



ABSTRACT

SELECTED VARIABLES INVOLVED IN ASSESING COMMUNITY NEEDS IN TWO WEST JAVA VILLAGES

By

Mohammad Romli Suparman Amirsaputra

Problem

In the attempt to make community education compatible with the needs of the community, Indonesian planners faced with the problems of knowing exactly what are the needs of a particular community, and of knowing what appropriate ways for identifying these needs. This study attempts to deal with these two problems, with emphasis given to the second problem.

Purpose

The primary concern of this study is to examine and compare the effectiveness and efficiency of a group approach and an interview approach in collecting information about villagers' perceptions of community needs. The comparisons are based on the analysis of five independent variables: quantity of response, specificity of response, means/nonmeans orientation of response, type of response/need, and the time needed to conduct the

needs assessment. It also compares the effects of the two approaches on leaders and on nonleaders. Comparisons between sexes, between villages, between leaders and nonleaders, and between educated and less-educated subjects, regardless of the approach used to elicit the needs, were also the purposes of this study. Altogether it made up the six foci of this study.

Assumption and Bias

Two assumptions and two biases were held in this study. It is assumed that villagers know their community needs, and that they can express their knowledge of their own needs and the needs of their community. The first bias held by the researcher is that a group approach for needs assessment can be both effective and efficient. The second bias is that the village level is an appropriate level for community needs assessment in Indonesia.

Hypothesis

Twenty-three directional hypotheses were formulated for the six foci of this study. Some projected differences and some projected similarities between the compared independent variable on the dependent variables.

Population and Sample

Adults in the two villages in West Java, Indonesia were the population of this study. Forty-seven adults in Desa I and 48 adults in Desa II were selected as samples of this study. They were stratified into leader/nonleader and male/female categories. The leaders were official leaders in the two communities, and the nonleaders were the householders (husbands or wives): 45 leaders and 50 nonleaders. Only 24 were females.

Study Design

In each village the subjects were randomly selected and assigned to five treatment groups: Leader Interview Approach(LI), Leader Group Approach(LG), Nonleader Interview Approach(NI), Nonleader Group Approach (NG), and a mixed Leader-Nonleader Group Approach(LNG). The subjects in LI and NI were interviewed individually in their own homes, and the subjects in LG, NG, and LNG were asked in separate group discussions. The same four questions were asked concerning their perceptions on: their community needs in general, their community educational needs, three priority needs, and the most important need for themselves. An Interview Approach Guide and a Group Approach Guide were used as instruments of this study which were in local language (Sundanese).

Limitation of the Study

Factors that may have influenced the findings of this study to some extent include the small sample size (95 subjects) and the limitation of probing used in both the interview and the group approaches.

Conclusion

A group approach as a method of community needs assessment is more preferable than an interview approach if the effectiveness and efficiency are the criteria for selection. To collect data of a higher level of specificity, however, the interview approach is most appropriate. Whatever method is chosen, the types of needs identified will be similar.

There is no gap between leaders and nonleaders in the two villages on their perceptions of the needs of their community. Needs assessment, therefore, can be conducted from either the leaders or nonleaders, through interview approach or group approach. It is suggested, however, that a group approach that involves the nonleaders be used.

Since the quantity of community needs derived from villagers varied significantly on the basis of their educational background, sex, and leader/nonleader status, the sampling frame of a community needs assessment should take into account these variables,

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To the Villagers and the Poor



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CHAPTER I

THE NATURE AND BACKGROUND OF THE STUDY

Education and Development in Indonesia

Indonesia is a rural country. Seventy eight percent of its population lives in rural areas,¹ which are basically under a subsistence agricultural economy. Since its independence in 1945, however, development in rural areas has been neglected. Only recently has Indonesia begun to give emphasis to the development of rural areas in its National Development Plan. In PELITA II (The Second Five Year Plan, 1974 - 1979, Indonesia began with more interest in the development of rural communities, with the *desa* (village) as the basis for organizing the attempt.² Development subsidies for *desa* communities, for example, have been increased from US \$12.9 million in 1972 to US \$27.7 million in 1975, and US \$38.6 million in 1976.³

In its attempt to accelerate development, Indonesia

¹Biro Pusat Statistik, Statistical Pocketbook of Indonesia 1971 (Jakarta: B.P.S., 1971).

²Republik Indonesia, Rencana Pembangunan Lima Tahun Kedua 1974/1975 - 1978/1979 (Jakarta: Departemen Penerangan R.I., 1974), Bagian III, Bab 20 dan 22.

³Biro Pusat Statistik, Statistical Pocketbook of Indonesia 1977 (Jakarta: B.P.S., 1977), p. 323.

has put great hope in using education as an important instrumental factor. The PELITA II adopted three basic concepts of education as its basic policies in education.⁴

They are summarized as follows:

Primo: The concept of life-long education, implying that education begins from the cradle to the grave. Education does therefore not merely cover formal education but also implies nonformal education. In-school and out-of-school education are of equal importance, both constituting conscious efforts to facilitate the development of personality and of capabilities.

Secundo: The concept of responsibility over education being borne jointly by the family, society and government. Education is not a monopoly of the government, but the government together with the family and society will have to make efforts in securing the objectives of education.

Tertio: The concept of education as a vital means for National Development. It has to be emphasized that development is meant for the benefit of the human beings and not otherwise. National Development shall therefore have aim of realizing all encompassing just and prosperous society, materially as well as spiritually, founded on Pancasila and the Constitution of 1945."⁵

Based on these concepts, the Ministry of Education and Culture has begun a big step in developing a national education system, formal as well as nonformal, with more attempts and emphasis to reach and match the needs of the villagers than before. Thousands of new primary school buildings have been established in the villages. New curri-

⁴Republik Indonesia, op. cit., p. 22-1.

⁵Ministry of Education and Culture, Indonesia, Education and Culture in Development: Policies on Education and Culture in Indonesia (Jakarta: 1976), pp. 13-14.

cula has been introduced. Old nonformal education programs are being reviewed and new ones are being created. Several experiments and pilot projects are being conducted to study the best methods and procedures of formal and nonformal education in Indonesian settings. Although the priority of nonformal education within the Ministry of Education and Culture is for the age bracket of 10 to 24 years, men and women above the age bracket are also the popular targets of nonformal education of many other ministries -- e.g., the Ministry of Interior, the Ministry of Religious Affairs, the Ministry of Agriculture, and the Ministry of Health.

The vast growth of nonformal education for youth and adults in the villages has also been motivated by the latest emphasis on development through self-help programs, under the coordination of the Ministry of Interior. In this context, the Ministry of Interior has formulated a three level rating scale of *desas* (villages) in terms of the development level of the *desas*. From low to high, *desas* are classified as: *desa swadaya*, *desa swakarya*, and *desa swasembada*. Of the 66,045 *desas* in Indonesia, 25,500 were classified as *swadaya*, 38,800 as *swakarya*, and 1,745 as *swasembada*.⁶ The general objective is to move the *swadaya* and *swakarya desas* to the *swasembada* status, while motivating

⁶N. J. Colletta, Out-of-School Education in Indonesia: An Overview (Jakarta: Office of Educational and Cultural Research and Development, 1975), p. 11.

the *swasembada desas* to further develop their potentialities. Joint efforts among ministries and other community groups is needed to achieve the objective. The most important things, however, is the participation of the villagers themselves. Without their awareness, motivation, and willingness to participate, any self-help development program is doomed to failure.

How to increase the villagers' awareness, motivation, and willingness to participate in the development of their own village is, then, a strategic question to be answered. A popular answer to it is: "Give them education!" This answer, consequently, promotes community education as a popular means for the development of village communities. It was based on this assumption that in the 1950s community education programs were mushrooming in developing countries. However, they diminished in the 1960s. Community education programs in almost all developing countries failed to induce the expected changes in the rural areas. The incompatibility of the educational programs with the needs of the communities is seen as the main cause of the failure. The belief that education can be an important instrument for change, however, is not changed by the failure. As described in the previous paragraphs, Indonesia still has great hope for education as an instrument for change. The difference is that since 1968, the beginning of PELITA I, education, formal as well as nonformal, has been more

fully focused on the needs of National Development.

The problem of incompatibility of educational programs with the needs of the villagers, however, is still unsolved. In this respect, Colletta⁷ observed that nonformal education efforts for villagers rarely take into account what the villagers perceive to be their "learning needs," nor do these efforts take into account the existing resources within the community itself which may be mobilized to meet these needs. He argued that there is definitely an "outer"- "inner" gap functioning to the detriment of effective and efficient nonformal education programs. Hence, he suggested that basic research on "what people want and need to learn" to improve their lives is a great need in Indonesia.

Coombs⁸ has come to a similar conclusion. One of his suggestions in the area of nonformal education is the need to study the current and likely future critical learning needs of various population sub-groups in their respective areas that warrant priority attention.

Statement of the Problem

It is agreed by those who are involved with community education in Indonesia that to capture the interest and participation of the villagers in community education programs

⁷ Ibid., p. 26.

⁸ Phillip H. Coombs, Report to UNICEF Jakarta on Non-formal Education Activities in Indonesia, (Jakarta: Office of Educational and Cultural Research and Development, 1975), p. 5.

it is imperative that the needs of the villagers be compatible with the program. In other words, before designing an educational program for the community, we should know the community needs.

This concern creates two problems. The first, and most obvious, is the problem of knowing exactly what are the needs of a particular community. However, the second problem, being aware of the most appropriate way for identifying these needs, is often assumed by community education planners to be minor and is often neglected. Instead, planners go about the identification of community needs in rather haphazard and unsystematic ways. Listings of community needs are often strongly influenced by monetary concerns, national or local interest groups or the particular bias of the community education planners.

This study attempts to deal with both problems - what are the needs of a particular community in Indonesia and what are the strengths and weaknesses of different approaches that can be used for identifying the needs. The stronger emphasis of the study is on the examination of the needs assessment process, comparing different approaches, so that the findings might have broad application throughout the country.

It is only logical that emphasis must first be placed on the needs assessment process before attempting to identify needs and designing programs. As a first step in designing programs, the process used for identifying needs must be seen

as a strong foundation which allows for the true and representative identification of community needs.

Purpose of Study

The primary concern of this study is to examine and compare the effectiveness and efficiency of a "group meeting approach" and an "interview approach" in collecting information about villagers' perceptions of the general needs of their community and their community education needs. Comparisons were based on the analysis of four aspects of villagers' responses to questions posed to them. The four aspects were the number of responses to the questions (quantity), the level of specificity of the responses, the means/nonmeans orientation of the responses, and the type of responses/needs. In addition, the man-hours needed to conduct the assessment through the "group meeting approach" and the "interview approach" were also compared as a measure of efficiency. This was the first and primary focus of the study.

Since data were available, additional examinations were also conducted which were organized in five additional foci of the study. With the first one described above, there were a total of six foci for the study. The second focus of the study was to examine whether or not a different approach yielded a different effect on leaders or nonleaders on the quantity of their responses. The third focus of the study looked at the leader/nonleader variable and compared

the leader and the nonleader subjects on the four aspects regardless of the approach used to elicit the responses. The fourth focus examined differences between *desas* (villages) on the four aspects. The fifth and the sixth foci respectively examined differences between sexes, and differences on the basis of educational background of the subjects on the same four aspects of this study.

Assumption and Biases

In conducting this study the investigator made two assumptions and held two biases that should be understood at the onset. First, it is assumed that villagers know their community needs. To quote an expert who is involved with developing nations, "I believe, from experience, that villager knows this (need) much better than any aid planner in Western capital."⁹ In the Indonesian setting, with hundreds of extremely diverse and distinct ethnic groups, it is incomprehensible that any single body would be able to know all of the local needs. It must be assumed, then, that the local people do know their own needs. It is only through the taping of this local knowledge that it can be possible to have community development in Indonesia.

The second assumption is that villagers can express their knowledge of their own needs and the needs of their

⁹Colin Mason, "A Village View of Foreign Aid," People's Participation in Development, Vol. 2 (Calcutta: Indian FFHC Society and Action for Development, FAO, 1973).

community. The challenge underlying this assumption is in the development of needs assessment procedures that can allow for villager expression of their knowledge.

The first bias held by this investigator is that a group approach for conducting community needs assessment can be both effective and efficient. It is through a group approach to needs assessment that individual villagers can interact with each other, share and enrich their feelings, perceptions and knowledge. The group approach can enhance members' sense of belonging, worthiness and usefulness, and become a motivating factor in working together for the betterment of their community.

The second bias is that the village level is an appropriate level for community needs assessment. In Indonesia it is the lowest level of local government which is given the authority and responsibility for organizing development activities. By working at the village level it is still possible to capture a certain amount of efficiency in terms of the size of the population group that is dealt with and at the same time retain the uniqueness of the local ethnic group. Obviously, a needs assessment that focuses on individuals in a one-to-one manner is probably the most powerful way of initiating individual change. However, the focus of this study is on community development and as such, a one-to-one focus could preclude a focus on the community.

Hypotheses of the Study

Based on the assumptions and biases, 23 directional hypotheses were formulated to accommodate the six foci of this study.

Focus 1. Interview vs. Group Approach

Hypothesis 1. A group approach will generate a greater number of community needs than an interview approach.

Hypothesis 2. Needs derived from an interview approach will be more specific than needs derived from a group approach.

Hypothesis 3. Needs derived from a group approach will be similarly nonmeans-oriented as needs derived from an interview approach.

Hypothesis 4. The genre (type) of needs derived from a group approach will be different from the genre of needs derived from an interview approach.

Hypothesis 5. The time needed to administer a group approach will be less than the time needed to administer an interview approach.

Explanation

The stated hypotheses above show that the investigator did not entirely favor the group approach as a method of conducting a community needs assessment. On hypothesis #2, for example, the interview approach is favored over the group approach on the basis of specificity of needs. On hypothesis #3 he expected the same results for both the interview

approach and the group approach. The other three hypotheses for Focus I favored the group approach. Since the five hypotheses were concerned with the same focus, it can be argued that the multi-directions of the hypotheses seem contradictory to each other.

This seeming contradiction is explained in the following manner. In the group approach the subjects were asked to share and discuss their opinions and all subjects in both the interview approach and the group approach were given the same questions and asked to give as many responses as possible to Question #1 and Question #2. Based on the assumption that subjects in a group enrich each other through sharing and deliberate interaction, it can be expected that the average number of responses of subjects in a group approach will be greater than in an interview approach (hypothesis #1). In an interview approach subjects are separated and not able to interact with each other in answering the questions given to them, hence there is no additional input that can increase their knowledge about the needs. However, since it was assumed that a group inclines toward conformity, it can be expected that subjects in a group approach will be less specific in their responses (hypothesis #2). Differences in type or genre of needs (hypothesis #4) can be explained in the same way as for the specificity variable.

In terms of the means/nonmeans orientation of responses,

since in both the interview approach and the group approach the questions were the same and there were no explicit questions that would lead the respondents toward the statement of community needs as a strategy to achieve goals (i.e., means-oriented) nor toward the statement of community needs as the goals themselves (i.e. nonmeans-oriented), then it can be reasonably expected that there would be no significant interaction between the approach variable and the means/nonmeans-orientation variable. In which case the investigator predicted that subjects in both the interview approach and the group approach would similarly show a more nonmeans-oriented response (hypothesis #3).

In administering the interview approach the interviewer had to visit each subject at their own homes, which were as far as two miles apart. It was certainly time consuming. Time was not needed, however, for discussion as it was in the group approach. On the other hand, group approach subjects were asked to come together at the same time and place and they were given the questions at the same time, thus it did not need as much preparation time as in the interview approach. In addition, in the group approach the introductory step was given only once to 7 to 11 subjects, while in the interview approach the introductory step had to be repeated for each subject. Therefore it was predicted that the group approach would need less time than the interview approach (hypothesis #5).

Focus 2. The effect of group approach and interview approach on leaders and nonleaders.

Hypothesis 6. Leaders who participate in a mixed leader-nonleader group approach will show a greater number of responses than leaders who participate in an interview approach or a leader-only group approach.

Hypothesis 7. Nonleaders who participate in a nonleader-only group approach will show a greater number of responses than nonleaders who participate in a nonleader interview or a mixed leader-nonleader group approach.

Explanation

The two hypotheses predicted a different effect of the group approach on leaders and nonleaders. It is argued by the investigator that leaders will be functional as leaders when they have followers who participate with them in group work, it can be expected that as leaders they will be motivated to show their leadership. In this case, their knowledge of their community needs would be shown. It was therefore reasonable to predict that in a mixed leader-nonleader group approach the leaders would show a greater number of responses than in an interview or even in a leader-only group approach (hypothesis #6).

On the other hand, nonleaders in a mixed leader-nonleader group approach will tend to lose their creativity and motivation with their leaders around them and hence will be more restricted in the number of responses they

give. In a group consisting of only nonleaders, however, the inhibiting factor will not occur and creativity and motivation will increase in an attempt to exercise their leadership over each other. Or at least the inhibiting factor to voice their opinions will be less than if the leaders were present. It was therefore predicted that nonleaders will give more responses in a nonleader-only group approach than in a mixed leader-nonleader group or an interview approach (hypothesis #7).

Focus 3. Leaders vs. Nonleaders

Hypothesis 8. The number of needs derived from leaders will be greater than the number of needs derived from nonleaders.

Hypothesis 9. The specificity of needs derived from nonleaders will be higher than the specificity of needs derived from leaders.

Hypothesis 10. The needs derived from leaders will be more nonmeans-oriented than the needs derived from nonleaders.

Hypothesis 11. The types of needs derived from leaders will be different than the types of needs derived from nonleaders.

Explanation

Hypotheses #8 to #11 look at the leader/nonleader variable regardless of the approach used to elicit the responses/needs. Based on the argument that leaders, due to

their roles, will have a wider view of their community than the nonleaders, it can be expected that leaders can identify more needs of their community than nonleaders (hypothesis #8). However, since the leaders will tend to generalize the more specific needs of individuals and localities to the community as a whole, it can be expected that the leaders will state community needs in a less specific statement than the nonleaders (hypothesis #9). In this context, especially in the framework of the Five Year Development Plan, the leaders will be more oriented toward the final products of a development program (i.e., nonmeans-oriented) rather than on the ways of how to achieve the goals (hypothesis #10). All of these factors will make the leaders perceive and identify their community needs differently from the nonleaders (hypothesis #11).

