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ABSTRACT

The report describes the Shared Process Evaluation System (SHAPES), a process analysis system designed to facilitate documenting, rationalizing, and evaluating community development projects. The evaluation process requires five steps. First, the project is described with respect to statements about the original problem situation and demographic conditions of the community prior to the project. Second, the Fields (the project actors) are identified and described. Third, Critical Incidents (events judged as essential to the continuation of the project) are identified and described. Fourth, the Fields are asked to identify and describe Critical Incidents according to a six-category Phase designation (pre-identification of needs, need identification, objective setting, planning, action, and assessment and monitoring of effects). Fifth, the data collected are plotted on descriptive matrices in which the three variables (Fields, Critical Incidents, and Phases) illustrate patterns of Field participation, patterns of shared change, and patterns of individual Field change; data may also be arranged in a time-line display of Critical Incidents. An appended case study describes a field test of SHAPES in a community development program in Williams, Arizona, and provides visual demonstrations of the matrices and time-line display of step five. (JR)

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# shapes

Shared Process Evaluation System

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# shapes

Shared Process Evaluation System\*

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A system for evaluating community development programs

developed at

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for

the Western Region Community Resource Development Committee

Extension Service, U.S. Department of Agriculture

April 1975

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## CONCEPTUAL BASIS FOR SHAPES

Whatever the setting, much of the process that takes place in community activities does not easily lend itself to systematic observation and analysis. Situations are uncontrolled and data are hard to collect at the time. The task of integrating the worker's experience, in order to acquire some understanding from it, is difficult even under the best of circumstances.

The system described in the following pages is a response to the need to develop a way of documenting, rationalizing and evaluating the process leading up to programs and other task oriented activities. This approach allows for the development and evaluation of intermediate goals, without waiting the accomplishment of end goals (products), to measure success. At the same time it provides a means of correlating the occurrence of such products with developmental activities.

Three assumptions provide the basis for the Shared Process Evaluation System (SHAPES).

1. Human activity related to need fulfillment can be described and broken into phases.
2. This activity takes place in a number of fields (consisting of individuals or groups) which have specific characteristics. These fields can and do operate independently of one another, but when they come in contact a potential for shared activity arises.
3. Whether this potential is achieved depends on the ability of the fields to match the phase of activity they are in, and to find commonality within that phase.

A process analysis of the activities shared by different fields, then, can be seen as an analysis of an interactive situation. SHAPES defines an interaction as functional if the potential for shared activities is achieved, and provides a method to analyse the process of interaction.

This analysis needs to result in a display which accomplishes two things:

- a) organizes a variety of activities into a coherent framework, where it is difficult or impossible to control various elements; and
- b) as a result, allows one to make judgements about the timing and nature of one's interventions to facilitate positive outcomes.

To achieve these two things, such a display must show the relative positions of various actors (fields) vis a vis one another (space), and do so over the period of the project (time).

Fields

The actors or fields in any situation can be classified in four different ways (see page 9 ). Although these classifications have different characteristics they are represented in any activity by one point of view and stance at any given time.

The fields are in a constant state of activity which is related, consciously or unconsciously, to need fulfillment.

Phases

This activity has been analysed in a number of different ways. The present SHAPE system uses a six phase analysis (see page 19) but is adaptable to the use of other analyses provided they actually reflect reality and the necessary instrumentation is carried out.

Activity is cyclical over time, one phase of activity arises out of another and flows into activity that follows. Each field, while active at all times, comes in contact with other fields only sporadically. When this happens potential for shared activity exists. However, it does not automatically take place. It is dependent upon the ability of the fields involved to match up. The assumption is that a developmental process takes place which, if successful, allows fields to share activity toward common objectives.

Critical Incidents

In order to trace the path of a project through time it is necessary to identify the important events (critical incidents) that occurred during its course. When this has been done it is possible to display the interaction of the fields and their positions relative to one another during the project by using a descriptive matrix (see page 30 ). The result is a series of stop-action pictures of the state of interaction between fields at different points in the process. When the pictures are assembled on a time line the whole process can be traced and, if necessary, specific outcomes or objectives which are achieved can be correlated with points on the time line.

## EVALUATION PROCESS

This evaluation system was developed for use in community development projects, but is also designed to be applicable to various types of shared activities which occur over time with a group of people. It can be used as a post facto evaluation of an entire project, as a diagnostic evaluation of part of a project or as a technique assisting people to analyze their shared perceptions about their progress as a group. This system can be used to test any theory which consists of reasonably definable and describable phases in an educative process. The process does not have to be linear. One of the benefits of this system is that it can be used to identify cyclical processes and patterns within an entire process.

The evaluation process requires five basic steps. This process is illustrated by the flow chart found on pages 4 and 5.

First, the project is uniquely described and data gathered which support this description. This description generally includes statements about the original problem situation and conditions of the community prior to the project, the overall goals of the project, the activities, and the general outcomes.

Second, the fields involved are identified and described. The description includes both the identity of the fields, code letters, and the unique characteristics of their involvement with the project.

Third, the field worker is interviewed and the Critical Incidents in the life of the project are identified and described. The description includes the activities which led up to it, the Critical Incident itself, and the activities and outcomes which followed it. If a product or outcome from one Critical Incident is used in another at a later time, this is also noted in the description. The Critical Incidents are then organized along a time-line. The field worker is then asked to provide data from which a Phase designation for each Critical Incident can be made.

Fourth, the fields are interviewed individually and asked to identify and describe Critical Incidents. Each field is then asked to assist with Phase designation for those incidents described as critical. This designation should reflect the point of view of that field regarding the activities occurring at that time.

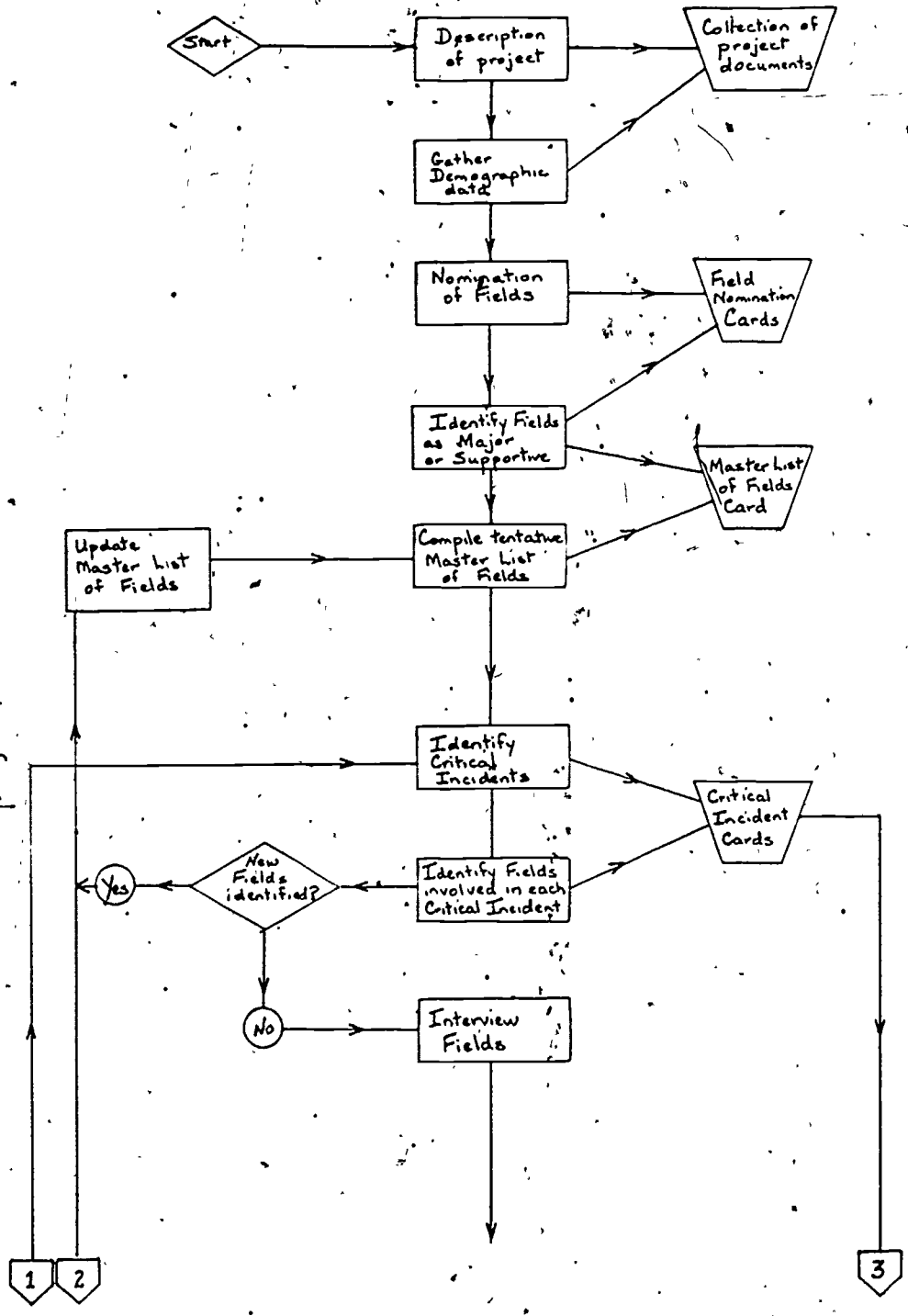
Fifth, the data collected are plotted on descriptive matrices. The three variables involved -- fields, Critical Incidents, and Phases -- can be plotted to assist three analyses: Patterns of Field participation (Matrix A); patterns of shared change (Matrix B); and patterns of individual field change (Matrix C).

