Proposed Guidelines for County Extension Program Development

By

Donald J. McFeeters

A graduate problem submitted in partial fulfillment
of the requirements for the degree

of

Master of Science

Institute for Extension Personnel Development

Michigan State University
East Lansing, Michigan

August 1968

made

out

have

Stat

had

uate

Dr.

inva

sion

Trus

wish

and

Char

with

sugge

thank

Acknowledgments

I wish to express my thanks to the many people who have made this year of graduate study possible.

First, a special thanks goes to my wife, Carol. Without her encouragement and assistance, this year would not have been possible.

My appreciation goes to the staff here at Michigan State University who were always ready to assist whenever I had a question. A special note of thanks goes to my graduate committee: Dr. Mason Miller, Chairman, Dr. Denio Caul, Dr. John Speicher, and Dr. Karl Wright. All who have rendered invaluable assistance to my graduate program.

A note of thanks to Robert P. Davison, Director, Extension Service in Vermont and to the University of Vermont Trustees for extending me this years' study leave. I also wish to extend appreciation to the county staff that I left and a big thanks for doing my work while away. To the Charles Hood Foundation goes a thank you for providing me with financial assistance.

Lastly, to my fellow students who provided assistance, suggestions, and constructive criticism along the way I say thank you.

TABLE OF CONTENTS

Introduction

"Extension must be essentially educational, must be directed toward satisfying the needs of the people, and must be started at the populace's own level of understanding. (84-10)

In order to develop an educational program that will satisfy the needs of the people, it must begin at the people's level of understanding. It has been recognized that a sound, well developed procedure for program development is needed to be understood by the Extension staff. A complete understanding of the steps involved is needed to plan and implement a successful program plan. Program development is a continuous series of processes which include a long-range program, preparing a Plan of Work and teaching plans, taking action to carry out the plans, and determining accomplishments.

Therefore, the objective of this paper is to provide guidelines that can be used by the County Extension staff in building an educational program to meet the needs of the people.

The Extension staff in implementing this program must concern themselves with these questions: (69-94)

1. What educational purposes should the Extension Service seek to attain?
2. What educational experiences can the Extension Service provide that are likely to attain these purposes?
3. How can these educational experiences be effectively organized by Extension personnel?

Our objectives will be twofold in nature: consideration of the building of a long-range Extension program along with

the short-range program (Plan of Work). "Program development includes the total of Extension's responsibility from the first step in planning to the final evaluation of the changes in people's behavior." (11) - 111 - 28

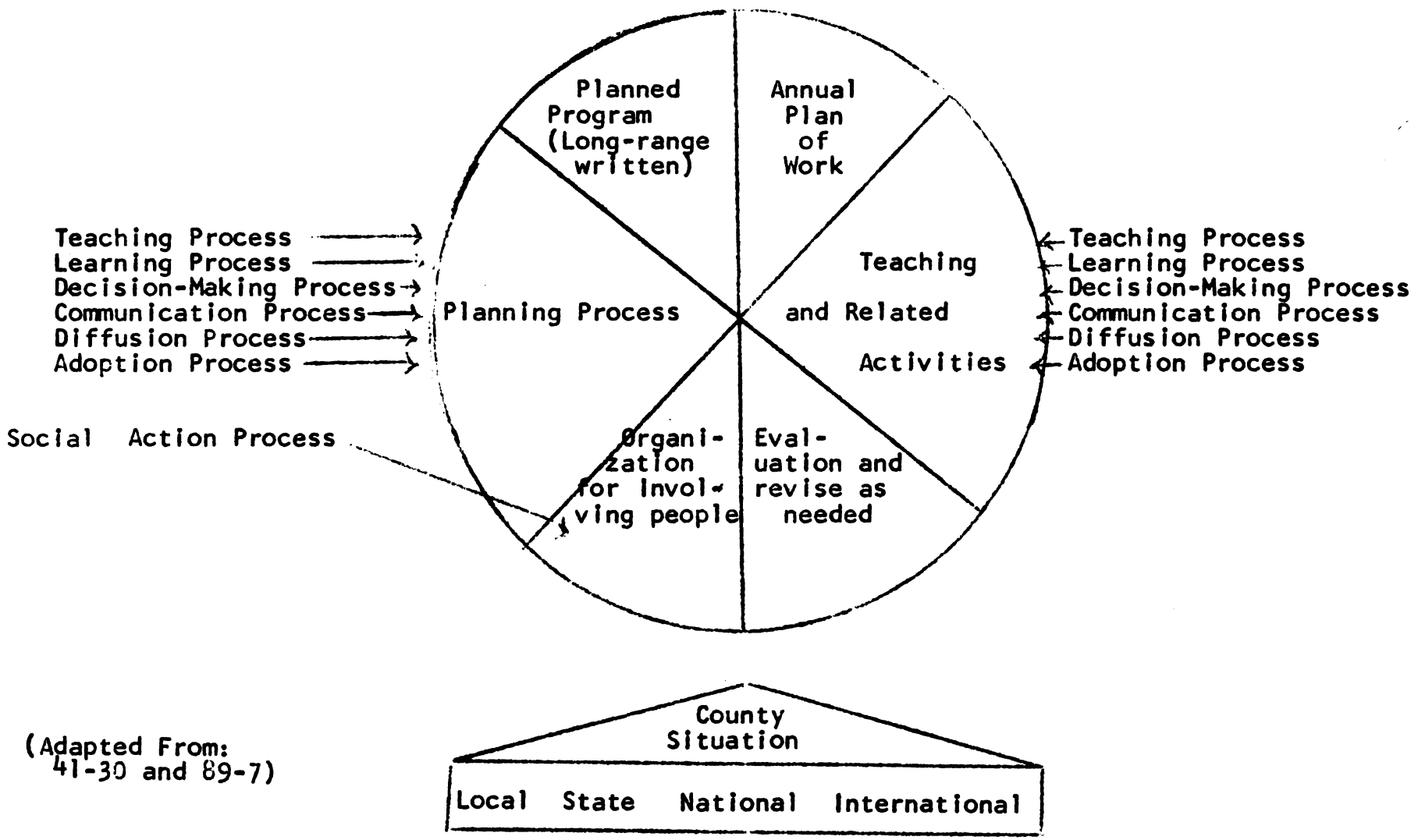
This program development process is very complex as many different concepts and factors interplay with each other. A pictorial view of the program development model is presented. (Figure I & II) In this way, one can view the interaction among the various concepts that affects the final product, the long-range program and the Plan of Work. This process is shown both from the step-by-step point of view and the elements included in the process.

This paper is divided into three sections: Sociological Elements, The Program Development Process and Conclusions.

In Section I, Sociological Elements, we will look at several concepts and models that need to be well understood by the Extension worker and how they relate to the program development process. These concepts include the Social Action Process, the teaching and learning process, the communication, diffusion and adoption and decision-making processes. Each one of these is reviewed in brief and should be analyzed in more detail if one desires to study one or more to fully understand each. Each one of these becomes an integral building block in an Extension program that will change the behavior of the people (audience). Only the highlights are presented to show how they fit together in meeting our objectives, that of

PROGRAM DEVELOPMENT PROCESS MODEL

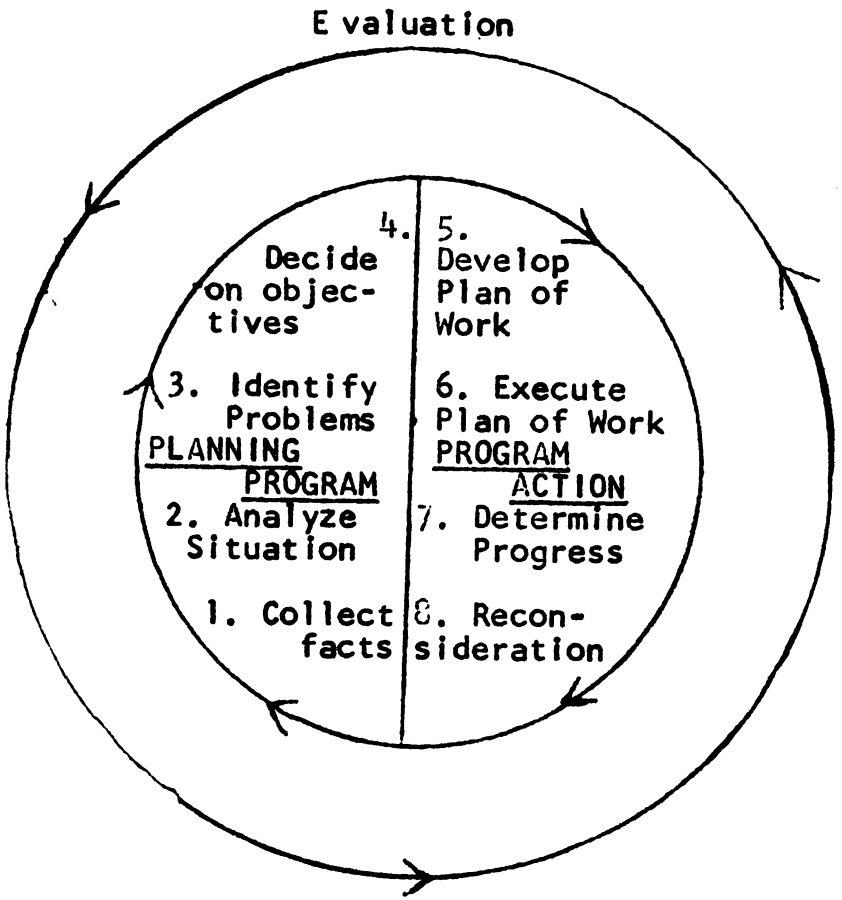
FIGURE I



(Adapted From: 41-30 and 89-7)

Program Development Process

FIGURE 11



(69 - 95)

a planned Extension program and Plan of Work.

Following the presentation of these concepts, we will discuss in Section II program development and what it is. We attempt to show what Extension philosophy is, what Extension's purpose, functions, and objectives are and how these relate to meeting our objectives of this paper.

Program development consists of two phases: planning and execution. We consider planning: what it is, how to approach planning and a procedure to follow. We consider the situation, the analysis and identification of problems and needs followed by the determination of the county program objectives. The next step is the finalizing of our first objective, that of a long-range Extension program. With this step finished, it ends the formal planning phase of program development, although planning does take place in the next phase, program execution.

The Plan of Work begins the execution stage. The Plan of Work takes the long-range program and breaks it down and establishes priorities. It identifies what more precisely should be worked on for a shorter period of time, usually of one year in length. We consider the audience, methods, message and evaluation in more detailed terms. Following this Plan of Work, Extension worker, the teacher-communicator would be able to build his teaching plan establishing precisely the message to be used.

The final section, Conclusions, attempts to draw everything together that we have discussed concerning the develop-

ment of the long-range program and Plan of Work. In this section, the social action process is used as the framework for the steps that an Extension staff needs to be acquainted with and understand before the beginning of program development.

This process of program development as presented will give the Extension worker a better opportunity of working with the "real" problems of the people. The Extension worker wants to diffuse among the people and to teach so the people might be able to satisfy their own wants and desires. Thus, the Extension worker will be able to reach the aim of Extension education and that is to infuuence people to make those desirable changes in their behavior that contributes to a better individual, family and community.

SECTION I
Sociological Elements

In this section, we will look at several concepts and models that need to be well understood by the Extension worker and how they relate to the program development process. These concepts that were reviewed include the Social Action process, the teaching and learning process, the communication, diffusion and adoption and decision-making processes. Each one of these is reviewed in brief and should be analyzed in more detail if one desires to study one or more to more fully understand each. Each one of these becomes an integral building block in an Extension program which will change the behavior of the people (audience). Only the highlights are presented to show how they fit together in meeting our objectives, that of a planned Extension program and Plan of Work.

The Social Action Process

Extension agents are an integral part of the community in which they live and work. An agent has many responsibilities; most of these responsibilities deal with people.

Over the years, one of the principles of adult education has been the involvement of people from the planning to the execution of the programs with which they are involved. Therefore, it becomes important to review the process that an Extension agent needs to be involved with in developing a successful educational program. Many call this the social action process.

The social action process presented below is in general terms. In reality, this process will not always be followed step by step as outlined. It is important for us to understand the parts of the social action process and how they are relevant to the system or program under consideration.

STEP I: ANALYSIS OF EXISTING SOCIAL SYSTEMS.

Social action takes place within the existing social system. Social action must be related to some social system. The social system could be the country, state, county, community, Extension Service, development group, or breed association. It seems that if an Extension agent is to conduct an educational program, he must be able to identify the social system in which he is working, the important sub-systems or subgroups within the overall group, and the influences that are being brought to bear on both the overall system and the sub-systems. The subgroups could be a board of directors and committees of organizations or groups within a community or

counties within a state. The system will differ for different programs. The social system boundaries may not be geographic or political. The group might be a board of directors, staff or a council. "Particular emphasis may be placed on ends, facilities, norms, status, roles and power in the general social systems and major subsystems." The relative status-role and power figures among the important sub-systems and key individual power figures should be known. (5-)

In summary, we must recognize the fact that there is an over-all social system in which the social action, Extension program, is going to take place. Before beginning the program, one should determine what the actual existing experience of the social system is in relation to the program that is going to be tried.

The following conditions need to be identified and evaluated in light of the proposed program:

1. What are the bounds of the social system.
2. What are the groups within the general group.
3. What are the relative positions of the sub-systems.
4. What are the important influential groups outside the social system which affect the system and/or sub-systems.
5. What are the goals and activities of the sub-systems.
6. Who are the key influential leaders of the systems.

STEP II: CONVERGENCE OF INTEREST.

Action starts when two or more people get together to

define a need with a decision to act. Usually the number of people involved is small. Tentative definition of goals and decisions on means are made.

This action can begin when two or more people agree that some kind of problem exists and that something should be done about it. These people would be members of a social system or sub-system that is involved. Another approach might be to have someone closely connected with the system but who also represents certain outside interests to start action or to bring people together to define needs with a decision to act. Examples of such include Extension agents, school superintendents, and ministers. We may also include someone outside the system in an attempt to get action started toward solving a problem. This can be done by the outside person becoming interested in the problems of the social system involved and providing a stimulus to the people to define the problem. Examples of such people include the Extension specialist or state administrator.

This paper will assume that the process will follow the pattern of the Extension agent bringing the people of common interest together.

As this step is being taken, one needs to evaluate the following considerations to insure that everyone involved is in agreement and understands where each stands.

1. To what extent did those involved have adequate information about the problem, need or action.

2. To what extent was their discussion of the

information related to the problem, need or action proposal.

3. To what extent was there common agreement among those involved in the definition of the problem, need for action and possible alternatives.

4. To what extent was there agreement toward the plan for the next action step.

STEP III: EVALUATION.

Evaluation should be a continuous function and in many instances a number of evaluations will take place within a given stage. After each step, evaluation needs to take place. This step involves four functions: evaluation, decision, planning, and action.

Evaluation consists of looking at past actions to determine the degree to which the past objectives have been met.

On the basis of this evaluation, a decision is made as to the next step. This part of evaluation might lead to the decision that the conditions in the preceeding step were not met and more time is needed on that step. The decision also might be to go on to the next step as the conditions required have been met.

With the decision made, plans must be made to implement that decision. Next, action should be taken to implement the plan that has been developed.

STEP IV: PRIOR SOCIAL SITUATION.

Leadership patterns, power relations, status-roles, expectations, beliefs and sentiments of the people involved should be identified from past experience. Patterns of communication, cooperation and conflict need to be determined.

Meth
work
fied
or a
impl

gram

and
who

Methods, appeals, and organizational structures that have worked, along with those that have failed, need to be identified. By understanding these prior basic situations, a group or an individual has a sounder basis for planning and implementing the proposed program.

As we proceed toward the development of a sound program, the following questions need to be answered:

1. To what extent was analysis made of similar activities or programs that had been attempted previously.

2. To what extent was analysis made of the groups involved previously or are presently involved in such activities or programs.

3. To what extent was an analysis made of the individuals that were involved in such activities or programs.

4. To what extent was an analysis made of pattern of cooperative relations and/or conflict that have developed in similar programs.

5. To what extent was an analysis made of the affects that the development of a new program might have on the groups previously and presently involved with similar programs.

6. To what extent was an analysis made of success or failure of past methods, techniques, appeals, and organizational structure.

7. To what extent was the analysis of the prior social situation used to determine possible future strategy.

STEP V: DELINEATION OF THE RELEVANT SOCIAL SYSTEM.

Determination of the group and subgroup(s) should be made and the program developed toward this group. In other words, who are the people that should be reached by the program? Is

Following this identification of the group or audience that the program is to be aimed at, these considerations need to be evaluated. We must ask ourselves if these considerations have been met to our satisfaction.

1. How adequate is the delineation of the relevant systems, within and outside of the systems or groups involved.

2. To what extent was the delineation based on the following criteria.
   a. clear definition of the people to be reached.
   b. representative of the needs and interests of the people to be reached.
   c. representative of relevant power groups from which legitimation or sanction should be obtained.
   d. consideration of groups that might hold conflicting views.

3. To what extent were key leaders identified for the groups? To what extent were they based on the following criteria?
   a. representatives of the needs and interests of the people in the group.
   b. needed as a resource for later involvement.
   c. representative of the power structure within the groups.
   d. representative of the ideas of groups with conflicting views.

STEP VI: INITIATING SETS.

People usually are organized into groups that are involved in consulting, legitimizing and sounding board functions. The initiating sets are a small group of people who are centrally interested in the problem and consult with the key leaders of the relevant groups and in some cases with the groups as a whole.

In planning a program, the key individuals and groups

within the total system should be identified by the initiating set with whom the consulting, legitimation, and sounding board functions will take place.

Evaluation should take place at this time with the following criteria to be looked at:

1. To what extent were the functions discussed and agreed upon by the convergent groups.

2. To what extent were the conclusions reached in those relevant social systems used to determine who would be contacted by the initiating sets.

3. To what extent did the criteria of access, power, ability to communicate, reciprocal obligation used to choose the initiating sets.

4. How adequate were the initiating sets.

5. How adequately were the problems and objectives of the new program explained to and understood by the initiating sets.

6. To what extent did the members of the initiating sets agree among themselves regarding the new idea and the related problems, needs and possible solutions.

STEP VII: LEGITIMATION WITH KEY LEADERS.

"Legitimation" is used here mainly in the sense of giving sanction. Sanction could include authority, approval, or justification for action. They can say it is good or it is bad, or that it is acceptable or unacceptable. There usually is a formal and informal structure of legitimation. Formal structure includes elected officers in various groups and informal structure includes leaders that create influence serving. This step consists of consulting with both of these above groups. This consultation includes reactions and sug-

gestions from the leaders involved. Legitimation is needed so these key leaders do not throw their influence blocking the program entirely. This step could also include the consultation of people with little influence but whose judgment is valued. These types of people can improve the thinking of the program including the efficiency, planning strategy, timing and steps needed to be made.

As we proceed through the social action process, we now need to ask ourselves these sets of questions to see if we are in a satisfactory position.

1. To what extent was there an attempt to define the action program and its related problems, needs and possible solutions to the legitimizers.

2. To what extent was there an attempt to clarify the overall scope of the initiating groups and its relation to the new program.

3. To what extent was there an attempt to state in a clear fashion what was expected of the person from whom legitimation was being obtained.

STEP VIII: DIFFUSION SETS.

Up to this point, the steps have involved a relatively small number of people. This step involves the need for people who can provide the kinds of resources needed such as time, communication and organizational skills, access to people and groups, etc., to plan activities which will give opportunities to the relevant systems to express their needs.

Decisions on the next step to take should be taken after careful evaluation of the suggestions and reactions of the legitimizers. Following this, preparation should be made to

diffuse the ideas of the program to the target group. The purpose would be to give the total system or group involved an opportunity to also define the problem as a need.

People at this point in time should be involved to help conceptualize the strategy of communication. After this decision is made, people should be involved who can best help to diffuse the ideas to the target groups or people. The people involved must be people who will be accepted and the ideas presented will be adopted.

The following questions need to be evaluated at this stage as we develop our program.

1. To what extent were major decisions for future steps made on the basis of the information obtained.

2. How adequately were the functions of the diffusion sets discussed and agreed upon by the planning group.

3. How adequate were the diffusion sets chosen.

4. How adequate were the problem and the objectives and means of the new program understood by the members of the diffusion sets.

5. To what extent did the members of the diffusion sets agree on the problems and objectives.

6. To what extent did the members of the diffusion sets agree on the content and methods to use.

STEP IX: DIFINITION OF NEED BY THE MORE GENERAL RELEVANT SOCIAL SYSTEM.

In this step, the activities planned by the diffusion sets are carried out in an attempt to give opportunity to convince the relevant social systems, that a problem exists

and there is a need for action. The diffusion set usually tries to involve a great number of individuals, groups and people. Many different methods and processes may be used. Some of these include basic education, committees, surveys, channeling complaints into action, demonstrations, building on past programs. The ultimate purpose of this is to make the needs of the initiating set the problem of the people or total group.

Considerations to be evaluated include:

1. To what extent did the relevant social system have legitimate concern.

2. To what extent did the relevant social systems define the situation as a problem.

3. To what extent did the relevant social systems define the problem as one for which there was a need for high priority action.

STEP X: COMMITMENT TO ACTION.

This step is important as it emphasizes the need of agreeing that a problem exists and there is a need for a solution. But one needs a commitment from the target group and not just an agreement on the situation. The people must be motivated enough to act.

This commitment might include: a.) a vote of confidence; 2.) agreements to attend meetings; 3.) agreements to act at the proper time; 4.) agreements to pledge money or 5.) agreement to take part in the program.

After a commitment to action is obtained, this condition needs to be evaluated.

1. Was there an attempt made to obtain overt

2. Was there commitment to action by the relevant individuals and systems.

STEP XI: FORMULATION OF GOALS AND OBJECTIVES.

Now that the target systems have been identified and committed, the members of the target groups either need to develop new goals or objectives or accept the goals that have been in existence with the initiating sets and others. The setting of goals may include short-term, intermediate and long-term goals. Without formulation of objectives, one moves from the problem to various methods that might be used without any idea of the objective they are attempting to reach. This procedure of not identifying goals can result in confusion, frustration and decreased motivation by all concerned.

Considerations to be evaluated include the following:

1. How adequately was the process by which the goals and objectives formulated.

2. How adequate was the statement of goals and objectives.

3. How well did the people understand the goals and objectives.

STEP XII: DECISION ON MEANS TO BE USED.

After the goals have been agreed on, alternatives or means to reach these goals should be established. After the alternatives have been found, the decision will have to be made on which is the best means or method to use.

Each method or mean should be evaluated in light of:

1. a method specifically stated in concrete terms.

2. each alternative proposed analyzed in terms of possible consequences, in terms of specific goals or unintended conse-

quences which might affect the program.

3. the required resources and those resources that are available.

Conditions to be evaluated at this point in the process include:

1. How adequate is the process by which the means were formulated.

2. How adequate was the statement of the means.

3. How well were the means understood by the relevant groups.

STEP XIII: PLANNED PROGRAM.

Specific actions must now be established, planned, and described formally or informally. Such decisions as organizational structure, designation of responsibilities, training, timing, planning of specific activities are included.

A formally stated plan usually includes:

1. Goals to be accomplished including short-term, intermediate and long-term.

2. General means along with specific methods and action.

3. Organizational structure and the persons and/or groups responsible for action.

4. Training required.

5. Time allowed.

Now that the Plan of Work has been developed, these conditions need to be evaluated:

1. How adequate was the plan that was set up and approved by the group.

2. To what extent did the plan include the means and more specific actions to be taken,

3. To what extent did the plan list the persons to be involved.

4. To what extent did the plan delineate the time expectations for specific actions.

STEP XIV: MOBILIZING RESOURCES.

This step calls for mobilizing and organizing resources to carry out the program. Resources should include human, physical, financial and communication.

Considerations to be evaluated at this time are:

1. To what extent were the resources called for in the planned program mobilized.

2. How adequately were the organizational structure, including responsibility and authority explained and understood.

STEP XV: ACTION.

The action steps identified in the planned program should be carried out by whom it was decided in the program.

A consideration to be evaluated:

How adequately was each action step carried out?

STEP XVI: TOTAL PROGRAM EVALUATION.

Final evaluation can give some indications as to whether or not the goals were achieved, how adequately the means and methods were in meeting the goals and the adequacy of the organization and process used to develop the plan and program.

The following analysis needs to take place at this time:

1. Did we accomplish what we set out to do?

2. Were the methods used the best?

3. Did we make good use of our resources?

4. Why were we successful?

5. Why did we fail?

6. How would we plan differently if we were to do the program over again?

7. Where do we go from here?

8. How adequate were the periodic evaluation?

9. How adequate was the group's final evaluation?

STEP XVII: CONTINUATION.

From the final evaluation, further actions are identified, as goals were not fully met or accomplished.

Conclusion:

This social action process provides the basis for an agent working with the local people to develop an educational program.

Several important considerations need to be brought together. Social action, the development of programs, takes place within the framework of a social system. This social system could include all the farmers in a county. It might include an Extension Service Advisory Board and a development committee, for example. People within this social system must come to be identified and a decision for action must be made. This need must be accepted by the influentials (legitimizers) as well as the interested people (organizers). The audience receiving the program must be involved and be in acceptance of the problem and objectives to be obtained. The next step would be a commitment to action with human, financial and physical resources.

Following this decision, the plan of action is to be developed showing completely how, when and by whom the objectives will be attempted to be obtained. The plan is ready and now the committed resources should be mobilized. Evaluation should have been an important function throughout the whole process plus the end of the program. If it was an educational program being developed, you would want to measure the behavioral change of the audience. (5)
(14-E-1-25)

The Teaching Process

The Extension agent in an Extension principle and process education program serves as a teacher as one of his functions. Therefore, we need to consider and understand what adult teaching is and how the teacher relates to the learning process. The social action process gives us some guidelines on developing this learning experience by involving the local people. The Extension program needs to be built so the agent can provide a setting in which the teaching can be done. Therefore, an understanding of the teaching process is a necessity in program development.

The teacher must be "tuned" in to the learner. Teaching must be learner oriented rather than teacher or fact oriented. (L) The learning-teaching process is like a communication process between two or more people. The teacher, through a method or channel, sends a message to the learner and the learner receives the message, interprets and reacts to the message. The objective of education is to change behavior. So, hopefully, when the learner reacts from the message received, he or she will change his behavior.

"Teaching is both a science and an art. There is a large body of knowledge about teaching, derived from research and experience. But the application of this knowledge to specific learning situations, especially adult learning situations, requires the sensitive touch of the artist. Teaching is, moreoever, less a creative art than a cooperative art; for while the teacher must create the kind of atmosphere in which

learning will take place, he does this not within his own imagination but in cooperation with the students." (37-29) The students in the case of adult education are the target audience.

Purpose:

Knowles states the purpose of teaching is to bring about a change in behavior. He says that change needs to occur in things we know (knowledge), things we are able to do (skills), things felt (attitudes), things valued (appreciation), and things comprehended (understanding). A teacher is striving to create experiences in which these changes can take place.(37-30)

Process:

"Teaching is a process of guided interaction between the teacher, the student and the materials of instruction."(37-31) The purpose of the teacher is to guide the process between the student and message to create a learning experience that will be meaningful to the people. The subject matter and message become means and not ends. According to Anderson, "Extension workers deal with specific situations, rather than general theories or principles because they are interested in helping people to find solutions to problems." (1-9)

Extension teaching is concerned with having messages received and interpreted. The Extension teacher becomes a communicator; he may communicate on a farm, on the street, in an office or in a meeting. He communicates with a message.

The message is sent to the receiver and hopefully interreted as the communicator intended it. The message is intended to bring about a change in the receiver. These changes may include a change in knowledge, attitudes, skills, thinking and understanding. With this objective in mind, the teacher attempts to choose the correct message. An Extension worker puts emphasis on "a.) making his audience feel at ease; b.) making them feel that they know something; c.) breaking things down for clarity and d.) thinking as his audience does." (22-52)

The message is carried by the method. The Extension worker selects a method or channel. The methods or channels then become the methods of teaching. These include meetings, farm visits, mass media, direct mail etc. Each method is designed to provide an opportunity for receivers to learn. A teacher provides the learning experience but the learner himself must do the learning. The type of method used depends on the objectives, situation, audience, message and other considerations. After evaluating all of these, the teacher must make the decision on the method to use which he hopes will reach his objective.