Focus 4. Desa I vs. Desa II (Village I vs. Village II)

Hypothesis 12. The number of needs derived from Desa I will not be different from the number of needs derived from Desa II.

Hypothesis 13. The specificity of needs derived from Desa I will not be different from the specificity of needs derived from Desa II.

Hypothesis 14. The needs derived from Desa I and the needs derived from Desa II will similarly be nonmeans-oriented.

Hypothesis 15. The type of needs derived from Desa I will be different from the types of needs derived from Desa II.

Explanation

The two *desa* samples were chosen from the same level of *desa* category. Both were low in the ranking assigned by its respective *kecamatan* (subdistrict), and rated as *desa swakarya* by the *kabupaten* (district). Further more, subjects in both Desa I and Desa II were randomly selected and/or assigned to treatment variables. This means that statistically both *desa* samples were equal. It can be expected, therefore, that there will be no difference between Desa I and Desa II on the basis of the number of responses, specificity of responses, and means/nonmeans orientation of response as stated in hypothesis #12, #13, and #14. In terms of their types of needs, however, it was expected that Desa I and Desa II will differ. As a community unit, *desas*, however similar in many aspects, are unique. This uniqueness alone could generate different community needs or priority. This was the basis for hypothesis #15.

Focus 5. Males vs. Females

Hypothesis 16. The number of needs derived from males will be greater than the number of needs derived from females.

Hypothesis 17. The level of specificity of needs derived from males will be higher than the level of specificity

derived from females.

Hypothesis 18. The needs derived from males will be more means-oriented than the needs derived from females.

Hypothesis 19. The types of needs derived from males will be different from the needs derived from females.

Explanation

In a male dominated culture like West Java it was assumed that females are less talkative than males. Consequently, females can be expected to give fewer responses than males (hypothesis #16). It does not mean, however, that females' knowledge of community needs are less than males. The culture inhibits them to be less talkative than males and minimizes their voicing of their opinions and feelings in public or to an outsider (i.e. interviewer). This will not only lessen the number of responses but will also force them to speak in more general terms (hypothesis #17).

Since males, as the figure head of the family, are assumed to be more concerned about ways for the betterment of their families while females are seen as "banking" figure of the family who will be more concerned about the end products, it was expected that males will be more means-oriented than females (hypothesis #18). Their role differences in the family and in the community will bias males and females in perceiving their community needs (hypothesis #19).

Focus 6. Educated vs. Less-educated

Hypothesis 20. The number of needs derived from subjects with more educational background (years of schooling) will be greater than the number of needs derived from subjects with less educational background.

Hypothesis 21. The level of specificity of needs derived from subjects with more educational background will be higher than the level of specificity of needs derived from subjects with less educational background.

Hypothesis 22. The needs derived from subjects with more educational background will be similarly nonmeans-oriented as the needs derived from subjects with less educational background.

Hypothesis 23. The types of needs derived from subjects with more educational background will be different from the types of needs derived from subjects with less educational background.

Explanation

Based on the assumption that education (i.e. years of schooling) enlarges knowledge and ways of perceiving things, it can be expected that the level of education will be a differentiating factor in the dependent variable measures. The higher the level of education the greater the number of responses will be (hypothesis #20). The higher the level of education of the subjects the higher the level of specificity of needs will be (hypothesis #21).

This is because they are more observant. There is no sound basis, however, for hypothesizing the relationship between education and the means/nonmeans orientation of needs. Therefore it was predicted that no differences will occur on this variable (hypothesis #22). But the higher education the more likely the respondents could view their community needs more objectively, and therefore more similarity of perception among the more-educated subjects. It was therefore predicted that subjects with more education will have a different view of the types of needs of their community than less educated subjects (hypothesis #23).

Limitation of the Study

This study is limited to an examination of villagers' perceptions of local community needs. The "villagers" in the study are samples of leaders and nonleaders. However, it should be understood that a complete and full understanding of community needs must also include, in addition to villagers' perceptions, an external assessment of human/natural resources, projected trends in local development (employment, population, health, etc.) and government development policies.

A complete and full understanding of community needs is an extraordinarily complex and time consuming endeavor. It is felt that by limiting this study to only the examination of villagers' perceptions, it will be possible to control the extent of the study, complete the study in a reasonable

period of time, and also to focus on that component of needs assessment, perceived needs by the villagers themselves, as the primary component of a development framework that is centered on human development.

The community in this study refers to rural "*desas*" (villages) in West Java Province rural areas, Indonesia. West Java was selected as the site of this study for three reasons. First, the researcher knows the local language and is familiar with its geographical and social settings. Second, the RK/RT (village section/neighborhood) system in West Java is more functional and widely used than in other areas of Indonesia. It makes the selection of community units for this study consistent with its methodology. The third reason is that the office where the researcher works was also located in West Java province and hence the cost of conducting the fieldwork would be less.

The *desa* was limited to *desa swadaya*. It is the type of *desa* rated by the government as the lowest in terms of its development. Just over thirty eight percent of the 66,045 *desas* in the whole country are classified as *desa swadaya*.¹⁰ Since *desa swadaya* receives the priority of Indonesian government policy, this study could then be useful in assisting the government in their priority area.

The term "villagers" is defined as all members of a *desa* community. It includes children and adults -- men and

¹⁰ Colletta, op. cit.

women, leaders and nonleaders. This study, however, was limited to two sub-groups of villagers: the official leaders, they who have positions as leaders in the *desa*, *rukun kampung* (RK), and *rukun tetangga* (RT) units of community; and the nonleaders, those villagers, men and women, who are not official leaders, and who are either married or householders aged 18 to 45. It must be noted that the majority of official leaders (hereafter referred to as "leaders") are men, and that the nonleaders could also include non-official leaders such as religious leaders, teachers, and other organizational leaders.

The leaders were chosen for this study for two reasons. First, because they function as official channels between the government and the people, and thus have a key position in organizing village development efforts. Second, they are elected to their positions by the people or their representatives. Although they probably were not the most powerful opinion leaders as compared to some of the non-official leaders in their community, they were seen by the people as capable and/or respected persons, and to whom they had to go on governmental business matters.

The reason for choosing "householders" (married persons or adults 18 years of age or over who have the position as head of household) as the nonleaders group was because the household units are the base of decision making power in village life. The election of RT leaders is based upon one

household-one vote. The contribution fee for community programs is collected on a household basis and the leaders usually communicate with the householders in their daily activities -- formal as well as informal.

In Indonesia a citizen 18 years of age or older or a married person has the right to vote in the general election (national level) and in the *desa* election (to elect *desa* leaders). Age 45 is the cut-off point for the government's priority for nonformal (adult) education. It is the time to prepare for retirement (at age 55) for those who think their advancement is enough and near to end. It is seen as the last chance for those who want to renew, enrich or change their life style prior to retirement at age 55. For these reasons this study was limited to householders 18 years of age to 45 years of age. In the case of leaders, there is no limit on age.

Importance of the Study

A study comparing a group meeting approach and an interview approach as methods of assessing community needs is important in the sense that it will provide more knowledge about the effectiveness and efficiency of the two methods. The knowledge can be very useful in choosing the appropriate method to be used in conducting such needs assessment.

The results of this study, then, can have practical implications in giving direction to what kind of training

the community education fieldworkers should be given in the field of assessing village (community) learning needs.

In terms of its substance, information about leaders' and nonleaders' perceptions of their community needs are also important. In rural areas the role of leaders is most often very decisive in designing a program for the villagers. In this context the investigator assumes that good leaders know their followers' problems and needs. If the leaders' perceptions (as the outer) are different from the followers' perceptions (as the inner), it suggests a gap of "inner-outer" perception. In this case, a program based on the "outer" perception will tend to fail. Therefore, the information about whether or not there is this kind of gap is useful for program planners, for the leaders themselves as well as the nonleaders. If there is a gap, the leaders and nonleaders need to sit together and settle the discrepancies. Otherwise, there could be two directions which might contradict each other and hinder the success of both.

Knowledge about the nature of *desa swadaya* needs is also important because it is the priority of the government to help these *desas*. The results of the study will help the government in designing nonformal educational programs that will be more relevant to the *desa* needs.

These three types of information can be provided from the results of this study. It is the practical usage of these

results that gives this study its importance -- at least for Indonesia.

Definition of Terms

The following terms and phrases are used in the description of this study. Definitions for each term and phrase are provided to form a common basis for understanding.

Learning need. In this study the terms "learning need" and "educational need" are synonymous. Knowles defines educational need as "the discrepancy between what an individual (or organization or society) wants himself to be and what he is; the distance between aspiration and reality."¹¹ The researcher prefers to define "learning need" as any learning desired or wanted (as expressed verbally) by an individual or group of individuals. This can be consciously or unconsciously perceived as a way out (or means) to overcome the discrepancy between individual or group aspiration and reality.

Village (Community) needs. In this study community needs are limited to those needs that are perceived by the villagers as the needs of their village. It includes learning needs and other general needs.

Village. In this study it refers to "*desa* community"

¹¹Malcolm S. Knowles, The Modern Practice of Adult Education, (New York: Association Press, 1976), p. 86.

in Indonesia, which is the lowest level of an Indonesian governmental/administration unit. Village and *desa* are used synonymously.

Villager. A citizen of a *desa* (village).

Leader. Official leader of a *desa*, a *rukun kampung* (RK), or a *rukun tetangga* (RT).

Nonleader. A villager who is not an official leader.

Household. A single family unit, which may share the same dwelling unit (or a house) with another family unit. It includes the single parent family unit. The husband, or the wife, or the single parent is referred to as the householder.

Rukun Kampung. It is a smaller unit of community in a *desa* (village). It is abbreviated as RK. Its head is elected by its RT heads. A *desa* usually consists of three to twelve RK .

Rukun Tetangga It is a smaller unit of community within an RK. Each RK usually has two to ten RTs. Each RT consists of ten to forty households. Its chairperson is elected by the heads of the households. *Rukun Tetangga* is abbreviated as RT.

Desa Swasembada; Desa Swakarya; and Desa Swadaya.

Desa swasembada is a village whose socio-economic conditions, as evaluated by the Government, fall into the highest level of development. This village has the capacity to continue development without much help from the Government.

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Desa swakarya is the village that falls into the second scale in the evaluation, and needs more input from the Government.

Desa swadaya is the type of village that falls into the third scale in the evaluation. This village needs the most input and subsidy from the Government.

Kecamatan. It is a larger unit of community organization consisting of 8 to 15 *desas*. It is often referred to as a sub-district and is comparable to a township in the United States.

Kabupaten. It is a larger unit of community organization consisting of 5 to 15 *kecamatan*s. It is often referred to as a district and is comparable to a county in the United States.

Group meeting approach. A technique of gathering information about subjects' perceptions of their community needs through a group discussion process as described in the section of Methodology. Hereafter it is referred to as "group approach."

Interview approach. A technique of gathering information about needs by asking questions face-to-face with the subjects. The person who asks the question is the "interviewer," and the person who answers the question is the "interviewee."

CHAPTER II

REVIEW OF RELATED LITERATURE

The review of related literature provides an overview of the context and concepts of community education and needs assessment and highlights those studies that have examined community needs. Though very few studies have dealt with comparing an interview approach and a group approach as methods for assessing community needs, the literature that is reviewed forms a logical theoretical basis for the study.

The first of the three sections of this review, Social Change, Community Development and Community Education, deals with the concepts of community education in the context of community development and social change. The second section, Community Problems and Community Needs, deals with the concepts of needs as the basis of any planned change for the betterment of community, especially in rural areas. The last section, Methods of Needs Assessment, reviews those studies that have examined learning needs, especially those which examined community learning needs.

Section 1. Social Change, Community Development and Community Education

In a review of the social change literature, investigator found a full range of theories from single concept

theories such as Ogburn's Theory of Cultural Lag and Wallace's Revitalization Theory¹ to theories which explain the dynamics of inclusive societies as a result of the agents triggering the process - i.e., Weber's Charismatic leaders, McClelland's achievers,² Hagen's innovative personality resulting from status withdrawal,³ or Rogers' innovators.⁴ The Marxian conception of dialectical materialism and Toynbee's succession of civilization,⁵ are theories that explain changes by General Laws or Regularities. On the basis of its premise, however, the theories can be classified as individual-deficit theory and structural-deficit theory. The first theory starts social change with changes in individuals. Its basic assumption is that it is the lack of certain characteristics of the individuals that make a community or a nation underdeveloped. Therefore, to develop, the community must first change the individuals.

¹J. A. Ponsioen, The Analysis of Social Change Reconsidered, A Sociological Study (The Hague: Mouton and Co., Printer, 1969), pp. 7-21.

²David C. McClelland, The Achieving Society (New York: The Free Press, 1961).

³Everett E. Hagen, Theory of Social Change (Homewood, Illinois: The Dorsey Press, Inc., 1962).

⁴Everett M. Rogers, Modernization Among Peasants: The Impact of Communication (New York: Holt, Rinehart and Winston, 1969).

⁵James D. Cockcroft, Andre Gunder Frank, and Dale L. Johnson, Dependence and Underdevelopment: Latin America's Political Economy (Garden City, New Jersey: Doubleday and Co., 1972), pp. 322-397.

The structural-deficit theory, contrary to the first one, assumes that the conditions or the social structures in which the individuals live are lacking or wrong, and therefore it is the structures of the community that have to be changed first. Most national development programs, rural development programs or community development programs designed to produce change stem from these two approaches.

After World War II, developed countries under the leadership of the U.S.A. from the "free world" block and the U.S.S.R. from the "communist world," started a huge international aid program to the emerging nations in helping the countries enhance their social, economic, and political development. In helping the developing nations, the U.S. Agency for International Development's approach was that of "injecting" modern technology, and knowledge into the recipient countries. New techniques in farming, and pest control, for example, were introduced to the people in rural areas through pilot projects and training. Change agents, either foreigners or local people specially trained for that purpose, became the key links in imparting the new technology and knowledge to the rural people. In this approach, there is no way but through education that such a transition can be made. Educational development, in both formal and nonformal settings, was the logical consequence of this approach. Community development and

community education flourished in Asia, Africa, and Latin America.

In this context, education is seen as an instrument in accelerating modernization and development. As stated by Frederick Harbison and Charles A. Meyers, "Education is the key that unlocks the door to modernization." This "truism" has been a fundamental assumption guiding national development planners and educators for the past two decades.⁶ Recently, however, this development "truism" has come under serious question. This reconsideration is due in part to the results of recent studies which show that education in a large number of instances produces consequences that hinder rather than promote modernization and development. This is not only in developing countries but in developed or modern countries as well.^{7,8,9,10} It must be noted, however, that there are studies that challenge

⁶Don Adams, Education and Modernization in Asia, Readings (Massachusetts: Addison-Wesley Publishing Company, 1970), p. viii.

⁷James S. Coleman, Equality of Educational Opportunity (Washington, D.C.: U. S. Government Printing Office, 1966).

⁸Philip H. Coombs, The World Educational Crisis: A System Analysis (New York: Oxford University Press, 1968).

⁹Christopher Jencks, et al, Inequality: A Reassessment of the Effect of Family and Schooling in America (New York: Basic Books, Inc., 1972).

¹⁰Samuel Bowles, "Schooling and Inequality from Generation to Generation," Journal of Political Economy, 1972, pp. 219-251.

some of these conclusions.^{11,12}

The other part of the criticism, which more directly challenges the assumption of the individual-deficit theory rather than education's instrumental role in promoting development, came from the fact that those development programs for the rural poor in developing countries, the so-called "green revolution," have failed to achieve their objectives. They were either not self-sustaining or only benefited the rich. The Comilla Project^{13,14} is an example of the first and the Punjab Agriculture Development project¹⁵ is an example of the second.

These criticisms have a great influence on the approaches used for national development plans, community development, and community education, by placing more emphasis on community participation. An overview of community development practices is presented in the next section.

¹¹Peter M. Blau and Otis Dudley Duncan, The American Occupational Structure (New York: John Wiley and Sons, Inc., 1967).

¹²W. B. Brookover, et al. The School Can Make a Difference (East Lansing: Michigan State University, 1976).

¹³Akhter Hameed Khan, Reflections on the Comilla Rural Development Projects, (Overseas Liaison Committee, American Council on Education, Paper No. 3, March 1974).

¹⁴Akhter Hameed Khan, Learning From China: A Pakistan Experience (Michigan: American Council on Education and Department of Agriculture Economics, Michigan State University, 1975).

¹⁵A. S. Kahlon, et. al., The Dynamic of Punjab Agriculture, (Ludhiana: Department of Economics and Sociology, Punjab Agricultural University, 1972).

Community Development

Before discussing what "community development" is, it is important to first define "community" as it is used in this study. As the term "community development," the term "community" can mean different things for different people.

According to Donald R. Fessler, "if community is defined, as sociologists define it, as any area in which people with a common culture share common interests, it will be much too flexible because it can be applied to a rural village of a hundred families or to a metropolitan area."¹⁶ He further argues:

"Community, then, to be a suitable locus for change efforts, must have a sufficient degree of primariness to make genuine interpersonal communication possible. That is, the people who associate in change efforts, even if only for the first time, must have sufficient knowledge or awareness of the backgrounds of their new associates to be able to relate them in a meaningful manner. This is rarely possible when people are drawn from areas so far from one another geographically and socially that they have little concept of how others live or think."¹⁷

A definition of community stated by Roland L. Warren seems appropriate enough to match the Fessler criteria. According to Warren, a community is "that combination of social units and systems which perform the major social func-

¹⁶ Donald R. Fessler, Facilitating Community Change: A Basic Guide. (La Jolla, Cal.: University Associates, 1976), p. 7.

¹⁷ Loc cit

tions having locality relevance."¹⁸ In the West Java context, this type of community is in the form of *desa* or village. The term *desa*, although used nationally, was originated and locally used in Java. On other Indonesian islands it has different names. "Dusun", for example, is used in South Sumatera; "Nagari" in West Sumatera; "Suku" in East Sumatera; "Gampong" in Aceh; and "Negeri" or "Dati" in Maluku (Moluccan Islands).¹⁹

Community development can be seen as a program, a method, a movement, a process, as well as philosophy.^{20,21} The key word, however, is "process." Biddle and Biddle defined a process as

"a progression of events that is planned by the participants to serve goals they progressively choose. The events point to changes in a group or individuals that can be termed growth in social sensitivity and competency."²²

William Kimball and Manfred Thullen define community development process as "a series of logical, identifiable, interre-

¹⁸ Roland E. Warren, The Community in America (Chicago: Rand McNally and Company, 1963), p. 9.