# FLOW CHART of SHAPES

Step 1: Description of Project

Step 2: Nomination of Fields  
Field workers  
Evaluator

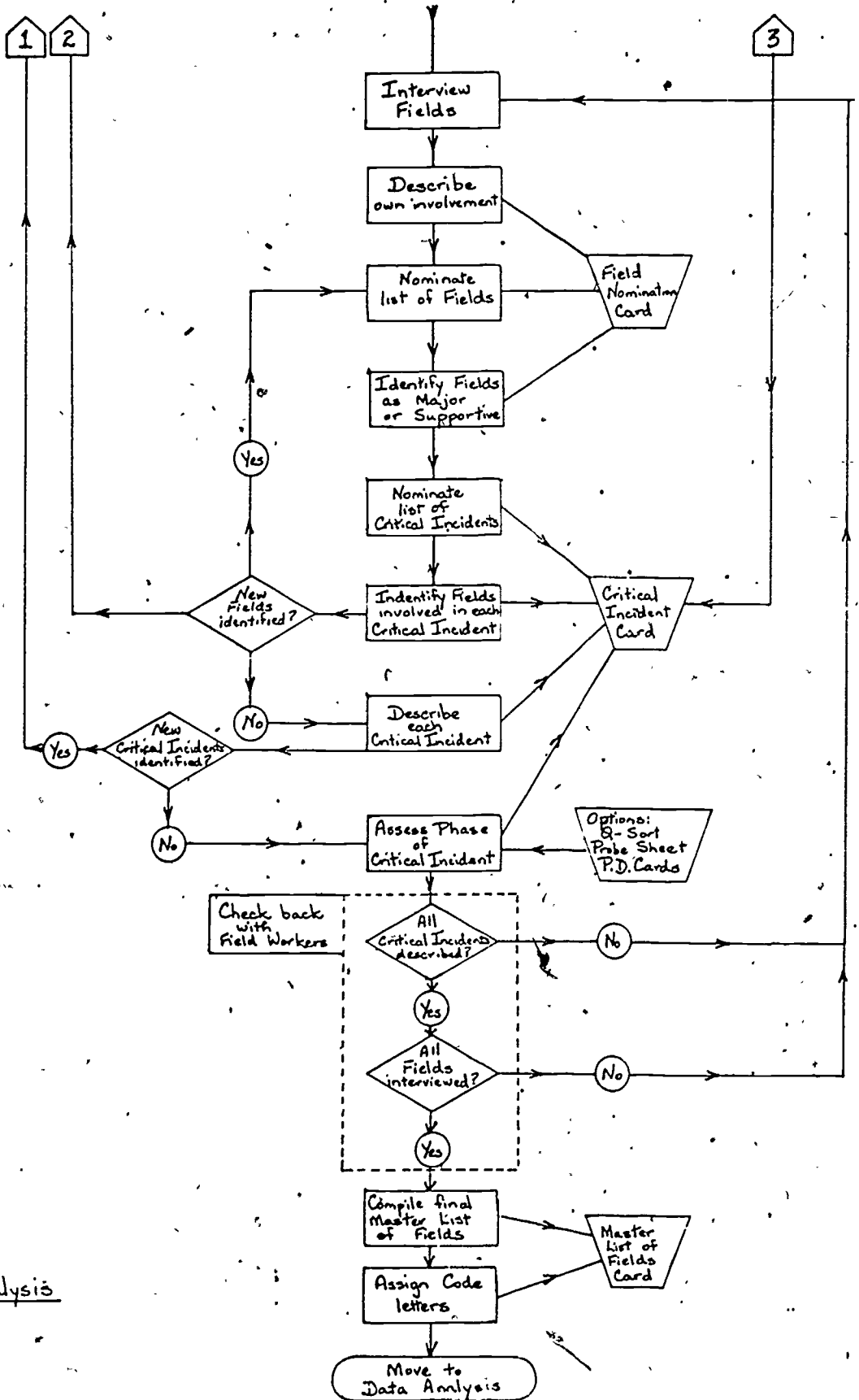
Step 3: Identification of Critical Incidents  
Field workers  
Evaluator





Step 4: Interview Fields

Evaluator  
Major Fields  
Group W  
Group A  
Group B  
Other Fields  
as feasible.



Step 5: Data Analysis

Evaluator

STEP I

GATHERING DESCRIPTIVE DATA

### DESCRIPTION OF PROJECT

Each project needs to be uniquely described. The initial description might include statements from the field workers about the original problem situation and conditions within the community, the overall goals of the project, the general relationship of the field workers to the project, the problem-solving processes used, the change orientation of the field workers, the change targets selected, the action goals selected, the ensuing events, and the general outcomes.

The materials used in describing a project may come from many sources, but might include minutes and records of meetings; newspaper accounts of the project; a personal description from a community observer such as newspaper/radio-TV personnel; demographic data; published material related to the project; descriptions of other events which occurred during the project and which were indirectly related to it, such as municipal elections, bond issues, city council events, etc. As one example of the kind of data which might be collected, a demographic data sheet has been provided. This was used in a southwestern U.S. town of approximately 3000 residents and would need to be changed to fit the community in which it was to be used.

This descriptive material is useful in constructing an overall time frame from the Critical Incidents and provides a general orientation to the entire project.



Project Code \_\_\_\_\_

Demographic Information

Respondents name & position \_\_\_\_\_ date \_\_\_\_\_

I Community name \_\_\_\_\_ Population \_\_\_\_\_

Population breakdown: white \_\_\_\_\_ % black \_\_\_\_\_ Mexican American \_\_\_\_\_ %

American Indian \_\_\_\_\_ % Oriental \_\_\_\_\_ % Puerto Rican \_\_\_\_\_ %

Age breakdown: under 24 \_\_\_\_\_ % 24-64 \_\_\_\_\_ % 65+ \_\_\_\_\_ %

II Size of Work Force \_\_\_\_\_ Unemployed \_\_\_\_\_ %

Employment: Agriculture \_\_\_\_\_ % Manufacturing \_\_\_\_\_ %

Public Employ \_\_\_\_\_ % Other \_\_\_\_\_ %

List major employers in the community \_\_\_\_\_

Median family income \$ \_\_\_\_\_

Less than \$2,000. \_\_\_\_\_ % \$2,000. - \$2,999. \_\_\_\_\_ %

\$3,000. - \$3,999. \_\_\_\_\_ % \$4,000. - \$9,999. \_\_\_\_\_ %

Over \$10,000. \_\_\_\_\_ %

Number of persons receiving aid of some kind \_\_\_\_\_

% of total population \_\_\_\_\_ % % of persons over 65 \_\_\_\_\_ %

III Briefly describe the form of local government \_\_\_\_\_

Voting patterns: Republican \_\_\_\_\_ % Democrat \_\_\_\_\_ % Other \_\_\_\_\_ %

Number of registered voters \_\_\_\_\_ Voted in last election \_\_\_\_\_ %

IV Briefly describe the health services available in the community \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

List private agencies: \_\_\_\_\_

\_\_\_\_\_

List State & Federal agencies represented in the community \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

List and indicate nearest major trading centres: \_\_\_\_\_

\_\_\_\_\_

Indicate type of public transportation available: \_\_\_\_\_

\_\_\_\_\_

Are there any unique characteristics of this community that would help us to understand it? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

THANK YOU.

STEP 2

"WHO WAS INVOLVED?"

### DEFINITION OF FIELDS

There are four categories of Fields: individuals, small homogenous groups, communities, and institutions.

An individual is considered to be a Field when operating within the process without constraints from a group. An individual can also be a component within another Field. When categorized as a part of another Field the individual may help develop the characteristics of that Field and accommodate to that Field in some way.

A small group is considered to be a Field when that group acts in concert within the process. This cohesiveness is a factor which allows for unity of action toward common goals.

A community is considered to be a Field when there is some sense of common identity for one reason or another. The individual members would have a super-ordinate goal which produces a strong binding force on the various individuals and groups within the community.

An institution is considered to be a Field when it can be defined as an actor in some situations and where it consciously moves toward the implementation of some goals in a consistent manner. In most cases, an institution will be represented by individuals who may or may not experience conflict between institutional and personal goals.

#### Major and Supportive Fields

As each Field is nominated, the nominator will be asked to designate it as a major Field or a supportive Field. A major Field is considered to be one which fulfills at least one of the following criteria:

- a. The field has been consistently and influentially involved in the project over a period of time. This criterion includes both influential participation and regularity and/or high frequency of participation.
- b. The field is seen as being essential to the success or failure of the project. Although such a field may intervene only once, that intervention is viewed as critical by other fields.

A supportive field is considered to be one which meets the following criterion: has been consistently involved in the project over a period of time, and is less influential.



## IDENTIFICATION OF FIELDS

The fields are identified in the following manner:

1. External knowledgeable are asked to identify the major internal knowledgeable. External knowledgeable are defined as those persons whose major activities occur outside the project being evaluated, and who have general knowledge of the community and project. Internal knowledgeable are defined as those persons who have participated in the project, and who would be expected to have detailed knowledge of the community and project.
2. The internal knowledgeable are asked to identify the fields involved in the project and to designate these as major fields or supportive fields.
3. The list of nominated fields is then compiled and rank ordered by number of major nominations. The fields are interviewed in descending order of importance. As each field is interviewed, at the end of each interview he/she is asked to make his/her own nominations and to designate these nominations as major fields or supportive fields. These resulting nominations are added to the compiled list and the updated list is used to choose the next person to be interviewed.
4. As the interviews progress; the major fields should be divided into four groups:
  - i) those receiving two or more major nominations from other major fields. These constitute the core or A group of fields.
  - ii) those receiving at least one major nomination from the A group. These constitute the B group of fields.
  - iii) those receiving major nominations from other sources. These constitute the O group of fields.
  - iv) field workers identified as major fields should be placed in a separate or W group of fields.
5. The interviewing process is terminated when all fields within the A, B, and W groups have been interviewed. As many of the O group are interviewed as time permits and supportive fields do not need to be interviewed.
6. From the field nomination cards an updated, compiled list of fields is kept as a tentative master list of fields. This list will change as a result of each interview but it is necessary to keep this updated list in order to determine when the interviewing process can be terminated.



7: A final master list of Fields is then compiled and a code assigned to each major Field as follows:

- a) All major Fields are given a code of two letters.
- b) The second letter indicates the Field grouping as follows:
  - W indicates Field workers;
  - A indicates the Core or A group;
  - B indicates the B group; and
  - O indicates the O group.
- c) The first letter is assigned within each of the four groups, beginning with A and proceeding in order through to Z.

Thus, the first Field worker would be assigned the code AW.

8. If a Field is identified as having acted both as an individual and as a part of a larger group or institutional Field, it is important to assign two separate codes, one for the individual Field and one for the group Field. If an individual is identified as having acted solely as a member of a group Field, only the Group needs to be assigned a code.
9. For the final analysis of data, only major Fields are plotted on the descriptive matrices.

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## INSTRUMENTS FOR FIELD IDENTIFICATION

Field Nomination Card

This card is used to gather nominations and information from each person interviewed. Nominations for major Fields and supportive Fields are recorded on the front of the card. Information regarding the involvement of the Field being interviewed is recorded on the back of the card. If the Field being interviewed has withdrawn from the project, it is useful to record the date and reason for withdrawal. (See page 13).

When all interviews have been completed and code letters assigned the nominations received by the interviewed Field from other Fields are recorded down the right side of the back of the card.

This card is also used to gather nominations from external and internal knowledgeable at the beginning of the Field identification process.

Front View

FIELD NOMINATION CARD

Project Code \_\_\_\_\_

Name of Respondent \_\_\_\_\_

Card \_\_\_\_\_ of \_\_\_\_\_ cards

Name of Interviewer \_\_\_\_\_

Name of Field	Group Affiliation	Field designation	
		Major	Supportive

Back View

1. What was the nature of your involvement in the project?

Code letter assigned \_\_\_\_\_

2. Were you a member of a committee?  
hold an office?

Nominated by	
Major	Supportive

3. When did you first become involved in the project?

4. What caused you to enter the project?

5. Are you still involved?

6. If you are not still involved, what caused you to end your involvement? When?

Master List of Fields Card

This card is used to record the compiled and continuously updated list of major fields. Several updated lists may need to be made before the interviewing process has been completed.

The final master list is completed at the end of the interviewing process. Code letters are assigned on completion of the final list.

Front View

MASTER LIST OF FIELDS CARD

Project Code \_\_\_\_\_

Card \_\_\_\_\_ of \_\_\_\_\_ cards

<u>Field Workers - Group W</u>		<u>Group B</u>		<u>Group O</u>	
Name of Field	ID	Name of Field	ID	Name of Field	ID
<u>Core Group A</u>					
Name of Field	ID				

Back View

<u>Core Group A</u>		<u>Group B</u>		<u>Group O</u>	
Name of Field	ID	Name of Field	ID	Name of Field	ID

STEP 3

"WHAT HAPPENED?"

## DEFINITION OF CRITICAL INCIDENT

An incident is defined as an observable human activity which is sufficiently well differentiated to permit description and inferences to be made by participants and observers. To be a Critical Incident the event must be judged as essential to the continuation of the project or as representing a choice point in the history of the project. The participant or observer should be able to describe what happened before the incident, what occurred during the incident, what the outcomes or products were, and what happened following the incident.