The teacher or communicator in deciding which method or message to use will depend on how he perceives himself and answers these questions:

1. How confident is he in dealing with the subject matter he intends to create a learning experience in?

2. How does he feel about using different methods? What ability does he have in using these methods?

3. How up-to-date are his teaching methods; are they still relevant?

4. Are there new sources and methods that can be used?

5. What is his role as an Extension worker?

6. What is the relationship between the audience and the Extension worker?

7. What kind of social system is the Extension agent working in? (53-41-2)

Principles:

Several principles of adult teaching appear. (37-32-6)

Knowles states them as:

1. Students (audience) should understand and subscribe to the purpose. "They must have a part in setting the specific goals of the course." The audience should feel that the instruction or method will be of some value.

2. Students must want to learn. A teacher may need to help a person to analyze his goals and abilities so he will want to learn.

3. There should be a friendly and informal atmosphere in the learning situation. The teachers' attitude of understanding, acceptance, and respect comes a long way toward providing a situation that the learner needs and wants.

4. Physical conditions should be favorable. If using a meeting, demonstrations or the like, the teacher should be sensitive to temperature, ventilation, lighting, noise, etc.

5. The students (audience) should participate and should accept some responsibility for the learning process. The best way to learn is by doing. With this philosophy, the teacher should consider ways or methods of involving people. "They will also learn more if they feel some personal responsibility toward the group process." Thus, if decisions can be made by the

6. Learning should relate to and should make use of the student's experience. The message needs to be aimed at their level of experience, relating and applying ideas being taught to the kinds of experiences that people are familiar with. People learn new ideas by relating to past experience.

7. The teacher should know his subject matter. He must be able to organize it and serve as a resource person in his field.

8. The teacher should be enthusiastic about the subject matter and about teaching it.

9. Students (audience) should be able to learn at their own pace. Messages and methods should be organized so they will fill the wide range of experiences, education, aptitudes, interests and abilities.

10. The student should be aware of his own progress and should have a sense of accomplishment. Reward is an effective stimulus to learning.

11. The methods of instructions should be varied according to situations and the needs of the audience. This helps to maintain interest, stimulate participation and meet individual differences.

12. The teacher should have a sense of growth; he is learning also. He should not feel that he knows it all and is just passing on information.

13. The teacher should have a flexiable plan which meets the needs of the student as adult problems are more subjective as they deal with attitudes, skills, and understanding. Many of these needs depend on the goals and values of the people involved.

Conclusion:

In summary, the teacher should begin with subjects of interest. From this point, he develops teaching principles

and concepts that can be used. The teacher needs to start with the audience interest, observations and opinions. The teacher must help the audience to discover relationships and important facts and principles for himself; he along with many other people become the source of information. The grading in Extension comes when ideas and knowledge are applied.

Several points need to be reconsidered and drawn together that specifically point to program development. The audience should have a part in defining specific goals of the course. Besides the specific goals of the course, the audience should be involved with the development of the overall Extension program objectives in a county. It is recognized that the audience must want to learn. The agent must recognize this fact and in developing a program, he may need to step further back and create a "felt" need before proceeding into teaching the subject matter concerning the problem. The audience learns best when involved and participating in the learning process. Therefore, recognition needs to be given to how the program involves the audience in an active role. The message of the teacher should be aimed at the audience's experience. In developing the learning experience, the teacher should identify the level of experience of the audience to insure the program will be accepted by the audience as far as their entry behavior is concerned. In every audience, there are different people with varied abilities and experiences. With this type of background of the audience, messages and methods to be used must be different and varied to meet all needs.

Finally, a flexible teaching plan must be formed to meet any changing situations such as attitude, skills and understanding of the audience.

With this review of the teaching process, the Extension agent also needs to consider the implications of the learning process. The learning process provides a framework on how a person, a member of the audience learns. Without this understanding, it becomes difficult to build a program. Therefore, it becomes necessary to view the learning process (audience) as well as the teaching process (Extension agent).

The Learning Process

One of Extension's functions is education of the people with whom it is working. Education is a process of learning from a teacher or communicator or some other means. When an educational program is being formed, it then becomes a necessity that we have some understanding of the learning process. We should know how a person learns and how this process of learning relates to the overall program development process.

Today the most commonly accepted objective of education is the change in the behavior of an individual. An individual makes this change because he has learned something. Thus, we can say that learning is a process in which a person changes in attitude, understanding, or action concerning some problem, issue or subject. Webster defines learning: "to gain knowledge or understanding or skill in by study, instruction or experience." (112-480)

Purpose:

A learner then is an individual who is going through this change. Learning isn't merely the adding of more knowledge, ideas and information to what one all ready knows; but learning is a process of reorganizing, rethinking or reconstructuring one's beliefs, ideas and understanding into his new behavior. Benne states learning as: (34-17)

1. "the acquisition and mastery by a person of what is all ready known on some subject."
2. "may also be thought of as the extension

and clarification of meanings of one's own individual experience."

3. "a process in which one tests ideas and generalizations relevant to some delimitable problems, and tests them in some more or less objectified and controlled experiences designed for the purpose."(34-26)

Rogers uses learning as defined by psychologists as the relatively enduring change in the response to a stimulus. (80-77) This definition provides an indication of a relationship between a stimulus and the response that is received from this stimulus. It is a "change in the stable relationship between a stimulus that the organism perceives and a response that the organism makes, either covertly or overtly." (6-76) The teacher or communicator acting as the source or stimulus wants a response to occur with the person with whom he is teaching or communicating. In other words, the source's objective is to create a change in the receiver's behavior.

"Learning is something that takes place within the learner and is personal to him. . .It takes place when the individual feels a need, puts forth effort to meet the need and experiences satisfaction with the results of his efforts. Learning is a process by which an individual makes some new skill or idea his own because in some way and to some degree it fills a need he feels." (37-31)

Knowles says that "learning must be purposive. The learner must have an objective in mind and must be motivated toward it." Secondly, adult learning is the "putting forth of effort" in the learning process. Finally, the learner must receive satisfaction from learning.(37-21-2) Learning put into

an educational program then becomes planned change.

Process:

To achieve this change in behavior, a person will go through a learning process. This process, says Anderson, "starts with the interests and challenges of people and moves toward an understanding of general principles that may provide a basis for solving other problems in similar circumstances."(1) People learn by using many different methods and receiving many different messages. Some of these include reading, discussion, listening and by doing.

By using these different methods, a person if learning ultimately will adopt an idea and change either his attitude, knowledge, or action. Several learning processes have been identified by researchers.

We will use the stimulus-response model as how a person learns in the following discussion.

A stimulus is an event or something "that a person can receive through one of his senses. Response is anything that the individual does as a result of perceiving the stimulus." (6-75)

The existence of a stimulus becomes the first requirement for learning. The second step in this process is the person receiving the stimulus and perceiving that stimulus in some manner or another. For learning to occur, the person receiving the stimulus must make either a covert or an overt response.

The process occurs when:

1. a stimulus is present.
2. the receiver senses the object and understands it

3. the stimulus in then interpreted by the receiver.

4. the receiver responds to the stimulus presented, as it was perceived and interpreted by him.

5. the receiver responds in the same way the next time the stimulus occurs. In other words, the receiver has learned something by making it a habit.

6. evaluation of the consequence that occurred from the response made.

7. further responses are made which were caused by the evaluation made. (6-81)

Berlo says there are at least five factors that affect learning and the development of habit:

1. "Frequency of rewarded repetition. Each time a stimulus is presented, a response is made and the response is rewarded, habit is strengthened." The more times a stimulus-response interaction occurs, the greater the habit is if the response becomes rewarded. If the response is not rewarded, the habit will probably become weaker. Thus, it becomes important for a reward to occur if behavior is to be changed for any length of time.

2. The relationship between a stimulus and a response will be strengthened if the receiver can make only one response to the stimulus presented. If a response (x) is given to a given stimulus (y), X will be strengthened if (x) is not given to other stimuli other than (y).

3. The greater the reward from a response, the more the habit tends to be strengthened; the response should be rewarded as much as possible.

4. The faster the receiver receives a reward from the response made, the more likely the response will be retained and habit formed. The sooner reward can be achieved, the better.

5. The easier the response can be made, the

> more likely the response is to be retained and developed into a habit. One doesn't want to use any more energy than is needed to achieve his goals." (6-84-5)

Conclusion:

The teaching, communication and learning processes are all closely related but have their different roles. The learning process gives us the necessary requirements for learning.

The Extension program must provide a stimulus. This stimulus could be in the form of a message given by the teacher or the Extension agent. This stimulus, message, must be received through some method by the receiver, audience and understood by that receiver. The audience must have understood the message well enough to respond to it, accept it, and make the content of the message a habit until further evidence changes his viewpoint. If possible, a reward should be built into the stimulus so when a response is made, the audience receives the reward. If the farmer is receiveng a message about soil testing, the farmer responds by using soil tests, and gets better crop yields, he has received a reward which strengthens his response. He is apt to have soil tests again. The quicker and easier the reward can occur the faster the message content will be accepted and the audience has learned something.

With these requirements known,we know what should be included in the Extension program if we want learning to take place rapidly.

The Communication Process

In any teacher-learner situation or interaction between people, communication takes place. This communication process and the teaching process are similar but it is well to understand the similarities as well as the teacher in his activities. As the agent is building the program, he needs to understand the communicttion process so the program will be developed within the realm of this process. The agent needs to understand his role as a communicator as well as the audience's role.

Communication is like a force which has in impact. This impact can be measured by the change in the people who receive the communication. The change in the people receiving the communication would be viewed as a change in the behavior. When evaluating a program,this change in behavior is the criterion to be used. (3-111-1-2)

When we are communicating with people, we are attempting to change their behavior in one way or another; just the same way as we are changed when someone communicates with us. The process of teaching, communication, and the diffusion process are all a part of the same; they all can have the purpose of changing someone's behavior. This change may not always be directly visible, in that the change may occur in knowledge, attitude or action.

The communication model becomes very similar to the teaching

model. This communication process is an interaction between people. It is well here to review the ingredients that are included in the process. This process includes the communicator, encoder, message, channels, decoder and receiver. When thinking of the communication process, we must be concerned with 1.) the audience to be reached (receiver); 2.) the message to be sent; 3.) the channels (media or method) to be used and 4.) treatment used to gain audience impact.(3-III-1-18)

The communicator is a person or group of people with a purpose and a reason for engaging in communication. This communicator becomes the source; he has ideas, needs, intentions, information and a purpose.

Process:

The communicator takes his purposes, needs, intentions and then translates them into a code, a language. This is called encoding.

The code then becomes the communcator's message. This message's purpose is to bring about a change in behavior. These changes may include new knowledge, change in attitudes, skills, thinking or new practices.

"The message can be logically organized or rambling. It can appeal to prestige. . ., to the responsibility of the receiver; to the comfort and well being of the receiver." This message can tap the receiver's needs or refer to the authority for the message. "The message can be clear, readable and interesting or it can be vague, dull or boring." The communicator can use technical words or they can be words which the receiver will

understand. (22-52)

The message travels in a channel. Several channels often are available to the communicator. The channel selected often is important to the effectiveness of the communication. Another word that is often used to mean the same is "method."

At this stage in the process, the receiver receives the message. The receiver must decode, translate or interpret what the message said. A receiver can receive a message through all five sense: sight, hearing, taste, smell and touch.

After the receiver has decoded the message, and wishes to communicate with the communicator, the process becomes the same except the receiver becomes the communicator, and the communicator the receiver.

COMMUNICATOR --→ ENCODER ---- --→ MESSAGE ---- → CHANNEL

RECEIVER ← - - - - - - - - - - - - DECODER

(6-30-2)(22-52-3)

With a breakdown at any place along this communication line, the communication process stops and no ideas can be transmitted. When the Extension staff is building their program, they need to recognize this problem and attempt to circumvent the possible breakdown.

We need to further discuss each phase of this process. (3) The audience or receiver is usually the most important strategic consideration in any communication process. The audience is the target group or individual at which the source aims his message. The only real evaluation of communication

is in terms of the audience, whether there were any behavior changes made such as change in attitude, skills, understanding, etc. Therefore, the communicator must be able to "zero" in on his audience and get his point across to his audience. The more specific the audience, the greater the chance for success. The more one can know about the audience characteristics the better. The communicator must find out where the audience is and begin from there in communicating to them. Before the message can be developed, it becomes even more relevant to pin-point the audience. The message should relate in some way to the audience's thinking, feeling or acting.

The message is what the communicator wishes to communicate to the audience (receiver.) The message must be stated in terms of the changes in behavior that the communicator wants the audience to make. The message is what the communicator intends to have the audience do.

The message is not the goal or objective. The message serves as the means of obtaining that goal for the communicator. If the communicator is an Extension agent, and the audience is a group of farmers, the agent's goals might be to have the farmers adopt soil testing. The message might then include the importance of soil testing, and why they should have their fields testsd.

The crux of the problem is what to include in the message. This is the barrier or reason why the audience hasn't all ready reached their goal. This barrier or reason

needs to be identified so the message may be aimed at that obstacle. In our soil testing example, the communicator needs to identify why soil testing isn't being accepted and aim the message at the barrier in an attempt to break that barrier down.

This message must be sent through some channel. This channel becomes the means by which the communicator sends his message in an attempt to reach his goals. These channels are numerous today. They include face to face approach, meetings, direct mail, newspapers, television, radio, etc.

The selection of a channel becomes very important for the communicator. The real question is how the target audience perceives or accepts some particular channel. To further explain what we mean, does the farmer who is getting ready to adopt soil testing accept the message he hears on the radio. If he does, this is a good channel to use if the agent wants the farmers to adopt soil testing. If the farmers do not accept radio as a means of gathering information about adoption, radio becomes a poor channel. It becomes difficult to determine what is an acceptable channel and what is not. The communicator must keep an ever watchful eye out and change as the situation warrants the change.

Conclusion:

This process is an interaction between people. This process involves the source (Extension worker), the message (subject matter), channel (method to be used), and receiver (audience). Each part of the process must be clear or breakdown will occur

and no communication will take place. Therefore, the Extension worker needs to know how the audience perceives the message, the channel, and himself as the source. The Extension worker needs to analyze each one of these components as he selects the one to use in developing the Plan of Work. If the right combination is selected, effective communication takes place. If a poor selection is made, ineffective communication occurs. Thus, ideas do not transmit and desirable change does not occur.

We have taken a short look at the communication process and through this discussion hopefully, realization of why this process is important in program development has occurred. Without understanding this process, it becomes difficult to develop an Extension program whose function is to communicate ideas to an audience.

Following this understanding of the communication process, we need to consider the diffusion process. This process is the communication of ideas over time. In this process the audience passes through five separate stages on the way to adoption of an idea.

The Diffusion Process

"To aid in diffusing among the people" states the Smith-Lever Act, the legal act sanctioning the Cooperative Extension Service. To better understand this purpose of Extension, we will consider the diffusion process and how it relates to program development.

The diffusion process is a concept in which a new idea is communicated through certain channels, among the members of a social system over time. (81-Chapter I -14) Time is what makes the diffusion process different than the communication process. It is the spread of information about an innovation from the source of its creation or invention to the adopters. Time is involved in the decision process 1.) through which an individual passes from first knowledge to adoption or rejection of that innovation; 2.) in the rate of adoption from the innovation in a social system; and 3.) the earliness - lateness with which an individual adopts an idea, relative to other members of the social system. (81-Chapter I-23) Number 1 and 3 are to be discussed in the chapter entitled The Adoption Process.

Then how does a new idea or innovation get diffused through a social system. A social system could include a service organization, a group of farmers, an educational system, etc. To begin with, we need to look at each element in the process.

Elements:

Innovation is an idea, practice, or object that is perceived as new by an individual. In this case, it would be

the receiver of the information, such as a farmer. Each of these innovations has different characteristics. These characteristics affect the rate of adoption and thus the rate of diffusion among the people. Rogers has considered these five characteristics: (81-Chapter I-17)

1. RELATIVE ADVANTAGE is the degree to which an innovation is better than ideas it supercedes. The degree of relative advantage may be expressed in economic terms, but often prestige and convenience are important components of an innovation's relative advantage. Again, it matters little whether or not the innovation really has a great deal of objective advantage, as judged by experts in the field. What does matter is whether or not the individual perceives a relative advantage of the innovation.

2. COMPATIBILITY is a degree which an innovation is consistent with existing values and past experiences of the adopters. An idea that is not compatible with the prevalent values and norms of a social system will not be adopted as rapidly as an innovation that is compatible.

3. DIVISIBILITY is the degree to which an innovation may be tried on a limited basis. New ideas which can be tried on the installment plan will generally be adopted more quickly than those innovations which are not divisible.

4. COMPLEXITY is the degree to which an innovation is relatively difficult to understand and use. Some innovations are clearly understood by members of a social system; others are not, and will be adopted more slowly.

5. COMMUNICABILITY is the degree to which the results of adoption or rejection of an innovation are visible to others.

Flegil and Kevlin in some of their work have looked at characteristics of innovations on dairy farms. These include:

1. High initial cost, original cost, and slow rate of cost recovery (small increased return) of innovations do not deter rapid adoption.

2. High operating (maintenance costs) may deter the adoption.

3. Saving of discomfort to the operator is a possible factor in adoption. Probably not a very strong characteristic in speeding up adoption.

4. Complexity is a mild deterrent to rapid adoption.

5. Compatibility of a new practice is not very important to adoption.

6. Perception of a practice to be directly related to dairying, rapid adoption occurs.

7. Mechanical attraction does not contribute to adoption.

8. Divisibility for trial may be important. (20)

The second element is communication through certain channels. Communication is the process by which an individual transmits messages to modify the behavior of other people. (See Chapter IV - The Communication Process). These messages are transmitted through certain channels. These channels will depend on the situation, who the adopters are, and their characteristics, what the innovations are and their characteristics and the experiences and abilities of the source. (81-Chapter I - 21)

Members of the social system is the final element. This social system could be a group of individuals, who are func-

tionally differentiated and engaged in collective problem solving with respect to a common goal. (81-Chapter I-27) The members may be individuals, informal groups, or complex organizations. Each social system has different norms and values. These affect the role of diffusion in a social system. If the norms of a community are traditional, adoption will be discouraged. But if they are modern, adoption will be encouraged.

Traditional norms might include:

1. A less developed or complex technology. Subsistence agriculture is the most common occupation.

2. Literacy and education are a relatively low level. Communication via word of mouth is more prevalent than by mass media.

3. Little communication by members of the social system with outsiders. Most indi-didiuals are localites rather than cosmopolites.

4. Lack of economic retionality. Primary group relationships such as friendliness and hospitality are highly valued as ends in themselves rather than as means to ends.

5. Lack of ability to empathize or see oneself in others' roles, particulary the roles of outsiders to the system. The traditional person does not meet new individuals, recognize new roles, or learn new social relationships involving himself as well as the modern individual does. Individuals in a traditional system usually play only one role, never learn other roles, and seldom learn how to learn them. (81-Chapter II-25)

Modern norms might include:

1. A developed technology with a complex division of labor. The individuals in the modern social system are more urban in occupation than those in the traditional system. Although a traditional system may be industrialized, the type of industry would likely be cottage industries rather than large factories.

2. A high value on science and education.

3. Cosmopoliteness of social relationships. New ideas enter the social system freely from external sources, and members of the system interact often with outsiders.

4. Planning is careful and decisions are economically rational. The most effective means are used to reach desired ends.

5. Ability to empathize and see oneself in the other fellow's shoes. (81-Chapter II-26)

These characteristics and norms affect these diffusion processes. In many instances, these norms will be of degrees rather than of the extremes as stated. But they do serve a purpose, that of indicating that the norms of a community do play a role in the adoption process.

Conclusion:

This diffusion process becomes an important concept to understand as an Extension program is being developed. This process is the spread of an idea through certain channels, among the members of the social system over time.

The characteristics of the innovations, audience-adopters and the norms of the social system all affect the role of adoption and the use of channels by the Extension agent. To fully implement a successful program, these conditions must be considered.

Both the diffusion and adoption processes involve the decision-making process. This decision-making process is the mental process a person proceeds through in deciding between alternatives.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

processes. [illegible] rather than [illegible] business, [illegible] play a role in [illegible].

Conclusion

[illegible] understanding [illegible] process is [illegible] energy [illegible].

[illegible] fully [illegible] consumer [illegible].

[illegible] [illegible] social [illegible] [illegible].

The Adoption Process

As Extension personnel work with local people, one of their objectives is to diffuse information with the hopes that the people will adopt those ideas that are beneficial to them. It is well to discuss how these people proceed through this adoption process. At each level or stage, different characteristics exist. The speed at which a person proceeds through the state of adoption will depend on the new idea, the characteristics of the people and the norms of the community.

The stages that will be presented are: 1.) awareness; 2.) interest; 3.) evaluation; 4.) trial; and 5.) adoption. (81-Chapter III-4) This process is a mental process that a person goes through. From the appearance of a new idea, it takes a certain amount of time to proceed through this thinking process to adoption or rejection. Some people never fully make it through to this stage. (81-Chapter III - 2-3)

Implications to Extension are many. An Extension agent needs to know who is proceeding through this process. It seems to be important to identify where people are in the process so an Extension agent can establish the entry behavior level. If the people are in the trial stage, different methods should be used; if they are in the awareness stage, an altogether different method might be more effective.

Stages of Adoption:

In the awareness stage, a person becomes exposed to the idea or innovation but lacks complete information about it.

This stage initiates the sequence of later stages in the process. The individual learns of the existence of the idea or practice but lacks complete information about it.

In the interest stage, the person becomes interested in the new idea and he will start to search for more information. Although a person looks favorably on a new idea, he may not have fully evaluated it in his own terms. This stages' main function is to increase the amount of information that the person involved knows. Some people have looked at this stage as information, knowledge, and interest.

The next stage is the evaluation stage, the stage in which the individual makes mental application of the new idea. This new idea is evaluated against his present and anticipated future situation. An individual's situaton includes his experiences, community norms, attitudes, and values. Basing his decision on these characteristics and others like it, he decides whether or not to try the new idea.

Following this decision, an individual enters into the trial stage. In this stage the individual actually applies this idea or practice on a small scale if possible. This is done to determine whether the new idea really fits his needs and situation.

Finally, a person comes to the adoption stage where the indivdual uses the new practice on a full scale basis continuously.

This preceeding concept ; is the most widely used. Rogers has presented these stages in a slightly different form, that of: 1.) knowledge; 2.) persuasion; 3.) decision; and 4.) con-

firmation. (81-Chpater III-6-12) I am presenting these functions as I feel they have some relevance for program development. Rogers points out that the five stages do not fully answer all the questions concerning this process. For example, why do people sometimes reject instead of adopt, how can interest-information seeking activities after adoption be explained, or why do some people discontinue an idea after adoption. These questions cannot be answered in full, by the first explanation, Rogers says.

In the knowledge function, an individual becomes exposed to new ideas but lacks complete information. This person has gained some knowledge, but has not been motivated to seek additional information. The person must have interest in the idea and the idea must satisfy a need or be consistent with his self-perceived role before he continues into the next function, that of persuasion.

The persuasion function includes attitude formation or change in which the indivudal develops a favorable or unfavorable opinion toward the new idea. The primary purpose of this function is to increase the indivdual's information level to the extent that he can form an opinion.

The person's personality, values and norms of his social system may affect where he seeks information, what information he seeks, and how he interprets the information. If the attitude becomes favorable, he may adopt at a later point in time. But if the attitude is unfavorable, he will reject the new idea.

The third function is decision. This function includes the activities an indivudal does through in choosing among

alternatives. This process is called the decision-making process. (See Chapter VI) The decision at this point is between two alternatives; that of adopting or not adopting a new idea.

The final function is confirmation. This function may have relevance to Extension programming. Some researchers are suggesting that a decision to adopt or reject is not the final stage in this whole process. People after adopting a new idea are seeking out information to support their decision. They are seeking information to substantiate their decision or to show them the disadvantages of the choice they did not make.

The more important the decision and more irreversible it is, the more information will be seeked.

In summary, a model of the whole process of the innovation-decision process is presented. This gives us a quick overview of what we have been discussing. (See page 50).

With these stages and functions as a basis or background, we can now begin to look at people passing through these stages. Research has shown that people, when taken as a group, passed this process according to the concept of normal distribution. (80-81-6)

Adopter Categories:

Many types of individuals exist in a community. Each one has his won personal characteristics and each moves through the adoption process at a different rate. Research has shown that the total audience can be subdivided into several categories, each with its own characteristics.

INNOVATION DECISION PROCESS

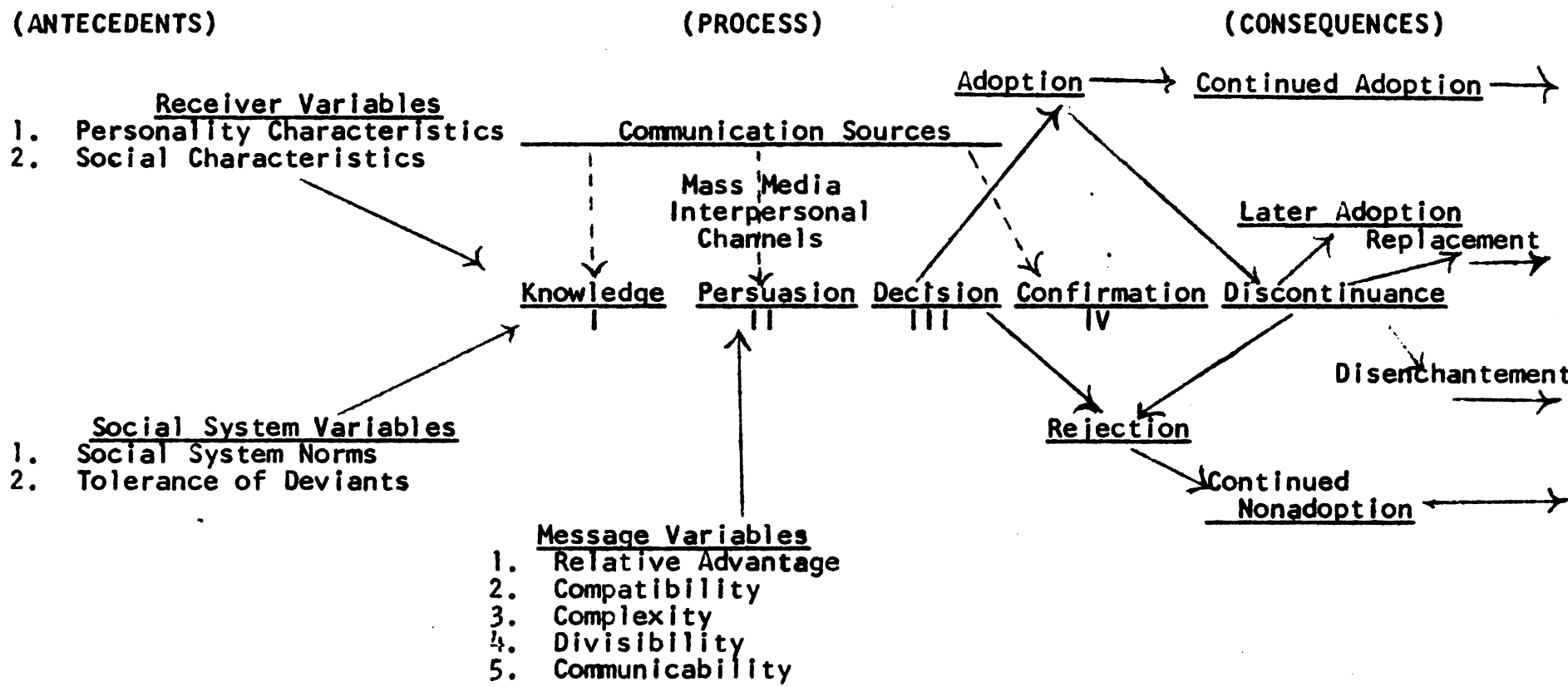
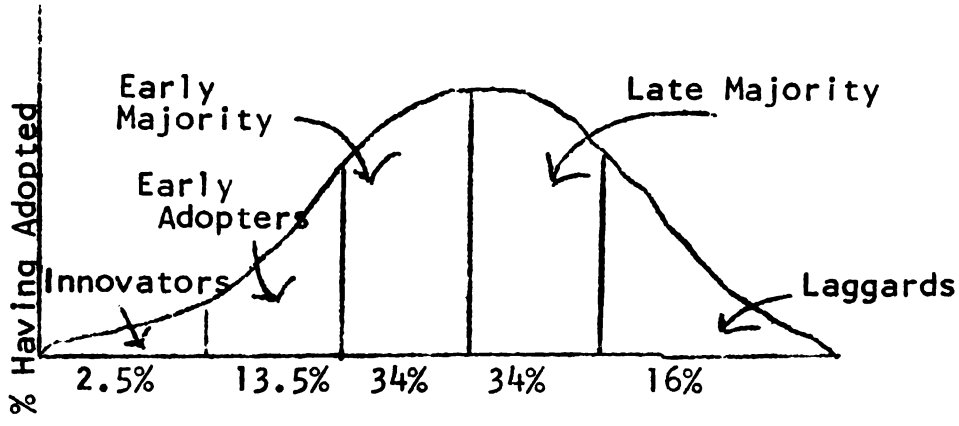


Figure 3-3 Model of the Adoption of an Innovation by an Individual Within a Given Social System.