¹⁹ R. Soepomo, Mengenal Desa: Gerak dan Pengelolaannya Jakarta: PT. Intermasa, 1977), p. 15. See also Alfian, Sedikit Tentang Masalah Pembangunan Masyarakat Desa (Jakarta: Leknas, 1970), p. 2.

²⁰ David Brokensha and Peter Hodge, Community Development: An Interpretation (San Francisco: Chandler Publishing Co., 1969), p. 47.

²¹ Paul H. Gessaman, "What is Community Development," in Community Development Unit II (Ames, North Central Regional Center for Rural Development, 1978).

²² David Brokensha and Peter Hodge, op. cit.

lated, and sequential steps which result in certain outcome."²³ Its components are problem definition by community residents, application of systematic and analytic procedures of group decision, action, and evaluative technique.

Community development as a process, then, is client oriented as well as problem oriented, and the decision making process is de-centralized. In community development as a method, goals of the program are set outside the community, decision making participation is reduced, motivation is reduced, there is a shift from problem solving to procedures, and the process is weakened. In community development as a program, decision making participation and motivation are also reduced. The quantity and nature of the outcomes are determined outside the community. The content, activities and results of development are for the agency and not for the community.²⁴

Manfred Thullen listed 12 different approaches for community development:

- (1) The "community approach": holistic in nature and based on the premis that work has to be done within the community;
- (2) The "education approach": based on the premis that community problems are the results of inade-

²³Paul H. Gessaman, op. cit.

²⁴Paul H. Gessaman, op. cit.

- quate information;
- (3) The "human resource development" approach: individual and grass-root in nature, founded on the premis that to improve community individual potentials must be developed;
 - (4) The "planning, design and architectural" approach: that the design is important;
 - (5) The "community facilities improvement and physical development" approach: gives focus to low income people, based on the premis that most problems are the result of lack of facilities and services;
 - (6) The "economic development" approach: based on the premis that a healthy and growing economic base is essential;
 - (7) The "regional development" approach: that community problems are too big to be solved by a single community;
 - (8) The "power structure" approach: working behind the scenes. Its premis is that community decisions are made by power actors;
 - (9) The "helping the disadvantaged" approach: self-help, local, and people oriented, based on the premis that most problems result from inequalities in distribution of decision making power;
 - (10) The "conflict" approach: direct action and polarization based on the premis that it is useless to

- work 'within system', shake the system up;
- (11) The "radical change" or "reform" approach:
work within system, based on the premis that the system itself is not that bad, it is just misused and needs redirection and reform;
- (12) The "revolution" approach or "total change" approach: based on the premis that society is 'sick.'

The "economic approach" and "education approach" are two approaches that became a fashion of the 1950s in developing countries. Recently, however, the "community approach" has been getting more attention. This is in part due to the failure of the previous approaches, and in part due to the pressure of the donor countries to focus aid on the rural poor.

The purpose of community development is to promote better living for the whole community. In rural areas, this is done under the umbrella of rural development or rural reconstruction. In practice, rural development is synonymous with community development, especially in developing countries. Uma Lele defined rural development as "improving living standards of the mass of low-income population residing in rural areas and making the process of their development self-sustaining."²⁵ His definition is certainly appro-

²⁵Uma Lele, The Design of Rural Development: Lesson From Africa (Washington, D. C.: World Bank Research Publication, 1975).

priate for the definition of community development as a process. The only difference is its stress on rural areas.

Examples of community development or rural development programs in developing countries are presented here. India can be seen as the birth place of community/rural development. In 1921 Tagore established an Institute of Rural Reconstruction. The purpose was to bring back life in all its completeness, making the villages self-reliant and self-respectful, acquainted with the cultural tradition of their own country and completed to make an efficient use of modern resources for the fullest development of their physical, social, economic and intellectual conditions.²⁶ Gandhi, in 1931, with his famous non-violent approach, tried to make rural villages self-sufficient for meeting the basic wants of life. Both Tagore and Gandhi were attitudinal change oriented. According to Brokensha and Hodge, Tagore's attempt lacked financial support and there was no rapport with villagers. Gandhi, on the other hand, could reach people, but lacked thorough training and there was a tendency to substitute ideology for practical competence.²⁷

The Ting Hsien Experiment was started in China in 1931

²⁶David Brokensha and Peter Hodge, *op. cit.*, pp. 40-41.

²⁷Ibid., p. 43.

under the leadership of James Yen.²⁸ It had a fourfold program: cultural, economic, health and political. Three types of education were developed as the backbone of the experiment. The three types of education were: school type, home type, and community type. The school type had two features. First, in the form of the People's School with a lot of extension education systems for literacy programs, elementary schools, and leadership training. The second form was the "integrated village school" experiment, based on the principle that the entire community/village is the school, and the life of the village is incorporated in the school curriculum. The home type education tried to bring the school curriculum into the home. The purpose was to help to solve the problem of conflict between school and home. It tried to socialize the home. The community type of education gave more stress on further education and training for the graduates of the People's School in the organization's network. "To explore the potentialities of the masses, and find a way of educating them, not merely for life, but to remake life,"²⁹ was the basic goal of this mass-education movement.

The Comilla Project³⁰ is an example of the 1950's

²⁸Y. C. James Yen, The Ting Hsien Experiment in 1934 (Silang, Philippines: International Institute of Rural Development, 1975).

²⁹Ibid., p. 7.

³⁰Akhter Hameed Khan, op. cit.

community development programs which were mushrooming in developing countries through international aid, especially from the United States. It started with establishing a Rural Development Academy in Comilla, 1958, with threefold research activities -- observational and survey about economic and social conditions, experimental projects, and action research. It had five program areas: a training development center, drainage and roads projects as infrastructure for employment, irrigation works, cooperative projects, and agriculture extension which combined the training center and the cooperative projects. At that time China envied the Comilla project. The Chinese had conducted similar programs but with different approaches. The Tachai Project³¹ is an illustration of the Chinese approach. The use of education as the backbone of the program was the same. The Chinese, however, first made structural changes in the education/school system. The commune was used as an educational instrument. Deformalization of the formal school to make it accessible to the majority was one of their structural changes. Their three key concepts were: struggle, criticize, and transform. Instead of starting with irrigation work and drainage, the Chinese gave priority to land reconstruction. According to Akhter Hameed Khan,

³¹Hsiang-po Lee, Education for Rural Development in the People's Republic of China (Essex: International Council for Educational Development, 1972).

20 years after he established the Comilla Project, the Chinese approach and the prioritization on land reconstruction turned out to be more successful than the Comilla Project. He suggested that something can be learned from the Chinese Model. For a country like Indonesia, the problem is how to use the Chinese Model without becoming a communist state. The investigator believes that such a model can be adapted to the Indonesian situation without transforming Indonesia into a communist country, if, and only if, the government is really concerned about the poor and can trust the people to "run" the country.

The Chilalo Agriculture Development Unit,³² Sarvodaya,³³ Thai Rural Reconstruction Movement,³⁴ and Rice Production Improvement in Cambodia,³⁵ are other examples of rural development or community development in Asia and Africa. In all the programs, whether it was basically economic development,

³²Betru Gebregziabher, Integrated Development in Rural Ethiopia: An Evaluative Study of the Chilalo Agriculture Development Unit (Bloomington: PASITAM-International Development Research Center, 1975).

³³D. S. Liyasage, "Development in Srilanka," People's Participation in Development Vol. 2 (Calcutta: Indian FFHC Society and Action for Development FAO, 1973).

³⁴Phanom Smitanada, "Thai Rural Reconstruction Movement," People's Participation Vol. 2.

³⁵Raymond E. Burton, Getting Agriculture Moving: Essential for Development and Modernization (New York: The Agriculture Development Council, Inc., 1967), pp. 5-11.

agricultural, or political, education always had a very important role. It is in this context that community education came into focus and is becoming more and more important as an instrument for change.

Community Education

The development of the concept of community education is similar to the development of the concept of community development. In the early days it meant only adult literacy education, now it can include almost any kind of education -- formal as well as nonformal. It is moving from community education as a method to community education as a process, from an individual approach to a community approach.

LeTarte and Minzel defined community education as

"a philosophical concept which serves the entire community by providing for all of the educational needs of all of its community members. It uses the local school to serve as the catalyst for bringing community resources to bear on community problems in an effort to develop a positive sense of community, improve community living, and develop the community process toward the end of self actualization."³⁶

This definition shows an American trend in which the school is used as the center of a community education program.

It was not the case, however, in Asia or more specifically the Indonesian situation. Howard Hickey's definition is easier to comprehend and does not necessitate the use of the

³⁶Clyde E. LeTarte, Community Education: From Program to Process (Midland: Pendell Publishing Company, 1972), p. 19.

school as catalyst although it does not close the possibility of including the school. He defines community education as:

"a process that concerns itself with everything that affects the well-being of all citizens within a given community. This definition extends the role of Community Education from one of the traditional concept of teaching children to one of identifying the needs, problems and wants of the community and then assisting in the development (or the identification) of facilities, programs, staff and leadership toward the end of improving the entire community."³⁷

The word "assisting" in the definition implies that the community itself takes the major role in the process. The sentence "identifying the needs, problems and wants of the community" is felt by the investigator to be the essential difference between the traditional and the latest community education concept. It is also the very object of this study. Community needs, the importance in identifying community needs, and how they can be identified or assessed, are the topics of the next two sections.

It is important to note that, in such an approach, the community education process will not be ending as long as there is a community. That is why the lifelong education concept is getting more and more attention. Lifelong education should not only become the basic philosophy of education but also the "way of education." It should be put into practice.

³⁷Howard Hickey, et. al. The Role of the School in Community Education (Midland: Pendell Publishing Co., 1969), pp. 31-32.

Section 2. Community Problems
and Community Needs

Definition

The terms "problem" and "needs" in the context of a community needs assessment are sometimes used interchangeably and sometimes differently. It shows how the two are inter-related.

Odiorne defines a problem as "a deviation from a standard, important enough to be solved, and to which somebody will be committed to a solution."³⁸ In a community the standard involved is the desired condition. A deviation represents the present condition and the need is the difference between the two. Analogous to it, for learning purposes, the standard involved is the desired behavior or competency, a deviation represents the present behavior or competency, and the learning need is the difference between the two.³⁹

In the Shorter Oxford Dictionary the term "need" is defined as, "necessity arising from the facts or circumstances of a case; imperative call or demand for the presence or possession, etc. of something." The needs are sometimes

³⁸Larry Nolan Davis, Planning, Conducting, and Evaluating Workshops (Austin, Texas: Learning Concepts, 1974), p. 35.

³⁹Larry Nolan Davis, loc. cit.

classified as "real need" and "felt need." The real need is a desirable element or condition that is lacking in, and would improve, a situation. Felt needs are what people with problems recognize as the elements necessary to improve their situation. Felt needs may also be real needs, but often they are not.⁴⁰ By these definitions, a person could feel that he needs to get further education for a diploma, but probably his/her real need is additional income. How to know which is the real need and which is the felt need is not easy to answer.

"Educational need" is defined by Knowles as "the discrepancy between what an individual (or organization or society) wants himself to be and what he is."⁴¹

As can be seen from the definition of problem and the definition of educational need, the term "problem" and "need" are very similar. The "problem" implies "need," and both imply discrepancy. The first describes the evaluative condition of discrepancy, and the second describes the discrepancy itself and the necessity to bridge the discrepancy. For this reason, the two terms are used together or interchangeably.

The process of identifying the problem and needs is

⁴⁰Carol S. Cramer, "The Diagnostic Process in Adult Education" (Unpublished Master Thesis, Indiana University, 1960).

⁴¹Malcolm S. Knowles, The Modern Practice of Adult Education (New York: Association Press, 1976), p. 86.

what needs assessment is all about. It is called a "learning needs assessment" if its purpose is to identify educational or learning needs. It is called "community needs assessment" if its purpose is to identify the needs of a community as a whole -- educational as well as non-educational.⁴²

Type of Need

There are different ways and labels for classifying types of needs. On an individual level, Maslow's hierarchy of human needs is an example, as presented in Figure 1.

McIntosh, Klonglan and Wilcox classify human needs into biogenic and derived needs. The biogenic, vital, or basic type of needs are identified as universals of biological survival.⁴³ The derived needs are of two categories, social and psychological. These are presented in Table 1.

In classifying community needs, however, such a classification is difficult to use. Although a community consists of individuals, the community needs are not the total combination of the individuals' needs. One way to classify the needs is by the type of community institutions, and another way of classification is by the type of community

⁴²Note that here the term "learning need" and "educational need" are treated as synonymous.

⁴³Wm. Alex McIntosh, Gerald E. Klonglan, and Leslie D. Wilcox, "Theoretical Issues and Social Indicators: A Societal Process Approach" in Policy Sciences 8(1977), pp. 253-254.

function. Another possible way is by the type of governmental departments, or by general area of needs. There is no single accepted way for classification of needs at the community level.

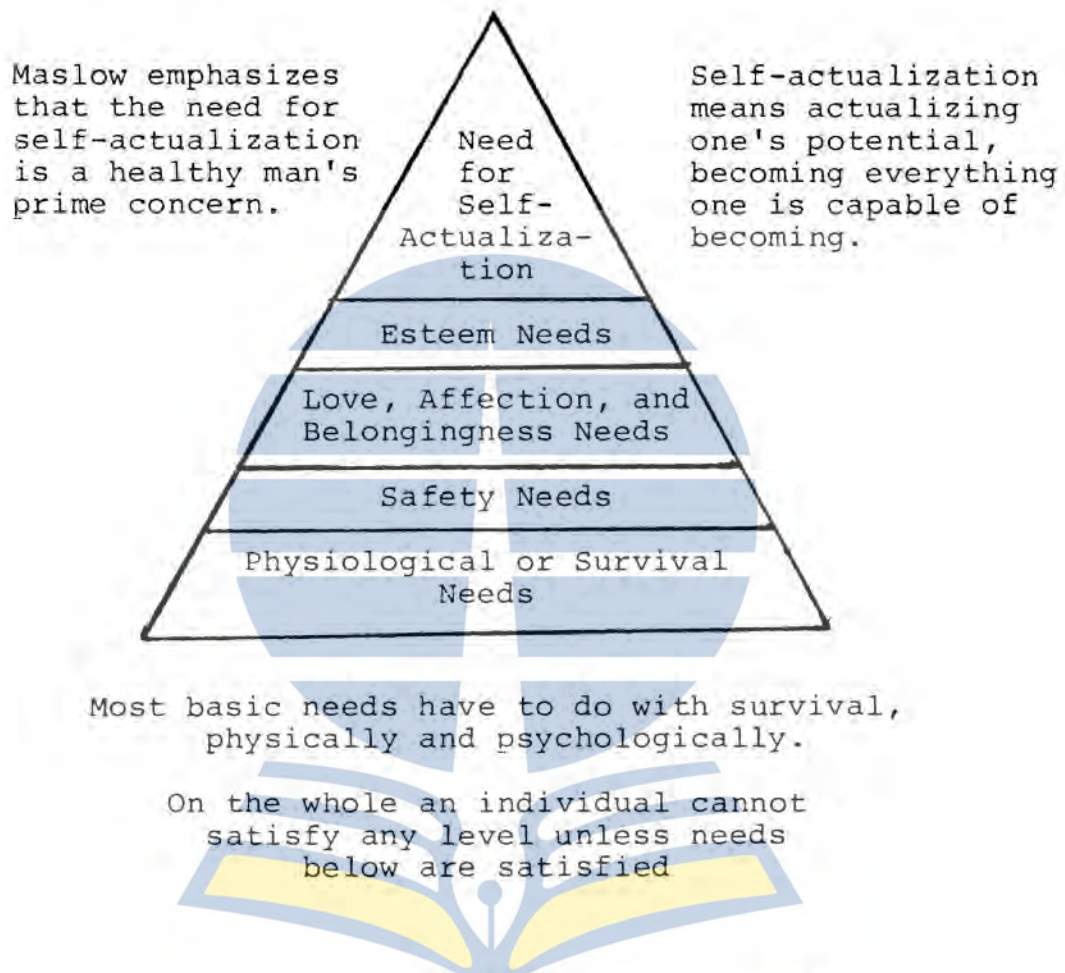


FIGURE 1
MASLOW'S HIERARCHY OF HUMAN NEEDS⁴⁴

⁴⁴Malcolm S. Knowles, *op. cit.*, p. 24.

TABLE 1
BASIC AND DERIVED HUMAN'S NEEDS*

Basic Needs

1. Nutrients
2. Bodily warmth and coolness
3. Water
4. Oxygen
5. Bodily hygiene
6. Exercise
7. Rest and sleep
8. Expulsion of bodily wastes
9. Avoidance of fear and injuries conditions
10. Avoidance of inclement environmental conditions
11. Sexual tension maintenance

Derived Needs: Social

1. Prestige
2. Acquisition of knowledge and skills
3. Explanation of the meaning of human existence
4. Creature comfort (goods and services above and beyond subsistence)
5. Income
6. Employment

Derived Needs: Psychological

1. Affection
 2. Interaction
 3. Communication
 4. Protection from the social misdeeds of others
-

*Source: McIntosh, Klonglan, and Wilcox (1977)

For the purpose of this study two classifications were made. First on the basis of a community functions classification, and the second on the basis of a general area classification.

Type of Need by Community Function (Axinn Model).

George H. Axinn⁴⁵ identifies seven functional components that characterize a typical rural social system. The model was designed after he visited rural villages in Indonesia. The seven community functions are: supply, production, marketing, personal maintenance, health care delivery, governance, and learning. The functions are related to each other through a linkage infrastructure, and are all set into social, political, economic, religious, cultural, and physical environments. (Figure 2)

Axinn explains the functions as follows:

Supply Function. The end of the supply function is to provide the production function with its inputs. The means of this function include storage, exchange, and transportation of such inputs, as (for agriculture production) seed, feeds, fertilizer, and credit; and for other production, the appropriate raw materials. Learning activities in an agricultural village related to supply may consist mostly of personal experiences with the regularities

⁴⁵George H. Axinn, Non-formal Education and Rural Development (East Lansing: Program of Studies in Nonformal Education, M.S.U., 1976), pp. 7-13.

