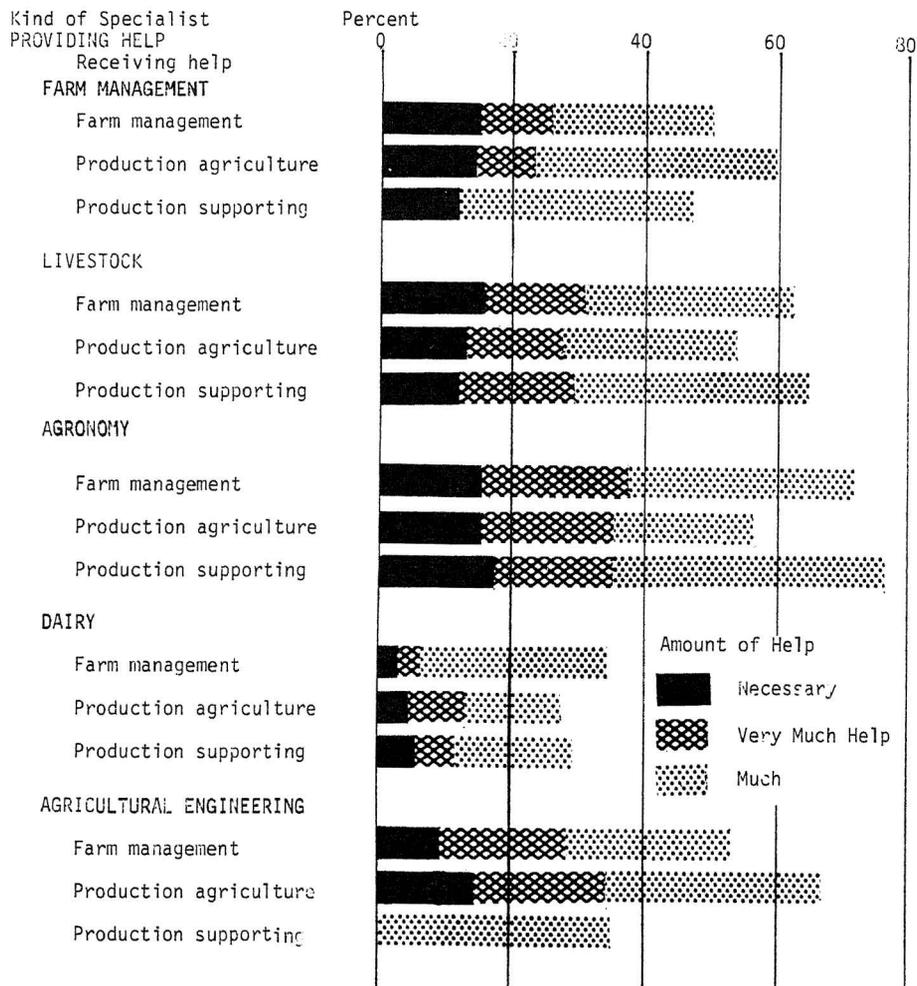
Contacts of farm management specialists with those outside of agriculture were most often to get information. That kind of contact was high between agricultural specialists and youth and CD specialists (34% plus in each case). "Idea exchange" was second for contacts with community development specialists (31.3%) and "planning joint programs" with those in home economics (28.1%). For contacts with business and industry specialists the main purposes reported was getting information (21.9%) and for unspecified other reasons (18.8%) not reported in Table 16a. The main purposes of contacts with continuing education specialists were for getting information (15.6%), planning joint programs (15.6%), and idea exchange (21.9%). Direction, guidance or confirmation of discussions already made as a main purpose were reported by very few of the agricultural specialists.

For specialists in production agriculture the network pattern was varied but in most respects entered into for the same main purposes reported by farm management specialists. When production specialists contacted those in farm management, it was most frequently to exchange ideas (46.4%) and second most for getting information (33.3%) (see Table 16b). Contacts with other agricultural specialists were mostly to obtain information and exchange ideas. Percentages ranged from a low of 21.7% for dairy specialist to a high of 46.4% for agricultural engineers (both for getting information). The low percentage for dairy was certainly a partial function of the reported absence of dairy specialists within most of the areas (see Table 1). Contacts of agricultural production specialists for idea exchange with other specialists ranged from 23.2% to 37.7%. Contacts mostly for planning joint programs were reported for 27.5% of those made with farm management, 24.6% with agricultural engineering, 21.7% with agronomy and 15.9% with livestock specialists.

Outside of agriculture, most contacts with specialists were made with community development and home economics specialists and mostly for getting information and second for exchange of ideas. Percentages for those in home economics were 39.1% and 40.6%, respectively, and for those in community development were 31.9% and 34.8%, respectively. Contacts of agricultural production specialists with youth specialists were for getting information (26.1%), exchanging ideas (39.1%), and planning joint programs (40.6%). For less frequent contacts with business and industries specialists the main purpose was more for idea exchange (23.2%) than for getting information (18.8%).

In distinct contrast to either farm management or agricultural production specialists, contacts that production supporting field specialists made with their colleagues were highly interactive in nature. Thus contacts with farm management and livestock specialists (both

FIGURE 3: AMOUNT OF HELP THAT AGRICULTURAL SPECIALISTS OBTAINED FROM SELECTED FELLOW AREA SPECIALISTS IN AGRICULTURE



50.0%) were mostly for idea exchange (Table 16c). This was also true for contacts with CD (56.3%), youth (62.5%) and home economics (43.8%) specialists outside of or peripheral to production agriculture. Furthermore, contacts for planning joint programs made by the production supporting specialists, were very high by comparison to those made by farm management and production agriculture specialists (examples were joint programs with livestock, agronomy, youth, and home economics specialists). Despite the high percentages of basically interactive contacts, the percentages made mostly for getting information were often most numerous. This was true for contacts with agronomy (43.8%) and continuing education specialists (37.5%).

Thus by and large the contacts of production supporting specialists were more conducive to the performance of the integration function than those of either their farm management or production agriculture specialist colleagues.

Evaluation of Contacts with Fellow Subject Matter Specialists -

An indication of the importance that field specialists placed on the help they received from colleagues outside of their own academic discipline is another indicator of potential for performing the integration function in the delivery of science based information. To examine specialists' assessment of this interdisciplinary mix, each respondent was asked to indicate how much help he got (little, some, much, very much, necessary) from each of the specialists assigned to his extension planning area. These responses are reported in their entirety in appendix tables 7a, 7b, 7c. However, attention here is confined largely to the "very much" or "necessary" ratings assigned to fellow specialists particularly to those representing academic disciplines other than their own.

Figure 3, which reports the "very much" and "necessary" assessments, indicates that all three kinds of specialists (farm management, production and production supporting) rated help from livestock and agronomy specialists highest. The combined "very much" and "necessary" percentages were in the range of 28 to 38 percent. Farm management and production specialists assigned similar high ratings to agricultural engineers. Agronomists and livestock specialists both in the production specialist category reciprocated in high help ratings assigned to each other. To the degree that this can be taken as a reciprocated high rating of specialists of own kind (both being in production agriculture) it represents an exception rather than the rule. Thus, farm management specialists as a group and agricultural engineers, comprising most of the production supporting category of specialists, reported "very much" or "necessary" help from specialists other than their own kind.

But it is important to note that the "very much" or "necessary" ratings were accorded quite exclusively within the agricultural grouping. The only exception to this high importance rating in the agricultural aggregate were the ratings assigned to dairy specialists available in only 1/3 of the extension areas.

TABLE 17: DESIGNATED INFIELD SPECIALISTS CLASSIFIED BY KIND OF SPECIALTY AND NUMBER OF ON-CAMPUS FACULTY CONTACTS WITHIN AND OUTSIDE OF OWN ACADEMIC DEPARTMENT DURING THE PAST YEAR

Kind of Agricultural Specialists -within and outside of own department	Total (N)	Estimated Number of Contacts With On-Campus Faculty							Median
		Total (%)	None (%)	1-9 (%)	10-19 (%)	20-39 (%)	40-79 (%)	80 and over (%)	
Farm management									
within own department	29	100.0	0.0	6.8	10.4	13.8	34.5	41.5	62
outside	29	100.0	0.0	13.8	20.7	24.2	20.7	20.6	34
Livestock									
within own department	22	100.0	0.0	0.0	18.3	13.6	54.6	13.5	60
outside	22	100.0	9.1	22.8	22.8	13.6	27.2	4.5	18
Agricultural engineering									
within own department	10	100.0	0.0	0.0	0.0	30.0	20.0	50.0	70
outside	10	100.0	30.0	10.0	20.0	20.0	10.0	10.0	15
Agronomy									
within own department	26	100.0	0.0	7.6	3.8	30.9	27.0	30.7	55
outside	26	100.0	3.8	11.5	15.4	19.2	19.3	30.8	40
Dairy									
within own department	6	100.0	0.0	16.7	0.0	0.0	49.9	33.4	60
outside	6	100.0	16.6	16.7	16.7	16.7	16.7	16.6	20
Horticulture									
within own department	7	100.0	0.0	0.0	14.3	14.3	57.1	14.3	45
outside	7	100.0	0.0	0.0	28.6	14.3	28.6	28.5	45
Community development									
without own department	26	100.0	3.9	11.6	7.7	30.6	30.6	15.6	38
outside	26	100.0	7.7	15.4	3.9	30.6	30.8	11.6	33

Beyond the agricultural aggregate the "help received" ratings, claimed by all three classes of agricultural specialists receded to a "little" or "some" range. This was true for ratings accorded to community development, continuing education and business and industry specialists (see appendix tables 7a, 7b and 7c). Production supporting specialists also rated youth specialists in the "little" or "some" help range. This was in contrast to the other two kinds of specialists (farm management and production) who rated youth specialists in the general range of "some" to "much help." Finally, all three classes of agricultural specialists rated assistance from home economics specialists in the "some" or "much help" range.

The Interpersonal Network Between In-field and On-campus Faculty

Field subject matter specialists have many options for getting cross disciplinary information at the campus level. There are 13 departments in the College of Agriculture alone. They may consult faculty in their own academic department or they may consult those in any of the others. Contacts with the latter are most significant to the performance of the integration function. Intensity of contacts, are here measured in terms of estimated numbers, per unit of time. It is assumed that the potential that resides in any source is contingent in some degree on it's repeated use. Diversity, the other dimension, of course, provides a means of getting cross disciplinary information to aggregate on behalf of clients.

Number of Contacts - It is apparent from Table 17 that the field staffs' contacts with the on-campus faculty were substantial and disproportionately directed to own academic department. Differences that occurred were in the degree to which this happened, not in any reversal. There was also an inclination for specialists who had less than average cross-disciplinary contacts within the area to exceed the average with the on campus faculty. Thus agronomy specialists with an inclination to contacts with their own kind in the area were conversely inclined in their contacts with the on campus faculty.

A reverse pattern prevailed with agricultural engineering specialists who were cosmopolite in their interactions at the district level but heavily restricted to own department in their contacts with the on-campus faculty. But, aside from these reversal inclinations there were other tendencies that should be noted. Horticultural specialists, for example, were evenly divided between own departmental colleagues and those in other departments. It is also apparent that all of the specialists felt a need for help outside of their own specialties for carrying out their own advisement responsibilities. But it could hardly be said on the basis of this measure that farm management specialists, presumed to have more integrating capabilities than their academic specialist colleagues, were more inclined to cross disciplinary contacts with the on campus faculty.

However, as we turn to the number of on campus faculty within and outside of own academic department, the integrating potential of

TABLE 18: DESIGNATED INFIELD AGRICULTURAL SPECIALISTS CLASSIFIED BY KIND OF SPECIALTY AND NUMBER OF ON-CAMPUS FACULTY CONTACTED WITHIN AND OUTSIDE OF OWN ACADEMIC DEPARTMENT DURING THE PAST YEAR

Kind of Agricultural Specialists	Number of On-Campus Faculty Contacted							
	-within and outside of own department	Total (N)	Total (%)	None (%)	1-4 (%)	5-9 (%)	10 or more (%)	Median
Farm management								
within own department	35	35	100.0	0.0	25.8	31.3	42.9	8
outside	35	35	100.0	2.8	20.0	25.7	51.5	10
Livestock								
within own department	24	24	100.0	0.0	25.0	75.0	0.0	6
outside	24	24	100.0	8.3	45.8	20.8	25.1	4
Agricultural engineering								
within own department	12	12	100.0	0.0	25.0	50.0	25.0	7
outside	12	12	100.0	25.1	50.0	16.6	8.3	3
Agronomy								
within own department	29	29	100.0	0.0	20.5	69.2	10.3	6
outside	29	29	100.0	3.4	27.5	38.1	31.0	6
Dairy								
within own department	6	6	100.0	0.0	100.0	0.0	0.0	3.5
outside	6	6	100.0	16.7	33.3	33.3	16.7	5
Horticulture								
within own department	7	7	100.0	0.0	42.9	57.1	0.0	5
outside	7	7	100.0	0.0	57.1	28.6	14.3	4
Community development								
within own department	29	29	100.0	3.5	31.0	55.1	10.4	5
outside	29	29	100.0	6.9	27.6	34.3	31.2	7

the informal communication network began to emerge in clearer perspective (see Table 18). By a substantial margin, farm management specialists contacted the largest number of on campus faculty (when compared by medians). Furthermore, more contacts were outside than in own academic department, ten and eight, respectively. Dairy specialists showed the same in-out pattern, but with far fewer on campus faculty involved, i.e. three point five within and five outside. For agronomists the numbers were equally divided at six and six. Even though all other agricultural specialists contacted more faculty within own department than outside, they still had many cross-disciplinary contacts.

Thus, the informal information seeking-exchange structure provided a high potential for cross-disciplinary informational servicing of client informational needs. Table 19 which shows the number of on campus departments contacted by the extension field staff, further supports the foregoing conclusions.

Support for Their Formation - Certain conditions are necessary for the formation and maintenance of these networks - These were assumed to be:

- (1) A mutually recognized need for informational exchange with others not of their own kind.
- (2) An administrative structure and/or philosophy that allows free interpersonal exchange of information to happen or insures that it does occur.
- (3) Personal rewards for information exchange among subject matter specialists.

What evidence can we adduce in support of these conditions? Perhaps designation of an agriculturalist (one of the subject matter specialists) in each county as the person responsible for fielding and either answering or quickly finding answers for any in coming question is our best evidence in support of a recognized need for cross-disciplinary informational exchange among specialists. An on-campus extension administrator recently labeled this as one of the two recent innovations that has greatly enhanced the capability of the extension service to serve the informational needs of people in the state. The other was the addition of radio telephones which greatly enhanced the quick accessibility of subject matter specialists to those who need their services.

True, the highly differentiated system of information development, basically dysfunctional to problem solving, is extended from the campus to the field. Nevertheless, there are built-in features that facilitate interpersonal interaction among specialists. They provide opportunities for getting cross-disciplinary information.

Regular meetings of the staff are arranged at the district center where informational exchange can occur. Also, specialists who are

TABLE 19: DESIGNATED INFIELD AGRICULTURAL SPECIALISTS CLASSIFIED BY KIND OF EXTENSION SPECIALTY AND NUMBER OF ACADEMIC DEPARTMENTS CONTACTED DURING THE PAST YEAR

Kind of Agricultural Specialists	Total (N) (%)		Number of On-Campus Academic Departments Contacted				Median (%)
			One Only (%)	2-4 (%)	5-9 (%)	10 & over (%)	
Farm: management	36	100.0	2.8	19.4	69.4	8.4	6
Livestock	24	100.0	8.3	41.6	37.5	17.6	4.5
Agricultural engineering	13	100.0	23.1	46.1	23.1	7.7	3
Agronomy	29	100.0	3.4	48.4	44.8	3.4	4
Dairy	6	100.0	16.7	33.2	33.4	16.7	4.5
Horticulture	7	100.0	0.0	42.9	57.1	0.0	5
Community development	29	100.0	3.5	27.6	51.7	17.2	6

stationed in designated counties have scheduled visits to each of the other county offices. Telephone and more recently radio telephone, provides channels for quick access to other specialists, if and as needed. Also, there are on-campus meetings that permit contacts with faculty to obtain information directly, or perhaps more importantly establish interpersonal relationships upon which they can draw to get information, if and as needed. Once made, these contacts may become regular and be used to the mutual benefit of both.

Administrative philosophy is conducive to forming and maintaining these contacts. Indications are that the field staff would make additional requests for information from the on-campus faculty if and as needed, with little inclination to go through official channels. Also, there was almost no reported cases of unfavorable or inconsiderate treatment by the on-campus faculty to requests made for information by the field staff. Initiative for obtaining information was heavily with the field staff. There was little perceived feeling that administrators viewed information seeking from the on campus faculty as either an indication of own academic incompetence or of superior performance.

Lionberger and Cheng (1980) have previously noted that the greatest reward derived from extension work was from working with people and helping them solve their problems (see Chapter 2). Therefore, personal rewards from doing this successfully are surely high.

Thus there is strong evidence in support of our assumptions about conditions necessary for the formation and maintenance of interpersonal relationships among subject matter specialists. Furthermore, these contacts are perhaps rightfully presumed to have a high potential for acquiring diverse informational inputs and getting them integrated into plans for achieving user goals.

IV. Summary and Conclusions

Despite a dysfunctional structural arrangement in the officially prescribed agricultural research-extension system of the Missouri College of Agriculture to the performance of the integration (putting together) function on behalf of farmers, there developed among subject matter specialists an interpersonal network that has a high potential for contributing to this function.