(81)
(Chapter III)
(24)

These categories include 1.) innovators; 2.) early adopters; 3.) early majority; 4.) late majority and 5.) late adopters or laggards. (80-169-171)



TIME OF ADOPTION

The innovators become the first to adopt. The second to adopt are the early adopters. The majority of adopters are the early and late adopters. The late to adopt are called the laggards. It is well to review the characteristics of each type of adopter and when establishing an educational program one should determine who the audience is, what category of adopters they are and what their characteristics are. Then ask what does it mean to my program. It is well to briefly review the characteristics and communication behavior of these adopter categories. (See page 53)

Besides knowing information about each adopter category, it is wise to understand what information source is used in each step in the adoption proces. This can become useful in the programming process. (See page 54).

Conclusion:

The adoption process becomes important to Extension programming. The concepts that have been developed help to show types of information that the audience wants and when they want it.

This adoption process is a mental process that a person follows through in making a decision about the adoption of a new idea. By identifying at what stage the audience is in, the Extension worker can more closely establish the audience's entry behavior. These stages include awareness, interest, evaluation, trial and adoption. Each of these has its own purposes and each one creates a different need. Besides these stages, four functions of knowledge, persuasion, decision, and confirmation are used. Each of these has its purposes.

People in a community can be divided into five categories based on their rate of adoption of innovations. People in each one of these categories have different characteriscts. Because of these different characteristics, different types and sources of information are wanted.

The stage of adoption and the rate of adoption provide two criteria that can be used to assist in the development of an Extension program. Without the consideration of these criteria, the "correct" program may not be formed and the Extension program will become ineffective in bringing about a change.

The adoption process comes about because of the diffusion process. The diffusion process occurs when an idea is communicated throughout a social system.

SUMMARY OF CHARACTERISTICS AND COMMUNICATION BEHAVIOR OF ADOPTER CATEGORIES

Characteristic or Behavior	Innovators	Early adopters	Marjority Early	Marjority Late	Laggards or Late adopters
1. Time of adoption	First 2.5% to adopt new ideas	Next 13.5% to adopt	Next 34% to adopt	Next 34% to adopt	Last 16% to adopt
2. Attitudes and values	Scientific & venturesome	Progressive	More conservative & traditional	Skeptical of new ideas	Agricultural magic and folk beliefs; fear of debt
3. Abilities	High level of education; ability to deal with abstractions	Above average education	Slightly above average education	Slightly below average education	Low level of education; have diffuculty dealing with abstractions and relationships.
4. Group memberships	Leaders in county wide or state organizations; travel widely	Leaders in organizations within the community	Many informal contacts within the community	Little travel out of community; little activity in formal organizations	Few memberships in formal organizations other than church; semi-isolates
5. Social status	High social status, but their farming practices may not be accepted	High social status; looked to by neighbors as "good farmer"	About average social status	About average social status	Lowest social status
6. Farm businesses	Largest, most specialized, & most efficient	Large farms; slightly less specialized and efficient	Slightly larger than average sized farms	Slightly smaller than averaged sized farms	Small farms; low incomes; seldom farm owners
7. Sources of information	Scientists; other innovators; research bulletins	Highest contact with local change agents; farm magazines; Extension bulletins	Farm magazines; friends and neighbors	Friends and neighbors	Mainly friends and neighbors; radio farm shows

RANK ORDER OF INFORMATION SOURCES BY STAGE IN THE ADOPTION PROCESS

RANK ORDER OF INFORMATION SOURCES BY STAGE IN THE ADOPTION PROCESS

AWARENESS:	INTEREST:	EVALUATION:	TRIAL:	ADOPTION:
learns about a new idea or practice	gets more information about it	tries it out mentally	uses or tries a little	accepts it for full-scale and continued use
1. Mass media - radio, T.V., newspapers, magazines.	1. Mass media	1. Friends and neighbors	1. Friends and neighbors	1. Friends and neighbors
2. Friends, and neighbors - mostly other farmers.	2. Friends & neighbors	2. Agricultural agencies	2. Agricultural agencies	2. Agricultural agencies
3. Agricultural agencies, Extension, Vo-Ag, etc.	3. Agricultural agencies	3. Dealers and salesmen	3. Dealers and salesmen	3. Mass media
4. Dealers and salesmen	4. Dealers and salesmen	4. Mass media	4. Mass media	4. Dealers and salesmen

The Decision-Making Process

The adoption of an idea involves the decision-making process. In fact, whenever a person becomes involved in deciding between alternatives, he enters into this process. One of Extension's objectives is to have their audience test and possibly adopt ideas by deciding between alternatives. Therefore, the Extension worker needs an understanding of this process in building Extension programs. Extension's role is to help people to help themselves and not to make the decisions for them. The process is imperative as people go about making their own decisions. If Extension programs are to help people to help themselves in deciding what they want for themselves, the process is important.

This process also is important in a group sense as the Extension program is being developed. This process is followed very closely as both the Extension worker and the planning organization build the Extension program and the annual Plan or Work.

This decision-making process is the mental process through which an individual or group passes on their way to making a decision. This process also occurs when an individual evaluates the meaning and consequences of several courses of action or alternatives.

Several authors have viewed this process in several different ways. Basically, the difference lies in the number of stages. This process of decision-making will be presented in the following manner.

As a person or group has a decision to make, they follow this pattern. One may spend more time on one step than another.

1. Formulation of goals.
2. Observation of facts.
3. Analysis of problems.
4. Identification of problems.
5. Decision
6. Action
7. Accepting responsibility
8. Evaluation

The formulation of goals is when a person or group of people attempt to identify and state what is expected to be achieved. These goals are affected by the environment in which we live and the values which we hold. Goals require identification which will help us to go in the direction that we desire.

The observation of facts occurs when the decision-maker is gathering information about the problem, needs, and situation etc. Many times he is using his own knowledge, statistics that have been collected, and material that has been written. Often, it could be said that the facts show the symptoms of an existing problem. The facts are where we are now, the reality of the situation.

When putting together the goals and the facts, one finds a gap between what is desired and what the situation actually is. The problem, then, becomes the gap between the reality and expectations. This same process occurs whether an individual or a group of people is being involved.

After the problem has been identified, analysis of the problem is then pursued. Questions should be considered as to what caused the problem and not just consider the material on face value. The problem should be considered carefully to be sure that it has been identified and not just a symptom.

In analyzing the problem, potential alternatives to solving the problem should be developed. Each of the alternatives will have a consequence. Each of the consequences need to be evaluated to see which alternative best meet the goals within the value system.

Following this evaluation, the best alternative should be decided. The next step is actually carrying out the decision. Many times people do not go beyond the step of identifying alternatives. For a number of reasons, people do not act and bear the responsibility for the decision that has been made.

Evaluation occurs throughout the process. After each step, evaluation takes place. A decision has be be made; should action now be taken, or should more work be done in another stage. For example, the analysis of the problem has been made. Now the question arises, has it been properly analyzed. If the problem has been found to be properly analyzed, positive action can now be taken; if not, more information should be obtained and goals should further be developed. At the end, evaluation is made of the overall process and of the decision that was made.

Conclusions;

This mental thinking process occurs almost every day in

all our lives. Each of us or each group has goals or objectives to be achieved. We all observe the facts or situation as it is. We analyze the situation, identify problems and the possible alternatives to solve these problems. We then decide which alternative will enable us to reach our goals. Following this decision, we must act and carry the decision out bearing the responsibility of the consequences of our decisions.

This pattern is followed by members of the audience that the Extension staff is working with. When the Extension staff is presenting information on alternatives that might be selected, it is well for us to understand how the audience proceeds through this process. Thus the "correct" message can be presented in the hope that the audience perceives this information correctly. This same pattern of decision-making is followed when developing the Extension program itself. The planning organization decides on its objectives and goals to be attempted. Following this step, the observation of the situation is next with the analysis and identification of problems. Then the decision is made whether to act on this problem or not. If the decision is made to go ahead with a solution for that problem, action is undertaken. After action is finished and throughout the planning process, evaluation of the program is undertaken.

This process is not always followed in the order as presented. Often, a person will skip from one to another and back again before finally deciding and then taking action on the decision made.

These steps will be more fully discussed from the point of view of program development later in this paper.

SECTION II
The Program Development Process

Program development consists of two phases, planning and execution. We consider planning; what it is, how to approach planning and a procedure to follow. We consider the situation, the analysis and identification of problems and needs followed by ; the determination of the county program objectives. The next step is the finalizing of our first objective, that of a long-range Extension program. With this step completed, although planning does take place in the next phase, program execution.

The Plan of Work begins the execution stage. The Plan of Work takes the long-range program and breaks it down and establishes priorities. It identifies what more precisely should be worked on for a shorter period of time, usually of one year in length. We consider the audience, methods, message and evaluation in more detailed forms. Following this Plan of Work, the Extension worker, the teacher-communicator, would be able to build his teaching plan establishing precisely the message to be used.

CHAPTER VIII -
Program Development

CHAPTER IX -
Program Planning

CHAPTER X -
Situation Statement

CHAPTER XI -
Analysis and Identification of Problems

Program Development

"The fundamental purpose of the Cooperative Extension Service. . . is the development of an educational program with the people with whom we are privileged to serve."(11-5) A question soon arises as to how this educational program is to be developed and what is to be included in it. Such questions as the following need answering as we begin to think about developing an Extension program. (69-94)

"1. What educational purposes should the Extension service seek to attain?

2. What educational experiences can the Extension Service provide that are likely to attain these purposes?

3. How can these educational experiences be effectively organized by Extension personnel?

4. How can Extension personnel determine whether these purposes are being attained?"

"Program development includes the total of Extension's responsibility, from the frist step in planning to the final evaluation of the changes in people's behavior." (111-28) Program development can be divided into several elements or sections. Pesson defines program development as a process that "encompasses a series of steps involving planning the program, preparing plans for teaching, carrying out the plans, and evaluating to determine accomplishments. The identification of clientele or audiences to be reached and the problems to be solved are fundamental to this process." (69-95)

Raudabaugh writes that 'program development is a continuous series of processes which include planning a program, preparing a Plan of Work and teaching plans, taking action to carry out the plans and determining and reporting accomplishments. It is an intensive and broad effort on the part of the Cooperative Extension Service to assist the people of a county to analyze their major problems and to build an educational program directed toward the improvement of agriculture and family and community living." (96-1) This process is a continuous effort and a cooperative effort of the local people, county Extension staff and state Extension staff. (93) Pesson divides the program development process into two phases, the program planning phase and the program action phase. (69-95)

To further define and isolate this discussion, we now need to consider the program's meaning. A program can be either long- or short-range in nature. "A long-range program needs to establish only the direction and ultimate goals toward which people are working. A short-range program should be specific, pointed, consise, measurable and capable of successful fulfillment." (93-2) This short-range program or Plan of Work should include current problems needing emphasis within the long-term objectives. (65) A program should "indicate focus, priority, and design ability to distinguish important problems from the unimportant." (52-68) "A county program should develop and change with the securing of additional facts about the situation or new information which applies to the situation or because of changing conditions." (64-1)

Raudabaugh looks at an Extension program as the sum total of all human and material resources, the manner in which they are organized, and the procedures followed in utilizing them for an explicit purpose of promoting an educational program. This program then is to improve the quality of family and community. (77-1)

Extension programs, Smith and Wilson say, should:

1. be based on the needs of the people.
2. be economically sound.
3. be possible of attainment.
4. be accepted by the people.
5. begin where the people are.
6. have goals of attainment set. (87)

In summary, we can say that an Extension program is a written document. It attempts to identify the situation of the people, the problems that are a part of the situation, the objectives and goals, and recommendations or solutions to reach these objectives. It should also include evaluation of the processes used and whether the objectives were attained or not. This program should be for both the long-term and short-term basis. This program needs to give direction to the Extension workers so they may be able to maximize the resources they have.

Program development has been viewed from a number of different ways today and in the past. We will consider program development as the actual formation of an Extension program. Program development is program planning followed by program action or execution. Consideration will be given to the overall program development process with a thorough analysis and discussion of each phase. To answer what educational purposes should the Extension Service seek to attain, one needs a clear

understanding of Extension's philosphy, objectives, roles and functions.

Extension's Philosophy:

Extension's philosophy has been building and molded over the years. It is well to review, so that one might better understand what Extension's roles and functions are today.

"The objective of Extension education is the development of rural people themselves." (Jans) (97-1)

"Extension deals with a kind of education that does not graduate people." (M.L. Wilson) (97-1)

"Cooperative Extension Service is a national system of education. We are recognized as having a practical knowledge of subject matter and the ability to develop long-term agricultural programs and annual Plans of Work based on situations and needs of rural people" (97-1)

Seaman A. Knapp, founder of the present system of Extension work, said that Extension's purpose is "to adjust agriculture and place it upon a basis of greater profit, to reconstruct the rural home, and to give country life an attraction, a dignity, and a potential influence it has never received." (106)

"Your mission is to solve the problems of poverty, to increase the measure of happiness, to add to universal love of country, the universal knowledge of comfort. To harness the forces of all learning and to be useful and needful in human society. The farm must be made a place of beauty, so attractive that every passing stranger inquires, "Who lives in that lovely home?" (17-219)

"More science, and less guesswork in Extension." Extension is education. Learning consists of changes in behavior, changes in attitudes, in knowledge and in skills. Extension is involved with educational objectives, states Meredith Wilson. (7-220-1)

Dr. W. J. Spillman, Chief of the Office of Farm Management, U.S.D.A., when that office was involved in promoting county agent work, stated the following objectives: 1.)"To carry to the farmer the results of scientific research. . .and to aid the farmer in applying those results. . ." and 2.) "To reorganize and redirect the agriculture of the various sections of the country in such a way as to secure not only enterprises that are profitable in themselves. . .but also to secure a system of enterprises that will permit the largest economical use of power, capital and labor possible under the conditions.." (106)

The Smith-Lever Act, the act giving legal sanction to Extension states that "to aid in diffusing among the people useful and practical information on subjects related to agriculture and home conomics and to encourage the application of the same. . .Extension work shall consist of the giving of instruction to persons not attending or resident in said colleges. . .through field demonstrations, publications, and otherwise. . ." (106)

Senator Vardaman, Mississippi, in support of the Smith-Lever Act in 1914, said "Now the purpose of this bill is to help the tillers of the land to discover the hidden riches of the soil, to devise methods of cultivation which will lessen the

burden of farm life by shortening the hours of drudgery, and to render more productive the land. Its splendid purpose is to improve the man, enlarge his mental horizon, and give intelligent direction to this effort. The effect will also be to add comforts to the country home, lighten the burden of woman, afford greater opportunities to the boys and girls upon whose shoulders soon must fall the responsibility of the home and the burdens of government." (106)

Former Dean Bailey, New York College of Agriculture at Cornell, said that Extension is "1.) to teach those who have a desire for information and 2.) to create a desire for information in those who do not yet have the desire." (106)

Former New York Extension Director, M.C. Burritt cited Extension by saying "The fundamental purpose of any educational enterprise to to teach persons how to think, not what to think. . .it is the function of the Extension Service to teach people to determine accurately their own needs and the solutions of their own problems, to help them to acquire knowledge and to inspire them to action; but it must be their own action out of their own knowledge and convictions." (106)

R. C. Ramsower, Former Extension Director of Ohio State said "It is not what Extension does for people but what it does to them that counts. . .Our projects are but materials with which we work. They are the stone and mortar which when skillfully used cause the buildings to grow day by day, to take on shope, and finally to stand as a completed structure, a realization of the idea and perhaps the ideal of the builder."

"Unless each Extension worker consciously works his own projects into the plan as a whole the finished product must inevitably be a poor speciman of the builder's act. We are seeking to influence the acts of men and women, of boys and girls. We thus tend to shape their thoughts and through the direction of their thinking, help to build wholesome attitudes and ideals - the ultimate objective of all education." (106)

These and many other people have brought the Extension Service to where it is today; these people and their ideas have built Extension. This philosophy gives us some insight into Extension's objectives of today.

Extension's Objectives:

Kelsey and Hearne says that Extension's objectives must be educational. (33-126) Early objectives of Extension dealt with immediate problems of the farm and home practices that would bring better income and better living. Later, objectives became broader, "helping people to learn to help themselves," and learning how to solve their own problems. In the past few years, Extension has been working on complex local, national and international social and economic problems that confront people. (23-6)

The 1959 Committee on Organization and Policy said that an individual should strive for: (85-1)

1. optimum development of their own skills and abilities.
2. effective use of personal and family capabilities and talents.
3. satisfactory income.

4. security.

5. comfortable and attractive homes.

6. freedom from unnecessary and excessive risks.

7. educational opportunities for family members.

8. community acceptance and leadership.

The intent of the Cooperative Extension Service is to help the people with whom they work to attain these goals.

The Scope report cites Extension's objectives of today as helping people to attain: (91-3)

"1. greater ability in maintaining more efficient farms and better homes.

2. greater ability in acquiring higher income and levels of living on a continuing basis.

3. increased competency and willingness by both adults and youth to assume leadership and citizenship responsibilities.

4. increased ability and willingness to undertake organized group action when such will contribute effectively to improving their welfare."

We have viewed Extension's objectives; the ends of which Extension is striving. We now need to look at Extension's functions to give us an insight into the actions leading to the meeting of these objectives.

Extension's Functions:

Barritt said the function of Extension ". . .is to teach persons how to think, not what to think. It is the function of the Extension Service to teach people to determine accurately their own needs and the solution of their own problems to

help them to acquire knowledge and to inspire them to action. But it must be their own action out of their own knowledge and convictions." (58-4)

In this light, Saunders states the functions of Extension as: (84-29-30)

GIVING INSTRUCTION: Section II of the Smith-Lever Act as amended says: ". . .Cooperative Agricultural Extension work shall consist of the giving of instruction and practical demonstrations. . ." Thus, the educational character of the Cooperative Extension Service was clearly established. Today, "practical demonstration" are universally accepted as a method of instruction. These along with many other methods are used today.

PLANNING INSTRUCTION: Secion IV of the Smith-Lever Act as amended contains this sentence: "Before the funds herein provided shall become available to any college for any fiscal year, plans for the work to be carried on under this act shall be submitted by the proper officials of such college and approved by the Secretary of Agriculture." Such planning, of course, is a necessary part of the instructional process.

STIMULATING A DESIRE OF INFORMATION: This function is not specifically mentioned in the Smith-Lever Act. However, the wording is sufficiently clear. Congress did say ". . .and to encourage the application of same. . ." Trained teachers know that information is not self-motivating. Therefore, this function becomes accepted even though not stated in the law.

FACILITATING INFORMATION INTO ACTION: Extension teaching

seeks to change practices. A change in a practice often requires both a mental and a physical change in a person. Quite often a participant may wish to change an operation but finds it too expensive when materials are not locally available. It is a good extension practice, then, to arrange for the availability of resources for Extension clientele.

With these objectives and functions in mind, the role of Extension in our society now can be viewed from the poeple to be served, the subject to be included and the methods to be used. The Smith-Lever Act as amended discusses each of these. (84-29)

PEOPLE TO BE SERVED: Section I states: ". . .among the people of the United States. . ." and Section II: ". . .to persons not attending or resident in said colleges in the several communities. . ." Congress often makes its intent known through appropriations. In the original Smith-Lever Act, the appropriation specified that $10,000. should be allotted to each state and the remainer to each state in the proportion that its rural population bore to the total rural population of the United States. At that time, the rural population was primarily agricultural. Later appropriations emphasized the farm or the rural population as the basis for distribution. The amended act of 1962 modified to some extent the basis for distribution. The formula is still heavily weighted toward the farm and rural non-farm population. It may reasonably be assumed, therefore, that Congress intended in the use of Federal funds that agriculture, in the most comprehensive sense, and the rural home receive major emphasis in Cooperative Extension work.

SUBJECT MATTER TO BE INCLUDED IN THE PROGRAM: In Section I ". . .on subjects relating to agriculture and home economics.." and in Section II: ". . .in agriculture and home economics and subjects relating thereto. . ." Agriculture and home economics and use of the words "related thereto" further broadens the field, but the act does limit the subject matter to be taught by the organization.

METHODS TO BE USED: In Section II of the Smith-Lever Act as amended, these words occur: ". . .through demonstrations, publications and otherwise. . ." It appears the Congress knew it was establishing a new and different type of educational organization and wished the development of the organization to be unhampered by law, administrative regulations, or traditions.

Summary:

Extension's purpose is education of people; the type of education that does not result in any formal graduation. Extension's graduation is the seeing of improvement in people with whom they work.

As former Deal Bailey of Cornell said, Extension is "teaching those who have a desire for information and to create a desire for information in those who do not yet have the desire." To further summarize Extension's purposes, we can say it is to teach people to determine their own needs and solutions of their own problems, to help them to obtain knowledge and to inspire them on to action.

Extension is attempting to help people to improve their farms, and home and communities, and the people themselves.

To help them acquire more leadership ability and citizenship responsibilities and to help them to develop and improve their skills and abilities. In the final analysis, the prupose of Extension is to help people themselves so they may have a better way of life and standard of living.

To meet these objectives, the Extension worker gives instructions, plans instructions, attempts to stimulate a desire for information, and helps facilitate information into action. The Extension worker is allowed a wide latitude of methods to meet Extension's purposes and objectives. The decision of methods to use is left up the Extension worker.

Now that a historical basis along with Extension's objectives and functions have been identified, we need to consider the principles and characteristics of program development. This discussion will give us some further background to be used in the actual construction of the program itself.

Characteristics:

Major characteristics of program development need to be considered. As an Extension program is being developed by the Extension worker, these characteristics need to be kept well in mind by him. Program development is the building of the long-range program followed by the short-range, either the annual program or individual activities. These individual activities go to make up the annual plan and the annual plan makes up the long-range program. Sound program development should include the following: (94-1)

"1. It encompasses consideration of the major

problems, needs and potentials as viewed by a widely representative group of the people whom Extension serves.

2. It is based on the belief that people, armed with the pertinent facts systematically analyzed and well understood, are capable of making the most intelligent decisions regarding programs to meet their needs and to solve their problems.

3. It recognizes that participation in thorough problem analysis provide much of the motivating force necessary to carry out recommended programs.

4. It is a continuous educational process, focusing attention upon a significant period of years ahead in addition to yearly or short-range problems and needs of people, and provide for reappraisal as conditions change.

5. It involves a thorough study and understanding of many facts about trends and potentials pointing up opportunities that are the basis for program decisions by the people.

6. It provides the Extension Service with a more definite and scientific basis for determining program adjustments and resources need to carry out program recommendations.

7. It provides a basis for determining priorities where resources are not adequate to deal with all of the recognized problems and sets objectives against which progress and change can be measured."

To further define and characterize program development, these characteristics are also important: (18 -43-4)

1. The process includes the essential steps of establishing definite long-range and annual objectives.

2. It should enlist and involve the aid of local agencies.

3. To be effective, an Extension program must

be based on adequate written long- and short-range plans.

4. It should be flexible to permit adjustment to changing conditions.

5. It develops local leadership when it is done effectively.

6. It should include and involve definite procedure for evaluation as a basis for further improvement through replanning."

7. Not all of the agent's time should be planned. Time should be reserved for personal consultation, farm calls, organizational work, routine matters and activities which cannot be forseen at the beginning of the year. (56-5)

Principles:

Kelsey and Hearne list the principles of program development as follows. These principles provide a further basis for the Extension worker to develop the Extension program in his county. (33-145)

"1. Is based on analysis of the facts in the situation.

2. Select problems based on needs.

3. Determine objectives and solutions which offer satisfaction.

4. Has permanence with flexibility.

5. Has balance with emphasis.

6. Has a definite plan of work.

7. Is a continuous process.

8. Is a teaching process.

9. Is a coordinating process.

10. Provides an evaluation of results."

Summary:

These characteristics and principles include some very important aspects of program development. It is well for us to summarize the more important ones so that our attention can be focused on these. This is not to say that the others are unimportant.

Program development is a process where the Extension worker and the people in the county consider the major problems, needs and opportunites in their county. These needs and problems identified are to be based on facts and analyzed and studied in a systematic fashion. This approach provides the basis for decisions concerning the needs and problems of the people. This process is continuous and attention focused on the future in a long-range program as well as the consideration of present problems and programs.

This approach provides the Extension worker with a more scientific basis for chaninging program emphasis. It gives the people an opportunity to become involved in helping to direct the educational program in thiir county.

The program obtained at the end of the program development process should be flexible so as to change when conditions change. The program should be both long- and short-term in nature, and in written form. It should include procedures for evaluation, methods to use, and objectives and audience to be reached.

The program should not fully fill the Extension worker's time. He must have time for his routine type of activities. Each worker has to decide how much of his time is needed for

these routine activities. Some have suggested that not over half of the agent's time should be planned in the program.

Extension's purposes, objectives, and functions have now been discussed. Principles and characteristics of program development have been considered. We now need to consider why have program development from the point of view of the Extension Service itself, the Extension worker, and the Extension's audience.

Reasons:

Since some may question the validity for program development in Extension, it is well to evaluate why program development is important. The previous stated characteristics and principles gave us some insight into the reasons "why". Kelsey and Hearne further explain the reasons for program development as: (33-144)

"1. To ensure careful consideration of what is to be done and why.

2. To have available in written form a statement for general use.

3. To furnish a guide or straightedge against which to judge all new proposals.

4. To establish objectives toward which progress can be measured.

5. To have a means of choosing a.)the important from the incidental problems and b.) the permanent from the temporary changes.

6. To prevent mistaking the means for the end and to develop both felt and unfelt needs.

7. To give continuity during changes in personnel.

8. To aid in the development of leadership.

9. To avoid waste of time and money and promote general efficiency.

10. To help justify appropriations by public bodies."

Program development is important to Extension. But what about the Extension worker and the people with whom he works. We need to look at program development from the viewpoint of the Extension worker himself. The Extension worker is the person responsible for Extension work in his county. He may question, "Why have a program?"

Program development becomes important io the Extension worker because it: (87A-7)

1. is fundamental to Extension's basic philosophy.

2. gives the Extension worker a sound philosophical basis for his work.

3. helps give organized, positive direction to the Extension program efforts and use of resources.

4. helps involve people in identifying and solving their important problems.

5. helps both Extension and county people to make more effective use of available resources.

6. helps the Extension worker adjust to change and so makes a more realistic educational contribution.

7. helps to give greater continuity to the Extension program.

8. encourages the Extension staff to use the team approach.

9. helps to coordinate Extension activities with those of other organizations and agencies.

10. brings about greater understanding and support.

11. creates favorable attitudes toward Extension activities.

12. helps Extension obtain public funds and local financial support.

13. helps determine the kind and size of Extension staff needed.

14. is possible to adjust program emphasis in light of new situations.

15. provides opportunity to find, recognize, involve and train leaders.

16. gives Extension workers greater opportunity to assume the primary role as an educational leader in the county.

Program development becomes additionally important to Extension clientele because it: (87A-7)

1. helps identify and solve community problems.

2. can result in a better standard of living.

3. gives people opportunity to express needs and interest.

4. helps them learn to recognize their problems.

5. helps people to learn to plan for and solve their own problems and needs.

6. makes people aware of the needs and interests of others.

7. gives people an opportunity to take part in an educational experience.

8. stimulates and gives opportunity for leadership development.

9. encourages action.

10. gives opportunity for personal satisfaction.

11. develop a better understanding of the Extension program.

12. helps people to better understand the responsibilities of various organizations and agencies.

The degree of success depends to a great extent on the kind and quality of leadership from the county staff. County staff needs to: (94-2-3)

"1. have adequate leadership and guidance from the state Extension staff.

2. recognize the value of, and be enthusiastically behind program development work as a way of identifying major problems and involving the programs.

3. work as a team to assure that program development evolves as a coordinated action.

4. have a complete understanding of the steps involved in the program development process.

5. be skilled in organizing people into a program development effort and securing their active participation.