## IDENTIFICATION OF CRITICAL INCIDENTS

The Critical Incidents of a project are identified as follows:

1. A tentative list of Critical Incidents is developed by interviewing the major internal knowledgeable. This preliminary description should separate feelings and perceptions about the incident from the basic facts about it. The facts elicited should include:
  - (a) Time, date and place;
  - (b) Fields involved and their functions or roles;
  - (c) Factual description of what happened before, during and after the incident;
  - (d) Outcomes, decisions, or visible products of the incident; and
  - (e) Outcomes/products used before or during this incident, which were the result of a previous incident.
2. These data from each Critical Incident are recorded on a Critical Incident card.
3. These Critical Incident cards are then arranged along a time line.
4. This process is the same for each interviewed Field. If a Field identifies a Critical Incident which has already been identified, the new data is added to the Critical Incident card already created. If a new Critical Incident is identified, then a new Critical Incident card is created.

## INSTRUMENTS TO RECORD CRITICAL INCIDENTS

Critical Incident Card

As each new critical incident is identified by the respondent, a new card is used to describe that incident. The time, date and place are indicated in the upper right-hand corner; the name of the incident in the upper left-hand corner. A short factual description of the incident is obtained; and a list of the Fields involved.

As each Field interviewed designates a phase for this incident a note of the Field, the phase identified and the instrument used to make the phase designation is made on the back of the card. Note that not all the Fields identified as having been involved in a particular Critical Incident will identify the incident as critical from their point of view. However, each Field who does identify an incident as critical should be asked to designate a phase for that incident.

Front View

CRITICAL INCIDENT CARD

Project Code \_\_\_\_\_

Card \_\_\_\_ of \_\_\_\_ cards

Date \_\_\_\_\_

Name or title of Incident:

Short description:

Outcomes, decisions, or visible products:

Fields Involved	First Involvement?

Back View

ID of Fields Interviewed who viewed this as a Critical Incident	Did this Field feel constrained by corporate membership?	Phase Designation	Instrument used



STEP 4

"IN WHAT CONTEXT SHALL WE VIEW WHAT HAPPENED?"

## THEORETICAL PHASE MODEL

We assume that most change processes can be viewed as occurring in a series of phases of human activity. Each practitioner and researcher has a favorite model which describes observable activities and translates these activities into an abstract conceptualization or generalization of the process. The theoretical model may assume a series of developmental stages which are hierarchical in nature; a series of recurring cycles or patterns of activity which are epigenetic in nature; or a set of activities which can occur in sequence, in parallel, or in a multiple combination of some type.

The SHAPES system demands only that the phases be describable in such a manner that the distinctions between phases are relatively clear. Evaluators may therefore replace any of the phases described in this document with their own phases, descriptions, and instruments.

The model we have chosen to consider is one which describes the community development process from the point of view of a community change agent. The model was developed over several years of practical observation and experience.

The model presently has six phases. The first is a preliminary phase which describes a set of conditions rather than a set of activities. The Pre-Identification of Needs phase is a reactive, non-change phase during which people react to some condition or situation within their community, but make no shared attempt to alter the situation.

The next three phases (Need Identification, Objective Setting, Planning) are basically thinking phases. They involve problem-solving and decision-making without the actual implementation of any action steps designed to change the state of affairs within the community. These activities are shared ones and require that community people come together to act in concert. The activities may involve action steps necessitated by the activity involved in each phase, but their overall effect is that they are preliminary to the main action phase. We assume that these three phases occur in recurring cycles, without a hierarchical sequence and, further, that all three phases must be resolved prior to the major action phase.

The next phase constitutes the change or Action phase in which the intended change or action step is implemented as a shared effort to effect change within the community.

The final phase describes an Evaluative or Judging phase which follows and/or accompanies the Action phase. This phase is not reactive in the sense of being a static condition, but rather is reactive in a dynamic ongoing way. When the Evaluative phase accompanies the Action phase it involves continuous reassessment of the action steps leading to adjustment. When it follows the Action phase, it involves comparing the new set of conditions with the old and measuring progress made toward the intended goal.

A brief summary of the model follows:

## PHASES IN COMMUNITY DEVELOPMENT MODEL

### Phase 1: Pre-identification of Needs

The Fields are acting more or less randomly in response to what is happening in the community. There is much reactive testing behavior which is often linked to overt problems and is often assumed to be caused by those problems. This assumption may turn out to be inaccurate on close inspection.

### Phase 2: Need Identification

The Fields begin to consciously identify needs and problems from their own point of view. These perspectives are shared with other Fields. Effective sharing means that the Fields are able to reach some agreement on what the problems and/or needs actually are.

### Phase 3: Objective Setting

Once the problems and/or needs have been identified, the potential arises for setting objectives. General objectives might determine directions to be taken in planning. Specific objectives might determine potential solutions or strategies to be used in pursuing these directions.

### Phase 4: Planning

The actual planning for action takes place. The action plan grows out of the directions, strategies and potential solutions. Planning activities may include obtaining the co-operation of new Fields, consideration of alternative plans, assessment of resources required for the proposed action, commitment of those resources on the part of Fields controlling them, publicity and other campaigns to solicit support of the larger community, and final commitment of the Fields involved to the agreed plan of action.

### Phase 5: Action

The planned activity occurs. This phase may involve the delegation of authority to one or two Fields to manage the planned activity. These Fields are then responsible to monitor the day-to-day activities and problems, to make adjustments as seems necessary, and to report back to the planning Fields on progress made.

### Phase 6: Assessment and Monitoring of Effects

The assessment of effects of the planned activity are reported back to the Fields both during and following the time of the planned activity.

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## INSTRUMENTS USED IN PHASE IDENTIFICATION

Three instruments were designed for use in identifying Phases: a Q-sort of 30 cards; a Probe Sheet; and a set of Phase Description Cards. Each instrument describes the behaviors and/or activities which might be observed during each of the six Phases of the community development model.

### Q-Sort

This consists of 30 statements, five for each Phase of the model. Each statement is placed on a card. All 30 cards can be used or a sub-set of 12 cards, 2 for each Phase, may be used. The cards are shuffled and given to the respondent who is asked to do two sorts on them:

- Step 1. All the cards are sorted into two piles: those which describe what was happening and those which do not describe what was happening.
- Step 2. The cards sorted into the pile of those things which describe what was happening was sorted a second time. This time they are sorted into three piles: (A) those which are most like what was happening (at least 1 card and not more than 3 cards); (B) those which are somewhat similar to what was happening (at least 2 cards and not more than 5 cards); and (C) those which are least like what was happening (the remainder).

The respondent may do this sort in any manner which will result in the final set of three piles.

The evaluator then assigns a score on the following basis:

- (a) If there is a majority in pile A, that Phase is designated as the major Phase. The minor Phase is assigned as the plurality in pile B.
- (b) If there is no majority in pile A, then piles A and B are combined. If there is a majority in the combined set and that majority is represented by at least one card from pile A, then that Phase is designated as the major Phase. The minor Phase is assigned from the next highest plurality (there should be at least one card for this designation).
- (c) If a major Phase cannot be designated an alternate method for identifying the phase is used.

Note: The scoring system is represented by the flow chart diagram on page 23.

## Q-SORT, STATEMENTS

21.

<u>Phase</u>	<u>Statement</u>
1*	Nobody was listening to anyone else
1*	Nothing was happening
1	There was quite a bit of outside pressure to do something
1	Nobody wanted to come to grips with anything
1	There was a lot of arguing
2*	We began to see several problems where before we had only seen one
2*	We looked at those things in our community that needed changing
2	Everybody's opinions were considered
2	We looked at the community to see what it was really like
2	We were trying to understand the causes of our problems
3*	Particular things we wanted to do became clear
3*	We agreed on what our focus should be
3	We knew we could move on when everyone had agreed
3	We agreed on where we wanted to go
3	We set out some general ideas of what we wanted to have happen
4*	Many people helped plan the activities
4*	We spent a lot of time planning the details of our project
4	We looked at different activities which might meet our goals
4	We made sure we had the resources we needed to get the project finished
4	We developed some strategies for dealing with unforeseen problems
5*	Everybody helped with the activities
5*	Things were really moving
5	Once things got started we had to handle a lot of minor problems
5	We were carrying out our commitment
5	Part of the project was keeping in touch with everyone involved
6*	It was satisfying to know that we had done a good job
6*	We talked about what had happened as a result of our project
6	You could see that our project had changed things in the community
6	Things sure were different
6	Later on we were able to draw some conclusions about our project

\* These cards may be used as a small deck of Q-sort cards

NOTE: All coding should go on the back of each card

29

# SUGGESTED LAYOUT

## for Q-SORT

These cards  
describe  
what was  
happening

These cards  
do not  
describe  
what was  
happening

### Step 1

Most like  
• what was  
happening

At least 1 card.  
No more than  
3 cards.

Somewhat  
similar to  
what was  
happening

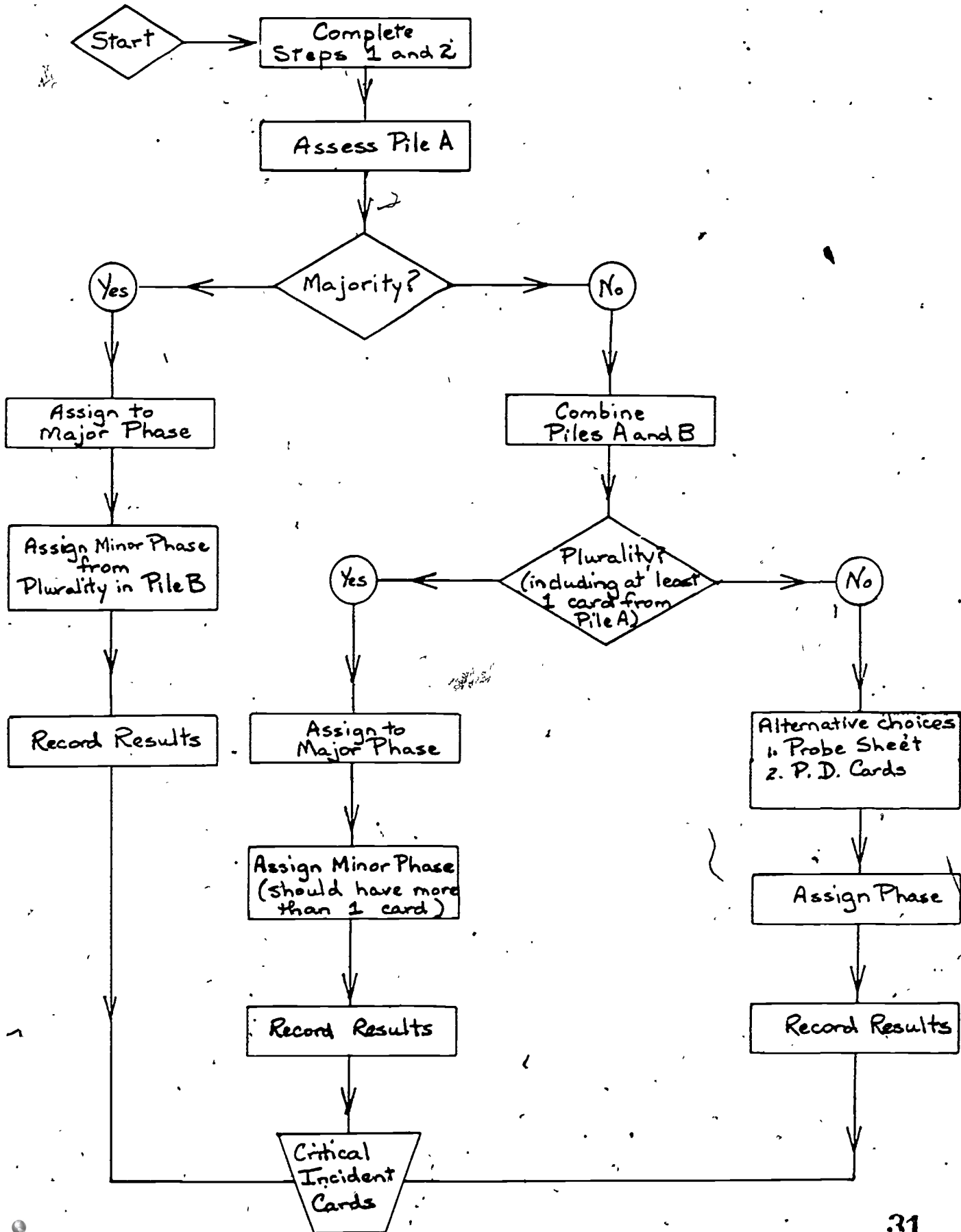
At least 1 card.  
No more than  
5 cards.