In many respects the agricultural production supporting subject matter specialists, especially those in Agricultural engineering, are as well situated in the interpersonal network to serve as information integrators as farm management specialists who by position requirement and training are expected to assume this responsibility. This is likely because they need to apply their knowledge in an agricultural production context where informational inputs from other specialists are needed. Even though agricultural production specialists probably possess information most directly usable by farmers, they too

become a part of the high potential interpersonal network that contributes to the performance of the integration function on behalf of farmers as users of science based information.

The necessary cross-disciplinary informational exchange, often interactive in nature, can and does occur at two levels (within the district and at the on-campus level). Subject matter specialists who are highly cross-disciplinary interactive at the local level are not always cross-disciplinary interactive at the campus level and vice versa. But all are part of the cross-disciplinary network.

At the same time the official agricultural research-extension system for the generation and delivery of science based specialty information has permitted and encouraged the development of an interpersonal communicative network among specialists who have the potential for integrating bits and pieces of specialized information into new combinations (the integration function) if and as needed by users. In an otherwise highly differentiated system dysfunctional to the performance of the integration function, this network is crucial. The addition of the radio telephone as a fast communication device has facilitated this exchange.

Perhaps an additional conclusion in the nature of a hypothesis is that given the presence of the conditions necessary for their formation these interpersonal networks will develop and be maintained over time.

CHAPTER 6

ACHIEVING THE INTEGRATION FUNCTION IN COMMUNITY DEVELOPMENT

I. Salience and Nature of Integration Function Problems in the Community Development Setting

In the community development context, the integration function refers to both the process and condition of bringing together a diversity of resources — material, human, service and agency — for use in a coordinated goal-directed activity. Operationally, the integration function can be examined in terms of the linking activities of CD specialists through which integration takes place. In this respect, it refers to both the process and condition of fitting new ideas, information or innovations into the user's social systems.

Although integrating-type activities are central to community development, they have never been explicitly described and analyzed either in textbooks or research literature. It seems to have never caught the attention of scholars of community development and become a topic of community development research. Despite early attention of anthropologists to integration issues (Linton, 1936), they are not alone in this neglect. Linking agents operating at the interface between innovating and use social systems have generally ignored them.

Even in agriculture where research agencies have developed new information and technology, the inclination has been to believe and act as if the new innovations developed were ready for use after testing for local adaptability had demonstrated their utility in the experimental setting. Too often this last step in transforming theory into practice has been omitted. The feeling has been that putting the new into use by the ultimate user is merely a matter of transferring the innovations from its point of origin to its point of use and plugging it in like an electrical appliance. This, of course, fails to recognize that innovations tend to change as they diffuse from one place to another mostly in the process of fitting them into the user's social system (Coughenour, 1968).

For example, in agriculture the use of hybrid corn was initially regarded as merely a matter of taking one kind of seed out of the planter boxes and putting in another. Too little attention was given to the fact that changes had to be made in a well worked out system of seed selection, care and storage in which farmers took great pride, that ideas about what constituted good quality seed and what good seed looked like had to be changed, that old cultural practices would not apply, that use and management of agricultural inputs had to be changed and much more finely tuned, that old ideas about grain quality suited for animal consumption would not fit, and that livestock feeding practices probably also had to be changed. Last, but not least, there was the status consideration of doing something that to neighbors made little sense.

Other examples from agriculture where integration problems were especially difficult were the switch from square to round hay bales and from planting straight rows to planting planned crooked ones (contour farming and terracing). In the household, radar ranges and synthetic cloth must have introduced more than their share of integration problems. In community development, it is a perennial problem.

In the final analysis adoption of an innovation cannot occur without the adaptive fitting in process, no matter how simple the practice may be. Integration viewed as a process, then, refers to the adaptations and changes that occur in establishing a satisfactory working arrangement within the user's social system to achieve the user's purpose which, incidentally, may be different from that intended by the developer. The completed task constitutes the condition of momentary integration. It is momentary because innovations are always in a process of change throughout the diffusion process, perhaps even to the point of hardly maintaining a recognizable identity (Coughenour, 1968; Barnett, 1953).

Although such helpful devices as "packages" or "practices" and extensive specification of everything that is required to fit an innovation into a new social setting as in the developer-demonstrator program in education (Emrick, 1977), the user is quite exclusively stuck with performing the integration function on his own. This is mainly because integration problems have been grossly underestimated, if indeed recognized at all. In general, as development in society takes place, differentiation of functions, activities and services in society occur. Specialized agencies are developed to supply them through top-down channels that work in varying degrees of perfection and often quite independently of each other. This puts the individuals and adopting groups in a position of high interdependency but with little control over the systems to which they must relate and often depend to supply many things needed for doing what they want to do. To all of this must be added a steady stream of material and social inventions coming down the line and inter-dependencies within society all in a constant process of change. Collectively, this greatly intensifies the integration problems for potential users of innovations which have been occurring at an ever increasing rate. In addition to normal management problems, potential adopters must be cognizant of and deal with government regulations, changing community and special interest group norms, and strategies for dealing with entities within the outside world upon which they must depend.

If this is difficult for the farmer, who is relatively free to make his own decisions and has available innovations ready to fit in, it is infinitely more difficult for groups as adopting units. Problems encountered by groups, are generally more complicated, information for their solution is less available and the inputs that must be put together more diverse. Even accurate diagnosis of the problems may be lacking. Thus, the clients of CD specialists are additionally confronted with defining problems, exploring alternatives and perhaps generating new solutions through the process of group dynamics. Both clients and CD specialists must contend with information integration problems created

in part by systems well suited to creating specialty information but dysfunctional to solving problems.¹³

II. The Research Design

Surely the best way to arrive at an understanding of integration issues is to observe how inputs from outside social systems are actually incorporated into workable plans for achieving user goals. This requires observation of how innovations (new ideas and practices) are incorporated into user social systems. Considerable time would be required. An alternative is to rely on indicators of capability to perform the integration function as in Chapter 5. Of these, three appear to be suited to the study at hand.

The first indicator is the capability of the linking agent to perform the integration function. Perhaps a generalist, who is acquainted with the range of resources that a client may need to use and who understands the diverse problems with which he must contend, is potentially a much better integrating agent than a specialist who knows a lot about one thing but lacks the capacity to relate to a variety of resources and conditions. Two ways in which this breadth may be acquired is through

- (1) broad academic exposure, preferably in an applied teaching setting and
- (2) broad prior occupational experiences.

Second, the specialist who draws upon multiple inputs and services to help clients achieve their objectives is potentially a better integrating agent than one who draws on a narrow range of resources and services.

Third, there are support systems that facilitate the incorporation of resources at the local level and those that don't or do it less well. This can be done by providing suitable structures and facilitating the means by which inputs from the resources system (in this case, the university) are made available to clients.

A good example of a facilitating resource system are the Farmers' Cooperatives in Taiwan (Lionberger and Chang, 1970). Here, at a local center within bicycle riding distance from home, a farmer can deposit his savings, get a loan, see the agricultural advisor, purchase needed agriculture supplies, rent equipment, and sell his farm produce. Inputs into the local cooperative come from a variety of sources, but the farmer can get them all at one location in consultation with resource people if and as needed.

¹³For a description of the systems context of the integration problem issue see Chapter 5.

Another way for an integration function support system to evolve is through a network of relatively enduring interpersonal relationships through which client needs are met quite outside from official prescription and structural arrangements. This is likely to work particularly well for informational and service needs. University system capability for performing the integration function for community development revolves about its ability to channel its resources and services to clients either directly or via intermediaries.

The personal capability of the community development specialist to act as an integrating agent can be inferred from the diversity of academic exposure prescribed for their training and from the diversity of their prior occupational experience. Occupational manifestations of integrating capability from the way they work can be inferred from the diversity and frequency with which resources were used in specific projects undertaken and in their work generally. All of the foregoing were used in this study. System capability was examined in terms of the manner in which requests from the field were handled officially and informally through the inter-personal faculty network.

Data for the study were provided primarily by 29 community development and local government specialists who completed questionnaires during the summer of 1977. This constituted 83 percent of those employed in the community development program of University of Missouri Extension. Six respondents were specialists in local government, the others in the broader field of community development. Since their general mode of operation is much the same, all were treated under the general designation of community development specialists.

Additional interviews were conducted with on-campus faculty centrally involved in making university services available to the off-campus staff.

III. The Research Findings

The Community Development Specialist at Work

The clients of community development and local government specialists are mostly people representing local communities and groups with problems for which the University field representatives are asked to render assistance. Requests are very diverse compared to those directed to other subject matter specialists. The information and resource base upon which the specialists drew to address requests were also diverse. An extensive integrating activity was used to bring necessary inputs to bear on the problems, sometimes initially not well defined and which in turn were resolved more by local innovation than by borrowing and applying previously validated innovations.

Some idea of the diversity of problems with which specialists must contend is indicated by the projects in which the community

development specialists in this study had become involved in the recent past. Each specialist was accordingly asked to enumerate 10 important ones in which he or she had been involved during the past year. The most frequently mentioned projects were community, neighborhood and regional development. Specialists were also frequently asked to help with youth programs, programs for the aged, and a diversity of occupational special interests. They conducted seminars and training sessions on land use management, transportation, energy, coal gasification and public relations. They assisted with special programs for election officials, park boards and law enforcement officers. They helped conduct surveys, establish ambulance districts, recruit doctors, build swimming pools and implement plans for emergency medical service.

Activities most frequently mentioned were involvement in the action itself. Others were educational, service, planning and research (see Table 20). The specialists' mode of operation was typically interactive and process oriented. This probably accounts for the idea exchange and feedback response of many of the specialists.

Of 290 projects reported, more were initiated by local action (47.2 percent) than by CD specialists (25.9 percent) or even joint action between the two (5.5 percent) (see Table 21). Thirty-nine percent of the projects had been completed and about half were still in process (49.7 percent). The status of the others was not known, was at a stand still, or they had been discontinued.

Performance of the Integration Function Role

Integration accomplished is the achievement of new working arrangements into which outside inputs have been incorporated and old ones realigned to achieve a self-defined goals of the adopting unit. It is achieved mostly by the adopting unit which must also implement the blueprint for action. A thorough understanding of the process by which integration occurs would require in-depth case studies into how outside inputs are incorporated into the existing social system and the way elements in the system are rearranged to accommodate the new. A prior assumption in this research is that change agents who are outside the user's social system can, and sometimes do, assist in this integration function.

Integrating Capacity of the Specialists

Being trained as generalists and having generalist capabilities, CD and local government specialists were in a very real sense integrating agents in their own right. They are required to take more and a greater diversity of courses than other subject matter specialists to obtain their masters degrees. A total of 48 hours is required compared to a usual 32. Courses are taught by faculty with advanced degrees in agricultural economics, political science, sociology, anthropology, social work and adult education. In addition students may elect to take 18 hours from

TABLE 20: PROJECTS REPORTED BY COMMUNITY DEVELOPMENT
SPECIALISTS CLASSIFIED BY ACTIVITIES INVOLVED

Activities Involved	Number of Projects	%
Total	290	100.0
Educational	58	20.0
Service	50	17.2
Research	33	11.4
Action	68	23.5
Idea exchange + feedback	24	8.3
Planning	39	13.4
Not certain	18	6.2

TABLE 21: HOW PROJECTS UNDERTAKEN BY COMMUNITY DEVELOPMENT
SPECIALISTS WERE INITIATED

Initiation Source	Number of Projects	%
Total	290	100.0
Extension only	75	25.9
Local only	137	47.2
Extension and local	16	5.5
Extension and external	0	0
Other combination	18	6.2
Other agencies	20	6.9
Already in process	8	2.8
Not certain	16	5.5

general sociology, rural sociology, political science, economics, anthropology, recreation and park administration, higher and adult education and psychology.

Training is process oriented. Teaching is closely related to in-field activities. Most of the university based faculty have alternated between on-campus and in-field assignments and all continue to serve as resource persons for the field staff. Methodologically, interaction and people involvement are emphasized as the educational strategy to follow. Thus, both diversity of academic exposure and method of applying what is learned is conducive to performing the integration function in social settings where a great diversity of resource inputs are needed. This is much more the case with extension specialists than for the narrowly but well trained academic specialist.

Their integrating capability was further enhanced by broad prior occupational experience. All but one had had one to five different kinds of jobs. Most were in public service which required extensive contact with the public. These included such jobs as public office, government service, social work, the ministry, extension work, grade and high school teaching, school administration, business and sales work. This diversity of prior experience surely had the potential of increasing specialist's capability to identify and enlist services on behalf of clients.

Results from the Operational Indicators

Whereas agricultural specialists have a continuing supply of locally validated information and technology to bring to the attention of their clients and to deliver to them upon request, community development specialists and clients often have to jointly do their own innovating to solve their problems. This often requires drawing on many information sources and inputs, perhaps first to define the problem and then to consider alternatives, prepare plans and to implement action. Locally tested and validated innovations to solve problems as in agriculture are generally not available. Operational indicators of the integrating capability used were the number and diversity of inputs upon which the specialists drew in carrying out their field assignments. More specifically this included the information sources and agency contacts reported in carrying out the specific projects, about which each was questioned and the aggregate (university and agency) contacts reported in carrying out their work during the past year.

Evidence From Specific Projects - Enumeration of information sources and contacts made included those with the university on-campus faculty on the one hand and with local, state and federal agencies on the other. Contacts reported with the former disclosed heavy use of the campus faculty as a resource. Over 80 percent of the projects drew upon university academic departments with involvement more directed to other (34.5 percent) than to their own Community

TABLE 22: UNIVERSITY ACADEMIC DEPARTMENT INVOLVEMENT IN COMMUNITY DEVELOPMENT PROJECTS

Departments Involved	Number of Projects	%
Total	87	100.0
Department of Regional and Community Affairs only	17	19.5
Other departments only	30	34.5
Both	23	26.5
No university departments involved	17	19.5

TABLE 23: OPERATIONAL LOCALE OF AGENCIES INVOLVED IN COMMUNITY DEVELOPMENT PROJECTS

Locale of Agency	Number of Projects	%
Total	87	100.0
Local & regional only	5	5.8
State only	5	5.8
Federal only	1	1.1
Local & state	48	55.2
Local & federal	4	4.6
State & federal	1	1.1
Local & state & federal	23	26.4

TABLE 24: COMMUNITY DEVELOPMENT PROJECTS CLASSIFIED BY THE KINDS OF AGENCIES INVOLVED IN IMPLEMENTING THEM

Number of Kinds	Number of Projects	%
Total	87	100.0
1	6	6.9
2	16	18.4
3	23	26.4
4	19	21.8
5	8	9.2
6	11	12.7
7-9	4	4.6

TABLE 25: COMMUNITY DEVELOPMENT PROJECTS CLASSIFIED BY THE NUMBER OF AGENCIES INVOLVED IN IMPLEMENTING THEM

Number of Agencies Involved	Number of Projects	%
Total	87	100.0
1-3	21	24.1
4-6	39	44.8
7-9	14	16.1
10-12	6	6.9
13 or over	7	8.1

Development Department (19.5 percent) (see Table 22).¹⁴ However, joint involvement of own and other departments was indicated in 26.6 percent of the projects. The "other department" category involved 32 different departments in eleven divisions of the University and faculty on both academic and extension appointments. Thus, from the standpoint of diversity of contacts alone, CD specialists were operating as high potential integrating agents in relation to the projects to which they rendered assistance.

A second kind of resource base upon which CD specialists drew heavily were local, state and federal agencies of which state and local were most used. This combination was involved in 55.2 percent of the projects, while local, state and federal also were involved in 26.4 percent (see Table 23). Very few involved only local (including regional) (5.8 percent) or state agencies alone (5.8 percent) and almost none federal agencies alone. Thus, the community development activity was heavily involved in bringing together local, state and federal agency inputs to solve local problems on behalf of local communities and groups. Completion and/or servicing the needs of most projects involved three or four kinds of agencies. Very few involved only one (see Table 24). Approximately 45 percent of the projects involved four to six agencies (see Table 25), and 31.1% more than that number. Agencies most used were those of local government (28.0 percent) followed closely by university departments (25.4 percent). State offices or agencies were third and considerably less frequently mentioned. Thus, the projects sampled were carried out mainly as a team effort between the University as a resource system and local government offices and agencies (see Table 26).

Evidence from Resource use in General - The data base for this assessment was the number, kind and purpose of contacts that the CD field staff had (during the past year) with the on-campus faculty and other resource systems. The general situation was one of contacts with most divisions or colleges in the University and at least 33 of its 97 departments (appendix Table 8). Faculty contacts made by the off-campus specialists were mainly with extension faculty on the campus. As expected, contacts were concentrated most heavily in the Community Development Department where extension appointments prevailed. Only about 5 percent of the total contacts were directed to faculty with academic appointments only.

Next, and quite numerous, were contacts with the faculty in the College of Agriculture. In this college, inquiries were mainly to faculty in agricultural economics and agronomy. The divisions of next most frequent contacts were engineering and arts and science. However, in both cases contacts were selectively made in a few departments.

¹⁴Since the study was conducted the Department of Community and Regional Affairs has been charged to Community Development Department. Reference is made to the last in this study.