6. develop skill in the collection and use of background data that are essential to program development.

7. develop and carry out Extension plans of work based on program recommendations and report progress on solutions of problems.

8. evaluate progress of the planning process and assist prople to revise and expand plans for future programs."

Bruce views program development from the opposite point of view, its shortcomings or elements contributing to failure. Bruce lists its elements contributing to failure as: (10)

1. the ineffective use of lay people.

2. little guidance for converting objectives.

3. the need to consider ways of implementing objectives instead of just developing objectives.

4. program planning is stated in terms of things to be done rather than of things to be accomplished.

5. the failure to recognize general objectives before obtaining data.

6. the selection of the method followed by the objective to work on.

Summary:

Program development becomes important to the organization, the Extension worker, and to the people themselves. The program development process provides the development of a program that considers what is to be done and why. It appears in a written form so everyone concerned knows what is to be involved. The program furnishes a guide to judge all proposals, and allows an opportunity to measure progress toward some predetermined objectives. The program can help the Extension staff to prevent the means from becoming the end and to develop both felt and unfelt needs.

This process can provide a sound basis for the Extension worker's activities. It helps him to organize in a positive direction the Extension's efforts and available resources. It provides the Extension staff an opportunity to involve local people in the Extension program. It gives the Extension people a chance to adjust emphasis as changes in the situation occurs. The Extension staff is able to coordinate activities with other agencies and organizations as the Extension program is in written form, been well discussed and thoroughly thought

through, providing less chance for disagreement.

This process allows people to be involved in identifying and solving their community problems. It provides an opportunity for people to recognize some of their own problems. The people by being involved come to realize other people have needs and interests which may be different than their own. This approach gives an opportunity for people to develop some leadership ability. It gives people a better understanding of the responsibilities and functions of Extension as well as various other organizations and agencies.

With this brief summary of "why" program development, we need to consider some of the elements important to success in program development as well as some of the factors leading to failure.

These factors leading to success or failure are all important for consideration. Each of these could be broadened into an extensive diccussion.

As a county Extension agent, the author views the important factor as the one of complete understanding of the steps involved in the program development process. Many of the other factors are also very important in the consideration of the process itself. As the process of steps involved are presented the other factors in our discussion will appear.

Process:

With these reasons for program development, we can now start to look at program develmpment as a process. One of the factors leading to a success is that the staff have a com-

plete understanding of the steps involved. We can look at it as a model. As all ready defined, this process is broken into two phases, program planning and program execution. We can view this process by either a step-by-step point of view or by elements in the total program.

Pesson sees the steps involved as the: (69-95)

"1. collection of facts.

2. analysis of the situation.

3. identifying problems.

4. decisions on objectives.

5. development of the Plan of Work.

6. execution of the Plan of Work.

7. determination of progress.

8. reconsideration."

These steps then can be included within the five elements as outlined by the Federal Extension Service, (96-1) and by Powers, (73-12-21):

1. organization and process for program development.

2. planned county Extension program: long-range program.

3. annual Plan of Work - short-term program.

4. program action.

5. evaluation.

These steps become the decision-making process that the Extension worker and the people with whom he works make their decisions about what program to have.

Now with this background, we can proceed into the building of the Extension program itself. In the building process,

Extension's philosophy, objectives, functions, and characteristics need to be kept well in mind.

Program Planning

Program planning becomes the first phase of the program development process. Planning is a process by which the present situation is considered with a look at the objectives that are expected to be obtained. After analyzing the situation, identify the existing problems and ways and means to accomplish the objectives or fill the gap between what is and what is desired. We consider here what educational experiences will obtain Extension's purposes and how to effectively organize these experiences by the Extension personnel.

Program planning is a process of making decisions regarding the direction and intensity of the Extension program. This process is actually a decision-making process. (69-95) Planning should combine research, experience, knowledge of the local people, county staff and state staff. Understanding of the important problems facing the local people is a necessity. Major problems must enlist the widest possible participation in the county. The major problems facing people are not necessarily limited to subject matter activities. (92-3)

"Planning, broadly speaking, is actually the daily thinking and action of each of us as we go about our work. Any person who consciously organizes his own work or directs the efforts of others in carrying on work, unconsciously engages is planning. Planning is no more than the gathering and analysis of pertinent information and the drawing of conclusions there from as to what a future course of action may be." Knaus further defines and discusses planning as a "continuous

process; second, program planning is a teaching process; third, establishing definite objectives; fourth, good programs will be based on and grow out of basic information, recognized problems, and felt needs of local people; fifth, proper program planning procedures lead people to see beyond present felt needs to basic underlying problems; sixth, good program planning develops leadership; seventh, a well planned program will contain procedures for evaluation; and eight, the function of the Extension staff in program planning is to provide democratic leadership." (58-11)

Planning starts with a clear-cut understanding of the chief functions of the organization. In Extension, the fundamental aim is the advancement of people themselves. This is best accomplished, not by doing things for people, but by fostering attitudes of mind and developing attitudes that will help them to solve their individual and group problems, Therefore, the aim or objective of Extension is to help people to help themselves. (64-2)

Program planning in itself consists of two stages following the identification of the actual process to be followed and people to be involved. First, it is the consideration of the long-range problems and objectives (planning county Extension program) and secondly, the short-range (Plan of Work), usually one year in length, with priorities being established. These priorities would be the pressing problems for that year. It would consist of establishing specific objectives and methods to meet the specific problems.

Planning is the attempt to assure that first things come first. The agent's schedule and routine can become a day-to-day operation in meeting the numerous situations and problems that arise. Meeting these are a necessity. But also these can take a lot of time, and in the end are difficult to measure or even sometimes difficult to justify, in terms of actual accomplishments toward solving the overall problems and meeting the objectives. Following this planned program, an annual Plan of Work can be developed.

Boyle cites program planning as a process through which the people are intensively involved with Extension staff in four activities: (9-12)

"1. Studying trends and facts.

2. Identifying problems and opportunities based on these facts and trends.

3. Making decisions about problems and opportunities that should be given priority.

4. Establishing objectives or recommendations for future economic and social development of a community through educational programs."

Planning, Boyle further states, must take place at the county level, either by the Extension worker or with the people when: (9-13)

1. The long-time plan is being developed.

2. The annual Plan of Work is being developed.

3. Major project plans or method to be used are being developed.

4. Detailed plans for individual meetings and events are being developed.

5. County staff is helping commodity groups, civic groups and local organizations.

This paper will be considering the first two areas: the long-term plan and the annual Plan of Work. References may be made to the other elements of planning when discussing the first two.

Phases:

With a clear definition of program planning, of what it is and how it fits into the development of a program, we are ready to consider what must be done prior to actual planning followed by the program planning itself. The first three phases need to be done before the process begins followed by the other two, the construction of the planned program.

Boyle identifies five overall phases of the planning process in building the county program and annual plan. These include: (9-7-9)

"PHASE I - THE FORMULATION OF A BROAD ORGANIZATIONAL PHILOSOPHY, OBJECTIVES, POLICIES AND PROCEDURES FOR PROGRAM PLANNING.

1. A philosophy for Extension program planning in the state should be defined, communicated to and understood by all Extension personnel.

2. Broad organizational objectives for Extension program planning in the state should be defined, communicated to and understood by all.

3. Broad policies for program planning in the state should be defined, communicated to and understood by all Extension personnel.

4. A guide identifying procedures for planning in the state should be defined, communicated to, and understood by all.

PHASE II - THE IDENTIFICATION AND CLARIFICATION OF A NEED AND PREPARATION FOR PLANNING COUNTY PROGRAMS.

1. Scope and nature of prior county Extension planning activities should be appraised when identifying and clarifying the current planning need in a county.

2. Scope of other organizations' programs should be appraised when identifying and clarifying the current need in the county.

3. Persons who may contribute to identifying and clarifying the current planning needs should be involved.

4. Objectives for county planning should be defined, agreed upon and understood.

5. Procedures for county planning should be defined, agreed upon and understood by those involved.

PHASE III - THE ORGANIZATION AND MAINTENANCE OF A COUNTY PLANNING GROUP.

1. The design of the planning organization should be defined.

2. The procedure of selecting and training the committee and selecting resource persons should be defined.

3. Membership composition of the planning organization should be defined.

4. The responsibilities of the planning organization should be defined.

5. Procedures for replacing members should be defined for maintanning the planning organization.

6. Regularly scheduled meetings with prepared agendas should be held when maintaining the planning organization.

7. The planning organization membership should be capable of representing the needs and concerns of the people they represent.

PHASE IV - THE REACHING OF DECISIONS OF THE PROBLEMS, CONCERNS AND OPPORTUNITIES.

1. Pertinent information should be collected and analyzed regarding the social, economic and cultural conditions.

2. Problems concerning opportunities for improvement in the county should be identified as the result of analysis of the data.

3. Problems need to be identified with priorities being established.

4. Objectives should be defined.

5. Organizational agencies and groups which could contribute to the solutions should be identified.

6. Definite plans should be made to coordinate programs with other groups.

7. There should be intensive involvement of local people with the Extension staff in analyzing background information and identifying problems.

PHASE V - THE PREPARATION OF A WRITTEN PROGRAM DOCUMENT.

1. Problems, concerns and opportunites should be in the program document.

2. Objectives and recommendations relating to the problems should be in the written program.

3. Suggestions regarding the involvement of various agencies, organizations, etc. should be included in a written program.

4. The program document should include selected general characteristics about the county.

5. The program document should acknowledge all those involved in the process.

Implications for Extension:

Research has shown several implications for Extension.

The findings indicate that Extension staff encounter some difficulties in carrying out a complex program planning process. Boyle states these implications as: (9-9)

1. Personnel must acquire an understanding of the planning process and concepts related to it.

2. An overall design for the planning process should be identified. Studies have shown that the development of a detailed design will help the staff feel more secure.

3. Planning efforts can be effective only if favorable relationships are established with people involved with the planning process.

Planning principes:

With the phases of planning identified, we now need to look at the principles involved. These are needed to prevent going astray in planning. Norby identifies eight principles of planning as: (66A)

"PRINCIPLE I - Coordination and efficiency of the staff's efforts in program planning are enhanced when they have common insight into the process and common agreement on the objectives, planning procedures, and individual responsibilities for progrmm planning.

PRINCIPLE II - The efficiency and effectiveness of the planning process are enhanced when there is a systemactic overall design for committee structure and functioning, and pre-planning by the staff for each step in the procedure.

PRINCIPLE III - County program planning efforts are enhanced when the representatives of the Extension sponsoring agency understand and approve the process and its purposes

and are involved in it from the beginning.

PRINCIPLE IV - The effectivess of the program planning committee is enhanced when favorable attitudes toward the committee's activities are present among members of existing Extension planning groups and county representatives of related agencies, and their knowledge and suggestions are involved in the planning process.

PRINCIPLE V - The acceptance and the effectiveness of the efforts of the program planning committee are enhanced when, in the planning process, there is intensive involvement of local people who can represent the people of the county, along with the staff and selected resource people.

PRINCIPLE VI - The quality and quantity of the contributions from program planning committee members increase when they are provided with special orientation and the opportunity to delve deeply into specific program areas.

PRINCIPLE VII - The effectiveness of the planning committee is developing an appropriate program plan is enhanced when needs and interests of the people are identifed; applicable scientific, social and cultural facts are involved; and the available resources are considered.

PRINCIPLE VIII - The effectiveness of the efforts of the planning committee is enhanced when their efforts result in a written program plan which group problems on a priority basis and includes long-time objectives, and when the plan is made known to professional and lay leaders and is used by the staff as a basis for developing annual Plans of Work.

Process:

The planning process is made up of a series of steps. The steps are considered only as a guide and are not always in the same sequence since planning is a continuous process. The model will start at the very beginning and vary through to the development of a long-range program and an annual Plan of Work.

The whole area concerning the planning organization is an important one in reference to the process. This paper is assuming that a group (s) is in existence and will refer to the group(s) in reference to its role and function in the planning process, rather than the organizational makeup, membership, etc. Our ultimate objective is to develop a model that can be used by the county planning organization and the county Extension worker to plan and develop an Extension program.

Following the formulation of a broad organizational, philosophy, objectives, policies and procedures by the state office, the following steps in each county need to be identified and followed: (96)

1. Determine the overall objectives and goals of Extension in the county. (Phase I,II)
2. Determine the steps and procedures to use in the planning process. (Phase III)
3. Determine the situation. (Phase IV)
4. Analysis and interpretation of situation. (Phase IV)
5. Identify the problems and needs. (Phase IV).
6. Identify priorities. (Phase IV)

7. Determine the objectives and goals. (Phase IV)

8. Evaluation of planning activities.

After taking these steps, a long-range program can be written. This program should include: (96-12)

1. Statement of the planning process , used and the planning organization membership.

2. Situational statement of the general social and economic conditions.

3. Statements of problems and needs.

4. Statement of long-term objectives or goals for each of the needs and problems stated.

5. Indication of coordination with other groups, agencies and organizations.

Following this long-range program, a short-term or annual Plan of Work should now be developed for each year. This annual plan will consist of more detailed plans than the long-range plan. The annual plan is determined each year while the long-range program is done every five or ten years or for some other period that is selected.

This annual plan should include: (96)

1. Review of situation from long-range plan.

2. Analysis of situation data.

3. Determine priority of problems to work on this year.

4. Determine teaching and specific objectives.

5. Develop plans or methods to use to meet specific objectives.

6. Evaluation of accomplishments.

The annual Plan of Work should be put in written form. This written plan should include: (40-20)

1. Major subjects or problems to be worked on during the year.

2. Goals to be attained during the year.

3. Brief descriptions of work to be done (methods, materials, etc.)

4. Who is to participate in carrying out the plan (agencies, leaders, etc.)

5. A calendar of work which shows 1.) approximate amount of time to be devoted to each of the major activities, and 2.) seasonal distribution of major activities.

6. Who is to be reached with the program.

7. Evaluation to be followed.

Conclusion:

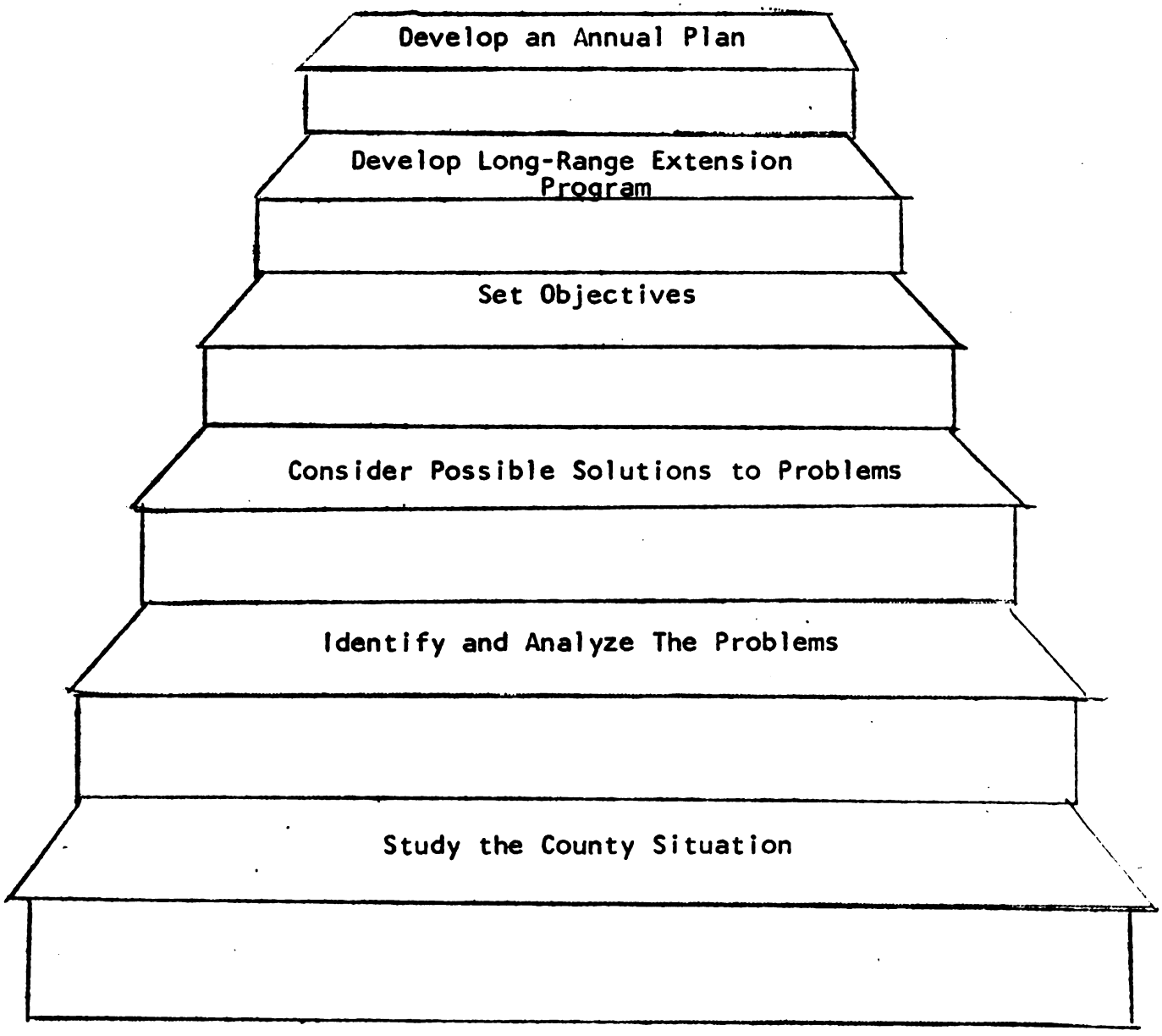
Planning is a decision-making process of deciding what problems the Extension staff should be working with. Planning in the program development process consists of two stages. These two stages include the development of the long-range program along with the annual Plan of Work.

Planning is an attempt to assure that first things come first. It is a process where the people are involved with Extension staff in 1.) studying trends and facts; 2.) identifying problems; 3.) making decisions about what problems to work on; and 4.) the establishment of objectives for future economic and social development through educational programs.

The staff needs a common insight into the process and to agree on the objectives, procedures, and individual responsibilities. The staff and planning organization need to consider the needs and interests of the people, the scientific, social and cultural facts that are involved along with the available resources

FIGURE III

The steps that can lead to an Extension Program do not end in any one place. There will be a continuous process of evaluation, studying situations, analyzing problems, determining priorities and developing plans for a specific period.



Planning is a continuous series of steps. Extension program planning can be looked at as a process of: (Figure III)

1. Determining the overall objectives and goals of Extension.
2. Developing a plan and procedure for the planning process.
3. Determining what the situation is.
4. Analysis and interpretation of situation.
5. Identifying the problems and needs of the county.
6. Identifying priorities.
7. Determining the objectives.
8. Evaluation of planning activities.

This series of steps forms the long-range program. Following this step, a short-range or annual Plan of Work is to be developed. This annual plan includes:

1. a review of situa tion from long-rang plan.
2. Analysis of situation.
3. Determine priority of problems of this coming year.
4. Determine specific objectives.
5. Develop plans to meet specific objectives.
6. Develop criteria for evaluation.

Now that we have discussed planning in a general context, we need to divide planning into the various steps; situation, analysis, problems, and objective identification. This forms the planned Extension program. Then, from the planned program, the annual Plan of Work can be developed.

The Situation Statement

The Extension Service is an educational institution whose purpose is to bring about a change in behavior. The change in behavior that is desired needs to be identified. The problems that the county is facing along with its strengths from which to build a strong program need to be stated. The causes of these problems and needs should be derived.

As an Extension program is being planned and developed, the local, state, national and international situation affect the people; therefore, the situation affects the program that is being developed. The planning organization along with the Extension staff needs to consider the situation as to what the people are like, their habits and practices, and what they think and how they act. Pesson states that it is a necessity to pinpoint precisely as possible the problems that exist in order that the correct objectives are defined. He further states that the more accurate the information and data, the more probable the real problems are attacked. (69-97) These data then, are the means of analyzing the situation and determining what the problems are.

Background data are necessary because: (26-13)

1. Sound goals and objectives cannot be gained without a thorough knowledge of the situation.

2. Before one can decide where he wants to go, it is necessary to find out where he is.

"This is done on the implicit assumption that there will always be an opportunity to reallocate some resources in such

a way that greater returns, social and economic can be obtained." (73-17) The identification and collection of background data needs to be put in a proper context. This process of collecting data does not want to be an end in itself.

"The problem areas which come to light as a result of the background information will be determined in large part by the information which is selected for analysis." To this extent, value judgments will need to be imposed. (73-17)

Beyond identifying the past and the present, the future needs also to be identified. The difference of "What will be" and "What ought to be" is the gap or problem or the need. Powers says that the "Ought to be" should be answered by the people. The seriousness of the gap, or need, is the basis for determining priority. (73-17)

Type of Data:

Social, economic and technological data are pointed out by Pesson as important data to have. Social data can help to indicate areas of concern, such as values and attitudes and to help indicate characteristics of audiences such as educational levels, socioeconomic characteristics, patterns of social participation, traditions, beliefs and attitudes. Economic data help to indicate problems ahead, such as patterns of income, land and its use and natural resource use. Finally, technological data are useful to indicate problems in relation to practices recommended. (69-99)

Musgrave suggests that two types of data are required. He says that the first data are concerning the social and

economic changes that are taking place. Secondly, he points to data related to specific problems. (60)

Data that are needed for a rural county or community include: (88-4) (96-27)

I. County social and economic situatuons.

a. identify social systems, interests and geographic areas.

b. select social systems, groups and areas that are relevant for planning purposes

c. general background data:
1. historical data
2. farm income
3. health
4. tenure situation
5. farming trends
6. housing situation
7. schools
8. number of communities
9. home equipment situation
10. market and distribution system
11. average yield of crops and livestock
12. principal crops and livestock
13. percentage of low income families
14. farm and home safety

II. State, national and international basic facts that are relevant to the county.

The situation should also include such things as: (9-26)

1. Scope and nature of prior County Extension activities and an evaluation of these programs to further help identify needs of the county.

2. The scope and nature of other organizations' programs need to evaluated and considered in identifying Extension programs.

3. Identifying people in the county who might be able to contribute to the planning process.

4. Identify organizational agencies and groups which could contribute to the solution of the problems cited.

5. The philosophy, objectives and policies of Extension program planning in the state should be identified.

For a more thorough description of data that are needed, let us consider the following detailed outline of a situation statement. One might add more to this or delete some. One also might want to consider the whole or parts of the situation. This would depend on the objectives of the study. This description is presented as an example of "what might be included." (51) (64-11-17) (99)

I. :The People

A. population: (numbers and percentages)

	1960-1970	Next 5-10 Yrs.
1. Total		
2. Rural farm - Full-time		
part-time		
3. Rural nonfarm		
4. Urban		
5. Labor force		
Percentage male		
Percentage female		
6. Total employed		

B. Other rural population compositions: (70-353-355)

1. Personal characteristics are important considerations in the program planning process. Factors such as age, education, income, family status, etc. of the potential audience need to be known. (See Chapter VI - The Adoption Process)

2. Values and attitudes of people have an impact on change and adoption. People who value security are usually more resistant to change. This attitude then would have an influence on the type of program that would be effective. The program might be directed toward a motivational factor and might work on ideas that can be tried on a small scale. (See Chapter VI - The Adoption Process)

3. Socialization patterns profoundly affect the audience. For example, the neighborhood and the social clique exert great influence on the adoption behavior. The lower the socioeconomic status of an area, the higher the number of people who want the programs within their own area. The socialization pattern is highly complex. It deserves consideration by the program planners as they are developing educational programs for the receiver (audience) (See Chapter VI - The Adoption Process and Chapter V - The Diffusion Process.)

4. Technological situation of the audience must be determined first before the program can be identified. It must determine the extent to which people have adopted the latest technology. If the technology has all ready been accepted, there is no need to continue the objective of having the audience adopt that practice. Resource time and effort can be exerted in different channels.

5. Stage in the diffusion process is the stage which people are in in the adoption process has an important role to play in deciding which learning experience to develop. (See Chapter VI The Adoption Process.)

6. Individual differences in adoption - personal characteristics are important considerations in the program planning process. Factors such as age, education, income, family status, etc. of the potential audience are needed to be known. (See Chapter VI - The Adoption Process)

7. Economic situations of the audience in question has a major function in deciding what educational experience should be used. Low-income farmers are usually considered to be more resistant to change. If they are, what kind of program could be used to motivate them to adopt and change. Commercial

farmers because of their economic situation or position, may need other educational experiences. High income farmers are usually thought of as faster adopters. If this is so, it will take less time of the Extension agent. They may require and demand different programs. A lower income farmer may not be able to adopt some ideas that a higher income farmer might be able to. This situation, then, needs to be understood so the "correct" message is sent. It is not our intent to discuss all the ramifications of the audience's economic position. It is our intent to raise the question so the program coordinator realizes that economic situations affect program emphasis.

8. Age groups

9. Income groups

10. Tenure

11. Length of residence

12. Education level of adults schooling.

C. What are the causes of significant population influxes or declines during recent years, if any? What about trends within the county, such as more part-time farm and nonfarm families in suburban areas and the open country? Are there many young families on farms?

II. Basic resources and general economy:

A. Basic resources in county:

1. Agriculture; industry; mining, etc.

2. Trends and percentage of income (1960-1970) (agriculture, factory payrolls, etc.)

3. Industries
   a. kind
   b. number of farm people part-time employed.

4. Credit
   a. number of banks
   b. farm credit administration facilities

B. Community services related to health, libraries, recreation, rural leadership, zoning, local government and taxation and their trends.

1. number of practicing physicians, dentists, and registered nurses in county; ratio of population to each. Trends since 1960 and probable future.

2. Number and capacity of hospitals.

3. Do you have a full-time county public health department or unit? If not, how many county health nurses are needed?

4. Number of persons on relief and other welfare programs - old age assistance, aid to dependent children, school lunch, etc.

5. Tax rates; personal and property.

III. Youth and Education

A. Situation and trends:

1. Total number of schools in operation - according to size.
   a. number and adequacy of training in vocations such as vo-ag, home economics, shop, industrial, business and nursing.

2. School enrollment and number of teachers.

3. Percent of youth in school.

4. Percentage of high school graduates going to college.

5. Adequacy of suitable recreation opportunities for youth.

6. Juvenile delinquency - increasing or decreasing in the community?

IV. Transportation

A. Roads

1. number of miles of hard surfaced roads

2. number of miles of gravel roads
3. number of miles of dirt roads

B. Truck

C. Railroads

D. Airways

V. Communications

A. Available resources such as

1. Daily and weekly newspapers

2. farm, trade and other magazines

3. radio and television stations

4. professional, civic, trade business, educational and other groups that reach people.

5. where and how do farm people get most of their news and information
first. . . . . .
second . . . . . .
third. . . . . .

6. what changes should be made, if any, in more fully utilizing resources already there, or through addition to others?

VI. Production and Land Use.

A. Major uses (acres)

1. agricultural

2. municipal

3. public ownership (forest, parks, grazing, and waste.)

4. privately owned forest lands (nonfarm)

B. Agricultural uses (acres)

1. non-crop open pasture

2. woodland (farm forest)

3. waste land

4. crop land

	Acres 1960 - 1970	Yield Per Acre 1960 - 1970
a. corn silage		
b. hay		
c. oats		
d. corn - grain		
e. truck crops		
f. idle		
g. other		

C. Livestock numbers and production

1. number of milk cows

2. production per cow

3. number of young cattle

D. Production practices

1. Tons of commercial fertilizer used.

2. Tons of agricultural lime used.

3. Number of farms enrolled in farm accounting system

4. Number of farms enrolled in D.H.I.A.

5. Acres of improved pasture

6. Number of farms using budget for planning.

7. How near does quality and quantity of forage raised meet animal need?

8. Percentage of farms using A.C.P.

9. Percentage of farms having Soil Conservation District Plan.

10. Percentage of farmers using soil tests as a guide to fertilize.

11. Assuming normal weather conditions, how much would yields of major crops be affected if all recommended practices were followed.

12. Crops yields
    Corn
    Hay

F. Income and Expenses

1. Average farm income

2. Percentage of average family income from work off farm.

3. Percentage of income spent on food
   Percentage of income spent on clothing
   Percentage of income spent on home furnishings and equipment
   Percentage of income spent for insurance.