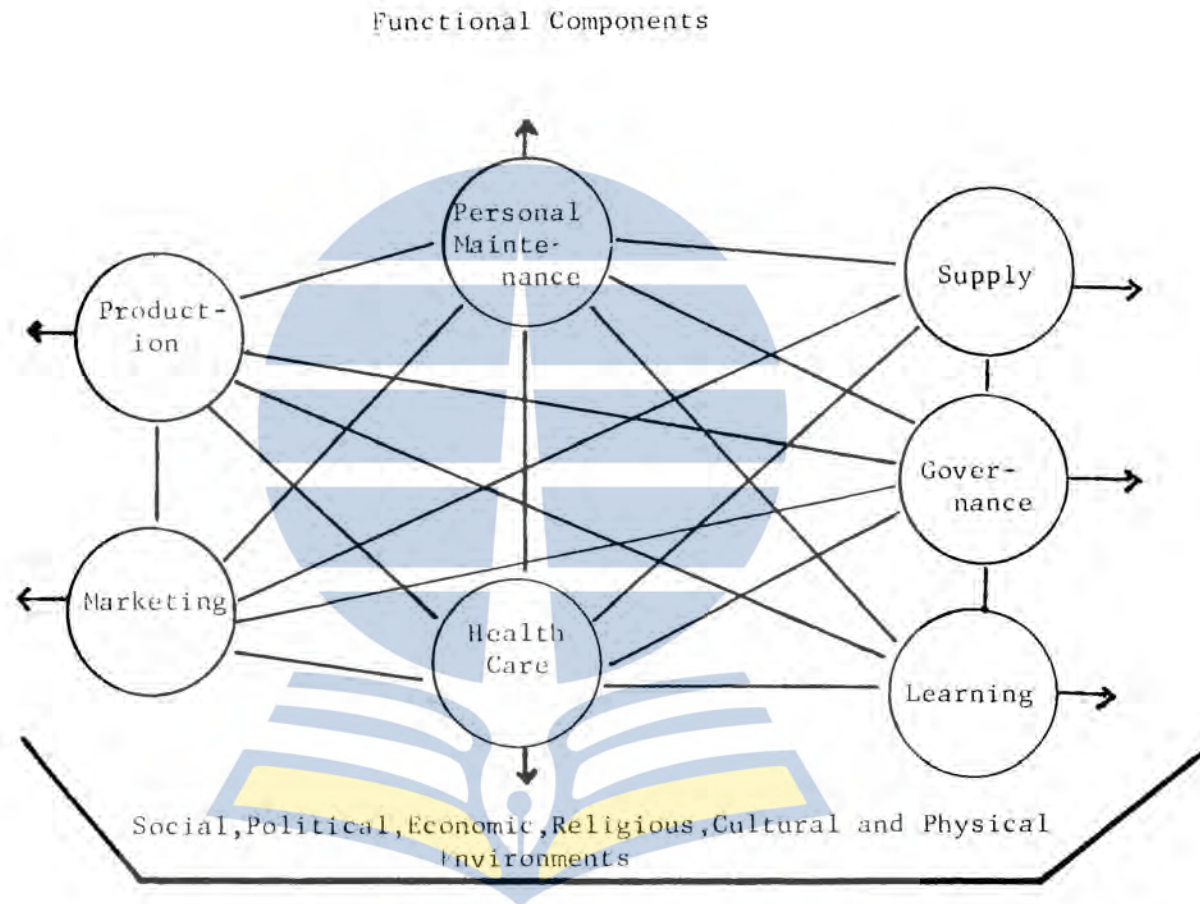


FIGURE 2
THE RURAL SOCIAL SYSTEM IN ITS ENVIRONMENT

and accidents of nature.

Production Function. Production concerns manipulation of the supply elements to create items which can be marketed (including consumption). The end of the production function is to create the goods which the system may use. The means of this function include a combination of such resources as land, labor, capital, and technology with energy. Learning related to production may take place through repetition, guided practice, observation, play, experiment, demonstration, discussion, personal explanation and various media. Rural people spend much of their time and energy in production activity.

Marketing Function. Marketing means the selection, movement and arrangement of produced goods for storage, trade or consumption. It also includes valuing goods, counting and bartering, bookkeeping, use of money when substituted for goods, and issuing credit to "customers." The end for this function is to dispose of the output of the production function. The means for this function include direct consumption, as well as storage, exchange, transportation, and processing of the output of production.

Personal Maintenance Function. Individual consumption of produce is classified as "Personal Maintenance." The end of this function is to keep the individual's body operating within its cultural context. The means of this function include such activities as feeding one's self,

bathing, putting on and taking off clothing, grooming, participation in sleep, rest and recreation, and other similar activities. Almost as important as satisfying these biological needs for personal maintenance are satisfying social and psychological needs through consumption and other activities.

Health Care Delivery Function. The end of this function is to ensure the physiological (and psychological) well-being of the members of the system. The means of this function include dispensing of various substances and suggestions, as well as administration to the human anatomy.

Governance Function. The end of this function is the maintenance of appropriate relationship among the components and between the system and other systems. The means of this function are through control or regulation of the flow of transactions via the linkages within the system and between the system and other systems.

Learning Function. The end of this function is to ensure that each new generation understands how to do those things which need to be done in performing all of the other functions, and also to facilitate transactions (communication) among the various functional components. As social system becomes more specialized, the learning function develops ends of both functional (horizontal) and status (vertical) differentiation. The means of this function are speech, hearing, and the other senses, facilitated by such

instruments as schools, newspapers, radio, meetings, dance, drama, song, books, exhibits, telephone, drums, and a multitude of other channels of communication.

Axinn also explains that a change in any component affects all other components and all linkages. Most changes are normally resisted by all aspects of the system. The learning component plays a unique role as a facilitator of transactions on all linkages, and serves to enhance the frequency, fidelity and capacity of the linkages. Significant change in a rural society involves not only learning new skills related to those functions but frequently the alterations of cultural norms.

Section 3. Methods of Needs Assessment

Why Needs Assessment

We have so far reviewed the context of needs assessment. However, the question of the necessity of needs assessment still needs answering. The previous discussion indirectly gave answer to this question. Here are presented several reasons why needs assessment is important.

According to Larry Davis, assessing needs serves at least four purposes: it gives a place to begin; it provides a direction; it answers the question "why?"; and it authorizes continuation or gives permission to stop.⁴⁶ It can be seen clearly in the planning and evaluation cycle of a community

⁴⁶Larry Nolan Davis, op. cit., p. 35.

education program as presented in Figure 3. Whether the needs assessment is conducted top-down or grass-roots, it certainly gives direction and a starting point, and a basis to stop or continue a program.

Other reasons come from the assumption that educational programs based on learning needs, or community programs based on community needs, will be more successful if based on the needs,⁴⁷ and it is assumed that in turn it will make an appropriate contribution to individuals and the community as a whole.⁴⁸ The following are some observations and research findings in the field of community education that further enhance the assumption.

Critics have questioned the relevance and adequacy of educational systems in the context of specific learning needs of rural populations. Coombs and Ahmed wrote:

"...the incompatibility between what schools were teaching and what the people needed to learn, was most severe in rural areas."⁴⁹

After visiting various projects, Bhasin⁵⁰ reached the

⁴⁷U.S. Department of Health, Education and Welfare, A Guide to Needs Assessment In Community Education (Washington: U.S. Government Printing Office, 1976), p. 4.

⁴⁸Dara S. Gill, Education For The Rural Youth - Some Problems of Determining Learning Needs (Paris: IIEP, UNESCO, 1977), p. 11.

⁴⁹Philip Coombs and M. Ahmed, Attacking Rural Poverty: How Nonformal Education Can Help (Baltimore: John Hopkins Press, 1974), p. 4.

⁵⁰Kamla Bhasin, Participatory Training For Development (Bangkok: F.A.O.-United Nations, 1976).

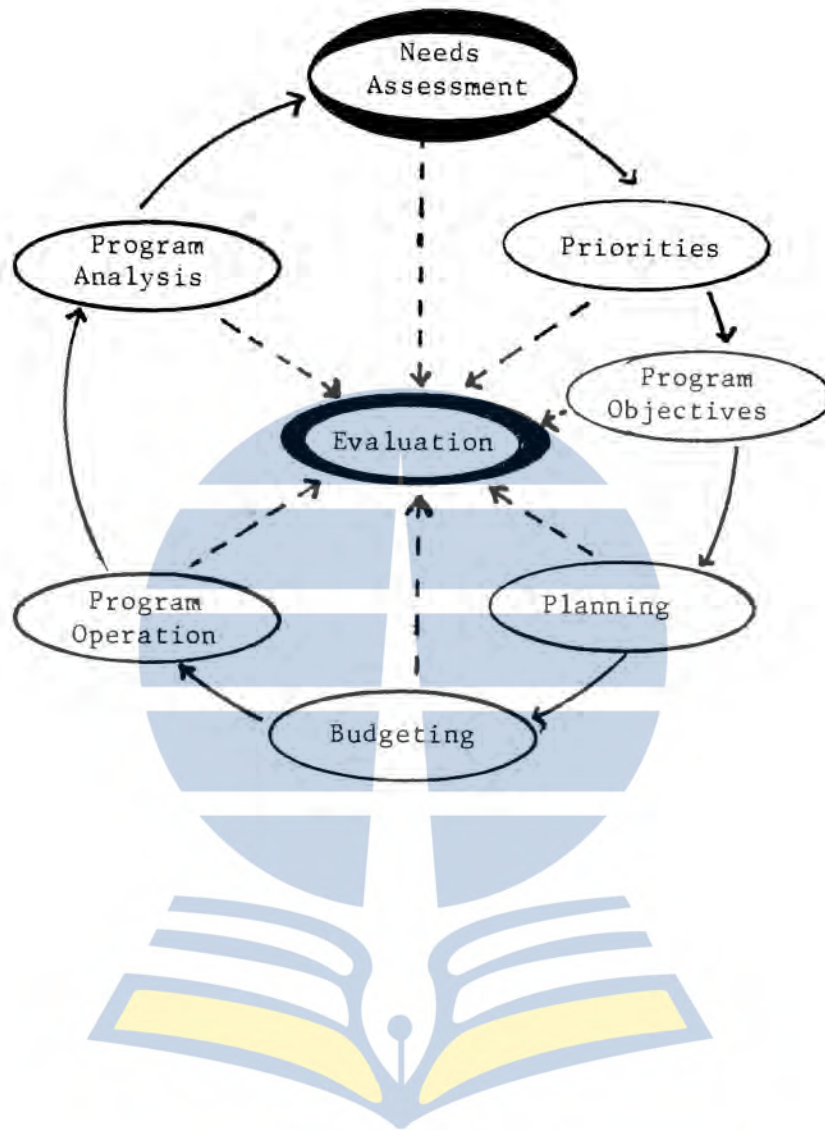


FIGURE 3
NEEDS ASSESSMENT IN THE PLANNING AND EVALUATION CYCLE*

*Source: U.S. Department HEW (1976)

following conclusions. First, programs for development should be planned and implemented so that they lead to the creation of strong self-reliant communities and not to their dependence on outside agencies and groups. Second, development priorities should be based on the felt needs of the people. For this it is necessary that those who are formulating these programs know the people, understand their problems, their needs and their potential.

In Indonesia this incompatibility of programs and people's needs is reported in several research and seminar reports.^{51,52} E. De Vries suggested that "...rural economy should see the problems from the eyes of the peasants themselves...because the peasants themselves, their families, their jobs, their livestock, their consumption, their belongings, plans, hopes and fears, are the ones that direct the agriculture direction."⁵³

Among the ten principles recommended by UNESCO as the basis for adult education, the first mentioned is the need to use the needs of the participants as the basis. It

⁵¹BP3K, Hasil Seminar Nasional Pendidikan Kedesaan (Jakarta: BP3K, 1976), pp. 3-4.

⁵²LPIS, Beberapa Masalah Pembangunan Pedesaan: Suatu studi Kasus di Kecamatan Sayang, Kabupaten Demak, Jawa Tengah (Salatiga: Universitas Satya Wacana, 1976).

⁵³E. De Vries, Masalah2 Petani Jawa (Jakarta: Bhratara, 1972), p. 11. (Translation by Kusumo Sutojo; adapted into English by the writer).

says:

"(a) it should be based on the needs of the participants and make use of their different experiences in the development of adult education; the most educationally underprivileged group should be given the highest priority within a perspective of collective advancement.

....
 (e) be adapted to the actual condition and seek the participation of individual adults, groups and community in decision making at all levels."⁵⁴

All these quotations show how important needs assessment is. How to conduct needs assessment is, then, another question to be answered.

Approach and Procedure of Needs Assessment

There are a variety of approaches and procedures for needs assessment. The following are illustrations as suggested in the readings or as conducted in the field.

To meet the educational needs of children, Swick and Diggers suggest a common-sense approach.⁵⁵ The basic steps are:

- (a) identification of needs (selecting priority needs)
- (b) organization and communication of needs to lay and professional groups

⁵⁴Yearbook of Adult and Continuing Education 1978-1979, Fourth Edition (Chicago: Marquis Academic Media), p. 108.

⁵⁵Kevin J. Swick and R. Kim Driggers, "Educational Needs and Programs A Common Sense Approach For Educational Leaders," Education, Vol. 96, 1976, No. 3: pp. 276-277.

- (c) selection of programs to meet needs
- (d) implementation of programs on an experimental basis
- (e) development of an on-going evaluation process to insure continuous improvement in the school program.

According to Brittingham, the basic activities of needs assessment through a goal-ratings method are:⁵⁶

- (a) listing the full range of possible goals
- (b) determining its relative importance
- (c) assessing the degree to which the important goals are being achieved by the program (identifying discrepancies)
- (d) determining which of the discrepancies between the present and desired performance are the most important to correct.

According to U.S. Department of HEW,⁵⁷ a successful needs assessment, regardless of the size of the program, requires the completion of nine major steps:

- (a) identifying people and roles
- (b) speaking the same language
- (c) stating concerns and goals
- (d) finding the needs
- (e) measuring and ranking the needs

⁵⁶Barbara E. Brittingham and Anton J. Netusil, "The Reliability of Goal Ratings in a Needs Assessment Procedures," The Journal of Educational Research, Vol. 69, no. 5, 1976, pp. 184-188.

⁵⁷U.S. Department of HEW, op. cit., p. 7.

- (f) setting priorities
- (g) determining the feasibility of meeting the needs
- (h) planning the program (objectives and procedures)
- (i) continuous reassessment.

English and Kaufman⁵⁸ suggest 14 generic steps of needs assessment and a seven step follow up for action:

- (a) planning to plan: charting means and ends
- (b) goal derivation
- (c) goal validation
- (d) goal prioritization
- (e) goal translation: performance indicators and objectives
- (f) validation of performance objectives
- (g) goal re-prioritization
- (h) futuristic input to goal ranking
- (i) rerank goals
- (j) select testing instruments or evaluative strategies for assessing the current state
- (k) collate data gathered
- (l) develop initial gap or "need statements"
- (m) prioritize gap statements according to step (d)
- (n) publish list of gap statements

The seven steps of post needs assessment which act upon the data produced in the needs assessment are:

⁵⁸Fenwick W. English and Roger A. Kaufman, Needs Assessment A Focus for Curriculum Development (Washington, D.C.: Association For Supervision and Curriculum Development, 1975), pp. 13-14.

- (o) interpolate gaps by program level
- (p) conduct diagnostic/planning sessions to develop implementation strategies to meet identified needs
- (q) budget for implementation strategies
- (r) fund strategies
- (s) implement strategies
- (t) reassess gaps via feedback
- (u) repeat steps of needs assessment process.

These examples show three things. First, that needs assessment is a continuing process; second, that prioritizing needs is necessary; and third, that at least there are two different approaches to needs assessment -- a "systematic-logic approach" and a "target-group approach." A UNESCO Regional Seminar identified the two approaches as "a priori approach" and "environment-based approach."⁵⁹ The first type of approach can be done, in the extreme case, without going to the field. In other words, an "arm chair" needs assessment. The process is started from a very general goal and then is broken down into behavioral objectives through several breaking-down and specification steps. This is certainly a system approach model.

The "environment-based approach" implies understanding the learning needs of the "target" group in the particular

⁵⁹ UNESCO Regional Office for Education in Asia, Rural Youth and Out-of-School Education in Asia (Bangkok: 1974), p. 11.

environment or milieu (socio-economic-culture) of that group. The determination of the learning needs proceeds from an initial analysis and understanding of the milieu factors and the individual's interaction with them. The focus is a particular ecological system with its complex of economic and social relationships; its resources, natural and human, individual and institutional, actual and potential, utilized and underutilized; and the cultural values and traditions.

The first approach is probably appropriate for the purpose of designing schools and college curriculum, though it is also questionable. A good example of a systematic approach for curriculum development is an Indonesian experiment.⁶⁰ It took five years to develop a National Curriculum for the K-12 school system. Probably it will need ten more years to see its relevance and effectiveness. During that time, emerging needs could make the curriculum obsolescent.

The second approach is appropriate for community needs assessment. First, because it is primarily concerned with adults who can be trusted to make their own decisions; secondly, because it is concerned with solving community problems more directly and in a shorter amount of time than

⁶⁰ Sudijarto & Sutjipto, Setting Priorities Among Educational Objectives (Saigon: SEAMEO Regional Center for Educational Innovation and Technology, 1974).

the schooling system; and third, it can be done as part of the program, which is supposed to be a characteristic of a community education program, so that there is not a time lag problem between the preparation and the implementation of the program. The adoption of the second approach for community needs assessment has at least four implications:⁶¹

1. the identification of the problems and the learning needs becomes a participatory activity involving the whole community and governmental agencies.

2. the approach recognizes the critical importance of attitudinal changes for community education programs

3. it is essential to recognize that learning needs do not form a single profile. Consequently the programs designed to meet these needs must necessarily be diverse as well as multifunctional.