TABLE 26. UNIVERSITY DEPARTMENTS AND AGENCIES MENTIONED
AS USED IN THE 87 PROJECTS REPORTED BY COMMUNITY
DEVELOPMENT SPECIALISTS

Kind of Agency	Number Mentioning	%
University departments Community development	46	8.9
All others	85	16.5
Local schools & colleges	18	3.5
Churches	6	1.2
Civil groups	45	8.7
Local government agencies and offices	144	28.0
Social service agencies	7	1.4
Business representatives or agencies	29	5.6
Professionals & professional associations	12	2.3
Farm organizations	3	0.6
State departments or agencies	62	12.0
Federal offices of agencies	41	8.0
Hospitals & health agencies	11	2.1
Others	6	1.2

TABLE 27. PURPOSE OF CONTACTS MADE BY CD SPECIALISTS IN THE FIELD CLASSIFIED BY ON-CAMPUS DEPARTMENT CONTACTED*

Department	Total	Purpose of Contacts					
		Get information (%)	Get Advice (%)	Do a Chore For Them (%)	Do a Chore For Me (%)	Exchange Idea (%)	Other (%)
Total	100 (N=268)	37.7	20.1	10.5	14.5	16.4	0.8
Community development	100 (N=91)	34.1	24.2	13.2	9.8	17.6	1.1
All others	100 (N=177)	39.6	18.1	9.0	16.9	15.8	0.6

*Based on response of first 10 faculty members listed to whom more detailed questions were directed.

TABLE 28. BY WHOM INITIATED AND HOW CONTACTS OF THE CD SPECIALISTS STATIONED IN THE FIELD TO THE ON-CAMPUS FACULTY WERE MADE CLASSIFIED BY THE ON-CAMPUS DEPARTMENT TO WHICH THEY WERE DIRECTED

Department to which directed	Total (%)	Who Usually Initiates Contacts					
		They (%)	Self				Not Certain (%)
			Total (%)	Through official channels (%)	Direct (%)	Both (%)	
Total	100	5.2	51.0	(3.1)	(47.9)	37.2	6.6
Community development	100	4.8	32.1	(0.0)	(32.1)	63.1	0.0
All others	100	5.9	62.4	(4.3)	(58.1)	29.0	2.7

TABLE 29. WHETHER AND HOW ON-CAMPUS FACULTY WOULD BE RECONTACTED IF NEEDED CLASSIFIED BY DEPARTMENT TO BE CONTACTED

Department to be contacted if needed	Whether Would Recontact or Not				
	Total	Yes - and how			
		Directly	Via State Official	No or Probably Not	Not Certain
Total	100 (N=268)	96.6	0.4	1.5	1.1
Community development	100 (N=91)	96.7	1.1	1.1	1.1
All others	100 (N=177)	96.6	0.0	1.7	1.7

*Confined to first 10 faculty listed.

TABLE 30. COMMUNITY DEVELOPMENT SPECIALISTS CLASSIFIED BY WHERE THEY ARE INCLINED TO GO FIRST WHERE THEY ENCOUNTER A QUESTION THEY CAN'T ANSWER

Person	Number of CD Specialists	Percent
Total	29	100.0
Area director	1	3.4
Direct to subject matter specialists	22	75.9
Indirectly to appropriate subject matter specialists	0	0.0
A trusted knowledgeable who may tell you when you can get an answer	2	6.9
University referral center	3	10.4
Others	1	3.4

The situation in regard to this operational indicator of the integration function was one of concerted use of own Community Development Department where a variety of disciplinary expertise was available both directly through consultation with the staff and indirectly through interdisciplinary materials prepared by the Department. Even so the faculty in the other divisions in the University were apparently called upon if and as needed.

The major purposes of contacts with on-campus faculty as indicated by the general use data were to get information (37.7 percent) and advice (20.1 percent). Idea exchange was third in order with chores performed fourth, and again more on behalf of the field staff than the converse. Contacts with on campus faculty in own department (Community Development) compared to contacts with faculty in other departments were somewhat more interactive than for obtaining advice. This suggested deference to own kind (of resource persons) when hard decisions had to be made. Contacts with other departments were relatively more for getting information (see Table 27).

Although the community development field staff most often initiated contacts with the on-campus faculty (51.0 percent), initiation was regarded as shared about equally by 37.2 percent indicating the interactive nature of this relationship. Almost all were initiated directly (see Table 28). Interactive relationships with faculty in own on-campus department was much higher than with faculty in other departments. All were direct. But irrespective of the department involved, approximately 97 percent would recontact and almost 100 percent directly rather than through official channels (see Table 29). When problems for which information was needed occurs, the inclination was for the in-field staff to go directly to the appropriate campus based faculty member. This was the response of 75.9 percent of the staff, another 6.9 percent were inclined to use a knowledgeable intermediary who would probably know whom to contact. A little over 10.0 percent were inclined to initially use the University Referral Center to get the answers they needed (see Table 30). This is an on-campus facility designed to receive questions from the field, make quick searches of on-campus and off-campus informational resources if necessary, and get answers relayed back quickly. There were only two specialists who indicated an inclination to route inquiries through official channels (see Table 31).

Another resource upon which CD specialists could draw were other specialists stationed in own or adjoining counties within own area. All 21 areas had agricultural and youth specialists. All had specialists in home economics. Eight had business and industry specialists, and 18 had one or more in continuing education (see Table 1).

Although often stationed in adjoining counties, the area based specialists have more opportunity for contact with each other than with specialists assigned to other areas. This being the case, the area organization provided an additional integrating facility for resource inputs. Some indication as to whether and the extent to which area resources were used is indicated by the contacts that community

development specialists had with the other staff. All reported contacts with agricultural specialists, 14 in the 10 to 79 range and 9 with 120 or more contacts during the past year (see Table 32). Likewise, all had contacts with youth specialists with a heavy concentration in the 20 or over range. Seven reported 80 or more. Contacts with the home economics staff tended to vary, with roughly one third in the 120 or over range and others with less than 80. Contacts were almost as frequent with both business and industry specialists and those in continuing education. This communicative exchange among the area staff was highly conducive to the performance of the integrating function in the information supply line from the university as a resource system to information user clientele.

TABLE 31. COMMUNITY DEVELOPMENT SPECIALISTS CLASSIFIED BY THE MANNER IN WHICH THEY ORDINARILY CONTACT ON-CAMPUS FACULTY TO GET THE INFORMATION THEY DESIRE

Manner in Which Contact is Ordinarily Made	Number of CD Specialists	Percent
Total	29	100.0
Through official channels	2	6.9
Directly to knowledgeable source	27	93.1

Other resources upon which CD specialists frequently drew were local, state and federal agencies. All but one of the specialists had one or more contacts with federal agencies, mostly in the one to 40 range and most also with both the State Division of Community and Industrial Development and the State Division of Community Development. These contacts were heavily concentrated in the one to 19 range (see Table 33).

The State Division of Community and Industrial Development is primarily concerned with getting industries into the state and the State Division of Community Development with a community recognition and reward program. In this the university field staff cooperate in a number of ways, quite like help provided a community. Relations with the Department were reported to be cordial and mutually supportive.

Quite understandably, agency contacts were distinctly highest with county and local officials since this was where most project activity occurred. The median number was 39. Those with local, civic and service groups followed in order with a frequency median of 27. Judging from the number and frequency of contacts reported, close liaison was also maintained with regional planning units in the respective areas (see Table 34).

TABLE 32. COMMUNITY DEVELOPMENT SPECIALISTS CLASSIFIED BY NUMBER OF CONTACTS THEY HAD WITH OTHER SUBJECT MATTER SPECIALISTS IN OWN AREA DURING THE PAST YEAR

Kind of Subject Matter Specialists in Own Area	Number of Contacts								
	Total	None	Not Certain	1-9	10-19	20-39	40-79	80-119	120 & Over
Agricultural	29	0	4	2	7	2	5	0	9
Home economics	29	1	5	4	3	0	8	0	8
Business & industry	29	1	7	6	5	5	4	0	1
Continuing education	29	2	5	2	5	3	3	1	8
Youth	29	0	2	2	6	5	7	2	5

TABLE 33. COMMUNITY DEVELOPMENT SPECIALISTS CLASSIFIED BY NUMBER OF CONTACTS THEY HAD WITH GOVERNMENT AGENCIES

State and Federal Agencies	Number of Contacts					
	Total	None	Not Certain	1-19	20-39	40 & Over
State Division of Community and Industrial Development	29	7	7	15	0	0
State Division of Community Development	29	4	7	16	2	0
Federal agencies	29	1	4	13	5	4

TABLE 34. COMMUNITY DEVELOPMENT SPECIALISTS CLASSIFIED BY NUMBER OF CONTACTS THEY HAD WITH PROFESSIONAL, REGIONAL PLANNING AND LOCAL AGENCIES

Kind of Agency	Total	Number of Contacts							Median
		None	Not Certain	1-19	20-39	40-79	80-119	120 & Over	
Planning									
Regional planning	29	0	1	13	5	3	1	1	16
Extension council	29	0	2	24	1	2	0	0	14
Business	29	2	2	9	4	7	0	0	32
Professional	29	5	3	18	3	0	0	0	5.6
Local									
County court	29	1	2	10	7	7	0	2	26.6
County and local agency officials	29	0	3	5	8	9	0	4	39
Civil and/or service groups	29	2	2	10	4	7	0	3	27
other	29	0	26	0	0	2	0	1	0

Business and professional groups were resources with which frequent contacts were also made. In general, the high number and diversity of contacts made with agencies and resources bases enhanced the potential of CD specialists for performing the integrating function.

Evidence From How the System Operates at Center - The campus based CD staff operates as integrating agents, by (1) preparing technical and program materials of an interdisciplinary nature and by (2) responding to requests that come from the field for which a diversity of academic inputs are often required. While responding to these requests the CD faculty remain continually alert to emerging problems for which special technical and program materials are prepared. These are used to bring the problem to broader public attention and to assist those who want to do something about it. This may require interaction and writing by a variety of academicians over an extended period of time. Typical of this was the two year joint effort of faculty in eight academic departments to prepare technical information and resource materials for addressing recurrent problems encountered in providing public services to people in the state. Other examples of emergent problems serviced with specially prepared materials were land use planning and rural development.

The second way in which the on-campus CD staff act as integrating agents is through servicing informational requests initiated directly by members of the public or more likely through local CD specialists who in turn relay requests to the campus staff. The primary basis for examining how and with what frequency such contacts were made was obtained from (12 of 22) on-campus support staff mentioned five or more times as resource persons who returned questionnaires concerning their servicing of incoming informational requests from the field. In contrast to incoming requests heavily directed to the College of Public and Community Services and more particularly the Community Development Department on campus referrals were heavily directed to other divisions and departments; in fact, all divisions but the School of Nursing and to 60 percent of all 97 departments.

In addition to departmental contacts, estimates of the number of contacts during the past year were made. Almost a third (32.2%) were with the College of Agriculture. This headed the list. The College of Public and Community Services was second with 30.1 percent and the Arts and Sciences College third with 18 percent. The rest were directed to all other divisions of the Columbia campus except the School of Nursing. The highly significant feature about the on-campus referral pattern from the socio-metric stars was that almost 70 percent of the servicing requests went to divisions other than the College of Public and Community Services. The comparable dispersal rate of referrals from the Community Development Department to other departments in the University was nearly 90 percent. With high concentration of incoming (from the field) requests to the Community Development Department and the dispersed referral to other departments and divisions within the university system, the integrating-link function of the Department was clearly indicated.

Much the same picture was projected by mentions made by the socio-metric stars of the faculty that they named as most frequently contacted for servicing assistance. Thirteen out of the 63 high use referents named were in the Community Development Department.

Informational servicing outreach from the socio-metric stars extended beyond the local setting. Well over half (58.3%) indicated they had requested help from faculty on other campuses in the state. These included the university of Missouri at Rolla, and St. Louis, the southwestern and northwestern state universities, also, Washington, Lincoln and St. Louis universities and Stephens College. Three out of four made requests to federal government agencies and all but one to state agencies of which 18 were mentioned.

Thus, it was that the community development outreach system served as a mechanism for delivering science based information to clients in a local interactive problem solving framework in which virtually all divisions of the Columbia campus of the University of Missouri and eight other colleges and universities in the state contributed. These were articulated with numerous in-coming field requests disproportionately channeled through the Community Development Department to other divisions and departments in the University.

IV. Conclusions and Observations

By virtue of

- (1) the training provided for community development specialists,
- (2) their diverse prior occupational experiences,
- (3) the frequency with which they contacted the on-campus faculty for the information and services they needed,
- (4) the diversity of these contacts and their interactional nature,
- (5) the manner in which incoming informational service related contacts were fielded by the on-campus staff,
- (6) the way the university system operated to service in-field faculty needs, and
- (7) the diversity of agency and other resource inputs that were actually brought to bear on specific community development projects

CD specialists operated truly as input integrating agents.

The high concentration of contacts within the Community Development Department and to extension appointed persons within the university system could be indicative either of

- (1) a relatively closed system and thus one unable or unwilling to draw upon other university informational resources that might be used to service in-field informational needs or
- (2) a high capability of the extension system and its representatives to respond to the incoming requests and questions from the field.

The extent to which the CD specialists in the field drew upon other departments in the university and other resources outside of the university resource system, is indicative of the latter. Furthermore, by far the largest part of the informational servicing needs was supplied by persons who had extension appointments.

However, there was nothing to indicate that if and when services beyond the official extension capability were needed, these would not be available either by indirect contact with the faculty or more likely via an extension appointed faculty member serving as an intermediary. All of this was quite aside from the interdisciplinary materials prepared by the Department for servicing the emergent and on going informational needs for problem issues in the state. For this, inputs from more than one academic department were ordinarily needed.

The integrating capacity of the university extension system, was further exemplified by the manner in which interpersonal networks operated to supply the informational and advisement needs of off-campus information users. Referrals of requests by the faculty contacted five or more times by the field staff were heavily to divisions in the university other than the College of Public and Community Services, officially central to the community development outreach activity. Although referrals were highly concentrated on the Columbia campus, they were also directed to eight other universities in the state and to government agencies. The net effect of the interpersonal communicative network was to serve outstate informational needs by drawing on a great diversity of resources, an activity central to the integration function.

From a utilitarian perspective the community development social system provided an interface mechanism between the diverse on-campus informational resource base and users that brought necessary multiple information sources to bear on complex local problems. It is difficult to see how this could be done in the absence of complex interpersonal referral network that constitutes the working part of the community development social system.

CHAPTER 7

EXTENSION CLIENTELES

I. Problems of Definition

At times the prevailing public perception of university extension is that it works primarily with individuals, and in the earliest days with farmers only. Even in agriculture where a continuing supply of locally validated information, well suited to the needs of farmers, is available for delivery, work only with individuals may have never been the case. If ever true, it certainly no longer is.

Whether in agriculture or community development, extension has many clienteles. As a minimum these include agents and agencies that provide the support services that enable information users to do what they may have decided to do. In agriculture these include those responsible for production credit, supplies (chemical fertilizers, pesticides, herbicides, improved seeds, agricultural equipment etc. and markets for the farm produce. Community development supporting services include virtually the whole range of groups and agencies that in one way or another support people in doing individually or collectively what they are intent on doing; thus fraternal groups, local churches, schools, businesses, banks, professional societies, chambers of commerce, government agencies, etc. Also there are individuals and groups whose support for extension programing is needed. Even though not active in the educational work they are often in a position to offer support to or forestall action that could be helpful.

As contacts with potential clients become more interactive and as joint involvements in endeavors increase, definition of who is helping whom becomes more difficult. In such a context relationships and reasons for contacts made become more important than who is the educator and who is the educated. This is the interactive situation in which we propose to address the matter of extension clienteles. As we do so attention will be primarily directed to contacts with agencies and people and why they were made.

II. The SituationIn Agriculture

Each agricultural specialist was asked to specifically indicate the help rendered to 27 agencies or offices both civic and governmental with which contacts were likely to have been made in the performance of their duties. Responses requested were about the direction, nature and purpose of these relationships.

Table 35 represents the percentage responding in the designated manner. It is accordingly apparent that contacts were very high with

TABLE 35: AGRICULTURAL SPECIALISTS CLASSIFIED BY THE NUMBER OF CONTACTS THEY HAD WITH DESIGNATED AGENTS AND AGENCIES

Kind of Agent or Agency	Total (%) (N=127)	Number of Contacts			
		None (%)	1-9 (%)	10-19 (%)	20 & over (%)
Government Offices					
Agricultural Stabilization and Conservation Service	100.0	5.5	19.7	26.8	48.0
Soil Conservation Service	100.0	7.1	21.2	32.3	39.4
Production Credit Association	100.0	17.3	46.5	20.5	15.7
Federal Land Bank	100.0	43.3	41.7	12.6	2.4
Farmer's Home Administration	100.0	14.2	50.4	26.7	8.7
County court	100.0	12.6	44.9	21.2	21.3
Other county offices	100.0	83.5	7.1	1.5	7.9
Civic and Local Groups					
Chamber of Commerce	100.0	40.9	40.2	12.6	6.3
Civic clubs	100.0	29.9	41.0	7.8	21.3
Other local groups	100.0	81.9	7.9	4.7	5.5
Farm Organizations					
American Farm Bureau	100.0	15.0	63.7	15.0	6.3
Missouri Farmers Association	100.0	33.9	36.2	19.7	10.2
National Farmers Association	100.0	70.9	24.4	1.6	3.1
Commercial					
Local banker	100.0	8.7	35.4	23.6	32.3
Local feed and seed dealers	100.0	9.4	16.6	23.6	50.4
Other local business	100.0	91.3	1.6	3.2	3.9
Seed company representatives	100.0	37.0	45.7	11.0	6.3

TABLE 35: (Cont'd)

Kind of Agent or Agency	Total (%) (N=127)	Number of Contacts			
		None (%)	1-9 (%)	10-19 (%)	20 & over (%)
Agricultural chemical company field representatives	100.0	29.9	40.2	16.5	13.4
Farm machinery field representatives	100.0	59.8	32.3	6.3	1.6
Fertilizer company field representatives	100.0	53.5	32.3	9.5	4.7
Agricultural Commodity Groups					
Missouri Pork Producer Association	100.0	39.4	44.9	10.2	5.5
Missouri Beef Cattle Improvement Association	100.0	50.4	36.2	6.3	7.1
Missouri Dairy Herd Improvement Association	100.0	66.9	23.7	2.3	7.1
Missouri Soybean Association	100.0	68.5	27.6	2.3	1.6
Missouri Seed Improvement Association	100.0	66.9	26.0	5.5	1.6
Missouri Cotton Producers Association	100.0	93.7	5.5	0.8	0.0
Other crop or livestock associations	100.0	83.5	7.1	5.5	3.9

federal government agency offices, local bankers and with dealers concerned with supplying feed, seed and agricultural chemicals to farmers. Contacts were also frequent with local service groups and the major farm organizations.