Least like  
what was  
happening

The remainder.

### Step 2

# Scoring Procedure for Q-Sort



### Probe Sheet

The probe sheet consists of a series of questions which were developed from the statements used on the Q-sort cards. These questions may be used as probe questions by the evaluator at those times when the respondent's description of the Critical Incident is a clear description of one particular Phase. To avoid any personal bias the evaluator might wish to ask at least one additional question from the Phases that precede and follow the Phase felt to be described.

Each probe sheet should be used for only one Critical Incident and one respondent. These should be indicated in the upper right-hand corner. The questions which are answered in the affirmative should be marked in the box provided. The evaluator should also indicate the questions asked which received a negative answer by writing "No" beside the box.



## PROBE SHEET

Critical Incident \_\_\_\_\_

Respondent \_\_\_\_\_

- Was there any PRESSURE FROM OUTSIDE people/agencies?
- Were people LISTENING to each other?
- Did it seem as if NOTHING WAS HAPPENING?
- Were people AVOIDING coming to grips with things?
- Was there a lot of ARGUING?
  
- Did people look at the COMMUNITY to see what it was REALLY LIKE?
- Did you look at things in the community that NEEDED CHANGING?
- Did you begin to UNDERSTAND THE CAUSES of your problems?
- Did you begin to SEE MORE PROBLEMS than you had seen at first?
- Was EVERYBODY'S OPINION considered?
  
- Did you set out some general ideas of WHAT YOU WANTED TO HAPPEN?
- Did you AGREE ON A FOCUS?
- Did you AGREE ON WHERE YOU WANTED TO GO?
- Was it CLEAR YOU COULD MOVE ON when everybody has agreed?
- Did the things you WANTED TO DO BECOME CLEAR?
  
- Did you look at DIFFERENT ACTIVITIES which might meet your goals?
- Did you assess the RESOURCES NEEDED to get the project finished?
- Were the ACTIVITIES PLANNED with many people helping?
- Did you spend time planning the DETAILS OF THE PROJECT?
- Did you DEVELOP STRATEGIES for dealing with unforeseen problems?
  
- Did you keep EVERYONE IN TOUCH with the project?
- Did many people HELP WITH THE ACTIVITIES?
- Did you have a lot of MINOR PROBLEMS to handle after starting?
- Did you feel that this was CARRYING OUT YOUR COMMITMENT?
- Did you feel that THINGS WERE REALLY MOVING?
  
- Looking back, WERE THINGS DIFFERENT?
- Did you TALK ABOUT THE RESULTS of the project?
- Were you feeling SATISFIED AT THE RESULTS of the job?
- Had the project CHANGED THINGS IN THE COMMUNITY?
- Did you DRAW CONCLUSIONS about the project?

Phase Description Cards (PDC)

This instrument consists of six cards, each of which describes the activities, feelings and behaviors of community people during one of the six Phases of the community development model. The evaluator may ask the respondent to read all six cards and select the most appropriate one; or hand the respondent the card which appears to be most descriptive and ask if that description fits the incident being discussed.

## PHASE DESCRIPTION STATEMENTS

Phase 1\*

Our group was responding more or less randomly to what was happening in the community. We reacted to what we assumed were our problems. There seemed to be much time spent in defending our positions, avoiding confrontations, accepting opinions uncritically, not following-up on ideas or agreements, and not getting involved. Energy seemed to be spread out and disorganized.

Phase 2

We began consciously to identify our needs and problems from our own point of view. We shared these with other groups and sought out their points of view. In this way we got different views of the problems and learned who agreed and who disagreed with us. We began to trust each other more and to work as a team. There appeared to be a great deal of negotiating and consulting within the community. Energy still appeared disorganized but we were making attempts to focus it on the problem.

Phase 3

The group was engaged in establishing directions, working out strategies, and setting goals which we hoped would meet our needs and solve our problems. We had disagreements about things but seemed to be able to work them out most of the time. We did not spend much time setting goals because we were in a hurry to move on to more important things. There appeared to be a good deal of collaborating, co-operating and compromising among various community groups. Energy was now organized and unified as we focused on the ultimate solution. We felt a sense of urgency to get moving.

\* All coding should go on the back of the cards. Do not indicate Phase on front of cards.

#### Phase 4

Our group was planning for activities which would solve our problems. We considered alternative activities and agreed on projects. We worked to obtain the co-operation of other community and outside groups. We decided what we would need for our project and we obtained consent to use these resources from those who controlled them. We publicized our activity. When we had finalized our plans we found that we were committed to the project. Several specialized groups became involved at this time. Energy seemed to increase as we moved toward the beginning of our planned activity and appeared to be more unified and focused than ever.

#### Phase 5

The planned activities were underway. Our group delegated the authority to manage these activities to one or two individuals or a small group. These people were responsible for administering the plan, monitoring the day-to-day problems which arose, and making on-the-spot adjustments as seemed necessary. They kept all of us informed about the progress of the project and called us in for consultation whenever necessary. There appeared to be a great deal of active response to our activity. Energy seemed to be concentrated in moving the project along.

#### Phase 6

Our group assessed the effects of our planned activities. We reported back the results to other interested groups in the community. We were particularly interested in whether the project had met our objectives and solved our problems, and in the impact (sometimes unexpected). There appeared to be a purposefulness in what we were doing. We could see things that had been left undone but there was a sense of having completed something.

STEP 5

POSSIBLE ANALYSES OF DATA

## POSSIBLE ANALYSES OF DATA

There are two steps in analyzing the data.

Step 1. Ordering and displaying the data.

Step 2. Using the displays to answer evaluative questions. These questions can focus both on the process which took place and on the resultant products.

## STEP 1: ORDERING AND DISPLAYING THE DATA

We have found four visual displays to be useful in ordering the data. These are:

1. Patterns of Field Participation (Matrix A).
2. Patterns of Shared Change (Matrix B).
3. Patterns of Individual Change (Matrix C).
4. Time-Line Display of Critical Incidents.

### Matrix A: Patterns of Field Participation

The purpose of this matrix is to display the Critical Incident in each Phase by Field. To do this we form a matrix which has a row for each Field and a column for each Phase. Into the appropriate resulting squares we enter the relevant Critical Incident numbers.

Example 1.

MATRIX A  
PATTERNS OF FIELD PARTICIPATION

Enter Critical Incidents in appropriate cells of matrix

Phases Fields	Pre-identification of Needs	Need Identification	Objective Setting	Planning	Action	Assessment and Replanning
Field Worker AW	1, 2	3				
Mayor BA	1, 2	3				
Gas Station Operator BB		3				
etc.						

In our example the field worker and the mayor have both identified the first two incidents as critical and representative of the Pre-identification of Needs Phase. Since there is no plot for the gas station operator he was either not present during these incidents or did not judge them to be critical. All three Fields judged the third incident as critical and representative of the Need Assessment Phase. This process is continued until all of the Critical Incidents have been plotted for each Field. The matrix now indicates how many and which Fields are involved in each Phase of the activity. This display tells us who was involved and what happened but it does not tell us why it happened.

The information about who is involved at what Phases may assist the field worker in identifying weak spots in the ongoing activities. It could also be used to assist the field workers to understand what is occurring as a result of their own patterns of participation.

It may be advantageous to combine similar Fields for this matrix. For example, all field workers from one agency could be combined as one Field; all community citizens serving on the city council could be combined as one if this seems appropriate; and so on.

MATRIX A

PATTERNS OF FIELD PARTICIPATION

Enter Critical Incidents in appropriate cells of matrix

Phases Fields	Pre-Identification of Needs	Need Identification	Objective Setting	Planning	Action	Assessment and Replanning



## Matrix B: Patterns of Shared Change

The purpose of this matrix is to display the Field in each Phase by Critical Incident. To do this we form a matrix which has a row for each Critical Incident and a column for each Phase. Into the appropriate resulting squares we enter the relevant Field codes.

Example 2.

MATRIX B  
PATTERNS OF SHARED CHANGE

Enter Field codes in appropriate cells of matrix

Phases Critical Incidents	Pre-identification of Needs	Need Identification	Objective Setting	Planning	Action	Assessment and Replanning
1.	AW BA					
2.	AW BA					
3.		AW BA BB				
4. etc.						

In example 2 we have plotted the same data as in the first example. The code letters for AW and BA are placed in the square formed by Critical Incident 1 and the Pre-Identification of Needs Phase, and so on.

When completed the matrix indicates a pattern of progress through the Phases of the community development model. If progress is linear and sequential the pattern should move from upper left to lower right. If progress is cyclical the pattern should move in wave fashion from upper left to lower right. If one Field moves into Phase 1 and in doing so, moves away from the major group of Fields, the potential for conflict increases. A Field in this position is liable to leave the project for negative reasons or to create conflict within the project.

The patterns derived from this matrix are a useful diagnostic tool for both the field workers and the community people. A static pattern may indicate the need for some catalytic intervention. A pattern which moves too quickly to an Action Phase may indicate that not enough time or thought has been given over to problem-solving or decision-making. If the Fields do not move together from one phase to the next, this may indicate that activity sharing is minimal.

This matrix may also be expanded to include a brief description of each Critical Incident and of the outcomes, decisions, or visible products of that incident.

MATRIX B

PATTERNS OF SHARED CHANGE

Enter Field codes in appropriate cells of matrix

Phases  Critical Incidents	Pre-Identification of Needs	Need Identification	Objective Setting	Planning	Action	Assessment and Replanning
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						

### Matrix C: Patterns of Individual Change

The purpose of this matrix is to display the Phase of each Critical Incident by Fields. To do this we form a matrix which has a row for each Critical Incident and a column for each Field. Into the appropriate resulting squares we enter the relevant Phase designation.

#### Example 3.

MATRIX C  
PATTERNS OF INDIVIDUAL CHANGE

Enter Phase designations in appropriate cells of matrix

Critical Incidents \ Fields	Fields					
	AW	BA	BB	etc.		
1.	Pre-ID	Pre-ID				
2.	Pre-ID	Pre-ID				
3.	Need Assess.	Need Assess.	Need Assess.			
4. etc.						