4. it implies that not only the problems and learning needs are determined by a participatory process with the people in the community, but that the programs also draw for their comment, to the maximum extent feasible, on the local milieu and resources.

Techniques for Conducting Needs Assessment

"The real needs of the rural communities are really not difficult to identify. Felt needs, however, can be identified

⁶¹UNESCO Regional Office for Education in Asia, *op. cit.*, pp. 11-12.

only in consultation with the people."⁶² This statement implies that the real needs can be identified by indirect consultation with the people. For example, observation. For the felt needs, which is the focus of this study, however, other techniques that in one way or another communicate directly with the people are needed. These techniques, among others, are: interview, group meeting, questionnaires, delphi technique, rating scales, or their combinations.

To conduct a complete community needs assessment, different techniques are required because the types of data to be collected are of different kinds and from different sources. An observation technique is suitable for collecting data concerning environmental conditions. A documentary technique is suitable for collecting information from documents in the community or other sources, an interview or a questionnaire, or a group meeting technique must be used for collecting felt needs of the people in the community. Since this study chooses the interview and group meeting techniques, which are labeled as the "interview approach" and the "group approach," the remaining discussion is focused on these two techniques.

Interview Approach, is a method of collecting data through face-to-face questioning. The questions asked

⁶²APEID, UNESCO Regional Office for Education in Asia, Managing Education for Rural Development: Report of the Advance Level Workshop on Education for Rural Development (New Delhi: 1977), p. 23.

usually are an open-ended type of question. Sometimes it is also called "reconnaissance survey."⁶³ Sometimes the interview is conducted via telephone. According to Celia Deschin, interview as a method of research is neither valid nor invalid per se. "The validation depends upon such factors as: the problems to be investigated, the kind of data relevant to the problem, the persons to be interviewed, and the qualifications, the training, and the skill of the investigator who utilize interviewing as a research instrument."⁶⁴

In terms of forms and style there are standardized and nonstandardized interviews.

"The standardized interview is designed to collect precisely the same categories of information from a number of respondents and the answers to all questions must be comparable and classifiable. Thus, we can be sure that any differences in the answers are due to differences among respondents rather than in the questions asked."⁶⁵

There are two sub-types of the standardized interview, the scheduled and the nonscheduled.

"The scheduled interview not only specifies the question in advance but also uses the questions in the same order with each respondent. The

⁶³William W. Reeder, Determining the Problems and Needs of Your Community (Ithaca: Cornell University, p. 2.)

⁶⁴Elizabeth Herzog, et. al., Research Interviewing in Sensitive Subject Areas (New York: National Association of Social Workers, 1963), p. 19.

⁶⁵Raymond L. Gorden, Interviewing: Strategy, Techniques, and Tactics (Homewood, Illinois: The Dorsey Press, 1976), p. 60.

nonscheduled interview gives the interviewer some choice as to the order of the questions, freedom to attempt alternative wordings of the same question, and freedom to use neutral probes if the first response to a question is not clear, complete, or relevant. To keep within the requirement of standardized interview, however, the nonscheduled interviewer must either initially record the responses on a standardized form or reduce the free flow of information to a standard form, later, by the process of content analysis."⁶⁶

The scheduled interview can have open-ended or closed questions. The nonscheduled interview has always open-ended questions. It is sometimes called a "semi-structured interview."⁶⁷

Trained and skilled understanding of people in relation to a given social situation, and awareness of the interaction between interviewer and interviewee, are competencies needed by an interviewer.

Group Meeting. David Wright defined small group discussion as

"the process whereby two or more people overtly think and work together in order to share information or solve a problem."⁶⁸

This definition is suitable for the "group meeting" definition. There are many kinds of small group meeting, however, that can be used for discussion. For example, brainstorming,

⁶⁶ Ibid., p. 61.

⁶⁷ Hugo F. Reading, A Dictionary of The Social Sciences (London: Routledge & Kegan Paul, 1977), p. 112.

⁶⁸ David W. Wright, Small Group Communication: An Introduction (Dubuque: Hunt Publishing Co., 1975), p. 1.

buzz groups, input groups,⁶⁹ and Nominal Group Techniques.⁷⁰

The Nominal Group Technique (N.G.T.) is a process that brings persons together and uses some discussion guidelines to generate ideas. It encourages idea input by each individual. The process involves three phases:

- (a) A "nominal phase" includes: the silent listing of ideas in writing by each individual in the group; sharing in round robin fashion of the ideas written by each individual; the recording of ideas until all members of group have no further ideas to share. The ideas are to be listed quickly, without discussion.
- (b) A "discussion phase" which is not free-wheeling. Instead, each idea is given attention. The person suggesting an idea is given the opportunity to clarify or explain the idea. The round robin discussion of ideas insures input by all group members without domination by any one.
- (c) A "voting phase" in which each individual privately and in writing ranks or rates items numerically. The group decision is based on the pooled outcome of individual votes. This form of voting insures that each member has equal impact in the group's decision process.

⁶⁹ Ibid., p. 5.

⁷⁰ Andre Delbecq and Andrew VanDeVen, Nominal Group Technique (N.G.T.): A New Process for Group Input and Decision Making (Unpublished leaflet).

This N.G.T. type of small group meeting is the one that was chosen for the purpose of this study, with small changes as are described in Chapter III.

According to Wright, there are five advantages of small group communication/work

- "1. Individuals working as a group can provide more ideas than can an individual generating ideas alone.
2. In general, the solutions made by groups are better than those made by individuals alone.
3. Participation in small groups appears to aid learning.
4. By and large, individuals who made decisions in groups have more commitment to those decisions than if they made those decisions alone.
5. Small group communication serves a suitable outlet for ventilation."⁷¹

Disadvantages of small group communication are: time consuming; discussion often wasteful; often suppresses minority viewpoints; group membership is often too heterogeneous to be productive; group goals, purposes and objectives are not agreed upon by the group participants.⁷²

In the N.G.T. situation those disadvantages seem minimal. If the time for discussion can be structured, it will not consume too much time.

Interview and Group Meeting techniques have been used in Indonesian rural villages. A combination of Learning Identification Cards, Interview and Group Discussion tech-

⁷¹David W. Wright, *op. cit.*, p. 8.

⁷²Loc. cit.

niques was used to identify learning needs and human resource in a unit of community in West Java⁷³. Identification Cards were distributed to respondents. They were asked to write down what kind of learning they needed and what kind of skills they could teach to others. Interviews were also conducted with nonleaders, and group discussion sessions were carried out with community leaders. Data gathered from the three sources were processed with a weighting procedure, to get final results of the ranking of need priorities. Unfortunately, there was no attempt to compare the effectiveness and efficiency of the three techniques.

Another attempt was reported by Marzuki and Laoh.⁷⁴ Both interview and group discussion techniques were used for identifying felt learning needs and community problems from three groups of villager: formal *desa* leaders, informal community leaders, and nonleaders/participants. Descriptive comparisons were made of the types of needs derived from the three groups in each technique. From the data presented in the report, the investigator found the following information:

⁷³A. Suryadi, Cara-Cara Untuk Mengidentifikasi Kebutuhan Belajar dan Sumber Belajar Dalam Masyarakat (Jakarta: BP3K, 1977).

⁷⁴M. Saleh Marzuki and Laoh, Diagnosis of Community Needs in Relation to Basic Learning Package (Malang: SEAMEO Regional INNOTECH Project CB-BLP/PAJAR BERKEMAS, 1978).

- (a) In both interview and group techniques the formal *desa* leaders identified fewer types of needs while the nonleaders/learners identified almost three times as many types of needs;
- (b) Differences occurred among the three groups on the priority of needs identified;
- (c) Nonleaders seem to have more similarities with formal leaders than the informal community leaders;
- (d) Interestingly enough the literacy program was identified as a need by the nonleaders group only.

A study conducted through an interview approach in Aceh Province⁷⁵ resulted, among others, in the following findings:

- (a) Learning needs derived from two communities varied considerably;
- (b) Respondents inclined to state the needs in general terms;
- (c) The felt needs were real needs;
- (d) Two general area types of needs frequently mentioned were: home economics, and vocational skills.

⁷⁵Fakultas Ilmu Pendidikan, Universitas Syah Kuala, Laporan Penelitian dalam Rangka Proyek Experimentasi Pusat Kegiatan Belajar Daerah Istimewa Aceh (Banda Aceh: FIP-U.S.K., 1976), pp. 36-37.

Summary

Concepts of community/rural development and community education have been reviewed in the context of theories of social change. Related readings show serious criticism of the individual-deficit theory of change and the "truism" of education's instrumental role in development and modernization.

A new approach is emerging in education in general and community education in particular which gives more stress than before to the importance of community participation and community needs. This in turn is a basis for the emerging need for community needs assessment.

There were several studies using different kinds of techniques and a recommendation of how to conduct a needs assessment. In contrast these can be classified as an "a priori approach" versus an "environment-based" approach, or, as preferred by the investigator, a "systematic-logic approach" versus a "community approach." The second approach is what is seen as the most appropriate one for community needs assessment.

Among the techniques identified, the "interview" and the "group meeting" were chosen as the methods of this study. Three studies of a similar type were reviewed. These readings are reviewed and presented as a theoretical basis for this study, and/or background information in directing the research.

CHAPTER III

METHODOLOGY AND DESIGN OF STUDY

Interview Approach and Group Approach were the two methods of field study used in this study. These two approaches were also the object of the research being studied. How the study was planned and conducted, and how its data were analyzed are described in this chapter.

This chapter is organized in the order of the tasks undertaken. They can be clustered into three stages: preparation, fieldwork, and analysis. These are presented as the three sections of this chapter.

Section 1. Preparation Stage

The preparation of this study includes the construction of instruments and procedural guides, getting government permission, selection and training of fieldworkers, selection of sites for the study, and trying out of the instruments.

Construction of Instruments

Two instruments for collecting data from the subjects, in the form of an interview approach guide and a group approach guide, were developed for the purpose of this study. For the use in the field, the two instruments had

to be translated into the local language -- Bahasa Sunda. The Interview Guide is presented in Appendix A, and the Group Approach Guide in Appendix B.

Translation of Instruments

Two translators were hired for translating the Interview Guide and the Group Approach Guide. Both were experts in Bahasa Indonesia as well as Bahasa Sunda. The first translator was asked to translate the original Bahasa Indonesia version of the two instruments into Bahasa Sunda. The second translator was asked to translate the Bahasa Sunda translation back into Bahasa Indonesia. This was done to double check the accuracy of the Bahasa Sunda translation. Four mistakes were found in the translation. The mistakes were in the translation of the words: "self development," "need," "sex", and "discussion." These mistakes were then remedied.

In terms of time, the translation took three days. The two guides were then reproduced for try-out in a village and training of the fieldworkers.

Approval of Local Government

To carry out research in a village the investigator needed to get approval from the provincial government as well as the *kabupaten* office. A letter from the Chairman of the Office of Educational and Cultural Research and Development, Ministry of Education, was brought to the West

Java Governor's office of the Directorate of Social Politics asking his approval. As indicated by the name "directorate," this office is the representative office of the central government under the Ministry of Interior. To secure the approval, a recommendation from the Provincial Development Planning Board was a prerequisite. The Directorate then wrote a letter to the *kabupaten* administrator describing the approval and the nature of the study. The Sub-Directorate of Social Politics in the selected *kabupaten* (i.e. Kabupaten Purwakarta) then wrote a letter for the investigator and his team as a letter of approval with three copies for the three selected *kecamatan*s (sub-districts) in which the three *desa*s were selected. According to the *kabupaten* letter, there was no need for the *kecamatan* to write another letter for the *desa* official. The investigator, however, asked the *kecamatan*s to draft an introductory letter to the respective *desa*s.

It took three weeks to get approval from the provincial office, two days from the *kabupaten* office, and two to three hours from the *kecamatan*s. With those letters of approval, there was no difficulty in securing the approval of the three *desa* chiefs.

Fieldworkers Selection and Training

To minimize investigator bias on the results of the study, two fieldworkers were specially recruited and trained

to conduct the fieldwork; one male and one female. The female fieldworker was selected to do all of the interviews and group processes. A female was chosen to do the job because the investigator's experiences in field work in rural villages indicated that a female interviewer tends to have more advantages than a male interviewer for two reasons. First, women villagers, most if not all being moslems, are uneasy in talking alone with a male interviewer because of religious and cultural reasons. Second, male villagers show a greater "respect" to a female interviewer than to a male interviewer, or at least they have difficulty in refusing the interview. A female interviewer has a greater possibility for developing rapport with the respondents than a male interviewer.

The two fieldworkers had experience in field study. Both were staff members of the IKIP at Bandung (Institute for Teacher Training and Educational Science). For this study, however, they were given special training. The same training was given to both of them so that one could replace the other in case it was needed. Three steps of training were conducted. First, the investigator, as the supervisor for the fieldwork, described the purpose and nature of the study, described in detail the procedures and instruments, and asked the two fieldworkers to further study and learn the instruments at home. They were asked to try out the instruments with one or two villagers or low income persons

in the city. In the second step, they were asked to try out the group approach guide with a group of IKIP students. The try out had two purposes. First, to familiarize the fieldworkers with the guide and its procedures, and secondly to check the time needed, the level of understanding of the subjects, and to get some feedback from the group about the proceedings. The third step of training was conducted in the field. A *desa* was chosen as a "try out" *desa*. All methods and procedures which were designed for the real fieldwork were conducted first in this *desa*. How the try out was conducted is presented in the "Try-Out" section.

Selection of Sites

This study was concerned with rural communities in West Java, Indonesia, which were in the form of *desas*. Since this study was of an exploratory nature, it could use any *desa swadaya* without any sampling procedure to choose it. The investigator, however, tried to be more objective in choosing the two *desas* by conducting the following selection procedures.

First, he purposely selected a province and a *kabupaten* in it. The province was West Java, and the *kabupaten* was Kabupaten Purwakarta (See Figure 4). West Java was selected because it was located within close proximity to Jakarta where the study was organized, and it was a province which the investigator knew as having the RK/RT community organizations in all of its *desas*. The Kabupaten Purwakarta was

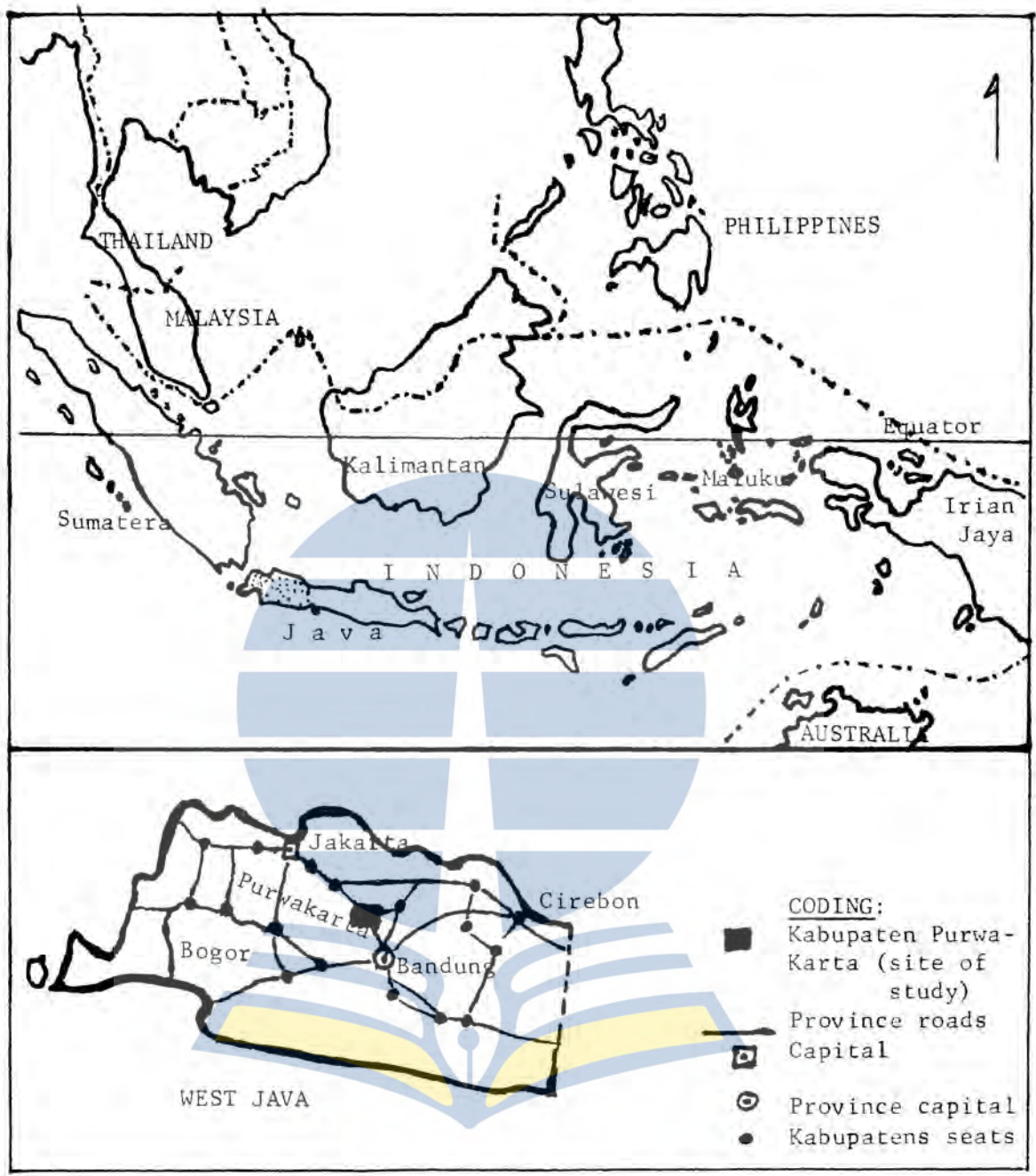


FIGURE 4
MAP OF WEST JAVA

selected for similar reasons. It was located between Jakarta and Bandung (where the fieldworkers were recruited), the investigator himself was familiar with the area, and speaks its local language.