Helping with the program of others (agents or agencies) was often more frequent than giving information (see Appendix Table 9). This was true in the case of the Agricultural Stabilization and Conservation Service Office (ASCS), the Soil Conservation Service Office, Civic Clubs generally and for some of the commodity groups (e.g. beef cattle and soy beans). Herein lies the long term institution building potential of the cooperative extension service. In most other cases giving information was the most frequently rendered service.

Very few agricultural specialists reported giving direction as a service rendered but giving advice was reported by 25% or more on behalf of local bankers, local feed and seed dealers, and ASCS offices. Perhaps most significant, however, was the great diversity of agencies with which contacts were made and with which interaction presumably occurred.

But help from many sources was received in return. Appendix Table 10 presents the proportion of agricultural specialists reporting active program assistance, provision of resources for self or client, "good will" and publicizing extension programs. Although "good will" was frequently mentioned, "resources for self or clients" was a type of help reported by 40% or more from the ASCS office, and from local feed and seed dealers. Others from whom this kind of help was received were the ASCS office and the local banker. At least a third got active program assistance from the ASCS office, local bankers and local feed and seed dealers. Publicizing extension programs was reported by at least a fourth as a service from at least six agents or agencies. Thus the matter of services rendered was a two way street.

In Community Development

The contacts that community development specialists made in the performance of their duties and the things they do were so process oriented and the information needed so location specific that questions about relationships with specific civic and government agencies like those asked of agricultural specialists was not feasible. Also the process approach to the resolution of client problems actually specifies that the specialists should not provide answers even when possible and to avoid any assumption that University based information is in any way superior to that which people already have or can generate through their own devices.

Rather their primary function is to put in place a process that will stimulate self discovery by facilitating proper definition of problems, consideration of alternatives, making decisions and proceeding to act on the basis of the choices made; also to assist in bringing inputs to bear on what is being proposed. Whatever information the specialist

provides becomes a part of the larger mix which he or she has helped to create by facilitating inputs if and as needed and available. Thus in a sense any attempt to define clienteles in an information delivery-recipient context is basically untenable.

Table 36 presents the chief purpose of contacts made with offices or agencies with which CD specialists often find it necessary to work. From this we see that the most frequently reported purpose for contacts made with regional agencies was for the exchange of ideas. Contacts with extension councils for own guidance was somewhat more frequent than idea exchange. For federal government agencies and professional groups contacts to get, not to give, information predominated. Percentages were especially high (79.3) for federal government agents or agencies. For service and civic groups planning joint programs was predominant. Thus contacts with what may be regarded as clientele groups were predominantly for either idea exchange or getting, not giving information. The necessary treatment of agencies or groups in categories, of course, tends to obscure the great magnitude of those contacted. But treatment of each with the same detail would likely have burdened both the reader and the researchers beyond the point of endurance.

Perhaps no request to the community development specialist for help from any group or individual is turned aside without careful consideration. Such may come from people who presume to represent neighborhoods or communities, special interest groups (firemen and law enforcement officers, etc.), civic groups or chambers of commerce, service agencies (local welfare or public health office), school officials, religious groups or simply interested citizens who are aware of already existing or emerging problems.

Some idea about the diversity of requesting groups and thus also of clienteles can be surmised from the important projects in which CD specialists had been engaged in the past year. The ten considered most important are listed under broad categories of classification in Table 20 (in Chapter 6). This again tends to obscure the diversity of both types of process and specific clients serviced. The ones most prevalent were of an action nature (23.5%) i.e. helping local groups or agencies do something. These included assistance in organizing senior citizen groups, law enforcement activities, assisting election officials, addressing the problem of park board and local government officials. Many projects were basically educational in nature -- on land use, administration of welfare services, transportation, energy, coal gasification and public relations. Sometimes field specialists would serve as information resource persons but more often these were recruited from one of the university campuses.

Projects falling in the service category (17.2%) included such things as helping to establish emergency medical care, helping with programs for youth, the aged, occupational groups, building nurseries, swimming pools, and improving streets and school services. Others involved planning activities (13.4%), i.e. for fire and ambulance districts, assessing manpower needs and recreational possibilities. In

TABLE 36. PERCENT OF COMMUNITY DEVELOPMENT SPECIALISTS CLASSIFIED BY CHIEF PURPOSE OF CONTACTS WITH DESIGNATED AGENTS OR AGENCIES

Kind of Agent or Agency	Total (N=29) (%)*	Chief Purpose of Contacts						
		For Direction (%)	Get Information (%)	Guidance or Advice (%)	Exchange Ideas (%)	Confirm Own Views (%)	Joint Program (%)	Other (%)
Regional Planning Committees or Councils of Government		3.4	44.8	13.8	65.5	10.3	44.8	6.9
Extension Council		24.1	17.2	41.4	37.9	10.3	10.3	24.1
Business - individuals, groups, or organizations		3.4	31.0	10.3	44.8	3.4	34.5	13.8
County Court		13.8	27.6	24.1	65.5	10.3	27.6	13.8
County and/or local offices or agencies		10.3	55.2	10.3	48.3	3.4	34.5	13.8
Federal agencies or representatives		6.9	79.3	6.9	41.4	0.0	24.1	3.4
Professional associations		0.0	41.4	10.3	31.0	3.4	27.6	0.0
Service and/or civic groups		0.0	31.0	13.8	34.5	6.9	41.4	17.2
State Division of Community and Industrial Development		0.0	44.8	6.9	20.7	3.4	13.8	6.9
State Division of Community Development		0.0	41.4	0.0	34.5	3.4	27.6	13.8

*Percents generally exceed 100.0 because of multiple answers given.

11.4% of the cases the project was labeled research which in most cases involved helping local people or groups plan, conduct, interpret and use the results of an investigation that they themselves carried out. A typical arrangement was for the community development field specialists with such university assistance as may be needed to help local people do their own research.

Although initiation of projects resided mostly with local people (47.2%) in 25.9% of the cases the community development field staff perceived themselves as being the sole initiator (see Table 21 in Chapter 6). But in view of the interactive way in which the community development field staff operate those most involved in the initiation effort locally would almost certainly perceive themselves as being the initiators. This by their own prescription would be as it should be.

III. General Observations and Conclusions

Definition of clientele in terms of informational and advisory services rendered is especially difficult for community development specialists who work mostly in problem solving situations where interaction among information specialists, agency representatives and local people is general practice. Perhaps, in this context, clientele can best be thought of in terms of the variety, purpose and nature of the service contacts made. Viewed in this way, the conclusion must be that clientele are heavily populated with agency representatives that span the gamut of local concern.

For agricultural specialists, in addition to farmers, clientele include the great range of local, state and federal agencies that serve the agricultural interests of farmers plus some that address their human needs also. Those, about which specific contacts were solicited, were 26 in number. Information about relationships with other agencies was volunteered. Although giving information was the most commonly reported service for them, helping agencies with their programs was often high on the list. On the other hand, they got good will, favorable publicity, resources for self or client and often also active program assistance in return.

Thus it was both agricultural and community development clients included more than people as individuals, and involved receiving as well as giving of services.

CHAPTER 8

SUMMARY CONCLUSIONS AND IMPLICATIONS

In accord with the land grant university intent, the University of Missouri-Columbia developed a capability for simultaneously

- (1) developing new information and technology (innovation function),
- (2) testing its utility for local use (the validation function),
- (3) delivering the locally validated information to people in the state (the dissemination function),
- (4) helping people become informed about what is available (the information function),
- (5) providing potential information users with many of the evaluative judgements they need to arrive at their adoption decisions (the persuasion function), and
- (6) maintaining a system of control and guidance that ensures responsiveness to the informational needs of the public (the governance function).

But there is yet another generally overlooked function that must be performed, namely, that of fitting the new information and technology into actionable plans to achieve user goals (the integration function). The frequent default in addressing this function has been partly occasioned by a failure to conceptualize it as an extension concern, or indeed as a communication problem. Its severity has been further exacerbated by

- (1) the increasing need for specialty information in a rapidly changing society,
- (2) the disassociated way in which specialty information is generated,
- (3) extension of a campus level organization incapable of solving people's problems to the information delivery part of the university (the organization of extension), and
- (4) the diversity of influences to which people in modern society are necessarily subjected.

Information users are in an uncomfortable position of having to put highly specialized information and other inputs together into usable combinations for themselves. This in essence constitutes the integration issue to which much attention was given in this study. The position taken is that the research-extension system that helped create

this problem and much of the information available for use can and does have some responsibility for helping the user put it all together. Other operational issues considered include matters of extension roles, philosophies, clineteles, in-service rewards and reasons for entering the Extension Service. These are discussed in a second major heading of this chapter.

I. Addressing the Integration Function

Options

There are a number of ways to integrate specialty information into user plans. Several are currently being used by the Missouri Cooperative Extension Service. One is to increase the management ability of clients so they can put things together without much outside help. This was an objective of the Balanced Farming Program of years past in which the extension service in this State pioneered. It remains an objective of the Small Farm Family and Young Farmer programs.

Certainly development of management capability, as an academic specialty, if necessary, the principles of which are applied to actual information use situations and taught to potential information users is an appropriate way of addressing the integration problem. But even with the most optimistic success estimates there will continue to be things to manage for which management principles do not exist and people who lack the ability to apply them.

A second way of addressing integration problems is to increase the integration potential of the extension field staff. For many years, the representatives of the University in the local community (the generalist county agent) had a built-in capability for dealing with such problems. Because all were required to have a farm background they had an intimate understanding of the problems of people (then mostly farmers) and a thorough knowledge of the language they spoke. They knew the situation into which outside inputs must fit and understood the problems that farmers had. But increasingly people without this grass roots experience were recruited into the Service. They accordingly were less well equipped to deal with integration problems. The "understanding problem" created by recruiting those without grass roots experience is a matter of shared concern for the agricultural experiment station which is expected to produce useful knowledge.

Training specialists to be generalists is yet another approach for addressing integration issues. This in a sense is being done in the Missouri extension service by designating an agricultural subject matter specialist to field all questions that cannot be readily answered by their fellow specialists. The usual one-on-one relationship allows communication exchanges that can facilitate an understanding of user problems and simultaneously also the fitting in process. Specialists so designated in each county are referred to as agriculturalists. If the agriculturalist cannot answer the in-coming question or get the answer

quickly from colleagues in his own county, he can examine his comprehensive Extension Guide. Failing to find the answer he may consult other less accessible subject matter specialists within his area or the on-campus faculty to whom he has ready access. If this is not successful, the request can be directed to the University Referral Service which has the capability of extending the search to all divisions within the University on this or other campuses and beyond, if necessary. Having repeatedly fielded a diversity of questions the agriculturalist tends to develop a capability for advising on a broad spectrum of subjects not a part of his own academic specialty.¹⁵

But it is the interpersonal network among the extension and research faculty that provides the greatest system potential for performing the integration function on behalf of information users. This potential was presumed to reside in the number of informational contacts that the field staff had with others in their own area and with the on-campus faculty, the diversity of these contacts and their interactive nature. Potential was presumed to increase with the number, diversity and interactive nature of the contacts made.

¹⁵Although not a central concern of this study, there are features within the University system that contribute to performing the integration function. Most notable is the rural development activity which has the capacity to bring diverse informational and agency inputs to bear on local problems. It can do this in a manner not otherwise possible. The essential features of this system are elsewhere documented and described (Wong, 1981). The educational outreach part of the Community Development Department (Columbia Campus) operates in much the same way.

The agricultural editors office of the College of Agriculture prepares and maintains an indexed continually updated volume of short inserts on subjects of likely popular interest in agriculture, forestry, wildlife and home economics. This volume is extensively used by both the public and the extension field staff. Thus it provides yet another within system mechanism that greatly facilitates the process of bringing information from the University to bear on the needs of people in the State.

The Community Development Department (and others less frequently) prepares problem related materials which generally draw on informational inputs from more than one academic discipline. These materials are used by both the public and the extension field staff. They too, relate information from various sources to people problems.

Finally, in a broad but effective sense the professional schools of the university serve as information integrators by developing and relating new knowledge to broad areas of public concern; namely, education, agriculture, forestry, medicine and home economics.

Potential of the Interpersonal Network

In Agriculture - In agriculture the integration function network potential for farm management, production and production supporting agricultural specialists was expected to vary. The first, actually trained to manage diverse informational inputs, were expected to form and maintain networks with the greatest integration potential. Those most directly concerned with agricultural production (i.e. crops and livestock) least. But this was not the case.

In many respects the production supporting specialists, especially those in agricultural engineering, were better situated in the interpersonal network to serve as information integrators than farm management specialists. Yet there may be logical reasons why this occurred. Of the three kinds of agricultural specialists the ones directly concerned with agricultural production were most likely to have the most directly usable information. Conversely production supporting specialists usually had to apply their knowledge in a production setting. In all likelihood this often required consultation with other specialists. Farm management specialists already in possession of a greater diversity of information may have had enough to meet most of their advisement needs. Nevertheless, all were very much a part of the interpersonal network of information exchange, both at the area and campus levels. Many of the contacts tended to be interactive in nature, thus increasing their potential for fitting specialty information into a usable context for clients.

In Community Development - The integrative potential of the interpersonal communicative network was even more evident for community development specialists. This was implicit in

- (1) the frequency with which they contacted the on-campus faculty for needed information and services,
- (2) the diversity of academicians sought,
- (3) the interactive nature of these contacts,
- (4) the manner in which incoming informational service related contacts were fielded by the on-campus faculty, and
- (5) the way the university system operated to serve in-field faculty needs.

Their very broad academic training (under the specialists label) greatly increased their capacity to make contacts with and effectively use information from a broad range of academic specialties.

Even though by far the largest number of information servicing contacts were with the faculty who had extension appointments, indications were that they freely sought the advice of faculty assigned exclusively to on-campus teaching and research responsibilities, if and as needed.

In community development (and presumably to some extent also in agriculture) the interpersonal network extended to the campus level. The faculty most frequently sought by the community development field staff were heavily concentrated in the College of Public and Community Service. But the informational requests of those most sought (sociometric stars) were in turn directed to other divisions in the University and even to eight additional off-campus colleges and universities and to government agencies. Thus the on-campus interpersonal network further extended the resource base upon which the extension service drew to service the informational needs of people in the State.

Thus the community development activity provided an interface between diverse on-campus informational resources and people in the State which helped them address problems of concern to them. It is hard to see how this could have occurred in the absence of the complex interpersonal referral network that emerged.

Prospects for Network Continuance

Somewhat in the nature of a hypothesis, we proposed that such networks will likely emerge and be sustained where

- (A) there is a mutually recognized need among specialists for informational exchange with specialists other than their own,
- (B) there is an administrative structure and/or philosophy that allows free interpersonal exchange of information to happen or insures that it does, and
- (C) there are personal rewards for information exchange among subject matter specialists.

We propose that these supportive conditions prevail in the Missouri extension service. A generalized feeling of mutual need for broad information servicing capabilities is exemplified in the designation of an agricultural specialist in each county to address all incoming questions and the support accorded him by his extension colleagues. The freedom accorded the field staff to contact the on-campus faculty to get information and exchanging ideas (without going through official channels) is evidence of a supportive administration for forming and maintaining an extensive interpersonal informational network. Working with people and helping them solve their problems were designated by the field staff as the source of their greatest rewards from working in extension. This was taken as evidence of a supportive reward structure for doing those things necessary for getting information to clients.

II. Other Operational Issues

Who are the clientele?

The interactive nature of the interpersonal relationship's with clients refutes claims of elitist hard-sell top-down delivery tactics in which information from the university is regarded as the message about which clients are to be persuaded. In fact, the interactive mode of extension teaching is so prevalent that it is difficult to define whom, in the traditional sense, the clients are. Actually community development specialists who are essentially process specialists were more often information receivers than givers. But in this context in which assistance and support for extension programs is received and in which information and other services to people are rendered those involved are about as inclusive as the support agencies and services that people collectively provide for supporting themselves in what they want to do.

For agricultural specialists clientele extend beyond farmers and housewives to a host of agencies and organizations that support the agricultural production and marketing enterprises plus additional ones that operate to improve country life generally.

What are the guiding principles in extension?

Service to people remains the central guiding philosophy of subject matter specialists in Missouri. In operational terms this specifies that they listen as well as talk, that they believe in the extraordinary ability of ordinary people, that they use indigenous knowledge as well as deliver that of a science based nature, that they defer to local interests and desires and that they involve local people in the planning and execution of extension programs and activities. In fact, it is helping people and working with them that provided the greatest rewards in extension work.