Again the same data have been used. Field AW, during Critical Incident 1, judged it to be in the Pre-Identification of Needs Phase. All three Fields judged Critical Incident 3 to be in the Need Assessment Phase.

This process is repeated for all the Critical Incidents assigned Phase designations by each individual Field. It may be appropriate to group some Fields with common characteristics for this matrix.

When completed the matrix indicates a pattern of individual progress throughout the project. If an individual remains static in one phase, this will be indicated as a sequence of repetitions of that phase. If an individual proceeds in a highly individualistic pattern which is not shared by other Fields, the pattern will be indicated down the column for that Field. It is probable that field workers have patterns which are unique.

This matrix yields less information about the shared aspects of the process but does indicate how individual Fields characteristically behave when involved in shared activities.

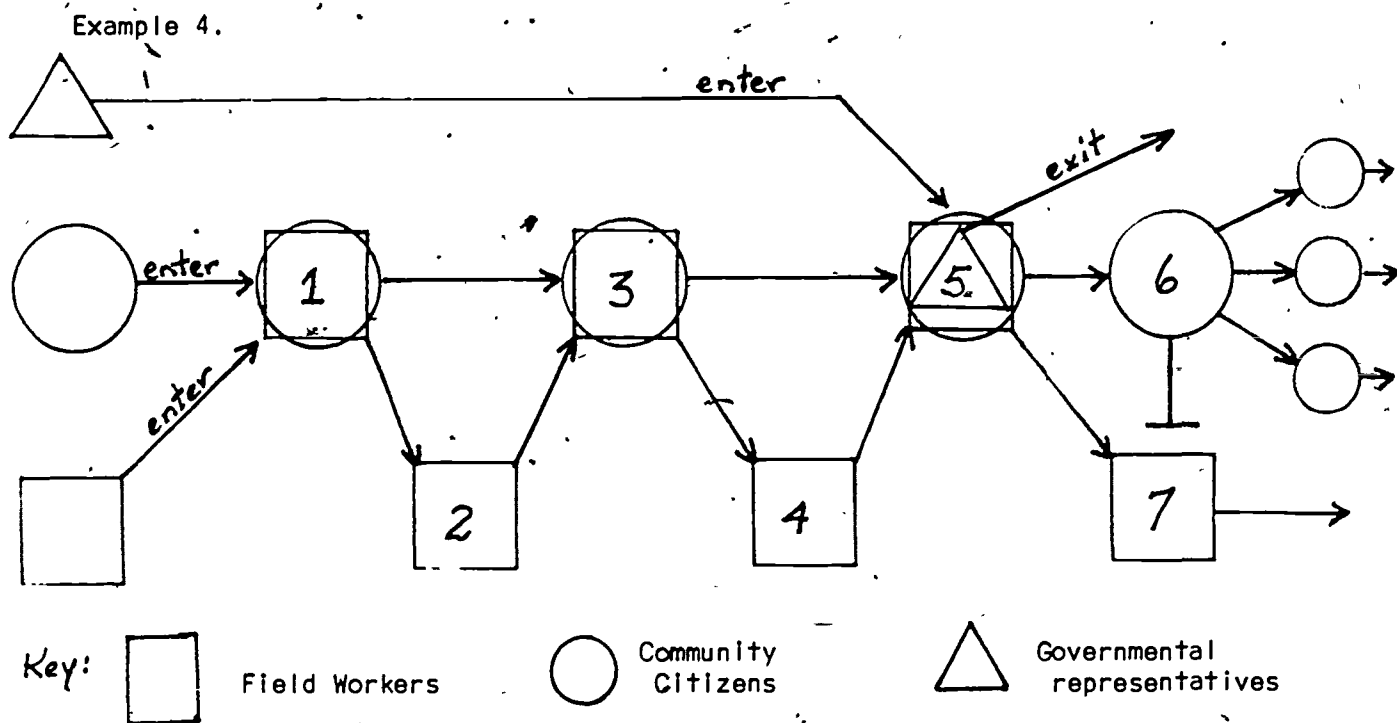
PATTERNS OF INDIVIDUAL CHANGE

Enter Phase designations in appropriate cells of matrix

Fields Critical Incidents							
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							

### Time-Line Display of Critical Incidents

The purpose of this display is to indicate the amount of shared perceptions about which incidents are critical. To do this we draw a time line along one side of the page and mark the dates of the Critical Incidents along it. The Fields are grouped on the basis of common characteristics within the project and each group is represented by a different geometric shape. Those incidents which are viewed as critical by several groups of Fields are drawn as a set of coinciding shapes. Those which are viewed as critical by only one group of Fields are represented by the geometric shape of that Field. When all the Critical Incidents have been drawn the shapes are connected by a series of arrows.



In example 4, three groups of Fields are represented. The field workers and community citizens share two Critical Incidents (1 and 3). In our experience these are usually community meetings. Between these two incidents and following Critical Incident 3, the field workers have identified two Critical Incidents (2 and 4) which are not shared. These are usually ongoing administrative activities related to the community meetings. Critical Incident 5 is shared by three groups of Fields. This might be a meeting during which the community citizens presented a funding request before the governmental representatives. Immediately following this incident the governmental Field withdrew from the project. At the same time, the community Fields were involved in a Critical Incident (6) which resulted in the formation of three smaller groups. This incident was not shared by the field workers who have identified another Critical Incident (7) which occurred at the same time but which was not identified as critical by the community citizens.

The conflict presented by two sets of views about Critical Incidents six and seven appear to occur within a project from time to time. The reason for the conflict is unclear but that fact that it occurs may provide important data to the field worker.

## EVALUATIVE QUESTIONS

Our primary objective was to develop an evaluative system which could be used, by any observer with a minimal level of training, to examine the community development process. We were most interested in the point of view of the field worker and, therefore, our evaluative questions should reflect this concern.

Some general questions might be:

1. Are the outcomes to date satisfactory? If not, what alternative actions could be taken to alter the situation? By whom?
2. Is the pattern of change displayed consistent with the progress expected? If not, what needs to be changed, the patterns? The expectations? What interventions might be useful?
3. Is the project moving toward the stated objectives of the field worker? Of the community? If not, what needs changing, the direction? The objectives?
4. Is the involvement of the field worker consistent with expectations? If not, what actions need to be taken?
5. Is the involvement of other fields consistent with expectations? If not, what actions need to be taken?
6. Are there fields not involved who need to become involved? How? Are there fields involved who should not be involved? What can be done about it?
7. Is the project viable on present terms? If not, what changes are necessary?
8. Do fields appear to be sharing in the phase activity? Are they moving more or less together through the phases? If not, what can be done about it?
9. Are some fields involved in only one phase of activity? Is this appropriate? If not, what can be done about it?

We have experimented with using this system on at least three different levels. Each level provides different opportunities for evaluation, different outputs, and the answers to different questions. These three levels are:

Level 1: The process can be used to provide an analysis from the personal point of view of the field worker. The field worker can do the evaluation himself, with a supervisor, or with a small group of community people who are not necessarily selected on the basis of involvement or influence within the project.

Level 2(a): The process can be used with influential fields in the project. The field worker, or outside interviewers, could use only those evaluative activities which involve nomination of fields, without gathering any information about Critical Incidents. On completion of the interview process, the fields in groups A, B and O and the supportive fields would have been identified.

2(b): Once groups A, B and O have been identified, any of these fields can be asked to participate in an evaluative process for any Critical Incident, any portion of the process, or for the entire project. As more and more major fields are involved in this process, the information becomes more complete, more accurate, and has fewer personal biases.

Level 3: The entire evaluative system can be carried out within the community. This would probably be done as a post facto evaluation of the project.

The following three pages present a summary of the three different levels and the advantages and disadvantages of each.

Questions of interest	Level 1	Level 2		Level 3
		2(a): Fields	2(b): Critical Incidents	
Who provides the data?	Field worker alone or with some community people (not selected as to influence or involvement in project)	Field worker All Involved Fields.	Field worker Selected Fields	Field worker All major Fields Some supportive Fields
From what source?	Personal records Personal recall Community opinions	Mutual nomination process by Fields	Community records Recall of select Fields	Cumulative records Recall of all major Fields
Steps involved?	Record objectives Record major Fields Assign code letters Record C.I.'s and identify Fields involved. Designate phase for each C.I. and for each Field involved on basis of personal judgement Order and display data	Nominate Fields List in order of influence Interview Fields Record Field nominations Update master list of Fields Terminate when all Fields interviewed Assign code letters and Field groups	Select Fields to be interviewed Identify C.I.'s and Fields involved Interview selected Fields, record descriptions and phase designations Order and display data.	Carry out all steps in evaluation procedure
Quality of data (Reliability) Completeness? Accuracy? Bias	Incomplete Potentially low High personal bias	Complete for Fields High Correction provided	Completeness determined by extent of inquiry Moderate to high Correction provided	Complete High Correction provided
At what cost? Co-operation Time Energy Money Skills	None required Low Low Low Minimal training for field worker	Full co-operation of community Moderate Moderate Moderately low Minimal training for interviewers	Co-operation of selected Fields Moderate Moderate Moderately low Minimal training for select Fields	Full co-operation of community Higher Higher Moderate Minimal training for interviewers



Questions of Interest	Level 2			Level 3
	Level 1	2(a): Fields	2(b): Critical Incidents	
At what time in the project?	At any time and as often as appropriate	Needs to be done only once at some time after initial phases (1, 2, and 3)	As often as seems appropriate after groups A, B and O are identified	Probably done only once on termination of project or following Action phase
For what purpose?	To diagnose various stages of process To determine need for special interventions To assess role of field worker in process To assess progress toward stated objectives	To determine who are most influential Fields To assess communication links between field worker, groups A, B and O	To determine extent of shared process To determine need for special interventions To assess progress toward stated objectives	To determine extent of shared activity To determine patterns of participation To determine unique characteristics of Fields To assess role of field worker in process To relate outcomes to process
Use of outside evaluator or supervisor	Useful to do with supervisor May be more objective	Useful to use outside interviewers	Can be done but not necessary	Useful to use an outside evaluator May be more objective
Function of data Feedback	To assist field worker to understand role within process Low reliability of data precludes feedback to other Fields To assist in modification of activities and/or objectives	Useful for groups A and B. May help these Fields develop awareness of other Fields and improve lines of communication	Would increase awareness about process and about potential conflicts within project Would assist in modification of activities and/or objectives Useful for all Fields	Feedback essential for field worker Useful for community Fields to increase understanding and awareness of change process experienced To determine if objectives were met by process

Questions of Interest	Level 1	Level 2 2(a): Fields	Level 2 2(b): Critical Incidents	Level 3
Focus of evaluation	Formative	Summative	Formative and/or summative	Summative
Replicability (Validity) (Note: these are assumptions based on limited field tests)	Low when done immediately after Critical Incident Increases after short delay following Critical Incident Increases to optimum when delayed beyond end of project to maximum; then decreases	Moderately high for Field identification	Low when carried out while project is still in progress Higher when delayed beyond time of Critical Incident	High for period of time following termination of project. After that time validity decreases

# *shapes*

Shared Process Evaluation System

CASE STUDY

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Conducted at Williams, Arizona

with the co-operation of

The Cooperative Extension Service of Arizona

December 1974

JE004136

I N D E X



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## USE OF MATERIAL

One of the first field tests of the Shared Process Evaluation System (SHAPES) was made in Williams, Arizona in December, 1974. The descriptive data and pre-arranged interviews were organized by the community development professionals of the Cooperative Extension Service. Interviewing was done initially by Dr. Lynn Davie with the extension agents in attendance and later, since this was intended to be a training opportunity, by the agents themselves.