The second step was the selection of three *kecamatan*s (subdistricts) in Kabupaten Purwakarta from each of which a *desa* sample was selected. The *kabupaten* had seven *kecamatan*s -- an urban *kecamatan* and six rural *kecamatan*s. A *desa* in the urban *kecamatan* was selected as the try out site. This *desa*, however, can be classified as a rural *desa* in the typical sense of the term "rural." From the other six *kecamatan*s two were randomly selected. These were Kecamatan Pasawahan and Kecamatan Campaka.

The third step was the selection of a *desa* from each of the two selected *kecamatan*s. As described in the first chapter, the *desa swadaya* category was planned as the object of this study. It could not be done as planned, however, because the *desa swadaya*s in the *kabupaten* were "preparatory" *desas*. Each *kecamatan* in Kabupaten Purwakarta had two to six "preparatory" *desas*, and seven to 13 "established" *desas*. In 1976, Kabupaten Purwakarta had only 70 *desas*. These were the "established" or original *desas*. In 1977, in each *kecamatan* several *desas* were split to build new *desas*. These new *desas* were classified as "preparatory," which were also classified as *swadaya*. Since preparatory *desas* were assumed to have a low level of community feeling and belonging

for its residents, the preparatory *desas* were excluded from the list of *desas*. All "established" *desas* whose area was split to make new *desas* were also excluded. It was assumed that the separation of a part of a community affected the identity of the *desa* community and its residents' perceptions of their community needs.

Desa Cihuni was selected from Kecamatan Pasawahan and Desa Cilandak from Kecamatan Campaka. Hereafter, Desa Cihuni will be called Desa I, and Desa Cilandak as Desa II. These *desas* were not the lowest in ranking. Desa I was the third from the lowest, and Desa II was the second from the lowest according to the rank order given by its *kecamatan*. Both, however, were of the same *swakarya* category.

Desa Cilangkap in Kecamatan Purwakarta was selected as the try out *desa*. This was also a *swakarya* category.

Try Out of Instruments

As mentioned earlier, the try out had a twofold purpose. First, it was designed to double-check the instruments and research procedures, and secondly it was a training device for the two fieldworkers. Only the investigator and his team, however, knew that it was a try out. A special report was planned to be sent to the authorities which included the try out *desa*.

For the training purpose there were three foci: the investigator supervised fieldworkers on the spot whenever

necessary; notes were made about the fieldworkers' mistakes and problems for further discussion; samples of recorded interviews and group sessions were also made for the same purpose. A brief review was made to evaluate an interview or a group session and refinements were suggested when needed before the interviewer started the next interview or group session. Nineteen interviews and three group sessions were conducted by the same female fieldworker in five days. By the end of the try out the fieldworkers were trained and familiar enough to conduct the real fieldwork.

For the purpose of trying out the instruments and procedures the investigator gave attention to five aspects: the level of understanding of the respondents to the questions; the timing and time needed for an interview and group session; the negative reactions of respondents to the study or questions; procedural arrangements such as sampling, invitation to the group sessions, room arrangements interviewing environment; and the availability and type of supplementary data to be collected by the second fieldworker.

The try out resulted in the changing of the sampling procedures and the reduction of the questions from five to four. The four questions derived for use in the study were:

Question #1: In your opinion, what are this village community's needs that must be accom-

plished through development attempts to make this village community more advanced? Please mention as many as you can think of.

Question #2: In your opinion, what are the needs of this village community that belong to self-development (educational) types of needs?

Question #3: Choose the three most important needs you just mentioned in answering Question #1 and Question #2.

Question #4: What is your most important need?

Among the responses given by 47 subjects in the try out *desa* only a few could be classified as irrelevant responses. In other words the questions were highly understood by the villagers.

The statements of the confidential nature of the responses were deleted from the guides. It was found out in the try out that by mentioning it the villagers became suspicious. The preliminary question asking the respondents if they were willing to be interviewed was also deleted in the fieldwork, and even in the try out after the third interview. The respondents were inclined to answer "No." When the question was deleted, there was only one respondent who refused to be interviewed in the try out *desa*. There were two respondents in Desa I who indirectly refused the interview. Those two were then replaced by other respondents.

How the fieldwork was conducted is described in the next section.

Section 2. The Fieldwork

The population of this study were adult villagers in Desa I and Desa II in Kabupaten Purwakarta, West Java, Indonesia. Since the number of adults in the two *desas* were large, approximately 2800 persons in Desa I and 2500 in Desa II, samples were then selected. The sample of adults in Desa I was 47 and in Desa II 48 persons, who were stratified into leader/nonleader and male/female categories.

As revealed in Table 2, there were slight changes in the number and composition of samples from the original plan. It was planned to get 48 subjects in each *desa*. In the actual sample, however, Desa I had only 47 subjects. In Desa I, three out of ten RK leaders could not be reached because they were out of the *desa* during the fieldwork and no replacement could be made. All 12 RT leaders in Desa I were included instead of ten as planned to avoid any bad feelings of the two RT leaders if they were not included in the sample. In Desa II, four RK leaders could not be reached for the same reason as in Desa I. To keep the number of subjects in each group close to the plan, three RT leaders and one *desa* leader were added. One RT leader was assigned to the interview approach, two RT leaders to the group approach, and one *desa* leader to the mixed leader-nonleader group approach. How the samples were drawn and assigned are described below.

TABLE 2
 PLANNED AND ACTUAL SAMPLES OF STUDY
 BY DESA, BY GROUPINGS

	Subjects	Planned Samples						Actual Samples					
		LI	NI	LG	NG	LNG	T	LI	NI	LG	NG	LNG	T
Desa I	Desa Leader	1	-	1	-	1	3	1	-	1	-	1	3
	RK Leader	4	-	4	-	2	10	3	-	2	-	2	7
	RT Leader	4	-	4	-	2	10	6	-	4	-	2	12
	Nonleader	-	10	-	10	5	25	-	9	-	11	5	25
	Total I	9	10	9	10	10	48	10	9	7	11	10	47
Desa II	Desa Leader	1	-	1	-	1	3	1	-	1	-	2	4
	RK Leader	4	-	4	-	2	10	3	-	2	-	1	6
	Nonleader	-	10	-	10	5	25	-	10	-	10	5	25
	Total Desa II	9	10	9	10	10	48	9	10	9	10	10	48
Desa I & II		18	20	18	20	20	96	19	19	16	21	20	95

Coding: LI = Leader Interview
 LG = Leader Group
 NI = Nonleader Interview
 NG = Nonleader Group
 LNG = Leader-Nonleader Group
 T = Total

Drawing of Sample

The nonleaders were selected from the listed households and were 18 to 45 years old. The leaders samples were selected primarily from the formal leaders of the *desa*, *rukun kampung* (abbreviated as RK), and *rukun tetangga* (abbreviated as RT). As described in Chapter II, for the purpose of community development activities, a *desa* in West Java is subdivided into several RKs. Each RK is further subdivided into several RTs. An RT comprises 10 to 40 households. The leaders of these three levels of community units were formal leaders because they were formally selected. The selection of leaders and non-leaders in the two *desas* are described as follows.

Desa I. There were 526 households listed in Desa I spread in 12 RTs of the four RKs. The list was also organized by RK. It contained the names of the husband, his wife and children, and their ages. In drawing the samples, the investigator with his team and a *desa* official first selected randomly 12 households from each RK using a table of random numbers. The first six selected were designated as the samples, and the other six household were designated as reserves. This yielded 48 households from the four RKs -- 24 as samples and 24 as reserves. These were the nonleader subsample.

There were 13 *desa* leaders/officials in Desa I: the chief, vice-chief, three secretaries, and eight staff members.

The first four were purposely chosen as samples of *desa* leaders because they were the four positions most important in the *desa* organization. At each RK or RT level, however, there was only a single leader. All four RK leaders were then automatically selected. But, since 10 RK leaders were needed to follow the sample design of this study, six additional RK leader counterparts were drawn from a list of 11 leaders -- i.e., 8 staff members of Desa I, a Police Force officer and an Army advisor of the *desa*, and the chairman of Mitra Cai (Water Users Organization). The remaining leaders were listed as reserves.

In the case of RT leaders, the RT leader from which RT the nonleader samples were selected was automatically listed. All of the 12 RTs were included. Although ten RT leaders were needed, all were included in the sample for the reason as described in the previous paragraph.

After the leader and nonleader samples were selected, the next step was the assignment of the subjects into five treatment groups. Those treatment groups were: Leader Interview (LI), Nonleader Interview (NI), Leader Group (LG), Nonleader Group (NG), and Leader-Nonleader Group (LNG). The LI was comprised of leaders (L) who were individually asked their opinion in an interview (I) approach setting. The LG was comprised of leaders (L) who were asked in a group (G) approach setting. The NI were those nonleaders (N) who were asked in an interview (I) setting, and the

NG were those nonleaders (N) asked in a group (G) setting consisting only of nonleaders. The LNG were those leaders (L) and nonleaders (N) who were asked in a group (G) setting consisting of both leaders and nonleaders.

The assignment of leaders and nonleaders into treatment groups was conducted as follows. First, from each RK sample of six nonleaders was randomly selected a single subject who was assigned to the LNG. One additional subject was randomly selected from the rest of the sample of 20 nonleaders. This made a total of five nonleaders assigned to LNG. The remaining 19 nonleaders were assigned to NI and NG using systematic random sampling. The first subject in the list was first assigned by tossing a coin -- head for NI and tail for NG. Tail was the result. Thus subject #1 was assigned to NG. The second subject, then, was assigned to NI; the third subject to NG; the fourth subject to NI, etc. The result was that nine subjects were assigned to NI and ten subjects to NG.

Second, the *desa* chief was purposely assigned to LI in order to minimize the possibility of influencing a group approach if he was assigned to LG or LNG. The other three *desa* leaders were randomly assigned to LG and LNG. For the ten RK leaders, four were assigned to LI, four to LG and two to LNG. The assignment was done so that no two leaders from the same RK were assigned in the same group. The two RK subjects for LNG were selected first

from the two RKs which had three selected leaders. The other eight were assigned four to LI and four to LG using systematic random sampling. The assignment of RT leaders to LI, LG, and LNG were done as for the RK leaders.

The last step was the selection of male and female subjects. Since the leaders were all males, the male-female selection was conducted only among nonleaders (NI, NG, and nonleaders in LNG). After the subjects had been assigned to the three treatment groups and listed, a systematic random sampling was also used to select males and females. By deciding the first subject (i.e. a household) the remaining households in NI, NG, or LNG could then be decided. If the first was male, the second would be female, etc. In the case of a single parent household, the assignment of male/female was started from the single parent household, without tossing a coin.

Desa II. Fieldwork in Desa II was conducted one week after fieldwork in Desa I was done. There were five RKs with 21 RTs in Desa II comprising 1024 households. The number of *desa* leaders were 11: a chief, a vice-chief, two secretaries, and seven staff members. The selection of the sample in this *desa* was conducted in the same manner as for Desa I. The top four *desa* leaders were assigned to three treatment groups (LI, LG, and LNG). The chief of Desa II was also assigned to LI as in Desa I. Ten RK leaders, two from each RK were selected. Five were

the five RK leaders, and the other five were their counterparts chosen from among the remaining seven *desa* staff members, a Police Force advisor and an Army advisor who were residing in the respective RKs. The sample of ten RK leaders were then assigned two to LNG, four to LI, and four to LG.

From each RK were drawn and listed ten households (nonleaders). Five were used as the sample and five as reserves. This made up 25 samples and 25 reserves for Desa II. They came from 12 of the 21 RTs. The same procedures as Desa I were used in the assignment of nonleaders. One nonleader from each RK was selected first for LNG. The other four were assigned randomly, two to NI and two to NG. This made up ten nonleaders in NI, ten in NG, and five in LNG.

In the case of RT leaders, the 12 RT leaders from which RTs the nonleaders were selected were listed. Ten were selected randomly as the sample of RT leaders. Two were assigned to LNG, four to LI, and four to LG. The rest of the RT leaders were used as reserves.

All leaders in Desa II were also males. The selection of male and female nonleaders was conducted in the same way as for Desa I.

Replacement of subjects had to be done four times in Desa I and five times in Desa II. Among the four subjects in Desa I, one was an RK leader and three were nonleaders.

Two of the three nonleaders were females. The reasons for replacement were unavailability of subjects in the case of male subjects, and the avoidance of the females to answer the questions. It was found out later that the two female subjects were wives of ex-members of the Communist Party who were black-listed by the government. They were afraid to give any answer. In Desa II replacements had to be made because the subjects were out of the *desa* during the fieldwork. The sampling process is summarized in Figure 5.

The Interview Approach

The Interview Approach is a method used to elicit villagers opinions about their community needs by asking the subjects individually and face-to-face the four questions of this study. The procedures of this approach can be described as follows.

After the subjects had been assigned to each treatment group, the interviewer made lists of subjects in each group -- their names and addresses. For the subjects in LI and NI, the interviewer and investigator made a plan for visitation. The farthest subjects to the location of the interviewer were visited first in the morning. The nearest subjects to the interviewer were visited in the evening. In all cases, nonleaders were interviewed before the leaders. For subjects who were in different RKs but within proximity to each other, all nonleaders in those

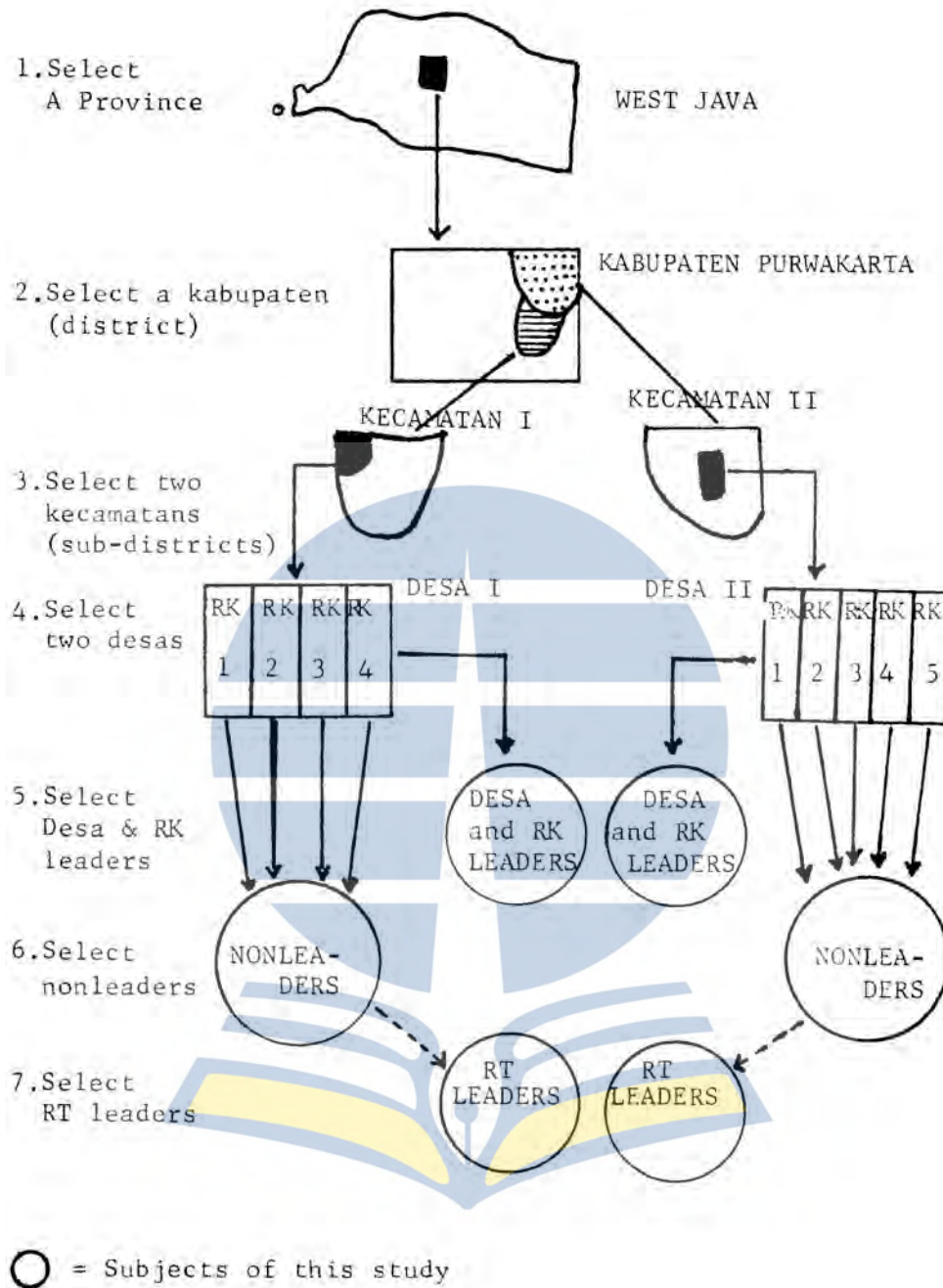


FIGURE 5
SUMMARY OF SAMPLING PROCEDURES

RKs were first interviewed, then their leaders. This was done in each *desa* to minimize the possibility of the leader subjects informing their nonleader subjects about the questions being asked.

To visit a subject it was necessary that the interviewer be accompanied by an official guide. A *desa* official to visit an RK leader, a *desa* official or an RK leader to visit an RT leader or a nonleader, or an RT leader to visit a nonleader subject. In Desa I a *desa* official was assigned as the guide to visit all subjects. In Desa II, the guide from the *desa* office introduced the interviewer to an RK leader and asked him to further guide the interviewer in the visitation.

In the first five interviews the investigator also accompanied the interviewer to make sure that the interviewer conducted the interviews as they should be and to be ready to give advice if a problem arose during or after an interview. In the cases where the investigator joined the visitation, he stayed outside the house but near enough to overhear the conversation. The guide was always asked to stay outside after the introduction.

The interview itself was conducted in the following manner. First, the interviewer introduced herself to the subject, explained the purpose of her visit and prepared the subject to answer the questions without explicitly asking the subject his/her approval to be interviewed.

When the subject was ready for the interview, the four questions were then asked one by one. The subject was always encouraged to give as many responses as possible in answering Question #1 and Question #2. In case the subject needed more explanation of the questions, the interviewer gave additional information in such a way that it did not lead the subject to an answer.

Question #1 and #2 were open-ended questions. Question #3 was a closed-ended question because it asked the subject to choose three responses from his/her own responses to Question #1 and #2. Question #4 was also close-ended, in a sense, that it only asked a single response about his/her self-need.