What do field stationed specialists do and what are the likely consequences?

Even though education remained the central task of both agricultural and community development specialists they performed many other tasks. These included information carrier, friendly listener, motivator, process facilitator, agency linker, capacity builder, skills teacher, group promotor, protector, counselor, public relations manager and even sometimes performer of chore-like activities. This inclination to the performance of multiple roles has been cited as a reason for successes achieved by the U.S. agricultural extension service (Havelock, 1971). Generally their most extensively used extension methods were highly conducive to increasing the management capacity of their clients.

In-field modes of operation which all of the field staff (community development and agricultural specialists and education assistants) emphasized were

- taking extension to the people (35),
- helping people think through the consequences of what they are doing or about to do (26),
- helping them achieve their own goals (11),
- creating awareness of changes they needed to make (22),
- urging caution in the adoption of questionable innovations (8),
- conveying research results from the university to people who can use them (48), and
- promoting the adoption of recommended practices (8).

But there were sufficient differences in the way they worked to distinguish five operational types. These were designated as Capacity Builders, Persistent Educators, Problem Solvers, Subservient Servants and Extension Activitists. Community development specialists tended to be Capacity Builders. They were strongly inclined to activities conducive to the personal development of their clients in whose ability they had high confidence. They thought that involvement of people in extension (i.e. considering alternatives, thinking through alternative courses of action and implementing decisions made), was essential to extension success.

Education assistants with much the same inclinations were nevertheless strongly dedicated to answering questions and promoting what extension has to offer. They were mostly Persistent Educators.

Agricultural specialists tended to be of the Problem Solver type. They were more inclined than others to encouraging clients to consider alternatives to solving their problems, to visiting and listening, answering questions, taking note of, and recognizing client achievements.

However, all three were egalitarian and interactive in their relationships with the public. The elitist banking type (tell and sell) of extension charge sometimes directed to extension's mode of operation was not true in Missouri.

Although there were enough "eager beavers" and a sufficient commitment to a belief that extension has something to offer to identify an extension activist type, inclinations to work at restructuring society on behalf of anybody or any cause was essentially absent. The economically bypassed elements of the population apparently were accorded no more help than anyone else. In fact, they may have

obtained less because they probably less frequently sought help and probably were less inclined to use what was available. Also, there appeared to be no strong sentiment for working proportionately more with them. While often persistent in helping people to pursue their interests through organized group action, a common practice in community development, extension in Missouri was essentially a within social system operation.

Although there appeared to be no deliberate effort or intent to deny help to anyone, the selectivity that occurs in the democratic choice processes may well result in those who already know much learning relatively more than those who initially know little with the end result that the knowledge gap between the two become larger rather than smaller. Thus, using a thoroughly egalitarian approach to developing and delivering information and to democratizing knowledge (Breimyer 1978) can actually result in elitist consequences. This is even more likely when the information offered is more suited to the "biggs" than the "littles".

What are the rewards from working in extension?

Not pay or prospects for professional advancement, but by all odds opportunity to work with people and/or helping them with their problems were the chief sources of satisfaction from extension work. The first two were actually negative considerations. Agricultural and community development specialists were in agreement on these views. Thus it was that the people oriented and the development oriented specialists found fulfillment in their major intents for entering extension.

To the degree that the self fulfillment oriented specialists found fulfillment in helping people with their problems they too found main satisfactions in the same reasons they had for entering extension.

But the status achievement and prestige oriented had to find major satisfactions from reasons other than those that were uppermost for entering extension in the first place. The Materialistic Doer freshmen of years past who extolled work out of doors with machines and things fortunately did not enter extension even though agricultural specialists retained some preference for outside (of office) work.

III. Implications for Extension Programming

Get into extension for the right reason

Both those recruited and the service will benefit. With service to people central to what the extensionist must do and the source of greatest satisfaction, a desire to work with people and/or to become involved in developmental work ought to be a central reason for entering extension. Those concerned mostly with money, status

achievement and prestige would do better to select another occupation. Perhaps counselors should so advise.

Take steps to maximize the rewards from service to people

This probably wouldn't cost much. It certainly takes precedence over income and prospects for professional advancement as a reward. It provides an incentive to night and weekend work if and as needed and more than the 40 hours per week total without extra pay. Awards and public recognition for services rendered might be a starter.

Encourage and facilitate the formation of interpersonal informational networks among extension and research professionals within the system

It is probably this more than anything else that makes the extension bureaucracy work as an information servicing supply system for information users. This means an absence of bureaucratic, "through channels only" kind of communication for informational planning, exchange and delivery.

Maximize the formation and use of within extension system features that will facilitate joining bits and pieces of information into combinations to serve user needs.

Specialization of interests and endeavors in society and the requirements for producing the needed specialized information make this imperative. Recommended features, some of which are already in use, include

- (1) creation of a generalist capability among some of the subject matter specialists responsible for delivering information to clients,
- (2) use extension methods designed to increase the management ability of actual and potential users of university based information,
- (3) facilitate information exchange among subject matter specialists both through personal contact and the electronic media,
- (4) prepare people problem related materials in which interdisciplinary inputs are incorporated,
- (5) encourage egalitarian interactive exchanges between,
 - a) subject matter specialists and clients and between,
 - b) subject matter specialists and researchers,

- (6) devise and recommend packages of practices for addressing complex issues and problems where feasible,
- (7) train and provide the services of management specialists suited to the task at hand,
- (8) in situations of
 - a) doubt in regard to what the problem is,
 - b) questionable utility of the information available for use,
 - c) inability to communicate with each other, and/or
 - d) situations where the information available needs much alteration to meet the needs of the local situation,use task forces in which professionals and clients participate as social equals.¹⁶

Remember that elitist consequences can result from the use of thoroughly democratic extension methods

The selectivity that occurs from helping those who want and ask for help and respecting the privacy of those who don't, can contribute to increasing the knowledge gap between those who already know much (about something) and those who don't. The prospects of this happening can be decreased by

- (1) designing programs or educational activities that are differentially more attractive to economically disadvantaged people than the affluent, and
- (2) use of a client selection procedure which tend to include the former and exclude the later.¹⁷

But allocation of resources to segments of the population less likely to achieve while at the same time alienating those most likely to support the extension programs of the University also comes at a great price. Obviously, choice of either course of action involves delicate social issues for which public support and commitment are necessary.

¹⁶See Wong (1981) for a description of how this system is used in rural development.

¹⁷For a description of how this works in the Missouri Small Farmer Family Program see Lionberger and Wong (1981).

IV. Looking to the Future

With tendencies to differentiated interests and activities continuing, (likely at an accelerated rate) and the specialization required to create the information needed, integration problems will become more urgent in the future. This will create new opportunities and challenges for extension.

As older extension specialists retire and new ones are recruited the communication problem between professionals and information users will likely increase. Specialists who learn more and more about less and less will have to communicate with people with problems and apply their specialty information in that context. The built in understanding that still exists among the "old timers" because they were once one of them (the people with problems) is rapidly passing. Some means of fulfilling this void, will be required. Perhaps enhancing the systems capability for addressing the integration problems will help.

In the absence of built in constraints that generally do not exist societies already with big-little split differences are likely to increase, not decrease. This may well reach a point of intolerance. Extension can become a factor in slowing down this trend and ultimately also in treating the conditions created. Thought and action, within the constraints permitted by government and public opinion, should be a continuing concern of extension. More thought may have to be given to removing constraints on the economically disadvantaged and changing the structure of society rather than working so completely within the system as in years past. Within system modes of operation perpetuate whatever exists, in this case the advantage of the privileged to the relative disadvantage of the economically by-passed.

Ours already is an information society and extension is squarely in the information business. With the information supply growing and needs for it proliferating, extension will have to devise better ways of abstracting, storing, retrieving and delivering information. Computerized systems and methods of doing this will become more and more necessary. Land grant universities and their extension services may become the only agencies capable of dealing with the distinctly human problems in society.

REFERENCES

- Abraham, R. H.
1963 "Dairy plant managers' perception of the Minnesota agricultural extension service." Madison: University of Wisconsin, unpublished PhD dissertation.
- Argyris, Chris
1957 Personality and Organization. New York: Harper and Row, Inc.
- Ashby, Eric
1962 "The administrator. Bottleneck or pump?" Daedalus (Spring): 264-278.
- Barnett, Homer G.
1953 Innovations - The Basis of Cultural Change. New York: McGraw-Hill Book Co.
- Beal, George M.
1978 "Another look at knowledge production and utilization." Development Communication Report 23 (July):1-4.
- Beltran, Luis Ramiro
1976 "Alien premises, objects, and methods in Latin American communication research." Pp. 15-42 in Everett M. Rogers (ed.), Communication and Development. Beverly Hills, California: Sage Publications.
- Berlo, David K.
1965 "Interaction: the goal of interpersonal communication." Pp. 36-55 in James H. Campbell and Hal W. Hepler (eds.), Dimensions in Communication Readings. Belmont, California: Wadsworth Publishing Co., Inc.
- Bordenave, Juan Diaz
1976 "Communication of agricultural innovations in Latin America: the need for new models." Pp. 43-62 in Everett M. Rogers (ed.), Communication and Development. Beverly Hills, California: Sage Publications.
- Breimyer, Harold F.
1978 "Outreach programs of the land grant university: which publics should they serve?" Paper presented at conference, Kansas State University, Manhattan, Kansas.
- Brown, Emory J. and Albert Deekens
1958 "Role of the extension subject matter specialist." Rural Sociology 23 (September): 263-276.

Cary, Lee J. (editor)

- 1970 Community Development As A Process: Columbia: University of Missouri Press.

Castle, Emery N.

- 1980 "Agricultural Education and Research: Academic Crown Jewels or Country Cousin?" Kellogg Foundation Lecture, National Association of State Universities and Land Grant Colleges, November.

Clark, David L. and John E. Hopkins

- 1966 "Preliminary estimates of research, development and diffusion personnel required in education, 1971-71." Special Project Memorandum, School of Education, Indiana University. Bloomington, Indiana.

Coughenour, C. Milton

- 1968 "Some general problems in diffusion: from the perspective of the theory of social action." Pp. 5-21, in Diffusion Research Needs, Columbia: Missouri Agricultural Experiment Station, North Central Regional Research Bulletin 186.

Edmond, J. B.

- 1978 The Magnificent Charter: The Origin and Role of the Morrill Land Grant Colleges and Universities. Hicksville, New York: Exposition Press.

Emrick, John A.

- 1977 "Evaluation of the National Diffusion Network, Volume I: Findings and Recommendations." Menlo Park, California: Stanford Research Institute.

Enlow, George W., Charlott George, John S. Holik and Edward Wiggins

- 1979 Missouri Small Farm Family Program. Columbia: University of Missouri Extension Division.

Ensminger, Douglas

- 1981 "Extension's Mission." Paper prepared for publication in KIDMA, Israel Journal of Development, Jerusalem, Israel.

Francis, David G. and Everett M. Rogers

- 1960 "Adoption of a nonrecommended innovation: The grass incubator." Paper presented at the Rurl Sociology Society, University Park, Pennsylvania.

Gregory, C.P. and Herbert F. Lionberger

- 1967 "Idealized View of Occupation Held by Freshman Students in a Midwestern University and High School Seniors in Country - Small City Missouri." Columbia: Missouri Agricultural Experiment Station, 8 Pp. (mimeographed)

Havelock, Ronald G.

- 1971 Planning for innovation through dissemination and utilization of knowledge (second printing). Ann Arbor: Center for Research on Utilization of Scientific Knowledge, Institute for Social Research, University of Michigan.

Herzberg, Frederick

- 1968 "One more time: How do you motivate employees?" Harvard Business Review 46(1): 53-62.

Hightower, Jim

- 1978 Hard Tomatoes, Hard Times. Cambridge, Massachusetts: Schenkman Publishing Co.

Kerlinger, Fred N.

- 1972 "'Q' Methodology in Behavioral Research." Pp. 3-38 in Steven R. Brown and Donald J. Brenner (eds.), Science, Psychology and Communication: Essays Honoring William Stephenson. New York: Teachers College Press.

- 1973 Foundations of Behavioral Research (second edition). New York: Holt, Rinehart and Winston, Inc.

Kellogg, Charles E. and David C. Knapp

- 1966 The College of Agriculture: Science in the Public Science. New York: McGraw-Hill Book Co.

Lele, Uma

- 1975 The Design of Rural Development. Baltimore: The Johns Hopkins University Press.

Lewin, Kurt

- 1963 "Forces behind food habits and methods of changing." In Report of the Committee on Food Habits, The Problem of Changing Food Habits, Washington, DC: National Research Council, National Academy of Science.

Likert, Rensis

- 1967 The Human Organization. New York: McGraw-Hill Book Co.

Linton, Ralph

- 1936 The Study of Man. New York: D. Appleton-Century Company, Inc.

Lionberger Herbert F.

- 1977 "Developing and disseminating information for modernizing societies: Toward an ideal systems model." Paper presented for a joint faculty-student seminar sponsored by the Center for International Programs and Studies at the University of Missouri, Columbia Campus.

- Lionberger, Herbert F. and H. C. Chang
1970 Farm Information for Modernizing Agriculture: The Taiwan System. New York: Praeger Publishers, Inc.
- Lionberger, Herbert F. and Wei-Yuan Cheng
1980 "Job satisfaction as a function of choosing extension work as an occupational career: A study of agricultural and community development specialist in Missouri." Paper presented at the annual meeting of the Rural Sociological Society, Ithica, New York.
- Lionberger, Herbert F. and Paul Gwin
1982 Communication Strategies: A Guide for Agricultural Change Agents. Danville, Illinois: Interstate Printers and Publishers.
- Lionberger, Herbert and Betty S. Heifner
1969 Occupational Views and Decisions of Missouri College of Agriculture Students: A Panel Study of 1964 Freshmen -1968 Seniors. Columbia: Missouri Agricultural Experiment Station, Research Bulletin 967.
- Lionberger, Herbert, LaVern A. Pope and B. Anji Reddy
1979 Information Development and Flow: A Study of the Communication Behavior of Social Scientists in a U.S. Land Grant and Two Taiwan Universities. Columbia: Missouri Agricultural Experiment Station, Research Bulletin 1033.
- Lionberger, Herbert F. and Tso-Sang Wong
1980 "The integration fuction in community development: The Missouri system as a case in point." Journal of the Community Development Society 11 (Spring):35-48.
- Lippett, Ronald, Jeanne Watson and Bruce Westly
1958 The Dynamics of Planned Change. New York: Harcourt, Brace and Company, Inc.
- Longwell, John H.
1970 "The centennial report 1870-1970 of the College of Agriculture, Columbia, Missouri." Columbia: Technical Educational Services, University of Missouri.
- Nielson, James
1967 The change agent and the process of change. East Lansing: Michigan Agricultural Experiment Station, Research Bulletin 17.
- Reiff, R. and F. Riessman
1964 "The indigenous non-professional: A strategy of change in community action and community mental health programs." National Institute of Labor Education 3 (November).

Rogers, Everett M.

1962 Diffusion of Innovations. New York: Free Press of Glencoe.

1974 "Social structure and communication strategies in rural development: The communication effects gap and the second dimension of development." In Cornell CIAT International Symposium on Communication Strategies for Rural Development. Ithaca, New York: Cornell University.

Rogers, Everett M. (editor)

1976 Communication and Development. Beverly Hills, California: Sage Publications.

Rogers, Everett M., J. D. Eveland and Alden S. Bean

1976 "Extending the agricultural extension model." Stanford, California: Institute for Communication Research, Stanford University, preliminary draft.

Rogers, Everett M. and F. Floyd Shoemaker

1971 Communication of Innovations (second edition). New York: The Free Press.

Roling, Niels G., Joseph Ascroft and Fred Wa Chege

1976 "The diffusion of innovations and the issue of equity in rural development." Pp. 63-76 in Everett M. Rogers (ed.), Communication and Development. Beverly Hills, California: Sage Publications.

Rothman, Jack

1970 "Three Models of Community Organization Practice" in Fred M. Cox, et al (eds.), Strategies of Community Organization. Itasca, Illinois: F. E. Peacock Publishers.

Shingi, P. M. and B. Mody

1976 "The communication effect gap: A field experiment on television and agricultural ignorance in India." Pp. 79-99 in Everett M. Rogers (ed.), Communication and Development. Beverly Hills, California: Sage Publications.

Smelser, Neil J.

1963 The Sociology of Economic Life. Englewood Cliffs, New Jersey: Prentice-Hall.

Stephenson, William

1953 The Study of Behavior: Q-Technique and its Methodology. Chicago: University of Chicago Press.

Stone, John T.

1952 "How county agricultural agents teach." East Lansing: Michigan Agricultural Extension Service (mimeographed).

Tichenor, P. J., G. A. Donohue and C. N. Olien

- 1970 "Mass media flow and differential growth in knowledge."
Public Opinion Quarterly 34:159-170.

Trow, Martin

- 1974 University of Missouri - Columbia Extension Division,
Missouri Small Farm Program, 1974. Columbia: University
of Missouri -Columbia Extension Division, MP445.

- 1975 Teachers and Students. New York: McGraw Hill Book Co.

Wilkening, Eugene A.

- 1956 "Roles of communicating agents in technological change in
agriculture." Social Forces 34:361-367.

Wong, Tso-Sang

- 1981 "Toward a rural development oriented information
macrosystem: A case study of a social innovation",
Columbia: University of Missouri, unpublished PhD
dissertation.