An initial project history and other supporting documentation were collected from the agents. Interviews with Fields were conducted using the Field Nomination cards and Critical Incident cards to collect and record data. Phase identification was made by having Fields throw the Q-sort or a shortened form of the Q-sort and by using the Probe Sheet and Phase Description cards.

The data collected were plotted and displayed on the three matrices and the Critical Incidents were plotted visually along a time-line. The visual displays are attached.

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NOTE: The authors wish to acknowledge the vital contributions made by Clarence Edmond, Ed Parmee, Elton Moore, and Bill Coffey of the Cooperative Extension Service of Arizona, who provided the report entitled, "Williams, Arizona -- A Town That Is Doing Things", and who assisted in organizing and conducting the field test of SHAPES. Because of time constraints, this case study and summary report were edited and printed before the extension agents could proof-read the copy. The authors, therefore, accept full responsibility for any errors or omissions to be found in these pages.

WILLIAMS, ARIZONA -- A TOWN THAT IS DOING THINGS

After years of citizen apathy and slow progress, Williams, a community of 2,400 people began a series of events in the spring of 1971 which has caused a rapid change in community attitude and progress.

In April of 1971, after hearing about Extension Service assistance in other communities, City Manager Robert Sharp contacted County Agent Bill Brechan to see if Extension could help Williams. The county agent contacted the Community Development specialist, and the county agent visited with Robert Sharp. A date for a town meeting was set up. Very few people appeared for this first meeting, but at a second meeting with Eldon Moore, Ed Parmee, and Jim Williams of the Community Development Section, a large group of townspeople appeared. Although they exhibited genuine interest in their town, they felt that nothing could be done. There had been meetings in the past but no follow-up occurred. The community development specialists outlined a series of continuous steps. The community development specialists would work with the town in developing a community resource inventory (including human resources), and additional assistance and training as needed.

Based upon this success, the townspeople became interested in what people thought of their town. The CD team, working with the local people, developed an attitude survey questionnaire which would be given to all persons in town who were of high school age or over. On February 29, about 80 people met with the community development specialists for a short period of training, and then the people broke into groups and hand carried the questionnaires to all parts of the city. The next day, the questionnaires were picked up by the same teams, and for a few days mop-up work continued. The results of this survey were published in the newspaper on March 16.

Over 90% of the people responded to the survey. This excellent response was a crucial factor in stimulating enthusiasm and energies of the people in Williams. The town had moved from an inactive community to one of high enthusiasm and a desire to get things done.

Based upon the change in attitude of the community and its desire to improve itself, the Extension team felt that a meeting of the State Rural Development Committee in Williams was needed. At the request of the townspeople, the State RDC agreed to hold its 12th meeting with the communities in Williams on March 21, 1972. At this all-day meeting, the townspeople outlined their major problems in housing, water, sewers, sanitary landfill, environmental improvement, health services, jobs, recreation, planning, communications, and others. State RDC members were impressed by the attitude and progress exhibited by the people. As a result, many agreements for community help were made between the townspeople and the state and federal agency representatives on this committee.

Tentative agreements were made to help with beautification, water, sewers, and industrial development, plus others.

Soon after this, a new sawmill employing about 90 persons decided to move to Williams after hearing of the town's interest and activities from Clarence Edmond of the Community Development Section.

At the request of the community, the Extension team held classes in leadership and communications in May and June, 1972. In both cases, citizens taking the training felt that the training sessions had been too short; and in both cases they were very pleased with the type of training received.

Following is a brief list of the progress which followed these important early accomplishments.

Based upon the strong preferences of the community as shown in the attitude survey, the town decided to have a bond election to obtain funds for improving the water and sewer systems, and developing a sanitary landfill. This issue passed with a 96.7% yes vote. By this vote, the citizens showed other funding agencies its intense interest in correcting its water and sewer problems and in developing a sanitary landfill.

The city used \$160,000 of its bond issue for its water improvement project. Helping with this will be funds from the Soil Conservation Service and the Four Corners Commission. The Game and Fish Department is also interested. The water projects will include construction of a one million gallon tank, sealing of a leaking lake by June, 1974, and improving water lines.

Of the total of \$170,000 needed, \$80,000 will come from the bond issue for sewer improvement. Other sources of funds include grants from the Environmental Protection Agency, Farmers Home Administration, and the State Health Department. Some of the sewer system is now in operation, while all of the system is expected to be completed by December 15, 1973.

The city used \$20,000 of the bond issue for the sanitary landfill. Additional funds were received from the Four Corners Commission and Farmers Home Administration. Forest Service furnished the land, and the county will construct the road. This landfill will be in operation as soon as the road is finished.

A 701 planning grant of \$8,000 was received through the State Department of Economic Planning and Development. The city matched \$4,000 to develop a comprehensive plan. As part of this, a community prospectus was developed by DEPAD. The 701 plan now in process is being developed with time donated by the Northern Arizona Council of Governments.

The Rodeo grounds had needed improvement for some time. The city agreed to put \$20,000 into this improvement this year, and for each of the next four years. At the grounds, a new fire station has been completed, construction of a new community center of 60 x 90 feet is in process, and 30 portable stalls have been acquired.

The town did not leave out other aspects of recreation. It has just spent \$15,000 on an overall face-lifting job for the city swimming pool. It has repaired the Little League ball field at a cost of \$3,000; and spent \$28,000 on a new baseball field. Two new tennis courts, costing \$6,000, will be completed by spring. In addition, the city will spend \$16,000 to develop a roadway park. The State Highway Department is cooperating on this project and will spend \$27,000.

The city also plans to improve its airport. This will include a new 4,000 foot runway and repair of the old runway. Also, the lighting system will be improved. The city is trying to get federal help on this project.

The City hospital, which had been closed, was reopened this year using Federal Revenue Sharing funds and Emergency Medical Service funds from the State Department of Public Safety.

Plans for next year include development of a 30 acre industrial park out by the rodeo grounds.



## VISUAL DISPLAYS

### Matrix B: Patterns of Shared Change

The first visual display tracks the community development process by plotting the Fields in each Phase by Critical Incident. The Fields involved are indicated in brackets in the left-hand column under the description of each Critical Incident. Those who actually identified an incident as critical are shown in the cells of the matrix. When a Field designated both a major and minor Phase for a Critical Incident, the minor Phase occurs in brackets.

The data indicate that:

1. The earlier Critical Incidents predictably fall in the Pre-Identification of Needs Phase (1, 2, and 3).
2. As various groups negotiate some common understandings and begin to perceive some common goals, they begin to move through the Need Identification, Objective Setting and Planning Phases (4 through 17). This progress is not directly linear but appears to move back and forth through the three Phases.
3. Critical Incidents 18 through 23 cover various activities resulting from community endeavor and fall in the Planning and Action Phases. It appears that these two Phases occur together.
4. From Critical Incidents 24 to 28 a new process begins. A new governmental agency enters the process. At the same time the CRD agents move into a Pre-Identification of Needs Phase and eventually withdraw from direct involvement in the project.

### Matrix A: Patterns of Field Participation

The second visual display tracks the Critical Incidents participated in by each Field in each Phase. For this display the Fields were grouped into six sets of Fields which appeared to have common characteristics. All Fields were plotted by involvement rather than just by incidents viewed as critical. Where there were conflicts or ambiguities, the evaluating team made a judgement about the Phase used for plotting purposes.

The data indicate that:

1. There is a concentration of all Fields in the Planning Phase.
2. The extension agents are particularly active in the Need Assessment, Objective Setting and Planning Phases and less active in the Action Phase.

3. The citizens council and extension agents roughly parallel each other and are clearly the combined force which drives the process.
4. The city council approves the project in the early stages and is not involved again until it is called upon to implement action plans at a legislative level.
5. The two other state agencies are heavily represented in the final Planning and Action Phases because they supply specific resources and expertise, but are not represented in the early Phases of the project.

#### Matrix C: Patterns of Individual Change

The third visual display tracks each group of Fields as it moves through the Phases of the community development model. For this display Fields were plotted only when they identified that incident as critical. If more than one Phase was designated that is also indicated. When a Field was known to have participated in a Critical Incident but did not identify that incident as critical, a question mark (?) was used in the appropriate cell.

The data indicate that:

1. The extension agents are never involved in what they perceive as an Action Phase.
2. The extension agents tend to move back and forth between Need Assessment, Objective Setting, and Planning. Their Planning Phases usually occur between Critical Incidents which are described as community meetings and usually involve ongoing administrative activities which relate to decisions made at the meetings. The community citizens do not share these activities and therefore do not identify them as critical.
3. When the other state agencies enter the project, the extension agents perceive this as "going back to square one".
4. The citizens council and city manager move through the Phases in a continuous process although few of them could describe it this way. The one exception to this was Field J who remained in the Pre-Identification of Needs Phase and who eventually withdrew from active participation.

### Time-Line Display of Critical Incidents

The fourth visual display tracks the Critical Incidents along a time line and shows the extent of shared perceptions about the incidents. For this display community Fields are shown as circles of varying sizes. The community Fields were considered to be the city manager, the citizens council and goal committees, and the city council. The extension agents are shown by squares and the other state agencies as triangles.

The data indicate that:

1. There are 12 clearly shared Critical Incidents out of a total of 28.
2. In the preliminary stages (1 - 13) the extension agents provide the planning resources and administrative activities required and these activities alternate with community meetings. The products of the planning activities are used as resources in the community meetings.
3. The leadership and communication workshops and the formation of the goal committees are viewed differently by the extension agents and the community people. The extension agents view them as separate events which culminate in the decision to form the goal committees. The community people described the workshops as training which occurred while the committees were being organized.
4. Once the goal committees were formed and the decision-making processes were decentralized, the extension agents had fewer opportunities to participate. This, combined with the entry of the state agencies which provided expertise in the succeeding Planning Phases, ultimately lead to the withdrawal of direct involvement by the extension agents.

MATRIX B  
PATTERNS OF SHARED CHANGE

Conditions in town prior to start of project:

- population had dropped by 33.0% from 1960 to 1970
- one major industry (sawmill) had closed
- the water system had been condemned.