After all four questions were asked and answered, the interviewer asked the subject additional information about age, level of education (schooling), number of children. His/her sex and marital status were also recorded but it was not necessary to ask the subject. The marital status was already known from the *desa* records.

Then the interviewer asked the subject if he/she had any additional comments or wanted to add other responses. The interview was closed with many thanks to the subject for his/her willingness to answer the questions. The interviewer asked permission to proceed to another person. See Figure 6 for an example of an interview setting.



FIGURE 6
AN INTERVIEW SETTING



The Group Approach

A Group Approach was the other method used in this study to collect villagers opinions about their community needs through a group meeting process as described in the following paragraphs.

The investigator asked the *desa* chief to write a letter of invitation for the subjects assigned in NG, LG, and LNG, to come to a meeting at a designated time. It was designed for one group at a time. The fieldwork team with the help of the *desa* officials arranged the meeting place. Tables were arranged in a "U" shape to accommodate 9 to 10 subjects. The head table was used for the interviewer. At the rear was also placed a table for the investigator and the second fieldworker (see Figure 7). The group approach was conducted according to the following steps.

1. The interviewer asked the subjects to take any seat in the "U" shaped formation.
2. Name tags were distributed to each subject and they were asked to stick it on their chest so that the interviewer could easily know their names.
3. The interviewer introduced herself and her team, and explained the purpose of the meeting and the discussion rules.
4. Questionnaires and pencils were distributed to each subject, assisted by her team. By this time the subjects who could not write had been identified, but they



FIGURE 7
A GROUP SETTING



were also given the pencil and the questionnaires to be used later after the discussion was over.

5. The interviewer asked the group to open the first page containing an example question to be used for preliminary practice.

6. The interviewer read the example question aloud.

7. She asked the group if they understood the question.

8. She then asked the subjects to answer the question orally. The subjects were asked to take turns explaining their answer. This round-robin session was arranged clockwise at the first question, counter-clockwise for the second question, etc. During this session, nobody was permitted to interfere or give any comment when a subject was explaining his/her answer/opinion to the question. The speaker was also instructed not to criticize the previous speaker.

9. After all subjects described to the group their individual opinions, the interviewer asked them to discuss the answers. For this part, the subjects were permitted to criticize the responses given by others, add their agreement or add further explanation about the responses they gave in the round-robin session. For this example question only five minutes were allocated for discussion. Ten minutes were allowed for discussion of each of the regular questions. During discussion, the interviewer took

the role of facilitator. She minimized her involvement in the discussion. She gave encouragement, motivation, and checked and redirected irrelevant discussion content.

10. After the time for discussion was up, the interviewer stopped the discussion and asked the subjects to individually decide their final answer to the question.

11. She asked the subjects to write their answers individually in the designated spaces in the questionnaires. The subjects who could not write were asked to memorize their answers. After the whole discussion was over they were helped by the interviewer to write down their answers.

12. The interviewer discussed with the group the proceedings before she moved to the first question. When she thought the group had understood the discussion rules and steps, she then started the real questions.

13. Question #1 to Question #4 were presented, each in turn, following steps 6 to 11 described above: read the question, round-robin discussion session, discussion session for ten minutes, writing final answer individually.

14. After Question #1 to Question #4 had been asked and answered, the interviewer guided the subjects in writing additional information about themselves in the designated spaces (demographic data of the subjects). The other two team members were asked to help the subjects to fill in the needed data.

15. The interviewer collected the questionnaires, except

the ones from the subjects who could not write. She closed the discussion and asked the subjects who could not write to follow her to another place. The facilitator role was assigned to the investigator for the last session of the meeting.

16. The investigator described further the value and purpose of collecting villagers opinions about their community needs. He opened a general discussion about what had been discussed so far and other relevant issues, if any, that captured their interest. He closed the meeting and said thank you for their willingness to come and participate in the meeting. The subjects were permitted to take the pencils they used as a souvenir.

The study was not concerned with step 16 described above. It was added so that the subjects did not feel as if they were used for the sake of research only, which might have been the case if the meeting was just dismissed after all the information had been collected.

In both Desa I and Desa II the group approach was conducted after all interviews were done. As in the interview approach, the nonleader subjects met before the leaders. In sequence, NG, LNG, and LG were conducted on the night of the third day of the fieldwork, during the fourth day, and during the fifth day. *Desa* officials who were not supposed to be in the meeting were asked not to attend the group meetings. Fortunately there was no interference of

this kind. In both Desa I and Desa II the *desa* officials had a very good understanding and cooperated on this matter.

At the most there were three subjects who were unable to write and needed to be assisted by the interviewer. This was conducted after step 15. The interviewer assisted the subjects individually by repeating the questions again, as in an interview session. But since they were asked to memorize their questions during the discussion, this process could be done faster.

Section 3. The Analysis

This section describes the variables of this study, how data on these variables were coded and analyzed to see their interaction and relationship as specified in the 23 hypotheses described in Chapter One.

Variables of the Study

The response(s) given by the subjects of this study was the object of the analysis, which was focused primarily on four aspects: the number of responses/needs identified by the subjects, the level of specificity of the needs, the means/nonmeans orientation of the needs, and the type or genre of the needs. In addition, the amount of time needed to administer the community needs assessment through an interview approach and a group approach was also recorded and analyzed. The four aspects of response and the time allocation were defined as the quantity, the specificity,

the means/nonmeans orientation, and the time variables. These were the dependent variables of the study.

The interview approach and the group approach used to elicit the responses were the treatment variables of the study. The subjects' demographic background -- sex, age, level of education, marital status, occupation and number of children, were treated as the intervening variables. The treatment variables and the intervening variables were defined as the independent variables of the study.

Coding and Scoring of Data

The responses of the subjects to each question were recorded verbatim. For analysis purposes, these data were further recoded and scored according to the following operational definitions.

Quantity Variable

Any need mentioned by a respondent was counted as one, even though it might have been mentioned as part of his/her broader sentence/response. For example, a subject gave the following responses:

- 1st. Health
- 2nd. Agriculture education: how to use pesticide, how to select seeds, how to graft mango trees
- 3rd. Sewing course for women and unemployed youth (males)

In this case, the first and the third responses were each counted as one response. The second response, however, was

counted as three responses. Altogether there were five responses/needs.

The total number of responses of a single subject were computed for Question #1, Question #2, and Question #1 and Question #2 combined. Since the subject, for Question #2, could repeat the answers given to Question #1 if they were educational need(s), duplications were counted only a single time in the computation of the combined quantity of responses. It must be noted that there were occasions where a subject gave a response to Question #3 which had not been mentioned in the first two questions as it was supposed to be. It was accommodated by first adding the "new" response to either Question #1 or Question #2. It was added to Question #2 if the need was an educational need. Otherwise it was added to Question #1. The answer to Question #4 was not included in the quantity of combined questions because it was not a community need. It was specified as a self-need. Thus, there were three quantitative values for this variable: the quantity of responses to Question #1, the quantity of responses to Question #2, and the quantity of responses to Question #1 and #2 combined with duplication counted only a single time.

The Specificity Variable

The analysis of this variable looked at the response in terms of whether it was a general or a specific state-

ment of need. Since the responses varied from a single word to a complete sentence, it was decided to analyze the level of specificity on the basis of four aspects or categories of the statement. These were "action", "substance", "locus", and "people" orientations. A score of 0 (zero) to 2 (two) was given to each aspect. This meant that a single response could get a minimum score of zero if no aspect received a score higher than zero, or a maximum score of 8 (eight) if it contained four aspects and all were specific. The following criteria were used for this purpose.

The Action statement was defined as a word (verb) or a combination of words indicating direction of something to be done -- i.e. operational terms. A response was categorized as a specific action statement and given a score of 2 (two) if the word or combination of words indicated a single concrete operational thing. If the word or the combination of words could be interpreted to mean more than a single operational thing, the response was categorized as general and given a score of 1 (one). If there was no action statement in the response, it was given a score of 0 (zero).

Examples:

- to develop a road ("*membangun jalan*");
- to asphalt a road ("*mengaspal jalan*");
- asphalt road ("*jalan aspal*");

The word "to develop" in the first response could be inter-

preted as: to build a new road, or to build an asphalt road, or to build a concrete road. "To asphalt" in the second response is a specific operational term. In the third response there was no action statement. Therefore, the score for the first response was "1," for the second response it was "2", and for the third response it was "0" on the action aspect.

The substance statement was defined as any noun (or combination of nouns) that indicated the "subject" or the "accusative" of the sentence. If the noun indicated a single concrete thing, it was classified as specific and given a score of 2 (two). If it could be interpreted in more than one way, it was classified as general and given a score of 1 (one). A score of 0 (zero) was given if there was no substance statement, which theoretically meant there was no response at all.

- Examples:
- paddy-field, artesian well for farming, religious teacher, birth control, clean house, asphalt road, village road, how to graft mango tree, "gorong-gorong" (the tunnel part of a bridge), capital money, koranic education, saving and borrowing cooperative, soccer sport, "tagony" (a kind of music band), rice, tractor, cooking training, sewing training, were classified as specific (score = 2).
 - agriculture, fishery, irrigation, health, agriculture education, land, teacher, road, bridge, food, art, music, sports, cooperative, family life education, religious education, community building, were classified as general (score = 1)

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The locus statement, was defined as a word (or combination of words) indicating a place or a unit of community. The word "*desa*" or similar words indicating the village area as a whole or larger was classified as general (score = 1). The words RK, RT, Kampung, or other place indicating a smaller unit of community or place were classified as specific (score = 2).

Examples: - "development project in this *desa*", "health improvement in this area"; were classified as a general statement of locality (score = 1).

- "to install electric light along the *kabupaten* road"; "drinking water-pump for RK #3; "women organization in RT #10"; were classified as specific (score = 2).
- "*desa* building"; "*desa* road", however, did not indicate a locality statement. The word *desa* in this case was part of a phrase which indicated a name of an object. "*Desa* building" and "*desa* road" were substance statements.

The people statement was defined as a word (or combination of words) indicating a person or a group of persons. Singular or plural words or its combination such as people, community, citizens, were general statements of a people aspect (score = 1). Words such as "women", "men", "children", "the poor", "unemployed youth", or other words or combination of words which indicated a portion of residents of a village for whom the substance designated, were classified as specific people statements (score = 2).

Although a response could theoretically get a maximum

score of 8 (eight), responses to this study yielded only a maximum of 5 (five). Examples of scoring presented in Table 3 were the 20 different profiles of scores that were found in the study.

Means/Nonmeans Orientation Variable

A response was classified as a means-oriented need if it indicated an educational need, or if it indicated a way or an intermediary tool to achieve a goal or goals.

Examples: learning how to graft, sewing training, a cow to plough paddy field, money as capital for poultry, a better road to facilitate transporting agriculture products.

A response which did not indicate a means-oriented need was classified as a nonmeans-oriented need. For example: road, bridge, health, money, food.

In coding, the means-oriented need was given a code of 2 (two), and the nonmeans-oriented need was given a code of 1 (one).

The Type (of Need) Variable

Each response as identified in the coding of quantity variable was classified according to its type or genre. Two ways of classification were made. First, the needs were classified according to their functions using the community function classification developed by Axinn. This classification was labeled as the Axinn Model. (See Chapter Two). There are 12 functions subdivided further into "learning" and "non-learning" functions made up of 24 categories as follows:

TABLE 3
 EXAMPLES OF SCORING THE SPECIFICITY OF RESPONSES

R E S P O N S E S	S C O R E				
	A	S	L	P	T
1. Agriculture/or food and clothing/health	0	1	0	0	1
2. Government supervision in the village	0	1	1	0	2
3. To build a bridge/To learn agriculture	1	1	0	0	2
4. Housing of people/Civic education for residents	0	1	0	1	2
5. Drinking water pump/money for capital	0	2	0	0	2
6. To teach people animal husbandry	1	1	0	1	3
7. To overcome unemployment in this village	1	1	1	0	3
8. Religious education for people in this village	0	1	1	1	3
9. "Atras-sand" processing in this village	0	2	1	0	3
10. To develop chicken poultry	1	2	0	0	3
11. Vocational training for unemployed youth	0	1	0	2	3
12. To asphalt road	2	1	0	0	3
13. "Gorong-gorong" (tunnel) in RK #1	0	2	2	0	4
14. Capital money for small farmers	0	2	0	2	4
15. To replace with a bigger concrete tunnel	2	2	0	0	4
16. Health education for people in this RK	0	1	2	1	4
17. To increase income of farm laborers	1	1	0	2	4
18. Agriculture training for men in this village	0	1	2	2	5
19. To organize learning how farmers overcome rats	1	2	0	2	5
20. To prevent dumping garbage from the city in this village	2	2	1	0	5

CODING: A = Action; S = Substance; L = Locus;
 P = People; T = Total

01. Supply function: Learning (L)
02. Supply function: Non-Learning (NOL)
03. Production function: L
04. Production function: NOL
05. Marketing function: L
06. Marketing function: NOL
07. Personal Maintenance function: L
08. Personal Maintenance function: NOL
09. Health Care Delivery function: L
10. Health Care Delivery function: NOL
11. Governance function: L
12. Governance function: NOL
13. Educational function: L (Learning)
14. Educational function: NOL (Non-Learning)
15. Religious function: L
16. Religious function: NOL
17. Cultural function: L
18. Cultural function: NOL
19. Inward-Linkage function: L
20. Inward-Linkage function: NL
21. Outward-Linkage function: L
22. Outward-Linkage function: NOL
23. Larger System function: L
24. Larger System function: NOL

The second classification was made by grouping the responses into broader categories as a "general area" classification. There was no basis for the classification. However, it was seen by the investigator as practical for further follow up by governmental departments who will be responsible for implementation. From about 94 different kinds of individual responses, it was further recoded into 45 categories and for the analyses, it was recoded again into 10 categories which were the 10 general areas of classification. These are as follows:

Infra structures

01. irrigation
 02. road and bridge
 03. transportation
- Public Buildings
04. community buildings
 05. school buildings
 06. religious buildings

- Agricultural
07. seeds (plant and animal)
 08. land (for animal and farm)
 09. equipments
 10. fertilizer/pesticide
 11. farming/forestry
 12. animal husbandry
 13. fishery
 14. rice mill
 15. storage
- Community development organization
16. cooperative
 17. *desa* bank
 18. community organization (socio-economic)
 19. community organization (others)
- Economic
20. employment/factory/industry
- Utilities
21. water pump (drinking)
 22. electric light
- Health and welfare
23. health (non-educational)
 24. food and clothings
 25. housing
 26. safety
- Trained Personnel
27. teachers
 28. good leaders
- Educational
- | | |
|--|-------------------------------|
| 29. culture/arts/recreation | a. CULTURAL EDUCATION |
| 30. basic education | |
| 31. secondary education | b. BASIC EDUCATION |
| 32. religious education | |
| 33. civic education | |
| 34. family life education (Home economics) | |
| 35. health education | c. HEALTH EDUCATION |
| 36. handcraft education | |
| 37. carpentry/building education | |
| 38. automobile service education | d. VOCATIONAL/SKILL EDUCATION |
| 39. other skills education | |
| 40. agriculture education | |
| 41. food processing education | e. AGRICULTURAL EDUCATION |
| 42. animal husbandry education | |
| 43. fishery education | |
| 44. business education (trade) | |
| 45. home industrial education | f. INDUSTRIAL EDUCATION |
| 46. natural resources processing education | |
| 47. youth/leadership education | |
| 48. training: cooperative | g. OTHERS |
- General
49. Material and spiritual development

The educational category (#29 to #48) of this general area classification was classified into seven categories as described above, for the analysis of Question #2.

The Time Variable

The man-hours needed to conduct the interview and group meetings were recorded. There were two time categories: preparation time, and executing time. The preparation time was the man-hours needed to prepare an interview or a group meeting. In the interview approach, the time needed to reach the subject was the preparation time. In a group meeting, the preparation time included the time used to send the invitation letter and the time needed to prepare the room setting.

The execution time was the man-hours needed to collect data from the subjects; actual interviewing time needed or the group session time needed.

The sum of the preparation time and the execution time was defined as the total time. In the interview approach, the amount of time (in minutes) was recorded per subject. In the group approach, the amount of time spent was recorded per group meeting.

Data Processing and Analysis

Data processing and analyses were conducted on the basis of question. Since Question #1, #2, and #3 called for more than one response, the measures of the quantity, specificity and means/nonmeans orientation had to be calcu-

lated first. This was done in the following ways:

The specificity value

1. the total specificity scores for all responses in the question were computed.

2. the average level of specificity for each question was computed by dividing the total specificity score by the number of responses in that question; the results indicated averages between 1.0 and 4.0.

3. for ease of analysis it was further recoded using the following rating scales:

1.0 to 1.60 = 1

1.61 to 2.20 = 2

2.21 to 2.80 = 3

3.81 to 3.40 = 4

3.41 to 4.0 = 5

The means/nonmeans orientation value

1. the total value for the means/nonmeans orientation were computed for each question;

2. the average means/nonmeans orientation values were computed for each question by dividing the total values by the number of responses. The results varied from 1.0 to 2.0.

3. for ease of analysis it was further recoded using the following classification:

1.00 to 1.50 = 1

1.51 to 2.00 = 2

The type variable

There was no "average" type of need calculated for this variable. Instead, data were processed on the basis of frequencies for each type of need without weighting by the number of subjects.

Computer cards were prepared in two separate decks. First, a deck of cards was prepared for all variables except the type variable. Data on quantity, specificity, and means/nonmeans orientation variables in this deck of cards were the average values (ratings) as described above.

The second deck of cards consisted of all independent variables and type of needs -- the functional (Axinn) classification, and the general area classification. A single response per card. There were 1350 cards for the four questions.

These data, after coding and recoding and classification for analysis, were different in the type of measurement that was used. The quantity and time variables data were a ratio type of data and the specificity data was classified as ordinal. Although the means/nonmeans orientation data were basically of a nominal type, since it was a dichotomy classification it was treated as interval¹, or at least ordinal. The type of need variable data were treated as nominal.

These differences consequently demanded different methods

¹Norman H. Nie, et. al., Statistical Package for the Social Sciences, (New York: McGraw-Hill Book Company, 1970), p. 5.

for the specificity and type variables data. The time variable data were analyzed and presented descriptively.