Appendix

APPENDIX

TABLE 1a: AGRICULTURAL SPECIALISTS WITH LESS THAN 15 YEARS SERVICE CLASSIFIED BY THE IMPORTANCE THEY ATTACHED TO REASONS FOR ENTERING EXTENSION WORK IN MISSOURI

Categories and Specific Reasons for Entering Extension Work	Total (%) (N=60)	Importance							NA
		Not A Consideration	Of Little Importance	Important	Very Important	3rd Most Important	2nd Most Important	Most Important	
PEOPLE-SERVICE									
Working with people	100	1.7	1.7	43.3	8.3	10.0	10.0	25.0	0.0
Kind of people you will be associated with	100	1.7	11.7	46.6	10.0	11.7	13.3	3.3	1.7
Opportunity to become involved in developmental work or helping people	100	1.7	8.3	50.0	5.0	6.7	13.3	15.0	0.0
Service to humanity	100	3.3	11.7	56.7	8.3	8.3	6.7	3.3	1.7
MANAGEMENT-CREATIVITY									
Work that requires managing people	100	20.0	33.3	35.1	5.0	3.3	0.0	0.0	3.3
Work requiring much responsibility for people and money	100	15.0	41.7	35.0	3.3	1.7	0.0	0.0	3.3
Work that requires much thinking about ideas	100	6.7	6.7	64.9	11.7	3.3	3.3	1.7	1.7
How my interests and abilities fit in	100	3.3	5.0	36.7	23.3	16.7	8.3	6.7	0.0
Selling things and ideas	100	6.7	28.3	48.3	10.0	3.3	1.7	0.0	1.7
Being own boss	100	3.3	16.7	46.7	16.7	8.3	3.3	5.0	0.0
STATUS ACHIEVEMENT									
Chance for professional advancement	100	15.0	28.3	36.6	6.7	0.0	5.0	6.7	1.7
How important people feel extension work is	100	13.3	23.3	58.4	3.3	1.7	0.0	0.0	0.0

TABLE 1a (Cont'd)

Categories and Specific Reasons for Entering Extension Work	Total (%) (N=60)	Importance							NA
		Not A Consider- ation	Of Little Impor- tance	Impor- tant	Very Impor- tant	3rd Most Impor- tant	2nd Most Impor- tant	Most Impor- tant	
EXTRINSIC REWARD									
Good beginning pay	100	6.7	20.0	43.2	1.7	5.0	11.7	10.0	1.7
Being able to keep job as long as I want to	100	13.3	25.0	43.3	10.0	1.7	1.7	1.7	3.3
Good retirement plan	100	11.7	20.0	60.0	1.7	3.3	3.3	0.0	0.0
OTHER OCCUPATIONAL									
Work requiring involvement with things	100	25.0	31.6	30.0	8.3	0.0	1.7	1.7	1.7
Work requiring use of tools and machines	100	63.3	28.3	6.7	0.0	0.0	0.0	0.0	1.7
Work requiring physical activity	100	46.6	40.0	11.7	0.0	0.0	0.0	0.0	1.7
Work mostly inside (in office)	100	15.0	56.6	26.7	0.0	1.7	0.0	0.0	0.0
Work mostly outside	100	1.7	11.7	61.6	8.3	5.0	10.0	1.7	0.0
PERSONAL AND SITUATIONAL									
Openings in the field	100	5.0	31.7	56.6	3.3	0.0	0.0	1.7	1.7
Little else available	100	46.6	36.7	8.3	0.0	1.7	1.7	5.0	0.0
Various other (of this type)	100	26.7	39.9	18.3	3.3	1.7	1.7	6.7	1.7

TABLE 1b: AGRICULTURAL SPECIALISTS CLASSIFIED WITH 15 OR MORE YEARS TENURE BY THE IMPORTANCE THEY ATTACHED TO REASONS FOR ENTERING EXTENSION WORK

Categories and Specific Reasons for Entering Extension Work	Total (%) (N=60)	Importance							NA
		Not A Consideration	Of Little Importance	Important	Very Important	3rd Most Important	2nd Most Important	Most Important	
PEOPLE-SERVICE									
Working with people	100	0.0	7.8	42.2	9.4	7.8	10.9	20.3	1.6
Kind of people you will be associated with	100	1.6	4.7	37.4	18.8	9.4	15.6	9.4	3.1
Opportunity to become involved in development work or helping people	100	0.0	6.3	43.7	15.6	9.4	14.1	7.8	3.1
Service to humanity	100	4.7	7.8	53.1	14.1	6.3	3.1	7.8	3.1
MANAGEMENT-CREATIVITY									
Work that requires managing people	100	18.8	42.1	31.2	1.6	0.0	1.6	0.0	4.7
Work requiring much responsibility for people and money	100	17.2	32.8	35.9	9.4	0.0	0.0	0.0	4.7
Work that requires much thinking about ideas	100	0.0	14.1	59.2	14.1	6.3	1.6	1.6	3.1
How my interests and abilities fit in	100	0.0	1.6	56.2	4.7	10.9	10.9	14.1	1.6
Selling things and ideas	100	7.8	15.6	54.7	10.9	3.1	1.6	1.6	4.7
Being own boss	100	7.8	21.9	35.9	9.4	10.9	7.8	1.6	4.7
STATUS ACHIEVEMENT									
Chance for professional advancement	100	4.7	15.6	51.6	3.1	1.6	7.8	10.9	4.7
How important people feel extension work is	100	3.1	26.6	45.34	4.7	7.8	7.8	1.6	3.1

TABLE 1b: (Cont'd)

Categories and Specific Reasons for Entering Extension Work	Total (%) (N=60)	Importance							NA
		Not A Consideration	Of Little Importance	Important	Very Important	3rd Most Important	2nd Most Important	Most Important	
EXTRINSIC REWARD									
Good beginning pay	100	15.6	28.1	42.2	1.6	1.6	4.7	3.1	3.1
Being able to keep the job as long as I want to	100	9.4	26.6	49.9	6.3	3.1	0.0	0.0	4.7
Good retirement plan	100	6.3	26.6	45.2	6.3	3.1	3.1	6.3	3.1
OTHER OCCUPATIONAL									
Work requiring involvement with things	100	23.4	29.7	42.2	1.6	0.0	0.0	0.0	3.1
Work requiring physical activity	100	32.8	48.4	14.1	1.6	0.0	0.0	0.0	3.1
Work mostly inside (in office)	100	28.1	49.9	14.1	0.0	1.6	0.0	0.0	6.3
Work mostly outside	100	0.0	7.8	56.3	18.8	7.8	3.1	3.1	3.1
PERSONAL AND SITUATIONAL									
Openings in the field	100	9.4	25.0	51.5	4.7	3.1	1.6	3.1	1.6
Little else available	100	53.1	29.7	10.9	0.0	0.0	0.0	0.0	6.3
Various other (of this type)	100	43.7	28.1	15.6	1.6	1.6	1.6	3.1	4.7

TABLE 2a: PERCENT OF AGRICULTURAL SPECIALISTS WITH LESS THAN 15 YEARS TENURE CLASSIFIED BY AMOUNT OF PRESENT OCCUPATIONAL SATISFACTION FROM DESIGNATED SOURCES

Source	Amount of Dissatisfaction - Satisfaction									
	Total (%) (N=64)	Strongest Negative	Next Strongest Negative	Negative	Neither Plus or Minus	Moderate Plus	Strong Plus	Next Strongest Plus	Strongest Plus	NA
PEOPLE RELATED										
Helping people with their problems	100	0.0	0.0	0.0	3.3	23.3	15.0	20.0	38.4	0.0
People with whom associated at work	100	0.0	1.7	0.0	11.7	38.3	15.0	15.0	18.3	0.0
SELF FULFILLMENT										
Opportunity for self education	100	0.0	0.0	0.0	13.3	46.6	21.7	6.7	11.7	0.0
Opportunity to express own interests and concerns	100	0.0	0.0	1.7	11.7	56.6	20.0	6.7	3.3	0.0
Personal satisfaction and fulfillment	100	0.0	0.0	1.7	10.0	43.3	31.7	8.3	5.0	0.0
PRESTIGE										
Prospects for professional advancement	100	15.0	21.7	3.3	20.0	31.6	1.7	1.7	5.0	0.0
Importance self attached to work	100	1.7	0.0	0.0	10.0	48.3	30.0	6.7	3.3	0.0
Importance others attach to work	100	11.7	5.0	1.7	13.3	55.0	8.3	5.0	0.0	0.0
EXTRINSIC REWARD										
Pay	100	30.1	18.3	5.0	18.3	18.3	1.7	3.3	3.3	1.7
Security of tenure	100	25.0	16.7	8.3	16.7	24.9	6.7	0.0	0.0	.17
Retirement plan	100	1.7	6.7	0.0	11.7	56.5	15.0	6.7	1.7	0.0
Local living conditions	100	6.7	6.7	6.7	13.3	38.2	16.7	10.0	1.7	0.0
Location of work	100	0.0	5.0	1.7	18.3	41.6	21.7	6.7	5.0	0.0

TABLE 2b: PERCENT OF AGRICULTURAL SPECIALISTS WITH 15 OR MORE YEARS TENURE CLASSIFIED BY AMOUNT OF PRESENT OCCUPATIONAL SATISFACTION FROM DESIGNATED SOURCES

Source	Amount of Dissatisfaction - Satisfaction									NA
	Total (%) (N=64)	Strong- est Ne- gative	Next Strong- est Ne- gative	Ne- gative	Neither Plus or Minus	Moder- ate Plus	Strong Plus	Next Strong- est Plus	Strong- est Plus	
PEOPLE RELATED										
Helping people with their problems	100	0.0	1.6	0.0	0.0	23.4	14.1	12.5	46.8	1.6
People with whom associated at work	100	0.0	3.1	0.0	0.0	39.1	29.7	15.6	9.4	3.1
SELF FULFILLMENT										
Opportunity for self education	100	1.6	4.7	0.0	12.5	51.4	21.9	4.7	1.6	1.6
Opportunity to express own interests and concerns	100	3.1	3.1	1.6	6.3	43.6	32.8	6.3	1.6	1.6
Personal satisfaction and fulfillment	100	0.0	0.0	0.0	1.6	42.1	25.0	17.2	12.5	1.6
PRESTIGE										
Prospects for professional advancement	100	25.0	20.3	3.1	15.6	31.2	1.6	1.6	0.0	1.6
Importance self attaches to work	100	1.6	3.1	0.0	7.8	37.5	37.5	4.7	4.7	3.1
Importance others attach to work	100	7.8	10.9	1.6	14.1	37.4	23.4	1.6	1.6	1.6
EXTRINSIC REWARD										
Pay	100	28.1	12.5	1.6	6.3	35.8	7.8	4.7	1.6	1.6
Security of tenure	100	10.9	9.4	6.3	14.1	34.3	18.8	3.1	0.0	3.1
Retirement plan	100	1.6	4.7	3.1	3.1	39.1	23.4	12.5	9.4	3.1
Local living conditions	100	3.1	7.8	3.1	12.5	31.3	32.8	3.1	4.7	1.6
Location of work	100	7.8	6.3	0.0	7.8	36.0	28.1	7.8	3.1	3.1

TABLE 3a: PERCENT OF EXTENSION SPECIALISTS WHO HAD DESIGNATED ORIENTATIONS FOR GETTING INTO EXTENSION CLASSIFIED BY PEOPLE RELATED OCCUPATIONAL SATISFACTIONS FROM EXTENSION WORK

People Related Kinds of Satisfactions -entry types	Total (%) (N=*)	Amount of Dissatisfaction - Satisfaction								NA
		Strong- est Ne- gative	Next Strong- est Ne- gative	Nega- tive	Neither Plus or Minus	Moder- ate Plus	Strong Plus	Next Strong- est Plus	Strong- est Plus	
HELPING PEOPLE WITH THEIR PROBLEMS										
People	100	0.0	0.0	0.0	2.9	17.6	14.7	14.7	50.1	0.0
Prestige	100	5.9	0.0	0.0	5.9	17.6	29.4	11.8	29.4	0.0
Development	100	0.0	0.0	0.0	0.0	13.9	13.9	16.7	55.5	0.0
Self fulfillment	100	0.0	0.0	0.0	0.0	40.9	27.3	13.6	18.2	0.0
Status achievement	100	0.0	0.0	0.0	5.6	30.6	11.1	13.9	38.8	0.0
PEOPLE WITH WHOM ASSOCIATED AT WORK										
People	100	0.0	0.0	0.0	2.9	35.3	32.4	17.6	11.8	0.0
Prestige	100	0.0	0.0	0.0	5.9	47.0	29.4	11.8	5.9	0.0
Development	100	0.0	2.8	0.0	2.8	38.9	27.8	19.4	8.3	0.0
Self fulfillment	100	0.0	4.5	4.5	13.6	31.9	27.4	4.5	13.6	0.0
Status achievement	100	0.0	2.8	0.0	5.6	33.3	25.0	13.9	19.4	0.0

*34 for People oriented specialists, 17 for Prestige, 36 for Development, 22 for Self fulfillment and 36 for Status achievement.

TABLE 3b: PERCENT EXTENSION SPECIALISTS WHO HAD DESIGNATED ORIENTATIONS FOR GETTING INTO EXTENSION CLASSIFIED BY PRESTIGE RELATED OCCUPATIONAL SATISFACTIONS

Prestige Related Kinds of Satisfactions -entry types	Total (% (N=*))	Amount of Dissatisfaction - Satisfaction							NA	
		Strong- est Ne- gative	Next Strong- est Ne- gative	Nei- ther Plus or Minus	Moder- ate Plus	Strong Plus	Next Strong- est Plus	Strong- est Plus		
OPPORTUNITY FOR SELF EDUCATION										
People	100	5.9	2.9	0.0	8.8	38.2	26.5	11.8	5.9	0.0
Prestige	100	0.0	5.9	0.	5.9	58.7	11.8	11.8	5.9	0.0
Development	100	0.0	5.6	0.0	8.3	47.1	30.6	2.8	5.6	0.0
Self fulfillment	100	0.0	0.0	0.0	22.7	31.9	27.3	4.5	13.6	0.0
Status achievement	100	0.0	0.0	0.0	25.0	52.7	13.9	5.6	2.8	0.0
OPPORTUNITY TO EXPRESS OWN INTEREST AND CONCERNS										
People	100	0.0	5.9	2.9	2.9	44.2	23.5	11.8	8.8	0.0
Prestige	100	0.0	5.9	0.0	17.6	58.9	17.6	0.0	0.0	0.0
Development	100	0.0	0.0	0.0	5.6	47.2	38.9	8.3	0.0	0.0
Self fulfillment	100	4.5	0.0	0.0	9.1	27.3	41.0	13.6	4.5	0.0
Status achievement	100	2.8	0.0	2.8	8.3	52.7	30.6	2.8	0.0	0.0
PERSONAL SATISFACTION AND FULFILLMENT										
People	100	0.0	0.0	0.0	2.9	29.4	35.4	23.5	8.8	0.0
Prestige	100	0.0	0.0	0.0	11.8	41.1	23.5	11.8	11.8	0.0
Development	100	0.0	0.0	0.0	0.0	49.9	27.8	5.6	16.7	0.0
Self fulfillment	100	0.0	0.0	4.5	13.6	50.1	18.2	13.6	0.0	0.0
Status achievement	100	0.0	0.0	0.0	2.8	41.7	30.1	8.3	11.1	0.0

*34 for People oriented specialists, 17 for Prestige, 36 for Development, 22 for Self fulfillment and 36 for Status achievement.

TABLE 3c: PERCENT OF EXTENSION SPECIALISTS WHO HAD DESIGNATED ORIENTATIONS FROM GETTING INTO EXTENSION CLASSIFIED BY DEVELOPMENT RELATED OCCUPATIONAL SATISFACTIONS FROM EXTENSION WORK

Development Related Kinds of Satisfaction -entry types	Total (% (N=*))	Amount of Dissatisfaction - Satisfaction								
		Strong- est Ne- gative	Next Strong- est Ne- gative	Ne- ga- tive	Neither Plus or Minus	Moder- ate Plus	Strong Plus	Next Strong- est Plus	Strong- est Plus	NA
PROSPECTS FOR PROFESSIONAL ADVANCEMENT										
People	100	17.6	26.5	0.0	17.6	32.5	2.9	0.0	2.9	0.0
Prestige	100	35.3	5.9	5.9	17.6	35.3	0.0	0.0	0.0	0.0
Development	100	13.9	25.0	2.8	16.7	27.7	8.3	2.8	2.8	0.0
Self fulfillment	100	27.8	19.4	0.0	19.4	25.0	2.8	2.8	2.8	0.0
IMPORTANCE SELF ATTACHES TO EXTENSION WORK										
People	100	0.0	2.9	0.0	11.8	29.4	53.0	0.0	2.9	0.0
Prestige	100	0.0	0.0	0.0	23.5	29.4	41.2	0.0	5.9	0.0
Development	100	0.0	2.8	0.0	2.8	41.6	41.7	1.1	0.0	0.0
Self fulfillment	100	4.5	0.0	0.0	0.0	54.6	18.2	9.1	13.6	0.0
Status achievement	100	2.8	0.0	0.0	8.3	44.5	33.3	11.1	0.0	0.0
IMPORTANCE OTHERS ATTACH TO EXTENSION WORK										
People	100	8.8	2.9	2.9	17.6	47.2	20.6	0.0	0.0	0.0
Prestige	100	5.9	11.8	0.0	29.4	17.6	17.6	11.8	5.9	0.0
Development	100	8.3	11.1	3.8	8.3	47.3	19.4	0.0	2.8	0.0
Status achievement	100	8.3	11.1	2.8	19.4	38.9	13.9	2.8	2.8	0.0

*34 for People oriented specialists, 17 for Prestige, 36 for Development, 22 for Self fulfillment and 36 for Status achievement.