4. Amount that average farm spent for fertilizer and lime.

5. Amount that average farm spent for livestock feed.

6. Number of farms by income:
   $1,000. or less
   $1,000. to $2,500.
   $2,500. to $5,000.
   $5,000. to $10,000.
   $10,000. or over

7. Pounds of milk sold

8. Milk receipts per cow

9. Purchased concentrates per cwt.

10. Machinery and equipment repairs

11. Cows per man equivilent.

12. Pounds 3.5% milk sold per man.

13. Milk receipts per dollar of hired labor.

14. Total farm investment.

15. Investment per cow.

16. Machinery investment per cow.

17. Change in total farm inventory.

18. What changes have taken place in production costs?

H. Farm Buildings

1. condition or state of repair of farm buildings

2. arrangement

3. efficiency of buildings

I. Types of credit available

1. government

2. private

3. short- and long-term

J. Trend in farm mortgage debt (between 1960-1970)

K. What opportunities are there for

1. developing different types of farming?

2. producing commodities that might have a better market advantage than those now produced?

3. greater year-raund utilization of labor?

4. for increasing efficiency of production?

5. for gearing production to demand?

VII. Marketing

A. What marketing services and facilities are available within the county, trade area, state or region for major commodities?

1. processing plants

2. milk plants

3. auctions

4. saw and pulp mills

5. local and terminal markets, etc.

B. What trends and significant new developments are

taking place in the marketing services and facilities within the county, trade area, state or region for major commodities?

C. What are national and local trends in the acreage, production and prices for commodities produced?

D. What are the trends in acreage, production, and prices for commodities in competing areas?

E. What opportunities are there for expanding the market for the commodities produced? Local, state and national.

F. What problems will be involved in increasing the efficiency of marketing? Examples: quality, grading and standardization, assembly, storage, processing, transportation, distribution, market information, credit financing, etc.

VIII. Miscellaneous

A. What is the trend of interest in public affairs; farm programs, etc.

B. Are there sufficient organizations to adequately serve the agricultural needs of the county?

1. list (names)

2. number of members

C. What public services are available?

1. federal

2. state

3. county

4. other

Situation identification by audience categories:

Another approach to identifying the situation is to divide the audience into several categories. Specialists have identified characteristics for each category along with some problems that each category holds. For example, we will review the following work that was done by the Michigan State University

Agriculture Economics Department in breaking down the general "farmer" audience for economic education purposes. (25-2-7)

I. General Agricultural Problems

A. Uncertainty

1. Production uncertainty - Yield Variations due to weather, pesticides, etc.

2. Technological uncertainty - New methods may change rapidly while capital investments last for longer time periods.

3. Price uncertainty - Short run, and sometimes longer-run supply and demand factors, may result in noncompetitive returns for some farm types. Lack of supply control and problems in developing strong and effective industry wide bargaining groups.

4. Uncertainty caused by the actions of institutions and people. Landlords, credit agencies, government, substitute products, etc.

B. Problems associated with urbanization

1. Odor and waste disposal.

2. Increasing land values and tax rates -
-When should a farmer sell out?
-How do farmers adjust?

C. Problems associated with farm labor

1. Recruiting a stable and dependable labor supply.

2. Paying competitive wages and satisfactory fringe benefits.

3. Social problems connected with farm labor.

D. Pressure which keep too many resources in agriculture. Inflexibility of many farm families to adjust their business or adjust out of agriculture. The indivisibility and long life of some capital investments.

E. Resource acquisition (especially younger farmers.)

1. Obtaining capital resources

2. Adequate credit resources

3. Adequate land resources.

F. Inadequate bargaining power and lack of market orientation

1. Inadequate understanding of marketing

2. Apprehension and suspicions of producers toward marketing orders and associations.

G. Managerial skills

1. Ability to analyze strong and weak points of a farm business

2. Development of a system of accounting and budgeting control which would be appropriate for a given farm business.

3. Consulting with management advisors (when and whom)

H. Specification of goals
1.
1. Family goals

2. Goals or objectives for the farm business

II. Problems general to Farm Firms

A. The beginning commercial farmer

1. Characteristics

a. Age: 35 years or younger
b. Capital position: Variable - usually very limited, but improving.
c. Goal: Operation of economic farm unit (with sufficient income for debt retirement and family living.)
d. Management ability: Partially an unknown factor, usually assumed that it is latent ability that can be developed.
e. Educational level: High school or its equivalent.

Often short courses or some college education with farm experience. Limited management experience.

f. Family situation: Usually expanding family situation. Children small and do not contribute labor to the business.

g. Security: Low insurance coverage, good health situation, a lot of ambition. Not much equity in the business. A financial setback can be serious.

2. Major problems

a. optimum farm organization for profit maximization - What to produce, how to produce, and how much to produce.

b. Financial mangement
-Debt structure and how to manage
-How best to accumulate capital
-Firm-household relationships (allocatio of income)

c. Expanding the farm business
-Lateral -Expanding land based through renting, buying land, etc.
-Intensification - adding higher value crops or livestock, irrigation, draining, etc.

B. Established commercial farmers - operating present size.

1. Characteristics

a. Age: Most are in 35 to 60 year age group.

b. Capital positon: Variable-usually good. Have a substantial equity in the farm business; net worth: Variable - largely dependent on inheritance, age, ability.

c. Income situation: Part of the income is capital earnings on the business equity. Income normally adequate to cover living expenses and normal capital investment.

d. Goal: Improve earnings and net worth. Variable - but willing to 'plow back' portion of earnings. Some wish to gradually expand the business. Others wish to maintain size and get all debts paid off. Willing to substitute capital for labor.

e. Attitudes: Most are willing to change and receptive to ideas.
f. Management ability: usually adequate unless production is intensified or expanded rapidly. Increased awareness of need for better management.
g. Educational level: Variable. Some have only eighth grade, most have high school and a limited number have one or more years of college training.
h. Family situation: Most children at or near high school and college age. Some children have already left home and have only limited contact with the business. Other children may have a small financial interest in the farm business.
i. Security: Usually adequate. Net worth provides security. Considerable variations in net worth, insurance, health and ambitions. Short time setbacks not serious.

2. Major problems

a. Adjusting farm business organization and operation to changing economic and technical forces. - What to produce, how to produce, and how much to produce.

-Changing Enterprises

-Economic and technical appraisal of new technology.

-Cropping program: irrigation, fertilization, plant spacing and population, weed control, drainage, etc.

-livestock program: feeding, purchasing livestock, etc.

-machinery replacement: kind, number and size; form of ownership; replacement pattern, effect on labor needs and timeliness of operations, etc.

-buildings and equipment replacement: capacity needed, cost of various types, efficiency of different set-ups, etc.

b. Financial management

-servicing debt

-Firm-household relationships (allocation of income for family living and investment vs. business investment)

C. Established commercial farmers undergoing growth

1. Characteristics

a. Most will be over 35 years of age.
b. Capital position: Good, many very good, may be borrowing rather large sums of money.
c. Goal: Economic and social benefits resulting from a highly successful farm business.
d. Income situation: Normally very adequate May experience considerable income variation by years.
e. Management ability: A proven factor. Usually at a high level. Highly developed curiosity and imagination, very aggressive - many innovators.
f. Education level: Usually high school or higher, substantial informal education.
g. Family situation: Most children at or near high school and college age. Some children have already left home and have only limited contact with the business.
h. Security: Usually adequate. Increasing net worth provides security.

2. Major problems

a. Expanding the farm business (Lateral Expansion - Expanding land base; Intensification adding higher value crops or livestock, irrigation, draining, etc.)

- Size of business - What size of business is needed and desired to attain the income goals of the family and what resources will be needed for that size?

- Land - Amount needed, location of the available, productiveness, rent or buy? Rental rate or agreement; purchase price, down payment, annual payments, added returns? What quality is the best buy?

- Building - capacity needed, cost of various

types, efficiency of different set-ups?

- Machinery - Capacity and type needed, fullness and efficiency of use, effect on labor needs timeliness of operations.

- Livestock - Kind, amount and quality needed for best use of resources; markets; added costs and returns?

- Labor - Amount needed, full-time or seasonal; availability; wage rate; housing situation; possible productivness?

b. Adjusting farm business organization and operation to changing economic and technical forces - What to produce, how to produce and how much to produce.

c. Financial management

-Capital and credit - Amount of capital need for desired farm size and organization; Credit needs, availability, cost and annual repayment schedule?

-Business management methods (i.e., Tax management, accounting systems, business and enterprises analysis, and legal problems and transfer problems and labor relations.)

-Firm - household relationships

D. Commercial farmers undergoing business decline

1. Characteristics

a. age: 45 years or older
b. Capital position: Low debt to asset ratio. Some with very little net worth. Most with a large net worth.
c. Goal: Adequate living from the farm.
d. Management ability: Average management ability, have little or no production and income data on their farm business.
e. Educational level: Farm below current needs. Only 4-10 years of schooling. Generally cautious.
f. Family situation: Children have left home - generally to non-farm occupations.

g. Security: Health is variable. Some coverage built on Social Security. Some have new liquid assets. Most have liquid assets.

2. Major Problems

a. Cost reduction
b. Labor reduction
c. Converting farm resources to other investments
d. Planning for retirement or other employment

This situation statement is only a guide. Each county can change by adding or deleting any of these sections which are not relevant to the local conditions. The important fact is that these are some of the data to be examined.

As you can see, you need the past, present and projected trends. The planning organization and the Extension staff must ask themselves, is the situation where it ought to be. If it is, it is not a problem; but if the situation is not in agreement with what "ought to be", it constitutes a need or a problem. The following chapter provides more detailed and clear discussion of analysis and the identification of problems.

Source of Data:

Information can be obtained from several sources. These include such places as: (89-18)

1. Census and other statistical data
2. Extension's personal knowledge
3. Contacts with people in the county.
4. Commodity groups
5. Extension specialists
6. Planning organizations
7. Other agencies, organizations and groups.

To obtain this information, the Extension worker and the planning organization can follow these steps or procedures for

obtaining data for the situation and getting it ready for analysis and the identification of problems and needs: (49-7)

1. Statements of values as a basis for determining what facts should be obtained.
2. Decide what kind of facts to collect.
3. Plan ways and means of acquiring.
4. Obtain data.
5. Assembly of facts and data.
6. Decide what the facts mean.
7. Evaluate the facts - analyze relationships between facts and existing programs, forecasts and decide on what they mean to the program.

Considerations:

In identifying the situation, the planning organization and the Extension staff need to evaluate the following considerations: (96) (100) (101)

1. Pertinent situational statements based on interpretation of basic facts.
2. The facts included in the situational statements are:
   a. current
   b. objective
   c. accurate
   d. pertinent
   e. adequate
3. The situational statements developed should be:
   a. people-centered
   b. subject-matter oriented
   c. based upon the level of interest, understanding, background and experience of thepeople concerned.
   d. clear and definite
   e. action provoking

4. All social systems, interests and geographic areas were identified and studied to determine relevancy.

5. All relevant social systems, groups and areas were invited to participate in planning. Such people might include:
   a. planning organization members
   b. commodity representatives
   c. county Extension staff
   d. state Extension staff
   e. other

Conclusion:

The development of the situation is one of the important responsibilities of the program planners. It is one of the first acts in the decision-making process. But the collection of data for the sake of collection of data is not good. The data and information collected must be put to use in identifying problems and needs of the people. The situation tells "what is" and a value judgment of "what should be" must be made. The difference between these two can be problems and needs. This situation analysis can be elaborate or as small as is needed. Situation analysis calls for a review of the potential audience, its characteristics, size, values and attitudes, resources available to be used by the people. These include land, labor, capital, and mangement. Finally, a consideration of how these resources are being used by the people is made.

Following the establishment of the situation, the next question is soon asked, what does it mean? An analysis of the situation with a look forward of the 'desired' must be undertaken. This analysis should help identify the problems and needs of the county.

Analysis and Identification of Problems

Relevant facts are analyzed and interpreted by Extension staff, resource people and the members of the planning organization. The purpose is to identify the people's major needs, problems and interests which are within the scope of Extension's responsibilities. (96-7)

Analysis of the county situation is to identify trends and conditions that exist and compare them with "what ought to be." Based on this analysis, the problems and needs of the county can be identified. Without a careful analysis, these facts remain only a mass of data which have no meaning.

Thus, the ultimate purpose of an analysis is the identification of problems and needs of the people. The real issue is how one should approach this problem. Leagans outlines his process as follows. These include some possible ways of handling this question. (39)

"1. Needs represent an inbalance, lack of adjustment, or gap between the present situation or status quo and a new or changed set of conditions assumed to be more desirable." (39)

Needs are then the difference between what is and what ought to be. The present situation is that which exists. "Ought to be" is a value judgment of where the people and county should be. Therefore, a need arises for someone to submit a value judgment.

Facts usually fall into four categories:

1. Current trends and outlooks.

2. People (what they believe their needs to be)
3. Public problems and policy
4. Physical factors

There must be a careful selection of data. The collection of data for the sake of collecting data provides no useful tool, but will usually provide a stumbling block rather than being of assistance. Careful consideration must be given to the data collecting and analyzing process so it does not become an end in itself. Leagans said that data concerning these questions will reflect the essential nature of the situation:

1. Does a need really exist?
2. Who has the need?
3. How many individuals or families have the need?
4. What are the people's attitudes toward the situation?
5. Why does the need exist?
6. In what ways are the needs significant; economically, socially or esthetically?
7. What is the relative significance of the need?
8. What would likely be the consequences in one or more years if no effort is made to meet the needs?

In summary, the nature and extent of needs is the size of gap between what is and what ought to be. Theoretically, the wider the gap, the greater the problem.

2. People's needs are identified by finding the actual, the possible, and the valuable through situation analysis.

Actual means what is; possible is what could be, and valualle what ought to be. Leagans points out by using this model of analysis, that the program objectives should be set on changing people and conditions to meet the most valuable.

3. People have to recognize the gap between the actual,

the possible, and the desirable and place value on attaining the desirable before they become motivated to change.

Programs must start people to recognize that there is a gap between the actual, desirable and the possible and place value on attaining the desirable. People have a reluctance to change, thus the needs should be continually promoted and people stimulated to see the gap.

4. Human behavior and the status of things can only be judged by some standard, and that standard can only be derived from a concept of what is valuable to attain.

5. The needs of people may be classified according to different forms and categories:

1. Physical needs - food, clothing, housing, activity and the like.
2. Social needs - group status, affection belonging, etc.
3. Integrative needs - the need to relate oneself to do something larger and beyond oneself, a philosphy of life, etc.

Leagans further cites needs as felt and recognized needs and unfelt and unrecognized needs. He says that all needs must become "felt" needs before they become motivating forces. It is not enough to have a program based only on felt needs, but to base programs on the unrecognized needs. These unfelt needs must be converted into felt needs. Without these needs being converted, programs tend to focus on short-term interests and not on basic long-term needs.

6. Final decisions about the selection or rejection of needs to be included in a process should be made with great care.

The needs of the people must be the central theme; economic, social, esthetic, and moral needs. There must be a joint understanding of what the needs are by the people and the staff. These are crucial decisions as the decisions affect the future of people and the conditions surrounding them.

Force Field Analysis: (29)

The "Force Field Analysis" is another method of identifying the problems. This could be one approach to be used in identifying priorities. The present situation or the identified problem is the status quo. The planning organization along with the Extension staff identify the positive forces and negative forces working on the status quo situation. The positive forces are the assets that can be used to help change the status quo. While the negative forces are the forces working against you in changing the status quo. This process helps or provides one with a means of identifying the underlying causes of the problem. On the opposite side, the things that can help the agent to solve the problem are identifed. Following this procedure, each of the negative forces are ranked from most difficult to the easiest to change. Then the decision is made on the difficulty to infuence each force. After this is done, the staff and the planning organization can decide what the priorities are, or in other words, what negative forces should be tackled using the positive force to help.

State problem:

FORCE FIELD ANALYSIS

Should you	Priority	Difficulty to Influence	Strength of force	Negative Force	Positive Force	Strength of force	Difficulty to Influence	Priority
					STATUS QUO			

Positive Forces: Assets that can help you to change Status Quo
Negative Forces: Forces against you changing Status Quo.
Strength of Force: Rank forces from most difficult to easiest to change.
Difficulty to Influence: Hard, medium or easy to influence.
Priority: Which forces should you tackle.
Should you: Strengthen, weaken, remove, add, change?

The problems become the needs, felt and unfelt, of the people or the gap between what is and what ought to be. The needs that are identified must reflect the real problems. If Extension is to work on a solution. A problem can further be defined as any condition or specific situation after careful study that needs some action or bring about an improvement.

Each problem needs to be evaluated in light of these considerations: (89-20)

1. What is the situation that needs to be improved? Who are the people affected?
2. Are those who are affected by the problem interested in doing something about it? If not, why.
3. Is it practical at this time to do something about it?
4. Are the needed resources available?

These problems are identified from careful analysis of the situation and their causes must be attacked and not just the symptoms. This will take careful probing and evaluation.

Besides analysis of situation (data) either by the Extension worker or with the planning organization, several methods of identifying problems exist. They include: (75) (30-7)

1. Let people bring them in.
2. Discuss with people and find their needs.
3. Conduct a survey.
4. Work with groups who have already identified problems.
5. Small group discussions.
6. Observations by community leaders.

7. Using mail or personal questionairs.

8. Other agencies or organizations.

9. Written information.

With the identification of the problems and needs of Extension, they should now be defined: (76)

1. in terms of things or material which one has some control.

2. as starting with the goals.

3. as questions that might be asked in order to collect all data

4. as knowledge of concepts by which to organize data.

Conclusion:

This following presentation gives a brief concise statement of a pattern to follow in identifying problems. (9-44)

Area	Steps
General Orientation	1. Information of an orientation nature is sought and given concerning the nature, purposes and responsibilities of the particular sub-groups.
	2. General situational information is sought and given in an effort to fully explain and explore the background of the "over-all" topic under discussion.
Identification And Clarification Of Problems.	3. Some specific suggestions is made concerning "what should be" in relation to the existing general situation. (The gap or need being interpreted as a problem.)

Area	Steps
Identification And Clarification of Problems	4. Information is sought concerning the "need" in order to reach some consensus on "what is" and "what should be."
	5. Information or opinion is given, for decision made to obtain specific information, to satisfy inquires made in step #4.
	6. Attempts are made to summarize, group, interpret and relate the discussion of the situation; attempts are also made at the establishment and examination of objectives relating to the specific problems.
Identification And Clarifications Of Solutions	7. Information is sought and given concerning resources available and resources required to facilitate the solution of the problem.
	8. Possible techniques and procedures for solution of the problem are suggested, evaluated, modified, discarded, or recommended. Consideration is given to possible consequences.
	9. General recommendations are made concerning the "over-all" problems, objectives, and solutions including priorities.

Objectives

Objectives have a number of meanings for differnet people. Extension educators need to set forth what is trying to be achieved. These objectives need to be defined relative to the major problems, needs, concerns and interests of the people.

Objectives should serve as: (89-20)

1. A guide for planning educational and action programs.

2. A direction to those responsible for carrying out the plans.

3. A basis for measuring program accomplishments.

As we start to form objectives, we should begin with the concept of social change in mind, rather than starting with the concept of a problem.

1. Where have we been.
   What has been the social economic history of our area.
   What changes have occurred.

2. Where are we now.
   What are recent experiences of occurrences and results.
   Where does it look like we are heading.
   What are possible consequences.

3. Where do we want to go
   What do we want to see happen and why.
   Toward what goals or objectives are we aiming.

4. What is necessary to get there.
   What potentials do we have.
   What specific problems stand in the way.
   What are alternative courses of action and resources.
   Do we have a plan of action.

Objectives are an intent communicated by a statement describing a proposed change in the learner. It is a statement of what the learner is to be like when he has successfully completed a learning experience. The statement of objectives must denote measurable attributes observable in the people receiving the learning experience, or it is not possible to determine whether or not the program is meeting its objectives. (42-3)

An objective is a statement that succeeds in communicating to other people the educator's intentions. A meaningful objective is one that succeeds in communicating the intent desired. The best statement is one that has the fewest possible alternatives to your objective, thus lessening the chance for misinterpretation. (42-11)

Mager describes three approaches to writing an objective:

"1. identify the terminal behavior by name; you can specify the kind of behavior that will be accepted as evidence that the learner has objective.

2. try to define the desired behavior further by describing the important conditions under which the behavior will be expected to occur.

3. Specify the criteria of acceptable performance by describing how well the learner must perform to be considered acceptable." (42-12)

Goals and objectives should provide focus and direction for the program. They also help to provide the incentive and the motivating force for action. Without definite goals, we are apt to drift and if successful, it is by happenstance rather than by design. In such a case, we may receive little satisfaction from our success, because we may not be aware

that very muchhas happened. In other words, how can we ever arrive if we have no destination.

Goals which are set from year to year as we plan and carry out the Plan of Work should relate to the broad objectives which encompass the total Extension effort. In other words, each goal becomes the means to another end farther and farther up the ladder. Goals should be realistic and specific. Generally speaking, they should be attainable. Whenever possible, they should be stated in measurable terms. It is also important that they be understood by the people in the county who are concerned with the program.

Goals become the yardsticks against which accomplishments can be measured. They become extremely valuable as more and more evaluation is carried out. We should not become discouraged if some of the goals cannot be reached. It is a case of making a reappraisal, taking a fresh start, using a different method, or taking another direction. Above all, it is important that goals be related to important problems, needs or concerns of the people whom we serve. In fact, much effort may well be spent in heigthening the concerns of the people with regard to certain problems and situations which may exist. Involving them in the planning process is one way of helping to bring this about. (61)

Levels of Objectives:

The problems and needs have been identified. The next step in the descision-making process is to develop objectives to meet these problems and fill the needs. Krathwohl writes that

we need to consider objectives at several levels of specificity depending on how we intend to use the objectives.

The first level or the abstract level is quite broad and general in nature. This level would be the level used in the long-range Extension program. This level is useful for laying out areas to be covered and for general goals to be reached over a number of years.

The second level is a little more concrete in nature. This level is used to analyze broad goals into more specific ones. This level of objectives would be helpful in specifying the goals of instructional unit, or course. An example of such a level in Extension could be the objective of the series of winter meetings to be held on dairy feeding.

The final level is the level when objectices become the most concrete. This level of objectives bring into focus the objectives of specific learning experiences and the level of achievement required for each goal to have the objective met. This level would be used when an Extension agent is to conduct a meeting on dairy management; what specificcally does he want to teach. (33)

The broad objective should be expressed in terms of "what a particular group of people expect to accomplish in relation to a specific problem or need." One would begin by stating the target audience; then make a positive statement of what is to be accomplished. Some problems become so broad that more than one objective has to be written. Thus, the solving of a problem becomes the combination of means, methods, and messages. (89-20)

Criteria for Judging Objectives:

After objectives for an Extension program are determined, it is well to evaluate these to see if they do what we intend.

Raudabaugh says educational objectives should result in positive answers to this following criteria: (78-20)

1. Are the objectives explicit in specifying the area in which the changed behavior is to operate.

2. Are the objectives definitive with respect to the kind of behavioral change to be accomplished?

3. Are the objectives stated in terms which identify those who are to be involved?

4. Are the objectives the results of cooperative action by Extension personnel and others concerned to analyze the situation and identify the problems?

5. Are the objectives compatible with the general aims of both the Extension Service and the people concerned?

6. Are the objectives specific enough to serve as a base for planning, conducting and evaluating an action educational program?

7. Are the objectives sufficiently limited tn number to avoid undue confusion and division of effort on the part of the Extension personnel and/or others involved?

8. Are the objectives achievable, considering the level of concern, the maturity of persons involved, and the resources available?

9. Are the objectives such as they are related intimately to both the immediate and long-time educational goals, and lead to even higher levels of achievement?

Conclusion:

Objectives are a guide and provide direction to carrying

out a program to solve the problems. Objectives also serve as a basis for measuring program accomplishments. Objectives help to prevent drifting and if a program is successful, it is by happenstance rather than by design.

Objectives should cite the behavioral change that is wanted. They should identify who is to be involved. The objectives should be achieveable, considering the level of concern of the people involved and the resources available. These objectives should be stated so that they can relate to specific objectives in the Plan of Work.

With the situation identified, and with a thorough and careful appraisal of the situation, the problems and needs of the county have been cited. Following this, the objectives to be obtained have been established. The time has come to put these all together into a written document called the long-term Extension program.

The Long-Term Program

The long-term county Extension program is the final document developed from the planning process. It is a "master plan" for the Extension Service and the staff in that county for the specified period of time being planned.

The Texas Extension Service recommends six sections to be included in such a document: (89-21-22)

1. Introduction.
2. County situation.
3. Areas of program emphasis and major problems.
4. Long-range objectives.
5. Priorities and plans for program execution.
6. Provision for evaluation and revision.

This introduction should give a clear explanation of the process used and the people involved in the planning. The introduction should include the following: (89-22)

1. A statement should begiven explaining how the planning organization was formed.
2. List of officers and members of planning organization and who they represent such as organizations, communities, geographic areas, etc.
3. Listing of all resource people who were involved in the process plus the Extension agents involved.
4. A statement should be given indicating and explaining the procedure which was followed in the planning process.
5. Any other information which might give a better understanding of the program and procedures to the reader.

The county situation is a description of the social, economic and cultural conditions. It should include the major items of information which the planning organization and Extension staff used as a basis for making program decisions or any data that is useful in carrying out the program. Tables, charts, maps, pictures, and graphs plus a narative helps to provide a summary of the situation statement along with making comparisons, showning changes and trends. (89-22)

Area of program emphasis and major problems would show the problems and needs of the county as identified through the analysis of the county situation. Data and background information should be provided indicating the importance of each problem and the people who are involved with the problem. (89-22)

Long-range objectives should be stated. These objectives at this stage would be in general terms. These objectives would help to provide general focus and direction to the program. (89-22)

Priorities and plans for program execution would be given. This section would outline the problems and objectives that were decided by the planning organization to have priority. A statement should be provided showing how this planned program and the annual Plan of Work fit together. This relationship should show how program execution would take place. (89-23)

Evaluation and revision section should provide guidelines on how evaluation of the program would take place. It also would show how revisions should be made if necessary following evaluation. (89-23)

A county Extension program cited by the Federal Extension

Service should include: (101-3)

1. a statement of the planning process used and the people involved.

2. a statement of needs, interests, and problems as identified by the planning people.

3. a statement of long-term educational objectives for each of the major needs, interests and/or problems.

4. an indication of coordination with groups, agencies and organizations outside Extension.

Another suggested outline for an Extension program is: (59-7)

1. Members of the county Extension staff.

2. Organizational plan used to involve local people.

3. Situation statement
   a. present situation
   b. important trends
   c. significant problems confronting the people.

4. Long-range objectives

5. Projected program
   a. should point out changes in emphasis if any and the direction of the current effort
   b. state method of coordinating certain phases of the program.

Considerations;

Following the development of the long-range program, evaluation of the following considerations should be undertaken: (101)

1. The planned county Extension program is in written form.

2. There is a statement in the program which relates to how the program was planned and the names of the members of the various committees and subcommittees who planned and reviewed it.

3. The written program contains a situational statement of each problem, need and interest included in the program.

4. The written program contains for each problem, need and interest a statement of long-term educational objectives (or goals).

5. The groups, agencies and/or organizations with whom the Extension program effort is to be coordinated are identified for each problem, need and/or interest that is to receive coordinated county program action.

6. Copies of the written Extension program have been distributed to all relevant persons, groups, and organizations.

Conclusion:

There are different positions on this particular issue. The important thing is to include enough so the intent is communicated. Each local situation should determine the exact content.

To summarize these approaches to the written long-term program, these conclusions can be drawn. Agreements by the three authors include:

1. Introducing of statement of planning process that is followed and the people involved.

2. Statement of problems and needs of the county.

3. Statement of the long-range objectives to be used.

Some agreement exists concerning the following:

1. Plans for program execution.

2. Methods of coordinating Extension program with groups, agencies and organizations.

3. County situation including present action, trends and projections.

From the following presentation, a guide can be developed which can be used to develop an Extension program. What to use and what not to use would depend on who is to use the program plus the purpose of the written document.

After a county has this long-range program, the next step in the process would be the building of an annual Plan of Work, the beginning of the execution or action stage of program development.