CRITICAL INCIDENTS	PHASES OF COMMUNITY DEVELOPMENT						OUTCOMES and/or ONGOING ADMINISTRATION
	Pre-identification of Needs Phase 1	Need Identification Phase 2	Objective Setting Phase 3	Planning Phase 4	Action Phase 5	Re-assessment (Evaluation) Phase 6	
April 1971 City Council and Chamber of Commerce met to discuss obtaining assistance from Extension (E,S,V,A)	E						City Council voted to request assistance from Extension E was empowered to set up meeting between citizens and CRD Agents
May 1971 Meeting of CRD Agents and citizens (C,R)	C						Meeting poorly attended Date for another meeting arranged.
June 1971 Meeting of Agents and citizens (B,C,D,E,R)	B C D						CRD Agents proposed Community Resource Inventory (CRI) be carried out. They spent two days collecting data and interviewing townspeople. Letter was sent from City Council to Extension officially requesting assistance

TICAL INCIDENTS	PHASES OF COMMUNITY DEVELOPMENT						OUTCOMES and/or ONGOING ADMINISTRATION
	1	2	3	4	5	6	
June 1971 Meeting of Agents and Citizens Council (C,D,E,L,Q,P)		E L Q P C	(Q)	D		(C)	Extension agreed to arrange to have DEPAD print prospectus developed from CRI
June/July 1971 Implementation of Community Resource Inventory (C,D)				C D			Labor survey aspect of CRI designed, printed, and mailed. Data from all surveys compiled into first draft of report
October 1971 Meeting of Agents and Citizens Council (C,D,E,F,H,I,J,M,N,O,P,U,V)				D			First draft of CRI report reviewed and revised
November 1971 Completion of second draft of CRI report (B,C,D)				D			Second draft prepared and sent to Citizens Council
December 1971 Meeting of Agents and Citizens Council (C,D,R)				D			Second draft accepted. Decision made to do Attitude Survey (A.S.) CRD Agents agreed to prepare alternate A.S. proposals
January 1972 Preparation of A.S. alternate proposals (B,C,D)				D			Several alternate proposals prepared and sent to City Manager
January 1972 Meeting of Agents and Citizens Council (C,D,R)				D			A.S. alternate proposals presented. Council agreed to use one option Details on administration of A.S. finalized

POLITICAL INCIDENTS	PHASES OF COMMUNITY DEVELOPMENT						OUTCOMES and/or ONGOING ADMINISTRATION
	1	2	3	4	5	6	
February 1972 Meeting of CRD Agents and Citizens Council Administration of Attitudinal Survey (over three days) (B,C,D,E,J,H,D <sub>2</sub> ,L)		E L (J) (H)	J H (E)	P	D <sub>2</sub>	(L)	A.S. questionnaire finalized. Organizational meeting to train citizens recruited to administer questionnaire 80 people involved Questionnaire administered throughout community Over 90% returned.
March 14-15, 1972 Meeting of Agents and Citizens Council (B,C,R)				C			Presented preliminary results of A.S. Reported in Town Newspaper Mar. 16 Prepared agenda for State RDC meeting. Citizens designated to organize presentations State RDC agreed to meet March 21st
March 21, 1972 State RDC Meeting (A,B,C,E,F,G,H,I,J,K,M,O,P,S,V,W)	J	P	C (E) (P)	E			Citizen groups made presentations outlining major problems. Commitments obtained from: <ul style="list-style-type: none"> <li>- Farmers Home for grant</li> <li>- Forest Service for help with solid waste</li> <li>- DEPAD to print results of surveys</li> </ul>
April 1972 Leadership Seminar Design phase (B,C,E)				B C			CRD Agents designed leadership seminar Plan sent to Citizens Council. Date and design set
May 22-24, 1972 Leadership Seminar (B,C,R,X)		C					20 people attended Decision made to hold communications seminar
June 26-27, 1972 Communications Seminar (B,C,D,X,U,T,Y,R)		D					Workshop on community communications Attended by 20 people Decision made to set up committees to establish planning goals for town

TICAL INCIDENTS	PHASES OF COMMUNITY DEVELOPMENT						OUTCOMES and/or ONGOING ADMINISTRATION
	1	2	3	4	5	6	
<p>June 1972</p> <p>Meeting of Agents Citizens Council (C, E, H, J, P, L)</p>	J	(H)	P	E L H (P)			<p>Decision to form citizens goal committees to work on goals arising from Attitudinal Survey</p> <p>Six committees formed:</p> <ul style="list-style-type: none"> <li>Transportation</li> <li>Community appearance</li> <li>Community services</li> <li>Economic development</li> <li>Housing</li> <li>Education, culture, and information</li> </ul> <p>Committees worked 3 months</p>
<p>August 1972</p> <p>Application for 701 Planning Grant (E, C, D, Z<sub>2</sub>, S)</p>				E	(E)		<p>Applied for and received 701 planning grant to develop comprehensive plan for community.</p> <p>CRD assisted with A-95 Review and Application for Farmers Home Grant</p> <p>DEPAD accepted CRI report in lieu of preliminary plan for 701 grant.</p> <p>Grant received - \$8,000</p> <p>City Council voted \$4,000 to assist in planning</p>
<p>August 1972</p> <p>City Council meeting (newly elected) (H)</p>					H		<p>Approved plan to improve Rodeo Grounds. Proposal had been made over several years. Council voted \$20,000 for each of next five years.</p>
<p>September 1972</p> <p>Meeting of City Council, Citizens Goal Committees, DEPAD, NACOG, and D Agents (S, B<sub>2</sub>, R, Z<sub>2</sub>, B, C, E, U<sub>2</sub>)</p>				E			<p>Meeting with North Arizona Council of Governments (NACOG) to consider development of comprehensive plan.</p> <p>Committees to write goals and submit reports.</p>



CRITICAL INCIDENTS	PHASES OF COMMUNITY DEVELOPMENT						OUTCOMES and/or ONGOING ADMINISTRATION
	1	2	3	4	5	6	
September 1972 Publication of town prospectus					H		Four Corners Fund (DEPAD) printed prospectus developed from CRI Distributed to industries and community new-comers
September 1972 - January 1974 Ongoing work on special projects by City Council and Citizens Goal Committees (E,R,S)					E		<ol style="list-style-type: none"> <li>1. Water system: <ul style="list-style-type: none"> <li>- City Council voted \$160,000 of bond issue</li> <li>- Soil Conservation Service and Four Corners Comm. assisted</li> <li>- one million gallon holding tank built</li> <li>- Dogtown Lake sealed off with plastic to be used as reservoir</li> <li>- improvement of water lines</li> </ul> </li> <li>2. Sewage improvement: <ul style="list-style-type: none"> <li>- \$80,000 voted from bond issue by City Council</li> <li>- Funds also available from Environmental Protection Agency, Farmers Home Administration, and State Health Dept.</li> </ul> </li> <li>3. Sanitary Landfill: <ul style="list-style-type: none"> <li>- \$20,000 voted from bond issue by City Council</li> <li>- funds also available from Four Corners Comm. Farmers Home Admin.,</li> <li>- land donated by Forest Service and road constructed by County</li> </ul> </li> <li>4. Swimming Pool improved: <ul style="list-style-type: none"> <li>- \$15,000 voted by Council</li> </ul> </li> <li>5. Little League Ballfield improved. Council voted \$3,000 for project</li> </ol>



CRITICAL INCIDENTS	PHASES OF COMMUNITY DEVELOPMENT						OUTCOMES and/or ONGOING ADMINISTRATION
	1	2	3	4	5	6	
Continued					E		<p>6. New Basefield Field: - \$28,000 voted for project by City Council</p> <p>7. New Tennis Courts: - \$6,000 voted for project by City Council</p> <p>8. Roadway Park: - built along state highway - \$16,000 voted for project by City Council - Funds also available from State Highway Dept. Assistance also provided</p> <p>9. Improvement of Airport: - new 4,000 ft. runway - repair old runway and improve lighting system - request currently being made for federal help</p> <p>10. Reopening of City Hospital: - used Federal Revenue Sharing funds and Emergency Medical Service Funds from State Dept. of Public Safety</p> <p>11. Demolition of 50 Substandard houses</p> <p>12. New Sawmill opened: - employing 90 people - acquired shortly after CRI results published</p> <p>13. Proposal for Steam Railway to Grand Canyon currently being considered</p> <p>14. Development of 30-acre industrial park currently in planning phase</p> <p>15. Proposal for westernizing main streets currently being considered</p>

CRITICAL INCIDENTS	PHASES OF COMMUNITY DEVELOPMENT						OUTCOMES and/or ONGOING ADMINISTRATION
	1.	2.	3.	4.	5.	6.	
June 1973 Planning meeting of City Manager and CRD Agents (E, D, E, Z)				D			Developed plan for working with NACOG and Citizen groups in further work on comprehensive plan
September and October 1973 Meetings between CRD Agents and NACOG regarding planning for plan (Z, B, C, E <sub>2</sub> )	Z						Conflict developed between Extension and NACOG about which group would provide main leadership to project Co-operative plan developed
September and October 1973 Meetings between Citizens groups, NACOG, and CRD Agents (R, E, E <sub>2</sub> , Z, D <sub>2</sub> , C, D)	Z		D <sub>2</sub>	E			NACOG developed own citizen committees Preliminary work begun NACOG and CRD Agents worked with each group
December 1973 NACOG Planning Meeting (Z, B <sub>2</sub> , R, E)				E			Worked on comprehensive plan Extension decided to discontinue work on project
December 1973 to present							NACOG still working with community to develop comprehensive plans
December 1974 Evaluation of project (B, C, D, E, H, J, L, O, P, Q, D <sub>2</sub> and Researcher)						B C D	Evaluation resulted in report as presented here. Further reports to follow.

MATRIX A

PATTERNS OF FIELD PARTICIPATION

Each of the major groups of fields was tracked to discover which group was most active in which phases of the community development process. The numbers refer to the critical incidents described on pages 1 - 7 of this report.

FIELDS	PHASE OF COMMUNITY DEVELOPMENT					
	Pre-identification of Needs Phase 1	Need Identification Phase 2	Objective Setting Phase 3	Planning Phase 4	Action Phase 5	Re-assessment (Evaluation) Phase 6
Extension Agents (A,B,C,D,Z)	1,2,3,24,25,26	4,15,16	13	4,5,6,7,8,9,10,12,14,18,20,23	21,22	28
City Manager (E)	1	4,11		13,17,18,20,22,23,25,26	22	
Citizens Council (R,H,J,L,P,C,D <sub>2</sub> )	13,17	4,11,13	11,17	4,11,17,20,25,26	11,19,21,22	
City Council (S)	1			18,20	19,21,22	
North Arizona Council of Governments NACOG (B <sub>2</sub> )				20,25,26,27	22	
Department of Economic Planning and Development DEPAD (Z <sub>2</sub> )				18,20	21,22	

MATRIX C

PATTERNS OF INDIVIDUAL CHANGE

Enter Phase designations in appropriate cells of matrix

Fields	Ext. Agents	City Mngr.	Citizens Council	City Council	NACOG	DEFAD
Political Incidents	A, B, C, D, Z	E	R, H, J, C, L, P, D <sub>2</sub>	S	B <sub>2</sub>	Z <sub>2</sub>
City Council Meeting		(Entry) Pre-ID		(Entry)		
3. Meetings of agents & citizens	(Entry) Pre-ID	?	(Entry) ?			
Meeting of agents & citizens Council	Plan.	Need Assess.	Need Assess.			
6, 7, 8, 9, 10 Design & implement labor survey	Plan.					
Attitude Survey	Need Assess.	Need Assess.	Need Assess. Obj. set. Plan. Action			
Meeting of agents & citizens council	Plan.	?	?			
State REC meeting.	Obj. Setting	Plan.	Need Assess. Pre-ID			
Leadership workshop design	Plan.					
16 Leadership & Communications Workshops	Need Assess.	?	?			
Formation of committees	?	Plan.	Pre-ID Obj. set. Plan.			30