TABLE 3d: PERCENT OF EXTENSION SPECIALISTS WHO HAD DESIGNATED ORIENTATIONS FOR GETTING INTO EXTENSION CLASSIFIED BY EXTRINSIC REWARD RELATED OCCUPATIONAL SATISFACTIONS

Extrinsic Reward Related Kinds of Satisfactions -entry types	Total (% (N=*)	Amount of Dissatisfaction - Satisfaction								
		Strong- est Ne- gative	Next Strong- est Ne- gative	Nega- tive	Neither Plus or Minus	Moder- ate Plus	Strong Plus	Next Strong- est Plus	Strong- est Plus	NA
PAY										
People	100	32.3	5.9	5.9	17.6	32.4	0.0	0.0	5.9	0.0
Prestige	100	17.6	23.5	5.9	5.9	35.3	5.9	0.0	5.9	0.0
Development	100	36.1	11.1	0.0	13.9	22.2	13.9	2.8	0.0	0.0
Self fulfillment	100	22.8	13.6	4.5	9.1	22.8	4.5	4.5	13.7	4.5
Status achievement	100	16.7	19.4	2.8	16.7	36.1	0.0	8.3	0.0	0.0
SECURITY OF TENURE										
People	100	23.5	14.7	5.9	8.8	32.4	11.8	2.9	0.0	0.0
Prestige	100	5.9	5.9	11.8	11.8	41.1	17.6	5.9	0.0	0.0
Development	100	16.7	19.4	5.6	22.2	19.4	13.9	0.0	0.0	2.8
Self fulfillment	100	18.2	27.2	0.0	9.1	27.3	18.2	0.0	0.0	0.0
Status achievement	100	33.4	8.3	5.6	19.4	19.4	11.1	2.8	0.0	0.0
RETIREMENT PLAN										
People	100	2.9	0.0	0.0	8.8	53.0	29.4	5.9	0.0	0.0
Prestige	100	0.0	5.9	5.9	5.9	35.2	29.4	5.9	11.8	0.0
Development	100	2.8	2.8	0.0	11.1	44.4	25.0	13.9	0.0	0.0
Self fulfillment	100	0.0	4.5	0.0	4.5	54.7	9.1	22.7	4.5	0.0
Status achievement	100	0.0	8.3	2.8	8.3	44.5	16.7	8.3	11.1	0.0

* 34 for People oriented specialists, 17 for Prestige, 36 for Development, 22 for Self fulfillment and 36 for Status achievement.

TABLE 4: Z-SCORES OF AGRICULTURAL AND COMMUNITY DEVELOPMENT SPECIALISTS ON PHILOSOPHY STATEMENTS CLASSIFIED BY EXTENSION PHILOSOPHY TYPES

Categories of Statements	Philosophy Types					
	I Z- Score avg. (N=24)	II Z- Score avg. (N=10)	III Z- Score avg. (N=1)	IV Z- Score avg. (N=5)	V Z- Score avg. (N=2)	VI Z- Score avg. (N=11)
A. FEELINGS IN REGARD TO SELF						
ei* (1)** Extension agents know more about what should be done than their clients.	-0.6	-0.2	-0.4	-0.2	-0.2	-1.6
el. (8) Other things being equal, clients who make use of the extension services will be better off than those who don't.	0.7	1.0	0.0	1.2	-0.8	0.9
el. (15) Extension agents should feel that they have something worth promoting.	1.3	1.8	0.8	1.5	-1.2	1.6
eg* (22) An extension agent's chief obligation is to help people find out what they want and help them do it.	0.7	0.6	-0.8	0.6	-0.4	1.0
eg. (29) Extension agents in many ways are no more intelligent nor better informed than many of their clients.	0.5	-0.2	1.6	0.4	-0.2	-0.1
eg. (36) Extension agents can gain valuable information from their more capable clients.	1.1	1.3	2.1	1.2	1.9	1.1
B. FEELINGS ABOUT CLIENTS						
el. (2) There are many people who need protection from their own inadequacies and potential exploiters.	-0.1	-0.0	-1.2	-0.4	1.2	-0.7
el. (9) People generally lack the abilities required to effectively deal with most of their problems.	-0.5	-1.0	-0.8	-0.3	0.4	-1.4
eg. (16) If people are provided with the appropriate information they can be counted on to make the right decision.	0.5	0.5	0.0	0.2	-0.4	1.8
el. (23) Diagnosing people problems is a good deal like the sick person-doctor relationship; professionals are required to make the diagnosis and write the prescription.	-1.7	-0.3	-0.8	-0.0	0.5	-0.9
eg. (30) There are extraordinary possibilities in "ordinary" people.	1.9	0.5	0.0	1.8	-0.4	1.2
eg. (37) Local people and communities are capable of effectively managing their own affairs except when unusual technical requirements exceed their capabilities.	0.3	1.2	0.4	0.2	-0.3	0.5
eg. (43) People can generally figure out what they want without help from the extension service.	-0.3	-0.4	0.8	-0.7	0.0	-0.5
e. (47) Local people and communities generally are incapable of organizing and cooperatively solving their problems through democratic means.	-1.4	-2.4	-0.8	-0.7	-1.6	-1.7
C. FEELINGS CONCERNING KNOWLEDGE						
el. (3) Information from the university general needs no further testing before recommending it to clients.	-0.7	-0.5	2.1	0.0	-0.2	-0.3
el. (10) Extension workers have an obligation to promote the adoption of research validated ideas and practices.	0.2	1.0	0.4	1.0	-0.5	-0.6
d. (17) Information that does not have a strong research base should not be recommended to clients.	-0.4	-0.2	0.0	-0.7	-0.2	0.3

TABLE 4: (Cont'd)

Categories of Statements		Philosophy Types					
		I Z- Score avg. (N=24)	II Z- Score avg. (N=10)	III Z- Score avg. (N=1)	IV Z- Score avg. (N=5)	V Z- Score avg. (N=2)	VI Z- Score avg. (N=11)
eg.	(24) Research findings should be tested locally before recommending them to clients.	-0.1	-0.2	-0.8	-1.0	0.7	-0.2
eg.	(31) Extension information should be based mostly on what people have learned about their problems and how to deal with them.	0.2	-0.2	0.0	0.3	-0.6	-0.5
eg.	(38) What people learn from experience is a necessary input for improvement plans and action.	1.1	0.7	0.4	0.2	-0.4	0.6
eg.	(48) New information, whether from research findings or other sources, should be used cautiously and experimentally only until empirically validated.	-0.2	0.0	-0.8	-0.4	-1.6	-0.1
D. ORIENTATION TO PLANNING							
eg.	(4) There are still geographic areas where the common interests are sufficient locally for planning and united action.	1.3	0.4	0.8	0.5	-0.2	0.6
eg.	(11) Clients generally are capable of effectively defining, planning and dealing with most of their problems without professional help.	-0.4	-0.5	0.4	-0.4	0.7	-0.5
el.	(25) What local people need most are plans developed by experts and blueprints for carrying them out.	-2.4	-1.9	-0.8	-2.2	1.1	-2.2
el.	(32) Higher level plans must sometimes take precedence over the immediate interests of local people.	-0.2	-1.9	-0.8	-0.2	0.4	-0.5
eg.	(39) Local people should be involved in formulating extension programs and plans.	1.8	1.6	0.8	2.1	2.2	1.7
eg.	(44) People involvement in planning and action is a key to extension success.	1.7	1.6	0.8	1.8	2.2	1.7
el.	(49) Improving the economic base is the core to development whether individual or community.	-0.7	0.1	1.6	0.1	-0.3	0.1
E. ORIENTATION TO THE POLITICAL STRUCTURE							
el.	(5) Pressuring people and groups occasionally to achieve extension program objectives is a legitimate extension technique.	-1.3	-0.9	-1.6	-0.6	0.3	-2.0
eg.	(12) Recipients of services from extension service should pay part of the cost.	0.1	-0.8	0.0	0.1	-0.2	-0.6
el.	(19) Local power structures and influential people should be actively involved in extension programs.	0.5	0.6	0.0	1.0	-0.7	0.7
eg.	(26) Extension will be most successful when the locally influential people initiate the programs and take the lead.	-0.0	0.8	0.8	0.4	-0.6	1.1
el.	(33) Extension should serve as a public advocate on policy issues of concern to clients.	-0.4	-0.9	-0.8	-1.5	-0.2	-0.5
eg.	(40) Programs are more likely to succeed when a special effort is made to involve people to whom others look for advice and information than when this is not done.	0.9	1.6	0.8	1.5	2.6	1.4
el.	(45) Extension workers (change agents) should operate from positions of authority.	-1.6	-1.3	-0.8	-0.8	-0.2	-0.8

TABLE 4: (Cont'd)

Categories of Statements	Philosophy Types					
	I Z- Score avg. (N=24)	II Z- Score avg. (N=10)	III Z- Score avg. (N=1)	IV Z- Score avg. (N=5)	V Z- Score avg. (N=2)	VI Z- Score avg. (N=11)
eg. (50) Business, public agencies, and specialty organizations that provide necessary goods and services to people are appropriate extension clients.	0.6	0.4	0.8	0.4	1.7	0.9
F. ORIENTATION TO THE "ESTABLISHMENT"						
el. (6) The institutions of present day society are capable of dealing with the big problems that have emerged.	-1.5	-0.7	0.0	-0.3	-0.2	0.0
el. (13) Local problems are caused mostly from faculty relationships for achieving client goals is a necessary extension function.	0.6	0.5	0.0	0.1	-0.2	0.5
eg. (20) Working to achieve appropriate interorganizational relationships for achieving client goals is a necessary extension function.	0.6	0.5	0.0	0.1	-0.2	0.5
eg. (27) Extension should facilitate maximum use of state, local and federal resources available to clients.	0.5	0.9	0.8	0.4	-0.3	0.8
eg. (34) Extension has a special obligation to work disproportionately with disadvantaged people and groups.	0.1	-0.7	-1.6	-1.8	-2.2	-0.5
eg. (41) Extension has an obligation to organize by-passed and powerless people for joint action against their oppressors.	-0.5	-0.8	-1.6	-2.6	-2.1	-0.9
el. (46) Main extension effort should be concentrated on those who want help to the relative exclusion of others.	-0.5	-0.3	0.8	-0.4	-0.2	-0.4
G. FEELINGS ABOUT EDUCATIONAL APPROACHES						
eg. (7) Increasing the capacity of individuals for effective interpersonal relations is a prerequisite to maximum personal and group goal achievement.	1.3	0.5	0.0	-0.1	-0.8	0.7
el. (14) Helping people and groups become what they are capable of becoming is of minor importance in extension programming.	-2.2	-1.7	0.4	-1.7	1.4	-1.8
el. (21) Extension help to clients should be confined to education. Provide only services necessary to support education.	0.1	0.0	-2.1	0.8	-0.4	-0.1
el. (28) The public good can best be achieved by implementing the judgement and conscience of knowledgeable, compassionate advocates of the public good.	-0.5	0.3	-0.4	-0.2	-0.2	-0.6
eg. (35) Learning can best be achieved through actual experience.	0.7	1.6	1.6	0.8	-0.2	0.3
eg. (42) Emphasis should be placed on self-help and use of own resources for quality of life improvement effort.	1.4	0.9	0.4	0.3	0.1	0.7

* el = elitist statement; eg - egalitarian statement

**Statement number in questionnaire

TABLE 5 Z-SCORES ASSIGNED BY ROLE TYPES OF SUBJECT MATTER SPECIALISTS TO ROLE STATEMENTS CLASSIFIED BY CATEGORY TYPE NUMBER

Role Categories and Statements	Role Types**				
	Type 1 Z-score avg.	Type 2 Z-score avg.	Type 3 Z-score avg.	Type 4 Z-score avg.	Type 5 Z-score avg.
CATALYST					
(6)* Try to get clients who need assistance from extension to ask for it.	-0.1	0.5	0.2	0.6	0.3
(22) Help create an awareness of changes clients ought to make.	0.3	0.7	1.0	1.2	0.3
(47) Work quietly behind the scenes to get on extension program moving.	0.3	-0.5	0.7	0.5	0.3
(56) Facilitate the learning process to where clients become both teacher and learner.		0.9	-0.3	0.7	0.1
SOCIAL FACILITATOR (PEOPLE INVOLVEMENT)					
(25) Encourage clients with successful achievements to talk about them with people who can gain support for the extension program.	-0.1	0.5	0.2	-0.2	0.3
(43) Rely heavily on local leaders in carrying out the extension program.	0.3	-0.9	0.3	0.1	0.3
(44) Enlist the help of local groups and agencies in carrying out extension programs.	0.4	-0.3	0.3	-1.2	0.3
(14) Start working mostly with innovative and influential clients.	-0.3	-2.7	0.0	-1.4	-1.6
(20) Involve clients extensively in planning and carrying out the program.	0.9	-0.4	1.1	0.1	0.9
LINKING (SYSTEMIC LINKAGE) ROLE					
(27) Help make contacts between groups and agencies so your clients can get the inputs they need to achieve their own goals.	0.3	0.2	0.0	0.5	0.3
(32) Facilitate effective use of resources available from government and private agencies.	0.5	-0.3	-0.1	0.9	0.3
(39) Encourage clients to establish working relationships with their cooperative extension service.	0.6	1.4	0.7	0.6	0.3
(55) Serve as a communicator linking agent among groups and people when needed.	0.3	0.0	0.1	0.0	0.3
INFORMATION CONVEYOR					
(4) Give the answers that farmers seek or find someone who can.	0.2	1.6	1.3	1.7	1.6
(12) Promote the adoption of new practices recommended by the extension service.	0.2	0.9	0.8	0.4	0.3
(48) Convey research results from the university to the clients who can use it.	0.4	1.1	0.8	0.7	0.3
(49) Communicate information about farm problems back to researchers directly or through the area specialists.	-0.3	0.3	0.5	0.7	0.0
PROTECTOR					
(8) Urge caution in the adoption of innovations of a questionable nature.	0.6	0.6	0.9	0.7	-0.1
(16) Help keep things as they are if the clients want it that way.	-0.3	-1.0	-1.3	0.1	-2.6
(23) Keep a critical eye on what people propose and how they propose to do it with the view of warning them when they are about to go wrong.	-0.4	0.3	-0.2	-0.2	-2.3
(26) Help farmers think through the consequences of the new things they are about to do.		1.1	0.9	0.8	1.1
THERAPIST (EGO ENHANCEMENT)					
(18) Take note of and express recognition for achievements that your clients make.	0.7	0.7	1.1	0.6	0.3
(33) Visit with your clients and listen to what they have to say.	2.0	1.8	1.3	1.2	2.2
(36) Encourage clients to depend on you for answers to their problems.	-1.8	-1.0	-0.8	0.4	-1.3
(41) Help farm families with their personal problems directly or through referral.	-0.6	0.5	-0.1	-0.5	-0.4
TEACHER (PERSONAL DEVELOPMENT)					
(1) Encourage clients to consider possible alternatives before acting.	2.0	1.5	1.4	1.3	0.3
(3) Help clients define what their problems really are.	1.3	1.2	1.1	0.4	-1.2
(37) Help clients think through their problems, consider alternatives and act on their own initiative.	1.7	0.9	1.5	0.7	0.9
(7) Raise questions to help clients clarify their thinking.	1.2	0.4	0.6	0.6	1.8
TEACHER (TRAINER)					
(19) Train local leaders to help with the extension program.	0.4	-1.5	0.4	-0.9	0.3
(46) Teach clients how to do what they have decided to do but lack skills for doing it.	0.5	0.5	0.2	0.4	0.0
(51) Teach clients how to keep farm income and expense records.	-2.1	0.2	0.3	0.3	-1.7
(53) Teach management and decisional skills to clients.	0.2	0.2	0.8	0.9	0.3

TABLE 5: (Cont'd)