The Plan of Work

The Plan of Work is a guide or blueprint for the Extension agent to use in executing the Extension program. The annual plan is a plan developed from the long-range Extension program, It begins the execution phase of the planned Extension program. This Plan of Work must become concrete and specific in nature. Hutchinson said that planning and action are so closely tied that it is impossible to consider one without the other. "Smooth, effective activation of a county program can be accomplished only if adequate plans are made for each phase of the program with the total program requirements and the available resources in mind. Such plans must provide for active involvement of both the Extension staff and a representative group of local people. (28)

The Plan of Work becomes a statement of the activities to be undertaken by the individual agent or the entire staff within a definitely stated time, to carry out the objectives stated in the long-range program. This Plan of Work establishes priorities. These priorities are the decisions made about the order and urgency with which problems and objectives are to receive attention. It is the selection of the priorities to work on for the year. This Plan of Work in Extension usually conceived as an annual plan should indicate: (49-10) (51)

-What is to be done.
-Who is to do it.
-How is it to be done.
When is it to be done.
-Who is to be served or reached.
-How results will be measured.

A sound, well developed Plan of Work can serve these

purposes: (89-26)

1. The staff is in a better position of coordinating their activities and efforts.

2. This plan will help agents to develop a calendar of events to guide their activities.

3. This plan can help to maintain continuity of Extension work in the county when a change of agents occurs.

4. County plans can help guide specialists in developing subject matter, training materials, teaching aids and other resources needed to support county programs.

5. It provides Extension agents with an opportunity to review the objectives, evaluate progress in light of the objectives, establish new goals and objectives for the coming period and make plans for reaching them.

Pesson states the Plan of Work is to be structured into two basic parts. The first part is the educational activities to be undertaken with a specific audience. This portion, Pesson says, is a series of teaching plans. Each plan then is designed to accomplish a specific educational objective for a series of related objectives. The second part becomes organizational. It refers to the activities that will be carried throughout the coming year. (70)

The annual Plan of Work is the development of specific teaching plans, limited in number for specific audiences rather than covering everything. It should consist of the problems that will be most urgent for the year.

This Plan of Work should be developed and include these: (70-358-359)

1. Objective - this objective should include who is to be reached, what subject matter to be used, and what behavioral change is expected. This objective should serve

as a guide to the development of the teaching plan.

2. Educational task - this portion should include the learning experience the learner will have as the teacher-communicator works with the learner.

3. Clientele to be reached - each task that is undertaken in the plan should be directed toward a specified audience who has certain attitudes, behavior, skills, knowledge, etc.

4. Methods to be used - This portion includes the method or channel that will be used to carry the message which is to reach the objectives agreed upon.

5. Location - locations become important if audiences are in different geographic locations so it becomes important to identify where the teacher or the communicator will work.

6. Calendar of activities - this section should include two different times; one indicating how much time will be taken to reach the objective plus the time when the objective will be worked on.

7. The teacher - should be indicated, whether it is the agent, Extension specialist, resource person, or a lay person.

8. Evaluation - should be included in each Plan of Work. It should indicate how evaluation is to be done and what criteria to be used in evaluation.

The Texas Extension Service views a good annual Plan of Work to include the following: (89-26)

1. Establishing annual goals based on long-term objectives.

2. Identify the specific people to be reached.

3. Define the subject matter and the teaching objectives to be covered.

4. State the methods to be used and events planned for reaching each audience or objective.

5. Designate who will do the teaching or be responsible for each event or activity.

6. Show, in as far as possible, when and where each activity or event will take place.

7. State and describe the evaluation methods.

Musgrave says that we should take each objective as stated in the long-range program and follow through on the following points: (61-3)

"1. State your goals for the year ahead. These should be specific and realistic. They should indicate the changes that you would like to bring about and the things that you would like to accomplish.

2. In thinking through as to how these goals may be reached, activities are planned. Some refer to these as courses of action. They include:
   a. identifying the people toward whom the program is directed.
   b. determining the program content, or specific subject matter to be presented.
   c. deciding the methods to be used.
   d. indicating how you may attempt to evaluate results."

<u>Considerations</u>:

When the final annual Plan of Work is developed, the following considerations need to be evaluated to see if everything has been included: (96-16) (103)

1. The annual Plan of Work is in written form.

2. The following participated in the review of the county Plan of Work:
   a. entire county Extension staff.
   b. appropriate local people.
   c. appropriate specialists.
   d. supervisor(s).

3. Coordinated plans both within Extension and outside Extension has been developed for all problems which are adaptable to coordination.

4. The plan identifies the specific educational objectives for each major problem in the long-range program that is to be worked on this year.

5. Each specific educational objective is related to one or more general objectives in the program as planned.

6. The specific educational objectives for each problem in the annual program meet the standards for educational objectives and should identify:
   a. people who are to make changes.
   b. kind(s) of change(s) to be made.
   c. content or subject-matter area involved.

7. The annual Plan of Work includes a calendar of special county Extension activities and events.

8. The Extension calendar is synchronized with other activities and events in the county and communities as much as possible.

9. The plan indicates who will assume the responsibility for each of the various specific program objectives.
   a. county staff members.
   b. specialists.
   c. supervisors.
   d. lay leaders.

10. The plan indicates the major methods and techniques to be used in accomplishing the specific objectives.

11. Changes in the calendar were made after reevaluation, replanning, and decision, and were followed.

12. Decisions for change in the calendar were made by agent concerned and representatives from planning groups and other groups and State staff who were involved.

Conclusions:

This brief chapter gives us a quick overview of what is included in a Plan of Work and the process of developing this

plan. A Plan of Work can help a county staff to be better able to coordinate and guide their activities toward their predetermined objectives. This plan can provide a guidepost for reviewing objectives, and evaluating programs, and can assist in developing new programs to meet new needs when they arise.

This plan should identify specific objectives, the audiences to be reached, the methods or channels to use, who is to do the teaching, where the learning experience is to take place along with a statement indicating the evaluation that is to take place.

This Plan of Work should be in written form. The next several chapters will consider each section of the Plan of Work in more detail and will help us to analyze how to build a successful educational program.

Taking this Plan of Work as a basis and prior to teaching or working on specific programs, the agent involved can develop detailed plans and appropriate materials to meet the specific objectives as outlined. These specific programs would be the learning experiences that the teacher or communicator would use to bring about a behavioral change in the learning. This step would be to specifically identify the audience, the audience's entry behavior, the desired terminal behavior, subject matter to be used to reach terminal behavior, and specific evaluation procedures to measuring behavioral change.

The Teacher

The teacher becomes the source, provides the stimulus, and becomes the communicator. Who the teacher is will depend upon the objectives, the situation, the experience and ability of the various available teachers in subject matter content and use of channels. The teacher will also depend on the receiver and his characteristics; he might be the Extension agent, the Extension specialist, a commercial representative, a professional person representing another decipline or a lay person.

To further explain, let us say our objective is to make our audience aware of some idea and we decide that radio is a good channel to meet this objective. The teacher must be someone who is qualified on the subject and also qualitied in the use of radio. But if our objective is to have our audience adopt something, and we decide that farm visits are the best channel, a different teacher might be needed.

Some teachers have experience and ability in the use of some media while others are less qualified. Therefore, the program coordinator would need to match the personnel's ability with the various channels available.

Probably the most important thing to do is to determine the situation and objectives to be reached. After identifying the objectives, the channel that will best meet the objectives should be used.

This approach cannot always be done. Sometimes the personnel is not present and the channels have to be selected

from the experience and ability of the available teacher. The responsibility is left up to Extension staff. The Extension staff can serve as a catelyst, coordinator, or the teacher themselves in the learning experience being developed.

Specific Objectives

Objectives for the annual Plan of Work must be specific and measurable in nature. The long-range program has identified problems and needs along with general objectives. When establishing this Plan of Work, the Extension staff along with the planning organization have decided what problems are to be worked on for the coming year. Each of these problems has general objectives.

These general objectives are then taken and specific objectives are made. These specific objectives should tell who, how, when, and where.

Writing objectives that will describe the desired behavior of the learner becomes very important. Mager writes that one needs to identify the terminal behavior by name in the objective. The kind of behavior that will be accepted as evidence that the learner has achieved the objective. The objective should tell the learner what response will be expected from him when he has mastery of the objective. This approach becomes important to the teacher as well as to the learner. The teacher will know exactly what he is attempting to teach and will lessen the opportunity to "stray" away. In other words, the objective should describe the intended outcome after receiving the message, what the teacher-communicator wants the learner-receiver to do.

Next, we try to define the desired behavior futher by describing the important conditions under which the behavior will be expected to occur. The objectives need to state the conditions or assumptions that the teacher is using and the learner will have imposed upon him, when he is showing that

he has mastery of the objective. The objective should be detailed enough so that others understand the intent as the teacher-communicator understands it. For example, a set of conditions consists of:

Given a standard set of tools---------
Given a properly functioning---------

Third, the criteria of acceptable performance by describing how the learner must perform to be considered acceptable by the teacher. The criteria is how well the teacher wants the learner to master the objective. Many times it becomes difficult to evaluate, as what is being taught is intangible. The teacher should go as far as he can in establishing criteria for evaluation of the objectve.

These three sections of an objective will not always be able to be included in an objective statement. The primary objective is to communicate what is to be taught under what conditions and to tell how well the learner should learn what is being taught. (42)

Following the establishment of these objectives, the specific ways of meeting these objectives must be developed. Besides just knowing the behavioral change such as attitude, knowledge, or skill wanted, the audience or learners to be involved must be known along with their characteristics. Therefore, we will move to the audience and review the role of the audience in the Plan of Work and its importance in the Extension program.

Audience

Every situation that the Extension worker is involved with deals with people, his audience. Who should the Extension program reach? What are the characteristics of the audience who are receiving the message from the communicator? In the learning process, what is the learner like?

These people may be a part of or they may be the entire social system. These people may include the readers of a newspaper, listeners of radio, people attending a meeting, members of an organization, farmers, businessmen, or professional people.

Knowledge of the audience becomes very important in determining what message and what channels to use. Pesson cites seven different areas that the source should be familiar with when planning a learning experience or building a Plan of Work. These include personal characteristics, value and attitudes, socialization patterns, economic situations, technoligical situation, stage in the diffusion process for each idea and individual differences in adoption. (69-97-99) (See Chapter VI - The Adoption Process and Chapter X, The Situation Statement and Chapter V, The Diffusion Process.)

By looking at different characterisctics of different categories of farmers also gives us some clues as to problems they face as well as things affecting adoption and non-adoption. For example of such, we can review work done by Michigan State University, Agricultural Economics Department. (See Chapter X, The Situation Statement).

The audience should be identified in the beginning stage in the situation statement. A more thorough analysis may be needed to be done as a specific problem and audience is identified. The Plan of Work only identifies the problem and audience in general terms so the importance of these considerations are important as the Extension worker develops his teaching plan or message he is using to convey to the audience.

The implications for Extension could be drawn from work done by Copp, Sill and Brown in relation to audience characteristics and use of different methods and adoption. This is presented to provide some example of the thinking that should take place before finalizing the Plan of Work. (15)

1. The level of socioeconomic status, formal social participation and value of products received were an element in which would lead the farmer in contact with printed media (newspapers, magazines) and subsequently, to a farm adoption. If a farmer or group of farmers have a low level on one or more of these, Extension cannot rely entirely on printed media from newspapers, magazines, etc. to do an education job with this group of farmers.

2. The level of attitude toward scientific farming, education, socioeconomic status, formal social participation and value of products received by the farmer have an influence on farmers receiving media (representatives from Agricultural Agency) and putting it to use in a new farm practice. This may mean if a farmer or group of farmers do not compare with his pears in these areas, it may mean that the Extension

agent will have to put his "foot" forward in going to them instead of waiting for the farmer to come to him.

3. If a county has a high level type of farmer in the area of socioeconomic status, formal social participation and high income level, the county agent may be able to rely on printed media to inform and educate these farmers and put his time and effort to help the lower level farmers in these categories.

4. As the level of education and participation in formal organizations seem to be the only conditions that affect translation of printed information into improved practices, it may mean the Extension Service may not be able to use printed matter with farmers who have a low educational level or ones who do not participate in organizations. With these types of farmers, Extension may need to work more closely with them as they will not use printed media or put it to use.

5. Farmers' attitudes toward scientific farming, age and socioeconomic status are all important and are conditions affecting the translation of institutional information such as from the Extension Service into practice. If farmers who Extension is working with do not meet high criteria in each characteristic, the agent may find the farmers are not using his ideas, and the area of farmers may "drag" behind. This problem then may have to be solved by changing the attitude and trying to raise the socioeconomic status of the farmers. The county agent may need to work in other areas than just supplying

technical information.

6. Extension may find more success in working with high income farms than any others as value of production seems to be very important in adopting new practices promoted by institutional media, (agricultural agency representative.)

Conclusion:

This brief discussion presented does not indicate that we have exhausted this question. We briefly presented this discussion to show this is an important area of evaluation; when county staff is attempting to build the plan, the audience needs and their characteristics need to be considered.

Characteristics such as age, social status, financial position, education, community norms, sources of information, social participation, innovativeness are a few examples. Each of these would be considered in light of the message and channel to be used. As we discussed before, one of the keys of good education is to start where the audience is. This level would be created in part by their characteristics, situation, past experiences, attitudes and values.

Another way of identifying the audience is to categorize the audience, develop characteristics, problems of each group and possible approaches to solving these problems.

With an understanding of the objectives and the audience, we can decide which channels to use so the objectives will be obtained.

Methods

Methods are the means with which the Extension worker (teacher-communicator) carries the message to the audience (learner-receiver). These methods are the channels which communicate the ideas to the people of the social system.

The North Central Rural Sociology subcommittee for the study of diffusion of farm practices cites in their publication, "Adoptors of New Farm Ideas", channels that are used most prevalent in each stage in the adoption process. This gives us an indication of what methods or channels are used and helps to direct our efforts in a "correct" way. (See Chapter VI - The Adoption Process).

Several methods are available to the Extension worker. Each worker must evaluate his objectives, the situation, what channels he has available to him plus what each channel can do and what it cannot do. Our plan is not to indicate which method is the best to use in each situation. This paper will present some possible methods and evaluate and discuss these in general terms to give some indication of the criteria an Extension worker should use in making his decision on what channel to use. Time and space does not allow us to fully evaluate each one. An Extension worker should more fully evaluate each method before a decision is made. We hope that this presentation can offer some appreciation for the methods available and what each can do and cannot do.

Methods that are available include individual contact,

group, and mass media methods. Individual methods include farm and home visits, office calls, telephone calls, corespondence. Group methods include result demonstration, group meetings, and exhibits. Mass media methods include publications, bulletins, pamphlets, circulars, leaflets, newspapers, radio and television. Indirect influence and teaching by local leaders provide another means of informing and educating the public.

Farm and Home Visits: (109) (112 - 33-36)

Farm and home visits are useful as an Extension tool. The number of people are usually small and communication can usually go back and forth between the agent and the person being visited. When the objective is changed behavior, there is no substitute for informal, face-to-face discussion.

Four types of visits are used. They include:

1. The get-acquainted visit. These types of visits are never completed. The Extension worker hopes to get an understanding of the other's experiences, skills, interests, needs, his attitude toward Extension and his interest in activities. The agent wants to give a favorable image of Extension and to assure his host that information is available and the Extension Service is ready to help.

2. The technical visit. This visit consists of giving a correct answer to a specific problem and providing facts related to a situation where the answer is a judgment as in the analysis of an entire enterprise. In his transfer of specific facts or skills the agent wants the learner to be convinced

enough to adopt a new practice. Factual consideration of the whole enterprise deals with management of the whole farm, with family goals and with economic prospects. Questions handled include the blending of production, marketing and economics into goals of a single, specific family. The Extension agent needs to supply facts, to counsel, to evaluate, to discuss and to help the family reason its way to its own conclusion.

3. The organizational visit. The organizational visit adapts and enlarges the existing communication channels for extending information into the community. The agent is looking for potential leaders, obtaining acceptance of specific organizational responsibility, and training them in their duties. He also needs to service, encourage and recognize them on the job.

4. The interneighbor visit. This type of visit is to get information to the opinion leaders of the community. These leaders have influence and are respected in their neighborhood. Thus, it comes necessary to get certain people to talk about and adopt new ideas.

- Essential Elements -

These elements give some of the more important steps and points in using the visit as a teaching method.

1. Decide upon the place of the farm and home visit in the teaching plan outlined to advance a particular phase of the Extension program.
   a. consider alternative methods which might be employed.
   b. decide whether the visits are primarily for direct teaching or are needed to increase the effectiveness of group methods and mass media.

2. Clarify the purpose of the visit. Is the visit expected to:
   a. obtain firsthand information on farm and home conditions?
   b. give advise or assistance to a problem?
   c. arouse interest of those not reached by other methods?
   d. aid in the selection of local leaders, demonstrators, or cooperators?
   e. promote good public reaations?
   f. otherwise contribute to strengthening the Extension organization or advance the program?

3. Plan the visit.
   a. review previous contacts with members of family.
   b. check subject-matter information likely to be needed.
   c. arrange schedule of visits in community to save time and expense.
   d. consider best approach in view of individual family situations.

Advantages and Limitations:

No matter which channel is selected, advantages and disadvantages are in existence. The Extension agent must weigh these in light of the situation and make his decision on what method to use. The farm and home visits have these advantages and limitations as cited by Wilson and Gallup.

Advantages:

1. Provides agent with firsthand knowledge of farm and home conditions and the point of view of farm people.

2. If made on request, the farmer is likely to be ready to learn. The ratio of "takes" to "exposure" is high. It builds condidence in agent and may increase greatly the effectiveness of group methods and mass media.

3. Contributes to selection of better local leaders, demonstrators and cooperators.

4. Develops good public relations.

5. Useful in contacting those who do not participate in Extension activities and who are not reached by mass media.

Limitations:

1. Requires a relatively large amount of the agent's time.

2. Number of possible contacts is limited.

3. Cost per practice adopted rather high though not above average for all methods.

4. Time of visit not always opportune from standpoint of the farmer.

5. Danger of concentrating visits on the most progressive families and neglicting those where personal contact is most needed.

Office Calls: (46) (112 - 36-38)

An office call is a visit by a person seeking assistance and information. The fact that a person calls on the agent is indicative of the desire for assistance. A climate of readiness is more favorable for learning and action.

McCormick sets forth these guidelines for improving office calls:

1. Use attractive signs to locate the office

2. Keept the office attractive, neat, businesslike and comfortable.

3. Arrange office furniture so that desks, chairs and other furniture will allow for a satisfactory face-to-face contact. Avoid talking across the desk to the visitor.

4. Establish rapport. Make the caller welcome and at ease. The secretary can help by giving a cordial greeting, and if the caller must wait a few minutes, the secretary may offer some magazines; make sure the purpose of the call is ascertained and the caller's questions are answered.

5. Avoid distraction. The secretary should know that the agent would prefer not to be disturbed while the caller is in the office.

6. Have specific office-calling hours. Through various means of communication, publicize the office hours. Let the public know what days and time it would be most convenient for them to see the agent.

7. Have reference material readily accessible.

8. If feasible, give and explain to the caller selected reference material related to his problem for further study .

9. Give unhurried consideration to the caller's problems without undue expenditure of time.

The advantages of office calls can be listed as:

1. Caller likely to be highly receptive to learning.

2. Economical use of agent's time.

3. Good barometer of total Extension accomplishments in the county.

The disadvantages of office calls could include:

1. Office contacts removed from actuality of farm or home situation may not reflect the real problem or accurately reveal pertinent conditions.

2. Office callers likely to be limited to those participating in other Extension activities.

Telephone: (46) (112 - 38-39)

Telephone calls are another channel of person-to-person learning. McCormick says that several characteristics of telephone caller can be identified. These include:

1. People with higher educational attainment use the telephone.

2. More persons desiring agricultural rather than homemaker information use the telephone.

3. More men than women ring the Extension office

4. More rural nonfarm and urban people than rural farm people telephone for information.

5. People who telephone Extension offices usually need additional information provided by bulletins or other materials or other personal-contact methods to fully complete their requests.

The correct use of the telephone is very important in its effectiveness. McCormick cites some specific suggestions for handling these calls. In this type of experience the secretary and the agent play a team role.

1. Answer promptly. Prompt attention gets things off to a good start.

2. Identify your organization. For example: "Extension office, George Jones, County Extension Agent". The caller does not want to guess who you are.

3. Speak clearly and distinctly. Use a normal and pleasant voice. A poor attitude on the phone can destroy your effectiveness

4. Give the caller undivided attention. Avoid talking to the caller and another person in the office at the same time.

5. Talk to the person over the phone as if talking with him face to face.

6. Give the caller a chance. After the agent has identified himself, he should give the caller a chance to tell his story or ask his question.

7. Return calls promptly. If someone calls while the agent is out, he should return the call as soon as he returns.

8. Be certain to follow up telephone calls. This can be done by sending literature, making farm visits, or filling other requests.

<u>Mail Requests</u>: (46) (112-39)

Mail requests are a form of person request for information

on some particular topic. The person writing the letter has more than passing interest on the subject and is likely to use information that he receives.

Answering sets: (46)

Answering sets are a relatively new channel which Extension agents are using. This method is used when a great number of telephone calls are handled on problems that are common and specific to many people. Messages are usually taped. Limitations to this use include only messages that are short and informational. There is no chance for more complete information. It can answer only one question at a time. Problems that can be handled by such a method include lawns, gardens, insects, marketing and consumer tips, etc.

Result Demonstrations: (12) (112 - 40-43)

Result demonstrations are a means of establishing proof that an idea is applicable locally. "It is a demonstration conducted by a farmer, homemaker, or other person under direct supervision of an Extension worker to prove the advantages of a recommended practice or combination of practices. It involves careful planning, a substantial period of time, adequate record and comparison of results. It is designed to teach others in addition to the person who conducts the demonstrations." (12-129)

Essential elements of a result demonstration include:

1. Analyze situation to determine if establishment of further confidence in local application of research findings is necessary.

a. what has been the experience of the agent in supervising the carrying out of the practice under similar conditions?
b. is it possible to locate a good illustration of practice locally, obviating and necessity of expensive result demonstrations?

2. Decide upon specific purpose of results demonstration.
   a. to give agent confidence and provide teaching material.
   b. to establish confidence of farmer in the new practice.
   c. to develop confidence in Extension on the part of a minority group with whom Extension agent is not favorably known.

3. Plan the result demonstration.
   a. consult subject-matter specialist.
   b. make it as simple and clear-cut as possible.
   c. decide upon evidence needed and how local proof will be established.
   d. determine number of demonstrations needed to accomplish purpose.
   e. locate source of material.

4. Supervise the demonstration.
   a. visit with sufficient frequency to maintain demonstrator's interest, check on progress and see that succeeding steps are performed as outlined.
   b. place appropriate signs to attract public attention to basic elements in demonstration.
   c. mention in news stories, circular letters and radio talks at critical stages.

5. Complete the demonstrttion.
   a. see that final steps to complete demonstrations are taken.
   b. take pictures.
   c. hold meeting at demonstration where visual evidence will contribute to confidence.
   d. summarize records; analyze and interpret data in terms of farm practices.

6. Follow up demonstration.
   a. report results of demonstration through press, radio, and circular letters.
   b. use visual aids to present factual proof supplied by the demonstration.

These advantages and limitations emphasize the need for judgment in deciding to use this method or not.

Advantages:

1. Gives agent extra assurance that recommendation is practical and furnishes local evidence of its advantages.

2. Increases con idence of farmers in Extension and in agent's recommendations.

3. Useful in introducing a new project.

4. Important in working with minority groups with whom Extension workers have had little contact.

5. Contributes to discovery of local leaders.

Limitations:

1. Requires large amount of agent's time.

2. Cost is high per practice changed.

3. Good demonstrators are difficult to find.

4. Few people see the demonstration at the stage when it is more convincing.

5. Teaching value frequently destroyed by unfavorable weather and other factors.

Method demonstrations: (16) (112 --43-47)

The method demonstration is a "public showing and emphasizing of the salient merits, utilities, efficiency. . of an article or product." (16-137) It involves the showing and telling simultaneously, visual and verbal explanation of a process, fact r idea.

Essential elements of this method include the following:

1. Determine that the subject-matter practice involves skills which need to be demonstrated to many people.

a. are new skills developed through research, or old skills not being performed successfully, involved?
b. is it suitable for visual presentation to a group?
c. can the demonstrations be repeated satisfactorily by local leaders?

2. Give the demonstration.
   a. explain purpose and show application to local problem.
   b. show each operation slowly step by step; repeat where necessary.
   c. make sure audience can see and hear clearly.
   d. distribute supplemental material.
   e. if demonstration is given before local leaders who will repeat it, emphasize teaching points to be made.
   f. get names and adresses of persons in attendance and some indication of probable use of skills demonstrated.

Before deciding whether to use this method, it is well to evaluate the advantages and disadvantages. These include:

Advantages:

1. It is highly acceptable in proportion to teaching costs.

2. Has high publicity value.

3. It is adaptable to many teaching situations, such as home, field, public buildings.

4. Teaches skills.

5. Motivates and stimulates action because seeing, hearing, discussing and doing are employed.

6. Provides opportunity for developing leadership.

7. Promotes personal acquaintance between demonstrator and people.

8. Builds confidence in the demonstrator (if well done, it establishes demonstrator, who is often the agent, as an authority.)

9. Provides some opportunity for gaining insight into other problems or learning how people in an audience think and feel.

Limitations:

1. It is not well adapted to all subject matter.
2. It requires careful preliminary preparation and practice.
3. It necessitates considerable skill.
4. Involves slightly greater expense than verbal presentation.
5. It may lower teaching values because of inadequate and inappropriate teaching or facilities

General Meetings: (19) (112-47-49)

Meetings are a method that is used extensively by Extension agents. Meetings can be held for any number of different reasons. The size of meetings can be small or they may be larger. Types include: speaker only, speaker and panel, speaker and open discussion, forum or symposium, forum and open discussion, panel discussion with audience participation, open discussion or small group discussion. They may also include tours, and field days.

Essential Elements

1. Determine the place of the meeting in the teaching plan.
   a. is group action required? Will the group approach contribute to learning?
   b. is it desirable to reach many people quickly?
   c. will it serve to focus attention on the problem, and provide excuse for news stories, radio talks, and circular letters, as additional means of teaching?

2. Define the specific purpose of the meeting and the segment of the Extension clientele to be reached.
   a. to develop interest in a new subject.
   b. to disseminate subject-matter information.
   c. to change attitudes toward a problem.
   d. to deepen understanding of public problems.
   e. to determine program or plan of action.
   f. to develop leadership and local responsibilities.
   g. to provide an opportunity for social contact.

3. Advance planning for meeting.
   a. decide number of meetings, places to be held and tentative dates.
   b. outline tentative meeting program.
   c. discuss arrangements with local leaders and agree upon part each will take.
   d. obtain speakers and resource persons as needed.
   e. select the visual aids best suited to occasion.
   f. utilize the methods of publicizing the meeting that are necessary to insure satisfactory attendance of those people the meetings is intended to reach.

4. Follow-up the meeting.
   a. what heppended at meeting utilized in news stories and radio broadcasts.
   b. additional information sent and farm or home visits made to persons requesting such follow-up.
   c. sample check made to determine satisfaction with meeting and use being made of information.

Advantages of general meetings include:

1. Reaches a larger number of people.

2. Adapted to practically all lines of subject matter.

3. Recognizes basic urge of individuals for social contacts.

4. Group psychology stimulates conviction to act.

5. Has great news possibilities.

6. Effective in influencing adoption of many practices at a relatively low cost.

General meeting limitations include:

1. Wide diversity in character and interest of

2. Available meeting place often inadequate.

3. May require an undue amount of night work on the part of Extension agents.

4. The holding of a meeting may become the "real" objective, rather than the purpose the meeting was intended to advance.

Workships, Clinics, Schools and Short Courses: (108)

Workships, clinics, schools and short courses are other methods of communicating a message to the audience. A workshop is when people meet in small groups to work together on problems of their own choosing under the guidance of a well-qualified staff of consultants. The individual solves his own problem, with the help of the group and the consultants and he leaves this workship with a plan which he believes will fit his situation. Here the learning begins with the interests and challenges of the group and moves toward an understanding of general principles that may lead to solving other problems of a similar nature.

This workship method is used when it is desired to accomlish the following:

1. Identify a problem from a situation.

2. Find a solution to a problem.

3. Promote individual participation.

4. Promote personal growth of the indivudual through democratic discussion and cooperative participation.

Clinics are a method that is used to help individuals with a specific problem. It differs from a workshop in that it is diagnostic rather than developmental. It involves the ser-

vices of several persons who are consultants or experts.

A clinic may include a demonstration, feature speeches, or group discussion. It is usually organized around a single work activity of major importance.

Schools are designed to give the audience knowledge, attitudes and skills in some particular area of subject matter. The teacher plans and conducts the learning experiences. These learning experiences might include method demonstrations, discussions, panels, etc.