PATTERNS OF INDIVIDUAL CHANGE

Enter Phase designations in appropriate cells of matrix

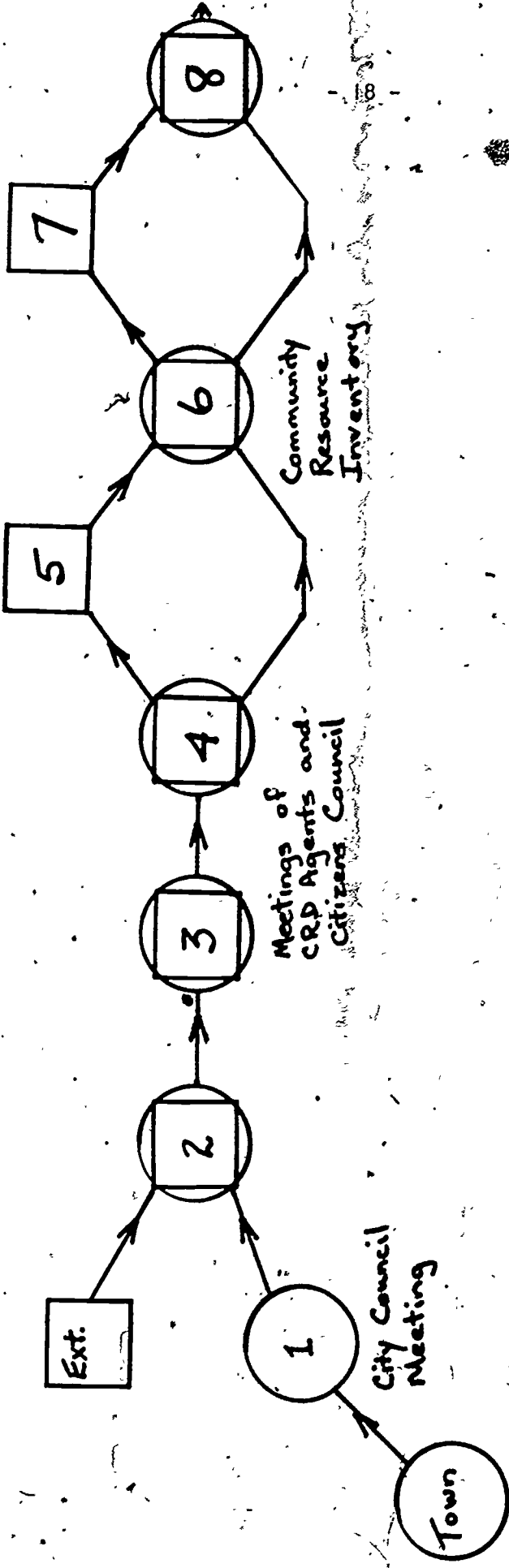
Fields	Ext. agents A, B, C, D, Z	City mngr. E	Citizens council R, H, J, G, L, R, D <sub>2</sub>	City council S	NACOG B <sub>2</sub>	DEPAD Z <sub>2</sub>
Application for 701 Grant	?	Plan.				(Entry) ?
Approval of video grounds improvements			Action	Action		
Meeting with NACOG & citizens council	?	Plan.			(Entry) ?	?
Publication of prospectus			Action	Action		?
Ongoing special projects		Action	Action			
Planning meeting	Plan.	?				
25 Meetings with NACOG	Pre-ID	Plan.	Obj. set.		?	
NACOG Meeting	?	Plan.	?		?	
Current ongoing activity		?	?		?	
Field Test of CHANGES	Eval.	?	?			

Key

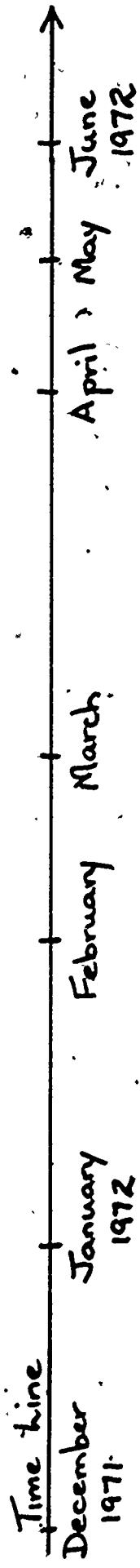
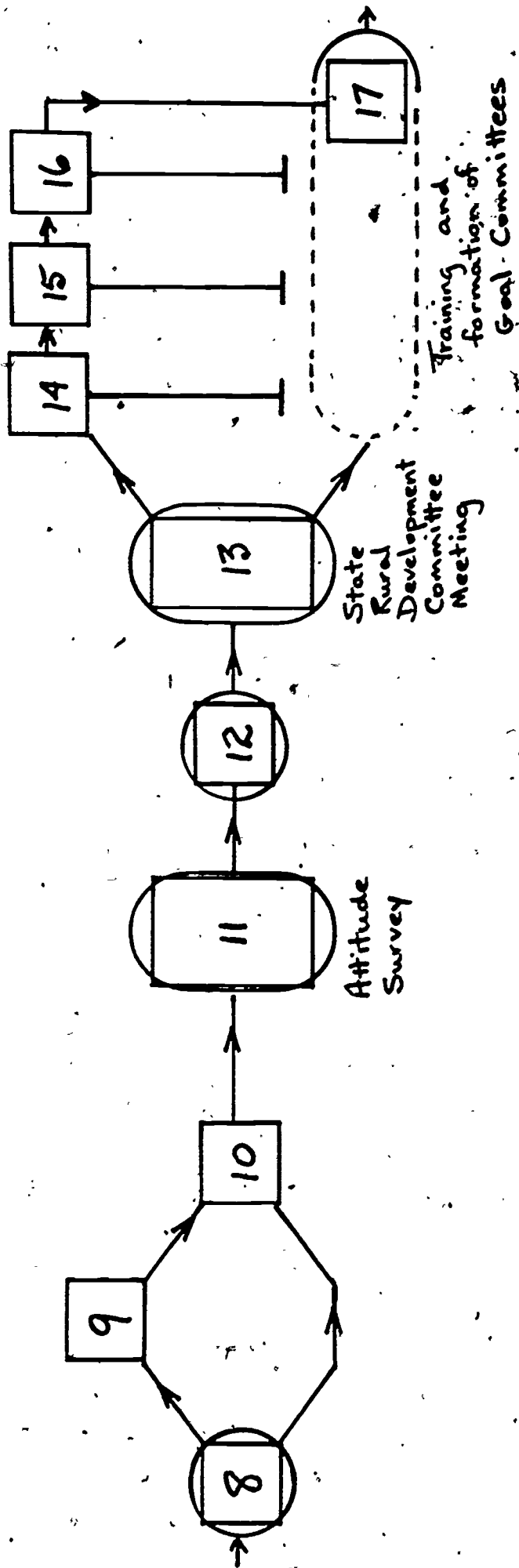
Community Fields

Extension Agents

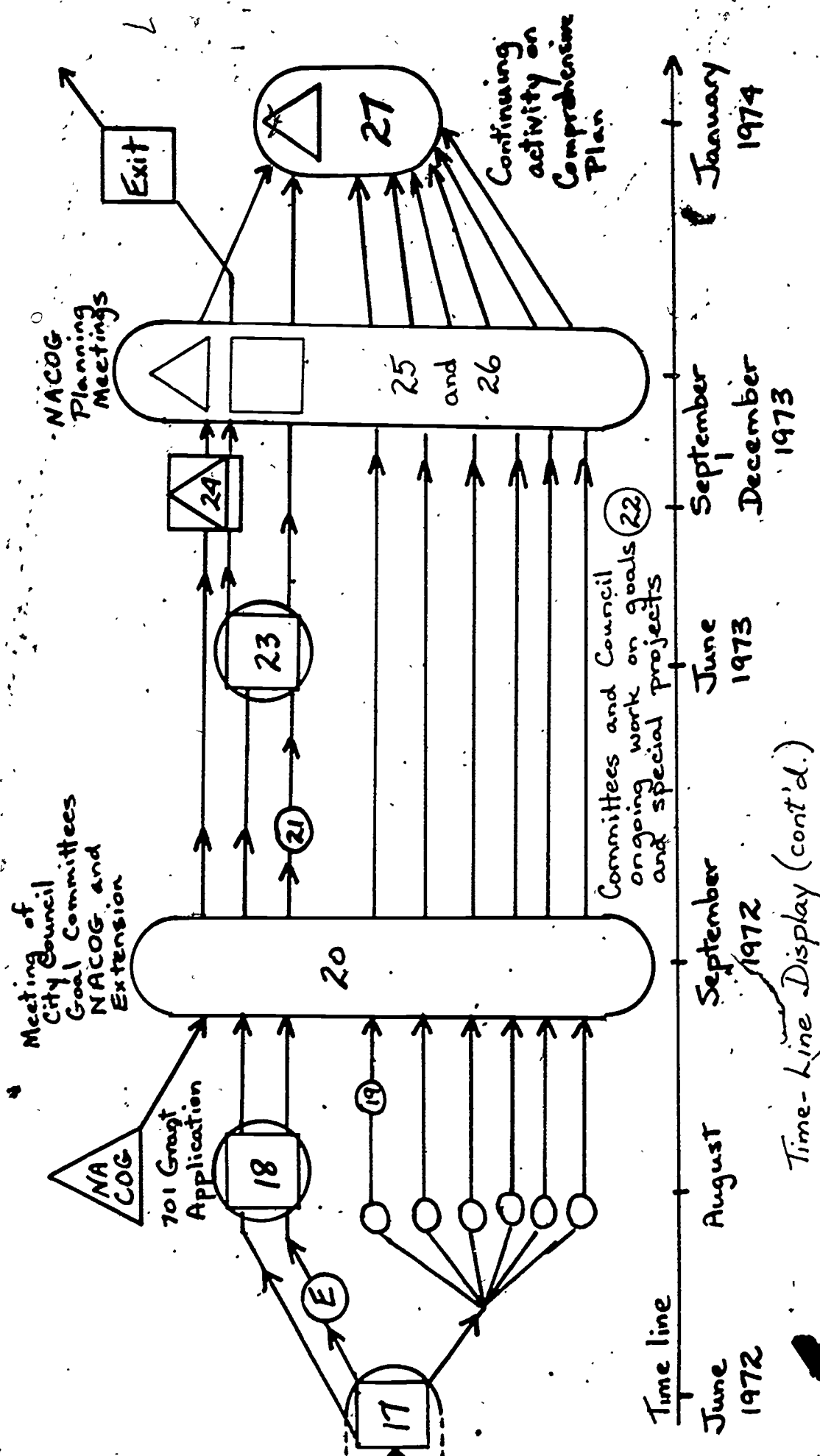
North Arizona Council of Governments



Time-Line Display of Critical Incidents  
Williams Case Study.



Time-Line Display (cont'd)



Time-Line Display (cont'd.)



### SOME LIMITATIONS

A number of limitations should be placed on the interpretation of the data. these result from:

1. Because of time constraints, some data were not collected. The most important of these data were:

- a) The voting patterns and date of the bond issue
- b) The voting patterns of the old and new city councils
- c) The changes in city council membership resulting from the municipal elections and the date of the elections.
- d) The relationship of minority ethnic groups to the major Fields.
- e) One Field who held some negative opinions about the project was not interviewed because he was out of town.
- f) The Northern Arizona Council of Governments (NACOG) and the State Department of Economic Planning and Development (DEPAD) representatives were not available for interviews.

2. There appears to be some limit to the ability of people to accurately recall events after a time lapse. People remembered best those events and activities which they had helped plan.

3. The community people generally did not perceive the project as a continuous process but rather as a series of largely isolated events or meetings which bore little relationship to each other. The extension agents perceived the project as a continuous series of activities which bore causal relationships to each other.

The one time when this was not true arose over the series of incidents surrounding the Leadership and Communication Workshops and the formation of the goal committees. We were unable to get back to the community people to clarify their point of view. Our data indicate that they perceived these workshops as part of the overall process of forming the committees, rather than as the isolated events described by the extension agents.