Role Categories and Statements	Role Types**				
	Type 1 Z-score avg.	Type 2 Z-score avg.	Type 3 Z-score avg.	Type 4 Z-score avg.	Type 5 Z-score avg.
BOUNDARY MAINTENANCE					
(34) Remind others (people, groups and agencies) about what extension does as a means of cutting down interference from other agencies.	-0.5	-0.5	-0.7	-1.5	-1.1
(52) Enlist the help of the county court and extension councils in keeping lines clear between what extension is supposed to do and what other agencies think they should do.	-0.8	-0.4	-0.3	-2.6	0.3
(50) Enlist the help of local leaders in informing the public about what extension and other public agencies should do and in issuing reminders if necessary when the rights of extension are being infringed.	-1.0	-0.2	-0.5	-1.9	-0.4
GENERALIZED HELPER (CHOREBOY)					
(10) Help clients get the credit, services, and supplies they need to achieve their goals.	0.4	0.1	-0.3	0.1	0.6
(16) Serve as a local club leader or secretary when urged to do so.	-1.7	-1.3	-0.8	-1.3	0.0
(24) Make agency contacts, apply for and fill out forms to get the supplies and services clients need.	-1.2	0.0	-0.7	-0.2	0.3
(21) Concentrate mostly on being on hand to help if requested and needed.	0.1	0.7	-0.4	1.6	0.3
ADMINISTRATOR-DIRECTOR					
(9) Put pressure on those who get in the way of carrying out extension programs.	-2.3	-1.2	-2.4	-2.2	-0.7
(45) Tell clients what to do and leave it up to them to do it.	-1.9	-1.4	-1.2	-0.1	-2.9
(40) Remind clients that extension help might be withdrawn if they don't show sufficient progress.	-2.3	-1.3	-2.5	-0.9	-0.9
(2) Work mostly at carrying out directives from your superiors.	-1.0	0.4	-1.5	0.5	-0.1
LOBBYIST (PUBLIC RELATIONS)					
(17) Accept credit for extension program achievement as a means of obtaining needed public support.	0.0	-1.2	-0.3	-1.2	0.8
(28) Encourages leaders to promote support for extension programs when its existence is being threatened.	-0.2	0.2	-0.1	-0.7	0.5
(42) Seek and use appropriate opportunities to inform people about extension programs, success and needs.	0.4	0.8	0.4	0.3	0.3
(54) Plant ideas at strategic places where you have reason to feel action will be taken on behalf of extension.	-0.3	-0.2	0.0	-1.5	-0.1
SOCIAL ACTION					
(30) Mobilize by-passed people for joint action against those who take advantage of them.	-1.0	-1.6	-2.8	-0.9	-1.4
(31) Organize clients so they can better demand their rights.	-1.5	-2.5	-2.3	-1.2	-0.1
(13) Help clients organize groups to achieve their own objectives.	1.0	-1.6	-0.3	-1.0	1.3
(38) Teach clients how to best confront those in power to achieve their own ends.	0.1	-0.5	-1.9	-1.3	-1.4
ORIENTATIONS					
ELITIST VS. GRASS ROOTS					
(11) Work mostly on achieving goals clients have set for themselves.	0.6	0.8	0.4	0.7	0.3
(29) Work mostly at carrying out extension program objectives.	-0.2	0.2	-0.1	-0.7	0.5
TAKE EXTENSION TO THE PEOPLE VS. THEY COME TO US					
(5) Work mostly with those who ask for help.	0.5	0.4	0.5	1.9	0.3
(35) Take extension (what it has to offer) to the people.	0.6	1.3	0.6	1.0	1.5

*Numbers in parenthesis refer to statement identification numbers

**Type 1 is referred to in the text as Capacity Builders, Type 2 as Persistent Educators, Type 3 as Problem Solvers, Type 4 as Subservant Servants and Type 5 as Extension Activists

TABLE 6. INTERCORRELATIONS AMONG EXTENSIONIST ROLE TYPES OF OPERATIO

Role Types	Role Types (correlation coefficients)				
	1	2	3	4	5
1. Capacity Builders	1.00	0.56	0.76	0.52	0.59
2. Persistent Educators	0.56	1.00	0.67	0.68	0.44
3. Problem Solvers	0.76	0.67	1.00	0.59	0.53
4. Subserviant Servants	0.52	0.68	0.59	1.00	0.33
5. Extension Activists	0.59	0.44	0.53	0.33	1.00

TABLE 7a. AMOUNT OF HELP RECEIVED BY FARM MANAGEMENT SPECIALISTS FROM SELECTED COLLEAGUES AND OTHER PERSONS IN OWN EXTENSION ADMINISTRATIVE AREA

Kind of Subject Matter Specialist or Person	Total (%) (N=32)	Amount of Help Received in Own Work					Neces- sary (%)	Not App- licable or No Answer (%)	Avail- ability within the Area (%)
		Little (%)	Some (%)	Much (%)	Very Much (%)				
Kind of Specialist									
Farm management	100.0	3.1	12.5	25.0	9.4	15.6	34.4	95.2	
Livestock	100.0	12.5	12.5	31.2	15.6	15.6	12.6	95.2	
Agronomy	100.0	3.1	9.4	34.3	21.9	15.6	15.7	100.0	
Dairy	100.0	6.3	9.4	26.1	3.1	3.1	50.0	33.3	
Agricultural engineering	100.0	6.3	12.5	24.9	18.8	9.4	28.1	71.4	
Community development	100.0	31.2	24.9	18.8	0.0	6.3	18.8	95.2	
Home economics	100.0	21.9	25.0	28.0	9.4	3.1	12.6	100.0	
Continuing education	100.0	21.9	34.3	6.3	3.1	0.0	34.4	85.7	
Business and industry	100.0	34.4	25.0	3.1	3.1	0.0	34.4	38.1	
Youth	100.0	15.6	28.1	31.3	3.1	3.1	18.8	100.0	
Other Persons									
Vocational agriculture teachers	100.0	9.4	31.2	3.1	3.1	3.1	50.0	100.0	
Leading farmers	100.0	3.1	3.1	18.8	12.5	15.6	46.9	100.0	

TABLE 7b: AMOUNT OF HELP RECEIVED BY PRODUCTION AGRICULTURE SPECIALISTS FROM SELECTED COLLEAGUES AND OTHER PERSONS IN OWN EXTENSION ADMINISTRATIVE AREA

Kind of Subject Matter Specialist or Person	Total (%) (N=69)	Amount of Help Received in Own Work					Necessary (%)	Not Applicable or No Answer (%)	Availability within the Area (%)
		Little (%)	Some (%)	Much (%)	Very Much (%)				
Kind of Specialist									
Farm management	100.0	5.8	17.4	36.2	8.7	14.5	17.4	95.2	
Livestock	100.0	4.3	21.8	26.2	14.5	13.0	20.2	95.2	
Agronomy	100.0	2.9	17.4	20.3	18.8	17.4	23.2	100.0	
Dairy	100.0	7.2	11.6	14.5	8.7	4.3	53.7	33.3	
Agricultural engineering	100.0	0.0	17.4	31.9	20.3	14.5	15.9	71.4	
Community development	100.0	33.4	31.9	10.1	2.9	2.9	18.8	95.2	
Home economics	100.0	18.8	37.8	18.8	7.2	2.9	14.5	100.0	
Continuing education	100.0	21.7	30.5	10.1	0.0	2.9	34.8	85.7	
Business and industry	100.0	24.6	21.7	10.0	0.0	2.9	40.7	38.1	
Youth	100.0	8.7	29.0	34.8	11.6	4.3	11.6	100.0	
Other Persons									
Vocational agriculture teachers	100.0	14.5	23.2	13.0	2.9	4.3	42.1	100.0	
Leading farmers	100.0	1.4	7.2	18.8	20.3	11.6	40.7	100.0	

TABLE 7c: AMOUNT OF HELP RECEIVED BY AGRICULTURAL PRODUCTION SUPPORTING SPECIALISTS FROM SELECTED COLLEAGUES AND OTHER PERSONS IN OWN EXTENSION ADMINISTRATIVE AREA

Kind of Subject Matter Specialist or Person	Total (%) (N=17)	Amount of Help Received in Own Work					Necessary (%)	Not Applicable or No Answer (%)	Availability within the Area (%)
		Little (%)	Some (%)	Much (%)	Very Much (%)				
Kind of Specialist									
Farm management	100.0	5.9	41.1	35.3	0.0	11.8	5.9	95.2	
Livestock	100.0	5.9	23.5	35.3	17.6	11.8	5.9	95.2	
Agronomy	100.0	0.0	17.6	41.3	17.6	17.6	5.9	100.0	
Dairy	100.0	0.0	11.8	17.6	5.9	5.9	58.8	33.3	
Agricultural engineering	100.0	0.0	0.0	35.3	0.0	0.0	64.7	71.4	
Community development	100.0	0.0	0.0	35.3	0.0	0.0	64.7	71.4	
Community development	100.0	58.7	11.8	11.8	0.0	5.9	11.8	95.2	
Home economics	100.0	35.3	17.6	25.5	0.0	5.9	17.7	100.0	
Continuing education	100.0	35.3	23.5	5.9	0.0	5.9	29.4	85.7	
Business and industry	100.0	41.1	5.9	11.8	0.0	0.0	41.2	38.1	
Youth	100.0	35.3	41.1	5.9	5.9	5.9	5.9	100.0	
Other Person									
Vocational agriculture teachers	100.0	11.8	11.8	5.9	5.9	5.9	58.7	100.0	
Leading farmers	100.0	0.0	11.8	17.6	11.8	5.9	52.9	100.0	

TABLE 8. NUMBER ON-CAMPUS FACULTY CONTACTED ON THE COLUMBIA CAMPUS BY THE COMMUNITY DEVELOPMENT FIELD STAFF AND THE NUMBER OF TIMES THEY WERE CONTACTED DURING THE PAST YEAR CLASSIFIED BY THEIR ON-CAMPUS LOCATION

College of Division and Department	Number of on-campus Faculty Mentioned	Number of Times On-campus Faculty were Mentioned				
		1-4	5-9	10-19	20 & over	Number unknown
GRAND TOTAL*	114	97	48	44	27	172
COLLEGE OF PUBLIC & COMMUNITY SERVICES	26	41	30	31	18	73
Community Development	15	25	26	24	17	44
Recreation & Park Administration	4	7	4	5	1	13
Public Safety	5	7	0	0	0	12
Social Work	2	2	0	2	0	4
COLLEGE OF AGRICULTURE	39	22	7	7	2	51
Agricultural Economics	7	10	5	2	1	15
Agronomy	5	2	0	2	0	7
(Extension Information)	9	1	0	0	0	9
Rural Sociology	5	4	1	3	1	9
Agricultural Engineering	5	2	1	0	0	4
Agricultural Education	3	0	0	0	0	3
Plant Pathology	1	0	0	0	0	1
Poultry Husbandry	1	1	0	0	0	0
Horticulture	1	1	0	0	0	0
Entomology	1	1	0	0	0	0
School of Forestry, Fisheries and Wildlife	1	0	0	0	0	3
COLLEGE OF ENGINEERING	3	2	1	1	0	3
(Engineering Extension)	2	1	1	1	0	1

TABLE 8: (Cont'd)

College of Division and Department	Number of on-campus Faculty Mentioned	Number of Times On-campus Faculty were Mentioned				Number unknown
		1-4	5-9	10-19	20 & over	
Mechanical Engineering	1	1	0	0	0	2
COLLEGE OF HOME ECONOMICS	5	0	1	0	0	3
Housing and Interior Design	2	0	1	0	0	1
Family Economics and Management	1	0	0	0	0	1
Child and Family Development	1	0	0	0	0	1
Human Nutrition, Foods and Food System Management	1	0	0	0	0	0
COLLEGE OF ARTS AND SCIENCE	6	15	6	3	5	13
Political Science	4	15	6	3	5	11
Economics	1	0	0	0	0	1
Geology	1	0	0	0	0	1
SCHOOL OF LAW	2	0	0	0	1	1
SCHOOL OF LIBRARY AND INFORMATIONAL SCIENCE	2	1	0	0	0	1
Information Science	1	1	0	0	0	0
Library Science	1	0	0	0	0	1
COLLEGE OF BUSINESS AND PUBLIC ADMINISTRATION	2	2	0	0	0	0
Institute of Public Administration	1	1	0	0	0	0
Finance	1	1	0	0	0	0
COLLEGE OF EDUCATION	2	0	0	0	0	0
Higher and Adult Education	2	0	0	0	0	4
SCHOOL OF JOURNALISM	1	0	0	0	0	1
SCHOOL OF MEDICINE	2	0	0	0	0	2

TABLE 8: (Cont'd)

College of Division and Department	Number of on-campus Faculty Mentioned	Number of Times On-campus Faculty were Mentioned				
		1-4	5-9	10-19	20 & over	Number unknown
Family and Child Medicine	1	0	0	0	0	1
Child Health	1	0	0	0	0	1
(EXTENSION ADMINISTRATION STAFF)	22	13	3	1	1	19
(TECHNICAL REFERRAL CENTER)	1	1	0	1	0	0
(INDUSTRIAL REFERRAL CENTER)	1	0	0	0	0	1

*The contacts reported involved 11 of the 13 divisions and 33 of the 97 departments in the columbia Campus of the University of Missouri.

TABLE 9: KIND OF SERVICE RENDERED TO DESIGNATED AGENCIES BY AGRICULTURAL SPECIALISTS DURING THE PAST YEAR

Kind of Agent or Agency	Total (%)* (N=127)	Kind of Service Rendered				
		Direc- tion (%)	Gave Infor- mation (%)	Gave Advice (%)	Helped with their Program (%)	Other (%)
Government Agencies and Offices						
Agricultural Stabilization and Conservation		11.0	62.2	29.1	57.5	5.5
Soil Conservation Service		11.8	44.9	19.7	59.8	9.4
Production Credit Association		5.5	52.8	22.8	18.9	15.0
Federal Land Bank		4.7	35.4	8.7	10.2	7.9
Farmer's Home Administration		3.1	53.5	19.7	24.4	10.2
County court		6.3	54.3	16.5	11.0	21.3
Other county offices		0.0	7.9	2.4	4.7	3.1
Civic and Local Groups						
Chamber of Commerce		7.1	29.9	7.1	37.8	6.3
Civic clubs		1.6	34.6	5.5	38.6	6.3
Other local groups		10.2	5.5	8.7	3.1	6.3
Farm Organizations						
American Farm Bureau		4.7	41.7	6.3	33.1	12.6
Missouri Farmers Association		3.9	39.4	11.8	16.5	9.4
National Farmers Association		1.6	11.8	0.8	8.7	6.3
Commercial						
Local banker		11.0	70.1	28.3	16.5	7.9
Local feed and seed dealers		11.0	71.7	37.0	22.0	7.1
Other local business		1.6	7.1	3.9	2.4	0.8

TABLE 9: (Cont'd)

Kind of Agent or Agency	Total (%)* (N=127)	Kind of Service Rendered				
		Direction (%)	Gave Information (%)	Gave Advice (%)	Helped with their Program (%)	Other (%)
Seed company representative		4.7	37.8	10.2	11.0	15.0
Agricultural chemical company field representatives		7.1	39.4	12.6	18.1	12.6
Farm machinery field representatives		4.7	30.7	7.9	11.0	6.3
Agricultural Commodity Groups						
Missouri Pork Producers Assoc.		9.4	29.1	9.4	29.1	8.7
Missouri Beef Cattle Improvement Association		7.9	23.6	8.7	26.8	4.7
Missouri Dairy Herd Improvement Association		6.3	1.8	7.9	18.1	5.5
Missouri Soybean Association		1.6	12.6	2.4	20.5	0.8
Missouri Seed Improvement Association		3.1	9.4	1.6	13.4	7.1
Missouri Cotton Producers Association		0.0	3.1	0.0	3.9	0.0
Other crop or livestock Association		4.7	11.0	7.9	13.4	0.0

*Percents generally exceed 100.0 because of multiple answers given.

TABLE 10: KIND OF HELP OBTAINED BY AGRICULTURAL SPECIALISTS FROM DESIGNATED AGENCIES DURING THE PAST YEAR

Kind of Agent or Agency	Kind of Help Received					
	Total (%)* (N=127)	Active Program Assistance (%)	Resources for Self/Client (%)	Good Will Mostly (%)	Publi-cizing Extension Program (%)	Other (%)
Government Offices						
Agricultural Stabilization and Conservation		36.2	48.0	44.9	36.2	3.9
Soil Conservation Service		27.6	40.2	42.5	18.9	7.1
Production Credit Association		29.9	33.1	36.2	28.3	5.5
Federal Land Bank		9.4	21.3	26.8	11.0	3.1
Farmer's Home Administration		19.7	37.0	40.9	22.0	5.5
County court		26.8	22.0	47.2	23.6	5.5
Other county offices		5.5	7.1	8.7	3.1	0.8
Civic and Local Groups						
Chamber of Commerce		25.2	13.4	30.7	19.7	1.6
Civic clubs		12.6	4.7	44.1	23.6	2.4
Other local groups		3.1	9.4	10.2	3.1	0.0
Farm Organization						
American Farm Bureau		26.0	18.9	49.6	31.5	4.7
Missouri Farmers Association		18.1	18.9	41.7	26.0	1.6
National Farmers Association		1.6	3.9	22.0	7.1	1.6
Commercial						
Local banker		43.3	31.5	48.8	32.3	3.1
Local feed and seed dealers		38.6	44.9	43.3	36.2	3.1

TABLE 10: (Cont'd)

Kind of Agent or Agency	Kind of Help Received					
	Total (%)* (N=127)	Active Program Assistance (%)	Resources for Self/Client (%)	Good Will Mostly (%)	Publi-cizing Extension Program (%)	Other (%)
Other local business		3.9	3.9	3.9	2.4	0.8
Seed company representative		12.6	22.8	36.2	9.4	3.9
Agricultural chemical company field representatives		21.3	28.3	33.9	11.8	2.4
Farm machinery field representatives		8.7	10.2	22.8	6.3	3.1
Agricultural Commodity Groups						
Missouri Pork Producers Assoc.		28.3	13.4	29.1	21.3	2.4
Missouri Beef Cattle Improvement Association		24.4	13.4	22.8	16.5	0.8
Missouri Dairy Herd Improvement Association		17.3	15.7	10.2	10.2	3.1
Missouri Soybean Association		8.7	7.1	18.1	6.3	0.8
Missouri Seed Improvement Association		11.0	19.7	11.0	3.9	3.1
Missouri Cotton Producers Association		3.1	0.8	3.9	0.8	0.0
Other crop or livestock associations		12.6	4.7	8.7	8.7	0.0

*Percents generally exceed 100.0 because of multiple answers given.