Advantages:

1. It is an easy way to present new material and information.
2. It provides opportunity for discussion and for organizing the material in a unified way.
3. It provides an opportunity to cover much material in a short time.
4. It offers an opportunity to use a variety of teaching techniques.

Disadvantages:

1. It is planned for a special-interest group.
2. The topic seldom has universal appeal.
3. The participants are often reluctant to enter freely into the discusionn.
4. The teacher must be able to keep interest on a high plane at all times.

Short courses is a method of intensive training in some specific area. This method is limited to a particular group and is not used extensively, but it provides a means for keeping up-to-date in technical subject matter.

Advantages of this method are: a.) all participants

attending are interested; b.) it has a certain appeal for young adults; and c.) the longer periods give continuity and depth to the subject.

Limitations include cost in time and money, the small number of people reached, and the difficulty in structuring the course to meet the concerns of all.

Direct Mail: (78A) (112 - 61-62)

Direct mail can serve two general purposes: 1.) to publicize an Extension acticity or to give timely information on existing problems and needs. 2.) It can provide additional and supplementary information to other methods.

These considerations need to be considered when deciding when and if to use this channel of communication.

1. Do you know your audience? Are you familiar with their level of knowledge, their attitudes, their farming conditions, and their needs for information?

2. Have you clearly identified the problem that your direct-mail message proposes to deal with? Can you construct your message from the standpoint of what the audience wants to know rather than what you want to tell them?

3. Is your information adequate enough to contribute to the solution of the problem? Do you have facts and figures or just a sympathetic awareness?

4. Are you able to present the information clearly, concisely, in a manner that will be clearly understood by the audience? Writing a message for direct mail requires just as

much skill as writing a message for newspapers, for radio, or for any other channel of communication.

5. Do you have equipment and facilities available to reproduce the message legibly and attractively. Can you compete in the mailbox?

6. Can you include direct mail as a working part of your educational program or will it be considered an "extra" chore?

Direct mail that fits the "news-information" should meet the following criteria:

1. The audience has clearly identified common interest and comprises only a portion of the total audience.

2. The message is concerned primarily with "news" and timely information, with little or no value for permanent future reference.

3. The information would be of little interest to any audience other than the one receiving the mail.

On the other hand, the subject matter technical information direct mail should meet these criteria.

1. It should be conceived for a special audience that has a specified need for reference information concerning a single subject matter or family of subjects.

2. The content should be designed for both current and future reference. It should not include information that will soon be out of date.

3. Its format encourages easy and systematic filing for later reference.

4. In a sequence of mailings, each information piece should relate to preceding pieces, providing a gradual build-up of reference information.

Advantages:

1. You can precisely identify your audience.
2. You have complete control of your message.
3. You can tailor your message to the specific information needs of your audience.
4. You can adjust the timing and the sequence of your messages.
5. Your audience can use direct mail for future reference.
6. It will supplement and reinforce other teaching methods.
7. It will reach large numbers of people, including those who do not participate in Extension activities.
8. It will reach people quickly.
9. It will convey timely information effectively to special interest groups.
10. It will be read at leisure and filed for reference.
11. It does adapt to wide range of subject matter.
12. It will influence changes of practices at relatively low cost.

Disadvantages:

1. You must build and maintain mailing lists.
2. Your message must compete in the mailbox.
3. You need certain minimum facilities.
4. Direct mail may be relatively expensive.
5. Special equipment and clerical help is necessary.

6. Too frequent use may minimize the effectiveness.

7. The impression that funds are being wasted may be given by poor composition, improper mechanical preparation or improper use.

8. Influence is limited to people who can read intelligently.

Publications: (66) (112 - 55-58)

Publications become one of the mass media methods. Pucli-cations include bulletins, pamphlets, circulars and leaflets. They fit in and reinforce other methods of communication.

Publications make a good teaching tool when:

1. the audience is in the evaluation and trial stages of the adoption process.

2. coordinated, long-term campaigns are used. For example, more productive pastures; often booklets are the backbone of such efforts.

3. public-affairs discussions are used. Study guides coordinate many small discussion groups into a state-wide debate.

4. lessons or supplements are integrated into TV educational courses.

5. requests for specific how-to-do information is wanted.

Advantages:

1. In general, people have confidence in the printed page.

2. Publications of state colleges and U.S.D.A are accepted as unbiased and reliable.

3. Written material can be read and studied at leisure and kept for further reference.

4. Necessary supplement to other teaching methods, such as news stories, radio, television, meetings and demonstrations.

5. Information usually definite, well-organized and readily understood.

6. Influences adoption of practices at relatively low cost.

7. Has permanency.

8. Can control distribution.

9. Relatively low cost.

10. Space to tell the whole story)

11. Versatility (size, color, artwork, etc)

12. Basis for work with news, magazines, radio, T.V. and visuals.

On the minus side:

1. Essentially one-way communication.

2. Frequent lack of motivation prevents full use.

3. Reading is one of the most difficult ways to learn.

4. Attraction is usually for those already interested.

5. Competition for reader's time.

6. Not suited for teaching people with a limited education.

7. Frequent revision necessary to keep abreast of current research.

8. Information prepared for general distribution may not fit local conditions.

9. Impersonal. Lacks social value of meetings and personal contact.

<u>Newspapers</u>: (2) (112 - 58-60)

Newspaper as a channel is used in Extension as one of stretching or expanding coverage. It is one of the chief ways of getting information about Extension activities and new ideas and practices to people who do not attend meetings, who are not contacted individually or who do not participate

in other Extension activities. News stories, features, columns and special newspaper pages are examples of how a newspaper can be used as a method.

Essential Elements

1. Determine the place of the news story in the teaching plan.
   a. identify the news possibilities of projects.
   b. determine the relationship of the news story to other means and agencies included in teaching plan.
   c. obtain assistance from specialists.

2. Determine specific purpose of the news story.
   a. develop interest.
   b. inform general public.
   c. disseminate subject-matter information.
   d. create favorable attitude.
   e. reinforce meetings and demonstrations.

3. Determine types of news stories.
   a. weekly column when applicable.
   b. special news items when needed.
   c. announcements that are interesting and timely.
   d. feature stories.

Advantages of newspapers:

1. Gets information to a large number of people.

2. Reaches those who might not otherwise seek information of Extension agents.

3. Carries the prestige and confidence of the printed word.

4. Least expensive method of influencing adoption of practices.

5. Frequency and regularity with which newspapers enter the home makes information timely.

6. Repetition of stories on same subject in succeeding issues of newspaper convinces reader of soundness and popularity of practice recommended.

7. Informing urban people about farmers' problems is an important by-product.

8. News stories from state college support teaching of county staff.

Limitations:

1. Of no value where people cannot read or do not receive newspapers.

2. Writing a good news story requires special training.

3. Newspaper editing may occasionally destroy teaching value of Extension news story.

4. Difficult to check results.

Radio: (24) (112 - 63 - 64)

Radio is another means of getting news and facts to the audience. Extension can serve radio stations by:

1. reporting farm and home news as and when it happens.

2. participating in shows produced by the station's farm program directors.

3. planning and producing its own program.

The true value of radio is hard to measure. Information may have to reach a person repeatedly from several different sources before changes occur. Since this combination of several channels may be necessary, radio has become important as it can reach many people. Radio generally does not help to change the behavior of people, but does help to increase knowledge and attitudes which lead to change behavior.

Advantages:

1. It can reach more people more quickly than any other means of communication.

2. It is particularly fitted by handling of emergency and timely information.

3. Relatively cheap.

4. It reaches many who read little or not at all.

5. It is a means of informing many urban people about agricultural matters.

6. It builds interest in other Extension media.

7. It is possible to build a substantial audience of sustained listeners.

8. Broadcasts from central stations by state staff back up teaching in counties.

Limitations:

1. The broadcasting facilities are not available to all counties.

2. Time assigned to Extension by commercial stations frequently is poor from the standpoint of farm listeners.

3. It frequently looses out in competition with entertainment.

4. It is difficult to check on results.

<u>Television</u>: (90) (112 - 64-66)

Television, one of the newer channels available to Extension workers, is becoming more important.

Television has several advantages. Some of these include:

1. It comes the closest to a face-to-face approach of all mass media.

2. Visual undoubtedly increases the effectivness of audio which is the sole reliance of radio.

3. It reaches urban as well as rural people.

4. The clear view of key operations shown in slow motion is possible.

5. Processes requiring much time can be telescoped into a few minutes.

It also has certain disadvantages, which include:

1. Intense competition with entertainment programs which individual family members may be interested.

2. The viewer cannot watch television and do other things at the same time as can be done in the case of radio.

3. A certain amount of showmanship is required to put on a program.

Conclusion:

These methods or channels provide the framework for the learning experience. The message is sent through these methods or channels. Each one of the channels has its place in the whole process of program development. The Extension agent must decide which one to use or which combination to use. This deicison should be based on the situation, the objectives, audience characteristics, the type of idea, the ability of the teacher, and the channel available.

Each one of these learning experiences should be related to each major phase of the annual plan. Each learning experience, Leagans says, should have these conditions: (40 - 24-25)

1. The agent has the objectives clearly in mind and makes sure that the participatts understand them.

2. The agent is adequatley prepared in subject matter related to the objectives.

3. All available and useful teaching materials are skillfully used.

4. The methods selected complement each other in attaining the objective.

Rogers views mass media and interpersonal channels in a general way. Within these two main headings, each media has its own characteristics, advantages and disadvantages. This summary does provide a good wrap-up to this area of selecting a method. Our attempt has been to start some thinking in the direction of selecting methods and has not been to answer which method to use. (79A - 3)

Communication Characteristics	Channels Interpersonal	Channels Mass Media
1. Direction of message flow	Two-way	One-way
2. Speed to a large audience	Slow	Rapid
3. Message accuracy to a large audience	Low	High
4. Ability to select receiver	High	Low
5. Ability to overcome the selectivity processes (or selective exposure perception, and retention.)	High	Low
6. Amount of feedback	High	Low
7. Possible kinds of effect	Attitude Change	Increased knowledge

Evaluation

Evaluation becomes an intricate part for the Extension worker in determining whether the Extension purposes and objectives are being attained.

Evaluation is a process for determing value. Tyler feels that evaluation in education is the determining of value of the educational program. Two basic notions can be developed. These include the process of educational evaluation which is essentially the process of determing behavior, thinking, feeling and action of the people being taught; the aim of educational objectives is to produce certain desirable changes in the behavior patterns. In Extension, evaluation takes place in several places including: (8-2) (82)

1. the background data concerning the situation.
2. the process of program planning.
3. the Extension program itself.
4. the annual Plan of Work.
5. the methods, messages, and channels used to meet objectives.

The basic emphasis in this discussion will concern itself with the following:

1. Was the method that was used meet its objective - program results.
2. The annual Plan of Work - program execution.
3. The Extension program- program planning.

The purpose of evaluation for the three emphasis shown previously is to attempt to improve the effectiveness of the

Extension Service and the Extension worker involved. Evaluation is done for these reasons: (8-1)

1. Program improvement - as in integral part of the process, taking a critical look, ways can be discovered to improve the programs.

2. Program accomplishments - in this situation evaluation helps to determine progress that is being made toward meeting the predetermined objectives.

3. Professional growth - evaluation enhances knowledge; it challenges us and the people with whom we work and gives an index as to how we are doing in the educational program.

4. Professional security - evaluation provides Extension staff with information.

Principles: (54)

"1. All evaluation must be based on the actual (explicit and implicit) objectives of a program or activity, and the specific procedures employed in their implementation.

2. Evaluation is primarily concerned with outcomes and consequences of programs and activities and not with the amount of time or energy expended.

3. Evaluation makes its greatest contribution to a program, an activity, or performance of personnel when it is an integral or built-in part of a program. It should be continuous, and done over a long enough period of time to adjust procedures to ends.

4. Evaluation to be of maximum utility should be developed in such a way as to indicate the present status and/or the outcomes of a program, and to provide some suggestive ways of increasing its effectiveness.

5. The validity of information provided through evaluation is substantially increased when bench marks or known starting points are employed as a basis for interpreting change, outcomes and consequences.

6. Evaluation is more effective when it is done with a combination of approaches, and when it uses a variety of procedures and methods.

7. Whenever possible the data used in evaluation should come directly from the participants in a program or activity. Observer's impressions can then be used to interpret the data.

8. The measuring instruments used in evaluation should be valid and as reliable as is appropriate for the specific purpose.

9. When the criteria approach to evaluation is used, the criteria must be solidly based on research and/or experience, and the evaluator should be thoroughly familiar both with the criteria and with the program or activity to be evaluated.

10. Any evaluation should systematically cover the relevant aspects of a program or activity including the context in which the program is developed and implemented. It should also systematically cover the participants of the audience toward whom the program is directed.

11. The people involved in planning and implementing a program should be involved in its evaluation.

12. Comparison of achievement within a program or activity leads to more educational growth than comparison with another program or activity. At the same time, comparisons

are helpful, but they must be appropriate ones, and extraneous factors must be controlled as much as possible.

13. Self-evaluation, honestly conceived and honestly implemented is likely to be more effective than evaluation by outsiders or persons not connected with a program. Self-evaluation supplemented by the ideas of informed persons not connected with a program is likely to be the most effective type of evaluation.

14. Evaluation whether simple or complex makes its maximum contribution when it is planned and implemented with the rigor and precision characteristic of the scientific method."

Benefits: (45 - 10-11)

Benefits from evaluation are many. Some of the important ones should be pointed out and discussed. First, Extension workers are called on to make many decisions according to the understanding that they have of the situation. Human beings are creatures of habit; the longer a practice or idea has been in existence, the harder it becomes to fully be objective. Evaluation then is an attempt to consciously try and objectively determine whether certain activities do really lead to the results that were anticipated. Good evaluation is like a good balance sheet of a business enterprise. Evaluation is used to make periodic checks on the effectiveness of programs in Extension. When the balance sheet shows results that aren't up to expectations, changes are made to bring the business back into line again. Likewise, the same is true for evaluation

with an Extension program.

Another benefit occurs when evaluation is used to give security to the Extension worker. The Extension worker is trying to determine whether or not his program reaches the intended purposes. With the proper evaluation, the agent can find out how he is doing.

Evaluation can be helpful in the area of public relations. People like to have concrete evidence of the value of the program. This is true particularly if criticism arises and the Extension worker needs cooperators to back him up.

Process:

Frutchey cites five questions to ask ourselves when evaluation is planned on a program: (21 - 16)

> I. What do you want to know? This question refers to deciding exactly what you want to find out in your evaluation. The answer to this question will guide you in the makeup and conduct of the evaluation Matthews says we must clarify objectives. Clear objectives are probably one of the most important segments of the evaluation process. Objectives can tell us what kind of evidence that we want. Objectives should tell us what new knowledge the people should have, what changed or new abilities they should have developed, and what old attitudes they should have changed, or the new ones they are expected to have. Objectives may identify the audience from whom to get the proof of results, the kind of change to be looked for and the particular subject matter or problem area that is involved. (44 - 3)
>
> II. Where and how will you get the information? Once the first question has been answered, answers to this question can be tackled. What means, from what source are you going to get your information. Is it going to be

adults, youth, farmers, reports, census, written programs, etc. How refers to how you are going to get your information. Is it coming by mail questionaire, observations, interviews, tests, etc.

III. Who will collect the information? After the decision has been made to what, where and how, you are now ready to determine who. Will the Extension worker collect the information, one of the staff or a volunteer?

IV. How will the information be analyzed? This question refers back to step I. The information you wanted can be organized and summerized to answer your purpsoes.

V. What does it mean? What are the applications of the results obtained? What changes can now be made to improve the work? After knowing the answers to these and other questions, the Extension worker needs to act if evaluation is not to be just an end in itself.

Evaluation outline:

These above questions can be developed into an outline that an Extension worker can use when planning a program and evaluation to follow. (21 - 16-17)

1. Need for the evaluation
   a. What Extension project, problem, activity job, method or situation do you want to evaluate.
   b. Why evaluate it?
   c. How can the results of the evaluation be used in your Extension work?

2. Purposes of the evaluation
   a. Is the evaluation
      1. an analysis of a situation, or
      2. an evaluation of taaching objectives?
   b. What questions should be answered by the evaluation?

3. Questions to be answered by the evaluation
   a. If analysis of a situation, clairfy the kinds of information needed to answer the questions.

b. In an evaluation of teaching, clarify the teaching objectives. Analyze the teaching plan.
   1. Review what has been taught.
   2. How it was taught, and to whom.
   3. Changes in behavior expected as a result of the teaching.

4. Sources of informaiion
   a. People - farmers, local leaders, Extension agents, etc.
      1. Do you need a sample of these people?
      2. How will you draw a sample?
   b. Recorded information - reports, census, etc.

5. Collecting the information
   a. How? Interviews, mailed questionaires, observations, etc.
   b. By whom? Person making the evaluation, Extension personnel, local leaders, etc.

6. Selecting or constructing a record form
   a. Kind of form: questionaires, interview forms, tests, observation sheets, rating scales, check lists, score cards, anecdotal records, etc. to be used.
   b. Data about
      1. the situation to be studied.
      2. evidence of progress toward the teaching objectives, or
      3. "face data" to be collected
   c. Formulation of questions or statements
   d. Physical set-up of the record form
   e. Pretesting and revisions

7. Analysis and tabulation of the data for use
   a. Classification and sorting of data to answer questions in Step 2b
   b. Work tables needed
   c. Coding to free-answer questions
   d. Method of tabulation
   e. Sorts and subsorts to bring out relationships

8. Interpreting, reporting and applying the findings
   a. Preparation of tables, charts, and graphs
   b. Summary of findings
   c. Applications to Extension work.

In developing an evaluation program, a decision must be made as to what evidence will be used to determine progress or accomplishments. Evidence is the indication which furnishes

proof.

Education is a process of changing behavior. The evidence must then be oriented toward the behavior change. What type of behavior do I want to measure? The answer to this question should be the answer to your objective. What did I want the audience to do. These changes can consist of change in knowledge, skill, or attitude.

Two approaches to the evidence needed is cited by Sabrosky. She says that we can look at evaluation in terms of attitudes, skills and knowledge. Have they done something as a result of Extension activity or method, or has their status changed since Extension action was started.

When it is impossible to measure progress of change in people, measurement can be made in terms of the learning situation we have set up. By evaluating the soundness of organization, attendence, coverage and subject matter, some evidence can be gathered. You usually have no idea of quality but quantity measurements are available. If quantity and quality are correlated, some degree of accomplishments can then be measured. (81A - 25)

Following the evaluation process, these questions should be asked to evaluate the evaluation that was done. (96-24) (104)

1. Evaluation plans were developed for each of the phases of the program to be evaluated as indicated in the annual Plan of Work.

2. Evaluations of accomplishments were based on data from adequate sample.

3. Data for evaluation of accomplishments were based on data through the use of appropriate techniques and devices.

4. Findings were based on adequate facts which have been carefully analyzed and interpreted.

5. The findings have been translated into program implications for use in the projection of the Extension program in the county.

6. The plans of coordination within Extension were followed as planned after periodic evaluation which indicated changes did not need to be made.

7. The plans for coordination outside Extension were followed as planned after periodic evaluation which indicated changes did not need to be made.

8, Changes in the plans for coordination within Extension were made after reevaluation replanning, and decision and were followed as replanned.

9. Changes in the plans for coordination outside Extension were made after reevaluation, replanning and decision and were followed as replanned.

10. Decisions for changes in the Plan of Work for coordination were made by the agents concerned, representatives from the planning group(s) and representatives from the group(s) concerned or involved.

Conclusion:

Evaluation is simple but complex. It is one of the most often misunderstood concepts in Extension programing. In simple terms, evaluation attempts to answer "How am I doing?"

In an attempt to answer this question, evaluation takes place on several levels. These include the situation, the process of program planning, the long- and short-range programs along with an evaluation of the methods and messages used.

Probably one of our basic interests in evaluation is to determine whether or not our programs are meeting our objec-

tives. And that is the education and informing of our audience. Is the audience having a changed behavior or not from the learning experience.

SECTION III
Conclusions

Conclusions attempts to draw everything together that we have discussed concerning the development of the long-range program and annual Plan of Work. In this section, the Social Action process is used as the framework for the steps that an Extension staff needs to be acquainted with and understand before the beginning of program development

CHAPTER XX -
The Steps in Program Development

Steps in Program Development

Knowles says that one of the principles of adult education is to have the audience understand and subscribe to its purpose. He goes on to say that "they must have a part in setting the specific goals of the course" (the program) (37 - 33) The audience should participate and should accept some responsibility for the learning process. Knowles further explains that the best way to learn is to become involved and feel a part of something. Therefore, if decisions can be made by the people involved, they are more inclined to become involved.

Basing the program development process on this premise that the audience should participate in some manner, we use the social action process model as our framework for developing an Extension program. We have formulated a step by step guideline that an agent could use in the program development process. We do not necessarily mean that each element must be taken in the same order as we have conceptualize the process. Each situation is different and each agent must use his own judgment in the consideration of these factors. Our intention is bringing together in a brief form the steps that are necessary in building a long-range program and an annual Plan of Work. For a more detailed discussion of each factor, one can turn to the body of this paper.

Step I
Analysis of existing Social System

In each county that an Extension program exists, the whole

social system could be involved or parts of the total system. This paper deals with one segment of the total social system, that portion representing agricultural interests. A similar type of analysis could be used for other social systems. The type of analysis could be used for other social systems. The Extension agent in building and developing an Extension program must be able to identify the social system or audience with whom he is to be working.

The agent needs to identify these following conditions as he begins the program development process in determining what influence they can have on the Extension program:

1. the objectives and importance to be attached to the program development process.
2. the amount of time to be devoted to the program development process.
3. the time when the program development process is to be taking place.
4. the phases of the program to be considered.
5. the steps or procedures to follow in developing the program.
6. the identification of the agent's responsibilities in the process.
7. the identification of how the planning organization is to assist in planning.
8. the bounds of the social system with which he is working.
9. the groups within the general group.
10. the relative positions of the subgroups.
11. the important influential groups outside the social system which affect the system and/or subsystems which might affect the Extension program.

12. the goals, activities, norms and status of the subsystems which might have an impact on an Extension program.

13. the influential leaders of the social system.

Step II
Convergence of Interest

After the agent has considered the existing social system, the next move is to bring people together to begin defining the need with a decision to act. At this stage, we are assuming that a commodity committee, advisory board, etc. is in existence. This group, whatever it may be, will be referred to as the planning organization. Therefore, the agent can begin to work with this group in furthering the development of the Extension program.

Considerations that the Extension staff and the planning organization must evaluate and make decisions concern:

1. The planning organization is representative of the people it represents or takes into consideration;
   a. the needs and interests of the people that are to be reached.
   b. the relevant power groups from which legitimation or sanction should be obtained.
   c. the groups that hold conflicting views.
   d. the special interest groups.
   e. the economic and social level of the people to be reached.
   f. the types and sizes of farms.
   g. the people from major geographical areas.
   h. the local or community groups.
   i. the appropriate business, industrial, institutional and public organizations and agencies.

2. The planning organization is representative of the key leaders or takes into consideration the leaders that are:
   a. needed as a resource for later involvement
   b. representative of the power structure of the social system.

c. possesing the ability of access, and the power to communicate.
d. representative of the ideas of groups with conflicting views.

3. The people who might contribute to the Extension program should be identified and plans for their involvement in some manner at some stage should be made.

4. The planning organization should be provided orientation and training as to the program development process and their role and responsibility.
   a. objectives and importance to be attached to the program development process.
   b. the amount of time to be devoted to the program development process.
   c. the time when the program development process is to be done.
   d. the phases of the program to be considered.
   e. the steps or procedures to follow in developing the program.
   f. identify the responsibilities of the Extension staff and the planning organization.

5. Agreement and understanding should be sought among the members of the planning organization as to their own role and responsibility and the procedure of program development.

6. The extent that the planning organization has adequate information about the problem and needs.

Step III
Evaluation

This step is the beginning of the planning phases of the program development process. Consideration should be given by the planning organization and the Extension staff to the following and the impact that they have on the program.

1. Broad organizational philosophy of the Extension service.

2. Extension objectives; county, state and national.

3. State Extension policies and procedures concerning program development.

4. Prior county programs and problems, failures and successes.

5. Other agency and organizations' programs and how they relate to Extension's programs.

6. Present situation; social, cultural and economic conditions of county, state or nation.

7. Analysis of situation.

8. Identification of problems.

Planning as we have defined it earlier is a process of making decisions regarding the direction and intensity of the Extension program. Determination of the situation becomes the first decision in this process. A framework consisting of Extension's broad organizational philosophy, objectives, policies and procedures need to be established and understood by those concerned in relation to the development of Extension's programs.

1. The philosophy of Extension program planning on a state wide level should be defined.

2. General objectives for Extension programs in the state should be defined.

3. General objectives for each project area should be defined for both the national and the state level.

4. Broad policies concerning the program development process in each state should be defined.

5. A suggested guide identifying procedures for program planning should be defined.

Now with the state objectives and policies of the program development process established, the next step is for the planning organization along with the county staff to establish their procedure of operation.

1. The goals and objectives of the Extension Service in their particular county need to be determined and understood by all concerned.

2. the responsibilities and roles of the planning organization should be defined and understood by the Extension staff and members of the planning organization.

3. The procedures or steps to be followed in the program development process needs to be established and understood along with the person(s) who are responsible for each step.
   a. the time period involved in building the program (time table).
   b. how each phase is to be done and who is responsible.
      1. data collection - identify situation
      2. analysis of situation.
      3. identification of problems.
      4. the determination of objectives.
      5. the writing of the written program.

This step also includes the study of the scope and nature of prior county Extension activities with an evaluation of these programs and a determination of what the results mean for future programs. These should include:

1. an analysis of similar activities or programs that have been attempted previously with an identification of the problems and successes with the intention of improving the present program.

2. An analysis made of success or failure of past methods, techniques, and organizational structure and with an indication of improvements that might be made for future programs.

3. An analysis made of the patterns of cooperative relations and/or conflict that developed in similar programs and how future programs can strengthen the cooperative patterns and rid the conflict.

With a thorough analysis of prior Extension programs, analysis of other related programs and organizations need to be considered so everyone involved will understand the situation with less chance for conflict, and less opportunity of duplication of effort by all concerned. This analysis

needs to be made in relation to what the findings mean for future programs.

1. Organizational agencies and groups which could contribute and assist in Extension's programs should be identified.

2. An analysis of the scope and nature of other organizations' programs, identification of how Extension's program can assist their programs and cause less conflict and duplication of effort should be undertaken.

3. An analysis should be made of what effects would be occurring with the development of a new Extension program on other cooperative groups previously and presently involved with their own programs.

The next step in establishing the present situation is to consider data involved with the social, cultural and economic aspects of the social system. This type of data helps to provide a basis for the decisions concerning what problems exist, what the social system is like and might indicate some barriers that might come into play as communication takes place between the Extension agent and the "target" audience.

1. Decision on the type of data wanted and how it is to be obtained.

2. Appraisal of what the situation is from area and state specialists.

3. Pertinent information regarding the social, economic, and cultural conditions should be collected.

4. The facts included in the situational statement should be 1.) current; 2.) objective; 3.) accurate; 4.) pertinent; and 5.) adequate so the situation can be evaluated.

5. The situation statement should be 1.) people-centered; 2.) subject matter oriented; 3.) based upon the level of interest, understanding, background and experience of the people concerned.

6. The data should include:
   a. current trends and outlook.
   b. people - what they believe their needs are.
   c. public problems and policies.
   d. physical and social factors.

The next step in this process becomes the one of analyzing and defining the educational problems.

1. Decide and establish procedure for defining problems.

2. The planning organization and the Extension staff should begin to reflect on the situation by asking:
   a. Does a need really exist - what is the situation that needs improvement.
   b. Who has the need - who is affected.
   c. How many individuals or families have the need.
   d. What are the people's attitudes toward the situation. Are they interested in doing something about it.
   e. Why does the need exist.
   f. In what ways are the needs significant; economically, socially, or esthetically.
   g. What is the relative significance of the need.
   h. What would likely be the consequences in one or more years if no effort is made to meet the needs.
   i. What resources are needed to "correct" the situation.

3. Decision on what the problems are.

4. Priorities should be established, the most urgent or most important problems should be worked on first.

Step IV
Prior Social Situation

This step in the process is the identification of the people to be reached. Is it to be the total group of farmers, a smaller segment, or some special interest group. In the evaluation stage, an evaluation of the situation has been made. From this analysis the relevant social systems to be

reached should have been identified.

Step IV
Initiating Sets

This group would be individuals or groups who take the proposed ideas to people who perform the consulting, legitimation and sounding board functions. If the planning organization meets the criteria in Step II, Convergence of Interest, they can serve as the initiating set. If the planning organization does not meet this criteria, attention will need to be given to involving people who do meet these criteria.

Step VII
Legitimation with Key Leaders

This step is the process of giving authority, approval or justification for action. Again if the planning organization members do not meet the criteria of being legitimizers for the social system, the problems and possible programs need to be legitimized with these key leaders.

This type of consultation includes reactions and suggestions from the leaders involved. Consultation of this type is needed so these leaders will not influence the program in a negative sense. These people can assist in thinking through the problems, efficiency, planning strategy, timing and procedures. The ideas coming from the legitimizers should be considered in the development of the program.

If the planning organization does not meet the legitimation criteria, two decisions must be made:

1. Who is the legitimizer?

2. Who is to approach these key leaders; the Extension staff or members of the planning organization.

Step VIII
Diffusion Sets

The diffusion sets are people who can provide the kinds of resources needed to implement programs. These resources include time, communication, organizational skills, access to people and groups, etc. These people would be considered the opinion leaders of the social system. The agent needs to identify these people with whom he can work. The planning organization can probably offer some assistance and advise in this area. The amount of assistance needed would depend on the experience and tenure of the agent involved.

Step IX
Definition of Need by the more General Relevant Social System

In this stage, an attempt is made to convert an "unfelt need" of the members of the social system into a "felt need." The planning organization, legitimizers, the Extension staff and others recognize the need. In this step, it attempts to convince the people that the problem is present.

In an educational program such as the one we are discussing, this step is continuous. The need is recognized by some and a program is begun before all the people have a mutual feeling concerning the problems. The important fact is that consideration must be given to showing the people that

this need exists before a solution can be forth coming.

The Extension staff has primary responsibilities in this stage. He handles this situation on a day by day basis in his routine contacts. Of course, he has great assistance from the opinion leaders and other lay leaders.

Step X
Commitment to Action

At this stage in time, the decision is made to go ahead with the proposed program as planned. The Extension agent would be continuously seeking a commitment from the target audience. Before a final commitment is obtained, overall programs like the Extension program would be given the go ahead by the people involved such as the planning organization.

Step XI
Formulation of Goals and Objectives

Before the program can be put into written form, the long-range objectives must be identified. The planning organization and Extension staff has the responsibility in this stage. Using all the information collected up to this point the decision on objectives are made.

1. General objectives should be defined and understood by all.

2. The Extension staff, along with the planning organization, make decisions about long-term objectives in line with the major needs and problems of the people.

3. The objectives of the program are stated in such a form that it:

a. clearly reveals the kind of new condition or situation that is desired.
b. is meaningful to the agents and the people.
c. will serve as a useful guide to program execution.
d. identifies the people to be involved.

4. The subject-matter content specified by each objective is to be directly related to the problems and needs as revealed by the analysis of the situation.

5. Are the objectives identified compatible with Extension's overall purposes?

6. Are the objectives achievable?

Step XII
Decisions on Means to Use

This step includes suggested means to meeting the objectives and solving the identified problems. Our procedure here is to develop a long-range program without any suggested means. Except to indicate each year, an annual Plan of Work is to be formed. This Plan of Work will identify in specific terms, the proposed means for meeting the objectives.

Step XIII
The Long-Range Program

The final stage is the preparation of the written program document. This program is usually planned every five or ten years. This document becomes the long-range Extension program. The program should include:

1. The identification of the problems, concerns, and opportunities noted in the program development process.

2. General objectives and recommendations relating to the identified problems.

3. Suggestions regarding the cooperation and involvement of various agencies, organizations, and groups in the solution of the problems.

4. Selected general characteristics and data about the county that would help to understand the identified problems.

5. Acknowledging all those involved in the program development process.

Figure A provides an example of a possible arrangement of the long-range program. This long-range program is now used as the basis for developing the annual Plan of Work.

Example

FIGURE A

Long-Range Program of X County

DATE OF PROGRAM:

INTRODUCTION:

A. Statement of how the planning organization was formed:

B. Listing of officers and members of planning organization and whom they represent.

C. Listing of all resource people, including the Extension staff who are involved in the planning process.

D. Statement should be given indicating and explaining the procedures and steps followed.

E. Any other information which might be deemed appropriate.

1. methods of cooperation and cordination with other agencies and organizations.

COUNTY SITUATION:

A. Present status:

B. Trends:

C. Projections:

PROBLEMS AND NEEDS OF THE COUNTY:

LONG-RANGE OBJECTIVES:

STATEMENT OF PRIORITIES AND PLANS FOR PROGRAM EXECUTION:

EVALUATION:

Step XIV
Mobilizing resources

This step is the time when everything is planned and the resources are put into action to meet the predetermined objectives. The mobilizing of resources should include human, physical, financial, and communication. The agent has the main responsibility. He may call on lay leaders, other agency personnel, other members of the Extension staff, or commercial people.

Step XV
Action

Each year, an annual Plan of Work is developed. This step begins the action stage of the program development process. The Extension agent may wish to involve the planning organization in the beginning to consider if there has been any changes in the situation since the long-range program has been developed that should now be included. The agent may wish to involve the planning organization in reviewing and evaluating each year's Plan of Work. But the basic responsibility is left to the agent himself.

Each of the following factors need to be evaluated in light of what their meaning is for the Plan of Work. The steps of factors include:

SITUATION:

1. Review situation. Are there any changes that need to be made in this coming year's Plan of Work because of a change in the situation.

2. Determine how much time you have to spend on planned programs, and how much time should be alloted for routine farm and home visits, mass media, and office calls.

3. Priority problems should be identified. What problems should be worked on and in what order for this coming year. The Extension staff should involve the planning organization at this stage. Nor all problems in the long-range program necessarily need to be worked on each year. Also decide how much time should be used in meeting each objective.

OBJECTIVES:

1. Taking each problem and each general objective, decide the specific objectives to be obtained for the coming year. These should be specific and realistic as far as being obtainable. These objectives or goals should indicate the changes you would like to bring about and the things that you would like to accomplish. These objectives should identify:
   1. People toward which the various portion of the program is to be directed.
   2. The specific subject matter to be presented.
   3. The criteria to be used to evaluate results.
   4. Kind(s) of change(s) to be attempted.

2. Identify the specific objectives for the problems to be worked on this year for each major problem, or of any new problems because of change in situation.

3. Identify the characteristics of the subject matter (Innovation) that is to be diffused and the effect it will have on the Plan of Work.

AUDIENCE:

1. What is the people's experience with the problem?

2. What are their values and attitudes?

3. What are the socialization patterns?

4. What are the economic conditions?

5. What is the technology situation for each problem?

6. In what stage of the adoption process is the audience?

7. What adopter category do they represent?

8. What are their personal characteristics: age, education, socioeconomic level, participation in organization, income level, etc.?

9. What are the norms of the community or neighborhood?

After identifying each one of these, determine what affect they could have on:

1. type of ideas that might be adopted.

2. barriers preventing effective communication and adoption.

3. the methods to be used.

4. the message to be presented.

5. the teacher or communicator.

6. time it takes for adoption.

<u>METHODS</u>:

1. Decide which method(s) (Channels) and techniques are to be used to meet the specific objectives. Base the decision on some of the following criteria.

   a. answers to the questions under audience.

   b. method(s) that will carry a message that will:
      1. create a stimulus to the audience.
      2. create a desirable response.
      3. create a stimulus that will provide a reward.

4. repeat the stimulus more than once.
5. create a stimulus that will ask for only one response.
6. create a stimulus that will create a reward soon after the response is made.
7. create a stimulus that will make the response as easy as possible.

c. identify where possible breakdown in communication can occur; then attempt to avoid this breakdown by using the "correct" method.

d. select different methods to fit different learners' paces.

e. how does the potential audience perceive the proposed method and the effect that this has on the method to be used.

f. correlate the objective with the method.

g. what experience and ability does the agent have with the method.

h. advantages and disadvantages of each potential method.

i. how much time is there to send the message to the receiver and what effect will this have on the method to be selected.

CALANDAR OF ACTIVITIES:

1. Develop a calendar of county Extension activities and events showing approximate amount of time to be devoted to each objective and a seasonal distribution of work.

2. Attempt to synchronize Extension activities with other events in the county as much as possible.

TEACHER:

1. Decide who will assume the responsibility for each of the various program objectives. Are they to be:
   a. county staff members.
   b. specialists
   c. supervisors
   d. lay people.
   e. commercial people

2. How confident is the proposed teacher in dealing with the subject matter of the learning experience.

3. What ability does he have using the various methods that are available.

4. How does the teacher feel about the subject and methods to be used.

EVALUATION:

1. County staff, appropriate state staff and planning organizations evaluate accomplishments during the past year for consideration in developing the new annual plan.

2. A brief analysis of the situation is made to see if there has been any changes since the long-range program has been developed.

3. Did the Plan of Work meet the specific objectives.

4. Did the audience have any behavior change.

5. How adequate were the methods used.

6. How adequate was the message.

Figure B provides an example of a possible layout of the annual Plan of Work.

Example:

FIGURE B

Plan of Work of X County

DATE OF PLAN:

PEOPLE INVOLVED:

Objectives	Audience	What is to be taught	Methods	Time		Teacher	Evaluation
				When	% of Yrs. Program		

Step XVI
Total Program Evaluation

This step involves the evaluation of the long-range program along with the annual Plan of Work.

1. Were the general objectives achieved.
2. How adequate is the organization and processes used.
3. Was there behavioral change in the audience.

Step XVII
Continuation

Following evaluation of the past year's program, the whole process of developing and building the next year's plan begins. After the long-range program expires, the process begins all over again at the very beginning.

Conclusion:

In this chapter, we have attempted to bring together our whole text into a brief simplified procedure that an Extension agent can use. The program development process is the process of planning and execution of a program. This program is a blueprint of the functions and activities of the Extension Service. One of the major problems that was identified in the program development process is the lack of understanding of a procedure that can be used by an Extension agent. The Extension agent has to be the main motivator in the process. Without his understanding of the process, very little can be

achieved. Thus, for our reasons for forming a framework in which a long-range program and an annual Plan of Work can be developed.

Bibliography

1. Anderson, Ernest, "An Approach to Effective Teaching," Journal of Cooperative Extension, Vol.I (Spring 1963), no.1, pp. 9-15

2. Arbour, Marjorie, "News stories, Feature Stories, Newspaper Columns, and Special Newspaper Pages," The Cooperative Extension Service, ed. Sanders,H.C. (Prentice-Hall, Inc., Englewood Caiffs, N.J., 1966) pp. 182-192

3. Axinn, George, The Strategy of Communication, Unpublished M.S. Graduate Problem, (Michigan State University, 1959)

4. Axinn, George & Thorat, Sudakar, "The Strategy and Tactics of Extension Program Management," (February, 1961)

5. Beal, George. M, etal, Social Action and Interaction in Program Planning (Iowa State University Press, Ames, 1966)

6. Berlo, D. K., The Process of Communication, (Holt, Rinehart and Winston, Inc., New York, 1960)

7. Bliss, R. K., etal, The Spirit and Philosophy of Extension Work, (Graduate School of the United States Department of Agriculture and Epsilon Sigma Phi, 1952).

8. Boyle, Patrick G. & Brown, Emory J., Evaluation of Co-Operative Extension Work, (Extension Service, College of Agriculture and National Agriculture Extension Center for Advanced Study - University of Wisconsin, Madison, May 1960)

9. Boyle, Patrick G., The Program Planning Process with Emphasis on Extension, (National Agricultural Extension Center for Advanced Study, Madison, Wisconsin, December 1965) Publication 24.

10. Bruce, R. L., "A Look at Program Planning," Journal of Cooperative Extension, Vol.II, (Winter 1964), no.4, pp. 221-225.

11. Clark, Robert C., "Purpose of the Conference," A Research Approach to Program Development in Cooperative Extension, (Report of National Research Planning Conference in Program Development: The National Agriculture Extension Center for Advanced Study, University of Wisconsin, December 1961) pp. 5-7

12. Cook, Ben D., "Result Demonstrations and Result-Demonstration Meetings," The Cooperative Extension Service, ed. Sander, H. C., (Prentice-Hall, Inc., Englewood, Cliffs, New Jersey 1966), pp. 128 - 136

13. Communication Training Program, "The Communication Process," Unit I - Basic Communication, (American Association of Land Grant Colleges and State Universities, 1956)

14. Communication Training Program, "The Group Process," Unit I - Basic Communication (American Association of Land-Grant Colleges and State Universities, 1956).

15. Copp, James H; Sill, Maurice L, & Brown, Emory J, "The Function of Information Sources in the Farm Practice Adoption Process," Journal of Rural Sociology, Vol.23 (1958), pp. 146 - 157.

16. Cowden, Loretta, "Method Demonstration and Method Demonstration Meetings," The Cooperative Extension Service, ed. Sanders, H.C., (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1966), pp. 137 - 144.

17. De Hart, William A., "Program Planning - Venture in Human Relations," Extension Service Review, (U.S.D.A. Federal Extension Service, Washington, D.C., April 1959) p. 83

18. Dotson, Robert, "A Synthesis of Research in Extension Program Determination," Proceedings of National Extension Training Conference (Louisiana State University, Baton Rouge, April 1963) pp. 36 - 54

19. Fessler, Donald R., "Meetings," The Cooperative Extension Service, ed. Sanders, H. C. (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1966) pp. 145-51

20. Flegil, Frederick C., & Kivlin, Joseph E., "Farmers' Perceptions of Farm Practice Attributes," Journal Of Rural Sociology, Vol.31 (June 1966), No.2, pp. 197 - 207.

21. Frutchey, Fred P., "The Scientific Approach and Extension Evaluation," Evaluation in Extension, ed. Byron, Darice, (Federal Extension Service, U.S.D.A., Washington D.C.) pp. 14-17

22. Frutchey, Fred P., "The Learning-Teaching Process," The Cooperative Extension Service, ed. Sanders, H.C. (Prentice Hall, Inc., Englewood Cliffs, New Jersey, 1966) pp. 51-68)

23. Hannah, H. A., etal, Joint Committee Report on Extension Programs, Policies and Goals (U.S.D.A. Washington, D. C., 1948)

24. Hatch, J. Cordell, "Radio," The Cooperative Extension Service, ed. Sanders, H. C., (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1966) pp. 215-224

25. Hepp, Ralph E., & Conner, Larry J., Major Problems of Farmers, (Prepared for Farm Management Staff for New Kellogg Project on "Forward Farm Planning and Automated Consulting Service," Michigan State University, 1968)

26. Horton, Helen F., Program Planning, Unpublished EPD Term Paper (Michigan State University, 1961)

27. Howe, William, "Program 'Architects' Need the Facts," Extension Service Review, Vol. 31 (U.S.D.A., Federal Extension Service, Washington, D.C., 1960) pp. 192.

28. Hutchison, John, "Understanding Activates Extension Programs," Extension Service Review, Vol. 31, (U.S.D.A. Federal Extension Service, Washington, D.C., November, 1960), pp. 21

29. Institute of Extension Personnel and Development, Class Notes of EPD 801 (Michigan State University, 1968)

30. Iowa State College, The Iowa Extension Program Planning Guide, (Cooperative Extension Service, Iowa State College, Ames, 1948).

31. Johnston, Rebecca, Program Planning, Unpublished EPD Term Paper (Michigan State University, 1960)

32. Kachler, Fred B., Discussion of Program Planning Process and Program Planned for Holstein County, Northcentral State, Unpublished EPD Term Paper,(Michigan State University, 1960).

33. Kelsey, Lincoln D. & Hearne, Cannon C., Cooperative Extension Service, (Comstock Publishing Associates, Ithaca, New York, 1963)

34. Kidd, J. R., How Adults Learn (New York: Association Press, 1959)

35. Knaus, K., Notebook in Program Development, (Extension Circular 855: U.S.D.A.,Washington, D.C., 1948)

36. Knowles, Malcolm, ed. Handbook of Adult Education in the United States (Adult Education Association of the USA, Chicago, Illinois, 1960)

37. Knowled, Malcolm, Informal Adult Education, (Association Press: New York, 1951)

38. Krathwohl, David R., "Stating Objectives Appropriately for Program, for Curriculum and for Instructional Materials Development." Journal of Education, (1965) pp 83-92.

39. Leagans, J. P., "A Concept of Needs," Journal of Cooperative Extension, Vol. II (Summer 1964), no. II, pp. 89-96.

40. Leagans, J. P., Evaluation Criteria and a Suggested Plan for Their Use, (Division of Extension Teaching and Research, Federal Extension Service, U.S.D.A.: Washington, D.C., 1957)

41. Louisiana State University, Proceedings of National Extension Training Conference, (Louisianna State University, Baton Rouge, 1963)

42. Mager, Robert F., Preparing Instructional Objectives (Fearon Publishers, Palo Alto, California, 1962)

43. Matthews, J. Q., "How Are You Doing. . .in Farm and Home Development" (Talk given at the Southern Regional Farm and Home Development Workshop, Rock Eagle, Georgia, 1955).

44. Matthews, J. Q., "Suggestions for Building Evaluation into the Program Projection Process," Report of the 1960 Southern Regional Workshop on Program Projection (Gatlinburg, Tennessee, 1960) pp. 63 - 67.

45. Matthews J. Q., "The Place of Evaluation in Extension;" Evaluation in Extension, ed. Byrn, Darcie (Federal Extension Service, U.S.D.A., Washington, D.C.) pp. 10-12

46. McCormick, Robert W., "Office Calls, Telephone Calls, Mail Requests and Answering Sets," The Cooperative Extension Service, ed. Sanders, H.C., (Prentice-Hall, Inc., Englewood,Cliffs, New Jersey, 1966) pp. 122-127.

47. Michigan State University, Advisory Boards and Councils, Some Principles and Procedures (Department of Sociology, Michigan State University)

48. Michigan State College,Some Educational Aims And Objectives in Extension Work, (Michigan State College Extension Service, 1946)

49. Michigan State University, Guide for County Program Development in Michigan (Michigan State University, 1955)

50. Michigan State University, Guidelines for Future Agricultural Extension Programming (Michigan State University, 1965).

51. Michigan State University, Michigan Guide to County Program Development (Cooperative Extension Service, Michigan State University, 1955)

52. Miller, Paul etal, The Cooperative Extension Service Today - A Statement of Scope and Responsibility (Michigan State University, 1959) publication issued through E.C.O.P.

53. Miller, Mason E., Teaching-Learning Process and Methods for Extension Workers (Institute for Extension Personnel Development, Michigan State University, 1965)

54. Moe, Edward O., Some Principles of Evaluation (Department of Sociology and Anthropology, Michigan State University, 1957)

55. Moe, Edward O., Guide for Program Development in Michigan (Cooperative Extension Service, Michigan State University, 1956)

56. Musgrave, Bohn, A Study in Program Planning, (Michigan State University).

57. Musgrave, Bohn, Developing an Agricultural Extension Program on a County Basis (Michigan State University)

58. Musgrave, Bohn, Extension Program Planning: Organization and Proces, Unpublished Master's Thesis (Michigan State University, 1954)

59. Musgrave, Bohn, etal., Guide for Program Development (Cooperative Extension Service, Michigan State University, 1956)

60. Musgrave, Bohn, Suggested Guide for Program Projection (Michigan State University, 1958)

61. Musgrave, Bohn, Goals - Accomplishments - Satisfactions, Extension Information No. 109 (Michigan State University, 1967)

62. Musgrave, Bohn, Suggestions & Recommendations For Strengthening County Extension Councils in Michigan Extension Info. 105 (Michigan State University, 1967)

63. Musgrave, Bo & Moe, Edward, "Organizing and Operating County Agricultural Advisory Councils"(Cooperative Extension Service, Michigan State University)

64. New Mexico College of Agriculture & Mechanic Arts, New Mexico Program Planning Guide (Agricultural Extension Service, New Mexico College of Agriculture and Mechanic Arts, State College.)

65. New York State, Excerpts from"A Primer for Agricultural Program Planning"

66. Noordhoff, Lyman J. "Bulletins, Leaflets, and Circulars," The Cooperative Extension Service, ed. Sanders, H.C. (Printice-Hall, Inc., Englewood Cliffs, New Jersey, 1966) pp. 206-214

66a Norby, Oscar W., "Principles of Program Planning," Summary of An Appraisal of Long-Time Cooperative Extension Program Planning in Waupaca County, Wisconsin (University of Wisconsin, Madison, 1961)

67. North Central Regional Extension subcommittee for the Study of Diffusion of Farm Practices, Adopters of New Farm Ideas (Publication No. 13, North Central Rural Sociology Committee of the Farm Foundation and Land-Grant Colleges, 1961)

68. Ohio State University, Process of Program Development (Ohio State University, Columbus)

69. Pesson, Lynn L., "Extension Program Planning with Participation of Clientele," The Cooperative Extension Service, Ed. Sanders, H.C., (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1966) pp. 94 - 110

70. Pesson, Lynn L., "The Plan of Work, The Cooperative Extension Service, ed. Sanders, H.C., (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1966) pp. 352-360.

71. Poorbaugh, Harry J., "Tours and Field Days," The Cooperative Extension Service, ed. Sanders, H.C., (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1966) pp. 152-160.

72. Pope, Edward, "Human Relations in Program Planning," Extension Service Review, Vol. 32 (August 1961) pp. 156

73. Powers, Ronald C., "County Program Development" Proceedings of National Extension Training Conference (Louisianna State University, Baton Rouge, 1963) pp. 8-26

74. Powers, Ronald C., "Background Information in Planning," Journal of Cooperative Extension, Vol. Iv (Spring, 1966) No.1, pp 11-22

75. Purdue University, How to do Program Projection In Extension (Purdue University, Agricultural Extension Service, Lafayette, Indiana, 1967) Mimeo ID-22

76. Quarrick, Helen & Quarrick, Eugene, "Problem Solving In Extension", Journal of Cooperative Extension, Vol. III (Fall 1965) No.3, pp. 137-147

77. Raudabaugh, Neil J., County Extension Program Development (Federal Extension Service, U.S.D.A., Washington, D.C.), pp 18-21

78a Read, Hadley, "Reaching People by Direct Mail," The Cooperative Extension Service, ed. Sanders, H.C., (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1966) pp. 193-198

78. Raudabaugh, Neil J., "Goals & Objectives," Evaluation in Extension, ed. Byron, Darice (Federal Extension Service, U.S.D.A., Washington, D.C.,) pp.18-21

79. Rogers,Everett M., "The Adoption Process," Journal of Cooperative Extension, Vol.I (Spring 1963) No.1, pp. 16-22.

79a Rogers, Everett M., Communication Channels in the Diffusion of Technology: Combining Mass Media and Interprrsonal Channels (Department of Communication, Michigan State University, 1968)

80. Rogers, Everett M., Diffusion of Innovations (The Free Press, New York, 1962)

81. Rogers, Everett M., & Shoemaker, Floyd, Diffusion of Innovation: A Cross-Cultural & Communication Approach (Department of Communication, Michigan State University, 1968) Draft of Book.

81a Sabrosky, Laurel, "Evidence of Progress Toward Objectives," Evaluation in Extension, ed. Byrn, Darcie (Federal Extension Service, U.S.D.A., Washington, D.C.) pp. 25-29

82. Sabrosky, Laurel, "Evaluation", The Cooperative Extension Service, ed. Sanders, H.C. (Prentice-Hall, Inc.,,Englewood Cliffs, New Jersey, 1966) pp. 339-351

83. Sabrosky, Laurel, Six Keys to Evaluating Extension Work (Federal Extension Service, U.S.D.A., Washington, D.C., 1958)

84. Sanders, H.C., The Cooperative Extension Service, (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1966)

85. Schaeffer, Annette, Program Planning in Holstein County, Unpublished EPD Term Paper (Michigan State University, 1960)

86. Sloan, F. S., "What Procedure Should be Followed in the Actual Development of the Program and in Writing the Program Projection Statement," Report of the 1960 Southern Regional Workshop on Program Projection, (Gatlinburg, Tennessee, 1960) pp. 58-62

87. Smith, C. B. & Wilson, M. C., The Agricultural Extension System of the U. S., (John Wiley & Sons, Inc., New York, 1936)

87a Tennessee, Gatlinburg, Report of the 1960 Southern Regional Workshop on Program Projection (Gatlingburg, Tennessee, 1960)

88. Texas Agricultural Extension Service, Handbook, County Program Building for Texas Agricultural Extension Workers, B-826, (Texas Agricultural Extension Service, College Station, 1959)

89. Texas Agricultural Extension Service, Program Building Handbook. D-690 (Texas Agricultural Extension Service, College Station, 1964).

90. Tonkin, Joseph D., "Television," The Cooperative Extension Service, ed. Sanders, H.C. (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1966) pp. 225-232.

91. United States Department of Agriculture, The Cooperative Extension Service. . .Today (1957 Extension Committee on Organization and Policy, Washington, D.C., 1958)

92. United States Department of Agriculture, Extension Looks at Program Planning, no. 478 (Federal Extension Service, U.S.D.A., Washington, D. C., 1952)

93. United States Department of Agriculture, Program Development Process, ER&T - 122 (Federal Extension Service U.S.D.A., Washington, D.C., 1956)

94. United States Department of Agriculture, Program Projection, Meaning & Purpose & Major Characteristics, HEP - 44 (Federal Extension Service, U.S.D.A., Washington, D.C., 1957.)

95. United States Department of Agriculture, Evaluation of a County Extension Program, ER&T - 115 (Federal Extension Service, U.S.D.A., Washington, D.C., 1959)

96. United States Department of Agriculture, Guidelines For County Extension Program Development, ER&T - 53 (Federal Extension Service, U.S.D.A., Washington, D.C., 1963)

97. United States Department of Agriculture, What the Workshops Say About Extension Program Planning, (Federal Extension Service, U.S.D.A., Washington, D.C.)

98. United States Department of Agriculture, "General Statement of Guiding Principles," Evaluation of County Extension Work, (Federal Extension Work, U.S.D.A., Washington, D.C., 1961)

99. United States Department of Agriculture, "Current County Situation," ER&T - 107, Evaluation of County Extension Work, (Federal Extension Service, U.S.D.A., Washington, D.C., 1961)

100. United States Department of Agriculture, "Organization and Process for Program Planning," ER&T - 95, Evaluation of County Extension Work, (Federal Extension Service, U.S.D.A., Washington, D.C., 1961).

101. United States Department of Agriculture, "The Planned County Extension Program," ER&T - 114, Evaluation of County Extension Work, (Federal Extension Service, U.S.D.A., Washington, D.C., 1961.

102. United States Department of Agriculture, "Annual County Extension Plan of Work and Teaching Plans," ER&T - 115, Evaluation of County Extension Work, (Federal Extension Service, U.S.D.A., Washington, D.C., 1961)

103. United States Department of Agriculture, "County Extension Program Action," ER&T - 34, Evaluation of County Extension Work (Federal Extension Service, U.S.D.A., Washington, D.C., 1960)

104. United States Department of Agriculture, "Accomplishments of the County Extension Program," ER&T - 117, Evaluation of County Extension Work, (Federal Extension Service, U.S.D.A., Washington, D.C., 1961)

105. Utz, Alan P., Jr., "Agent Performance in Programming," Journal of Cooperative Extension, Vol. III, (Fall, 1965), No.3, pp. 149 - 156.

106. Vandeberg, Gale, Course Syllabus: Program Planning in the Cooperative Extension Service, (University of Wisconsin, Madison, 1962).

107. Vines, C.A., "Who is Extension's Audience?", Extension Service Review, Vol. 31, (September 1960), pp 163

108. Warfield, Fanchon F., "Servicing Special-Interest Groups Through Workshops, Clinics, Schools and Short Courses," The Cooperative Extension Service, ed. Sanders, H.C., (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1966) pp. 161 - 166.

109. Warner, Kenneth F., "Visits," The Cooperative Extension Service, ed. Sanders, H.C., (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1966) pp. 115-121.

110. Watts, Lowell, Vines, C.A., & Parks, W. Robert, "Extension's Future," Journal of Cooperative Extension, Vol.I (Winter, 1963), No.4., pp. 239-246.

111. Webster's Seventh New Collegiate Dictionary, (G & C. Merriam Co., Springfield, Mass., 1967)

112. Wilson, Meredith & Gallup, Gladys, Extension Teaching Methods, Circular 495 (Federal Extension Service U.S.D.A., Washington, D.C., 1955)