Except for the time variable data, all others were processed by computer with SPSS programming.

Analysis of variance

Analysis of Variance (ANOVA) gives information concerning the effect of a factor (i.e., independent variable) on the criterion (i.e., the dependent variable). The F ratio, computed from an ANOVA, and its level of significance indicates whether or not the factor has a statistically significant effect. The Eta^2 , or Multiple R^2 if more than one factor, is a descriptive statistic measuring the strength of the effect. It ranges from 0 to 1.0. The value of Eta^2 will be 1.0 if and only if there is no variability within each category of the factor and there is some variability between categories. The zero value indicates no difference among the means of the categories. In other words, there is no effect of the factor on the criterion.

One-way ANOVA was used to test hypotheses #1, #3, #6, #7, #8, #10, #12, #14, #16, #18, #20 and #22. Two-way ANOVA was also used for additional analyses to test Hypotheses #1, #6 and #7.

On the quantity criterion, analyses were conducted for Question #1, Question #2, and Question #1 and #2 combined. For the Means/Nonmeans orientation, analyses were conducted for Question #1, #3, and #4. Means/nonmeans orientation

for Question #2 was not analyzed because all answers to this question were classified as means-oriented responses. Question #2 asked about educational needs, and educational needs by definition were classified as means-oriented needs.

Chi-Square Analysis

"Chi-square is a test of statistical significance. It helps to determine whether a systematic relationship exists between two variables."² A measure of association must also be computed in a chi-square analysis. This statistic indicates how strongly two variables are related to each other -- to what extent characteristics of one sort and characteristics of another sort occur together. There are different kinds of measures of association. Among them are Contingency Coefficient, Lamda, Kendall's Tau, Gamma, and Eta. The Contingency Coefficient and Lambda are appropriate for a nominal level of measure of the two variables in the table. Kendall's Tau b, Tau c, and Gamma are appropriate for two ordinal level variables. Tau b is appropriate with square tables, and Tau c is appropriate with rectangular tables.³

In chi-square analyses for specificity, the gamma statistic was used when the dependent variable categories

²Ibid., p. 223.

³Ibid., pp. 224-230

were dichotomies: e.g., interview vs. group, male vs. female, leader vs. nonleader.

Lambda was used for other chi-square analyses; type of need variable and specificity variable with an independent variable of more than two categories. Lambda measures the percentage of improvement in the ability to predict the value of the dependent variable once the value of the independent variable is known. A maximum value of lambda is 1.0, which occurs when prediction can be made without error. A value of zero means no improvement in prediction.

Gamma value ranges from -1 to +1. A minus sign indicates that the discordant pairs predominant and a positive sign if concordant pairs predominant. In other words, the sign indicates the direction of ordering.

Limitation of Analysis

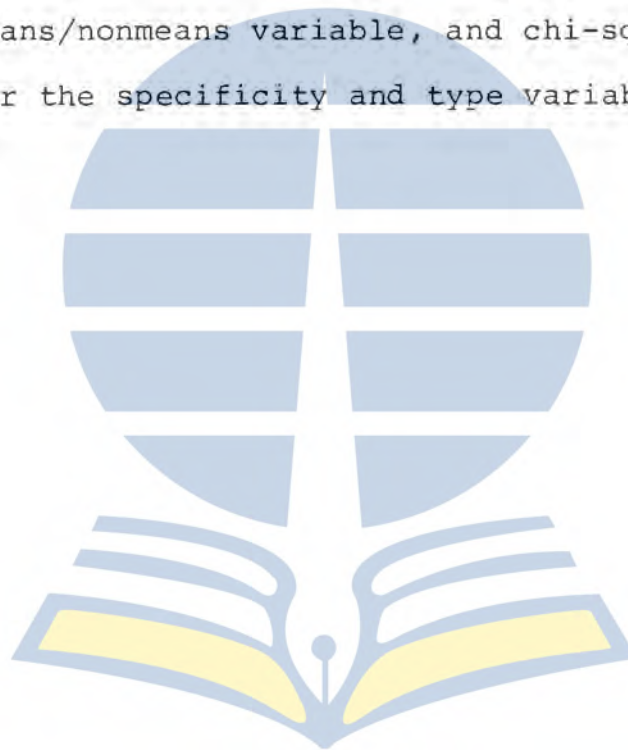
Analyses based on data collected in this study cannot be used for a population other than the two *desas*. Inferential conclusions made in this study must then be treated as such.

Summary

In summary, this study used two methods of fieldwork, which were also the main focus of this study. These were an interview approach and a group approach to needs assessment. The dependent variables of this study were the quantity of response, the specificity of response, the means/nonmeans

orientation of response, the type of response/need (community function and general area), and the time variable. The treatment variables were the interview approach and the group approach. Sex, age, education, leader/nonleader, and *desa*, were treated as intervening variables. The treatment variable and intervening variables were the independent variables of this study.

Analysis of variance was used for analyzing the quantity and means/nonmeans variable, and chi-square analysis was used for the specificity and type variables.



CHAPTER IV
DESCRIPTION OF THE SITES FOR THE STUDY

As briefly described in Chapter III this study was carried out in two *desas* (villages) in West Java Province, Indonesia. The two *desas* were selected from two different *kecamatan*s (subdistricts) in Kabupaten (District) Purwakarta. This section describes some important features about the province, the *kabupaten*, the two *kecamatan*s where the two *desas* were located, and the two *desas* themselves.

The Province -- West Java

West Java is one of the 27 provinces of Indonesia. Its area is 46,300 square kilometers, which is only 2.4% of Indonesia (i.e., 1,904,569 square kilometers).¹ The population, however, is 17.5% of the total Indonesian population. In 1975 the Indonesian population was estimated as 127.5 million people, and West Java was estimated as having 22.8 million people.² The density was 67 people per square kilometer for the average of Indonesia, and 492 people per square kilometer for West Java province. This figure indicates how unbalanced the spread of population

¹Biro Pusat Statistik, *Statistical Pocketbook of Indonesia 1977* (Jakarta: B.P.S., 1977), Table I.

²Ibid., Table II.1.2

is in Indonesia and the density of population in West Java. This density is shared by the other three provinces in Java which together account for 60% of the total population of Indonesia. The crowding of such a large proportion of the population into only 6.7 percent of the land area results in some of the highest population densities in Southeast Asia.

Administratively, West Java Province is divided into 20 *kabupatens* and four municipalities, which are further subdivided into 390 *kecamatan*s (subdistricts), and 4039 *desas* (villages).³ Nationally, West Java is not only important because it is the seat of the central government but also because it is the center for educational institutions and political aspirations.

The majority of the West Java population are Sundanese. The Sundanese make up about 10% of the total Indonesian population. Bahasa Sunda (Sundanese language) is used in everyday life, except in offices in the cities which use the official national language -- Bahasa Indonesia. The Sundanese language has status style dialects. These dialects include *halus* (polite style) which is used between persons of equally high rank and by a person of low rank (in terms of age, kinship or social status) in speaking to a person of high rank, and the *kasar* (informal or rude style) which is used between persons of low ranks and by a

³Ibid., Table II.1.1

person of a higher rank to a lower rank. There are other in-between variations which also vary between localities in West Java. There are also varieties in customs and traditions among localities which is fading away as communication systems are increasing and improving.

The majority (90%) of the West Java population are moslems. When compared to the Javanese people (from Central and Eastern Java) the Sundanese are the more devoutly moslem.⁴ Religion in rural areas is an important community function, which as the history of the revolution of 1945 revealed was one of the most important motivating and unifying factors in West Java. It was in this province that the DI/TII⁵ organization proclaimed the "Indonesia Islamic State" in 1946 against the newly born Republic of Indonesia. Due to a wide group of sympathizers among the rural people, it was only after 17 years of civil war that the organization was dismantled. The effects of this 17 year "civil" war are many. Among them was the urbanization problem. A lot of the people migrated to big cities such as Bandung which created severe overcrowding. It would be a different story today for West Java rural life if there was not such a war.

⁴Nena Vreeland, et. al., Area Handbook for Indonesia, Washington, D.C.: U.S. Government Printing Office, 1975, p. 88.

⁵"DI/TII" is the abbreviation for "Darul Islam/Tentara Islam Indonesia" meaning "Islam State/Indonesian Islam Army," an illegal organization to establish an Islam State in Indonesia under the leadership of Kartosoewirjo.

Bandung is the provincial capital of West Java. It is 180 kilometers Southeast of the capital city of Jakarta. It is one of the five largest cities in Indonesia. Beside functioning as the seat of provincial administration, Bandung is also the center for higher education institutions, culture and economic development. There are three state universities and about 10 private universities in Bandung alone. The Technological Institute of Bandung (ITB) is as famous in Indonesia as M.I.T. is in the U.S.A.

In terms of population, Bandung has an even higher density than Jakarta. It is estimated that about 3.5 million people live in Bandung as compared to about 4.5 million people in Jakarta with the size of Bandung being half the size of Jakarta.

By and large, rural life in West Java is better than in the other provinces in Indonesia. But this does not mean it is good enough. People in the rural areas are still living under a subsistence economy. The increasing modern technology entering the villages such as television have increased the people's awareness of how low their condition of life is compared to others as shown on the television. This has increased their motivation to achieve more but in the same time their needs have also changed or increased in number. The central government is aware of the rural problems and aspirations and has been trying to accommodate and help the people in ways as viewed by

the leaders. However, ways to help from the view of the rural people seems to be missing but waiting to emerge as a powerful development force if government could more fully involve villagers in decision making.

It was through the idea of accommodating people through self-help development that the RK/RT community organization was formulated in 1950s and first started by the government in West Java.^{6,7} This RK/RT organization has now spread to other Indonesian provinces but not all of the provinces have fully implemented it. All *desas* in West Java are organized in the RK/RT organization. Unfortunately, this organization is increasingly becoming an arm of the central government instead of community organization.

The Kabupaten (District) -- Purwakarta

Kabupaten Purwakarta is named after its capital city, Purwakarta. The city is located 114 kilometers South-East of Jakarta and 68 kilometers North-West of Bandung. It is connected by a railroad and a province road. The city has approximately 6 square kilometers with a population of about 60 thousand people.

⁶Sumber Saparin, Tinjauan Tentang Masalah Pembangunan Masyarakat Desa (Jakarta: Nimu Laut, 1976), p. 2.

⁷Soedardji, Masyarakat Adil dan Makmur Berlandaskan Masyarakat Desa (Surabaya: Grip, 1961), p. 8.

The area of the *kabupaten* is 97,509 hectares⁸ with only 17% of it used for paddy. This has made the *kabupaten* dependent on its surrounding *kabupatens* for food production. Five percent of the area is reservoir (8,866.5 hectares) which includes Jatiluhur Dam which is the biggest man-made dam in South-East Asia (See Appendix C, Table I). A ground satellite communication station and the biggest hydro-electric power plant in Indonesia are located at Jatiluhur. Unfortunately, however, this *kabupaten* has not benefited yet from the dam for its water nor for its electricity. The land level is higher than the irrigation canals, and electricity from Jatiluhur Power Plant is absorbed mainly by large cities (e.g. Jakarta and Bandung). Tourism and textile industries which have come to the Jatiluhur area are the only benefits so far earned by this *kabupaten* (See Kabupaten map - Figure 8).

In 1978 the *kabupaten* had a population of 414,000 (See Appendix C, Table 2). Among the 210,000 people who were working, 54% were in the agricultural area, 27.5% laborers, 6% traders, and 12% semi-skilled and skilled workers (Appendix C, Table 3). About 99% of the population are Sundanese and speak Bahasa Sunda. Ninety percent of them are moslems.

In terms of education, 42% of the population have completed at least primary school. There are 277 primary schools with 1143 classrooms, 1784 teachers and 58,000 pupils

⁸One hectare is equal to 2½ acres.

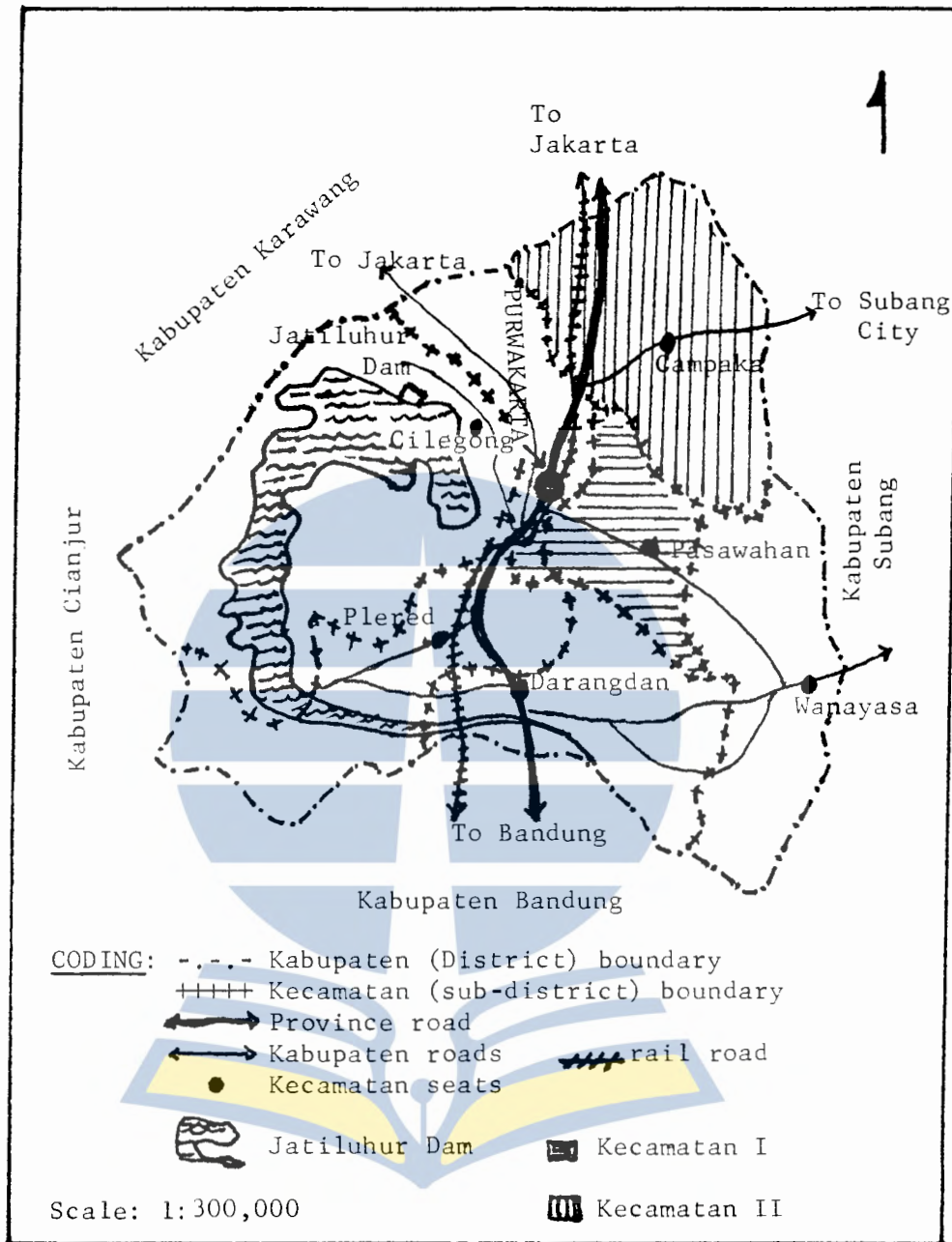


FIGURE 8
MAP OF KABUPATEN PURWAKARTA

in the *kabupaten*. Twelve junior high schools (4 were private) and two private higher education institutions were available in the *kabupaten*. However, eight of the junior high schools, five of the senior high schools and both of the two higher education institutions are located in Purwakarta city. This makes the city the center of the educational enterprise. In addition, there are also 149 religious primary schools (Madrasah Ibtidaiyah) and six religious high schools in the *kabupaten*. Two of the high schools are located in Purwakarta city and four are spread in four *kecamatan*s. See Appendix C, Table 4, and Table 5 for more details.

Purwakarta City is not only the center for education but also the center for economic activities, entertainment, and of course governmental administration for all its *kecamatan*s. Even though there are small market places in each *kecamatan*, the three market places in the city are the key markets for the whole *kabupaten*. One of the markets is a livestock market and is open every Monday and is thereby named the "Monday Market." The two other markets are mostly centers for agricultural products, one in the South and one in the North of the city. Although both are open daily, the market day of the North is Friday, and the market day of the South is Wednesday -- hence, "Friday Market" and "Wednesday Market."

This *kabupaten* has 102 *desas*: 32 preparatory or

swadaya desas, 52 *swakarya desas*, and 18 *swasembada desas*. They are organized in seven *kecamatan*s as shown in Table 4.

TABLE 4
NUMBER OF DESAS BY KECAMATAN
IN KABUPATEN PURWAKARTA*

<u>KECAMATAN</u>	<u>SWADAYA/ PREPARATORY</u>	<u>SWAKARYA</u>	<u>SWASEMBADA</u>	<u>TOTAL</u>
Purwakarta	2	8	5	15
<u>Pasawahan</u>	6	9	1	16
Jatiluhur	3	6	1	10
Darangdan	6	5	4	15
Plered	6	9	2	17
Wanayasa	5	7	3	15
<u>Campaka</u>	<u>4</u>	<u>8</u>	<u>2</u>	<u>14</u>
TOTAL	32	52	18	102

*Data from Kabupaten Office, 1978.

Kecamatan Purwakarta is the only *kecamatan* which can be classified as an "urban" *kecamatan* in Kabupaten Purwakarta. Only four of its *desas*, however, are within the Purwakarta city boundary. A rural *desa* in Kecamatan Purwakarta was selected as a try-out site for this study. Kecamatan Pasawahan and Kecamatan Campaka were the two *kecamatan*s selected for the study.

The Two Kecamatan

As revealed in Figure 8, the two *kecamatan*s from which the *desa* samples were selected, are side by side in the North-

East part of the *kabupaten*.

Kecamatan I: Pasawahan

Kecamatan Pasawahan has 16 *desas*, six of which are preparatory *desas*. Of the other ten *desas*, nine are classified as *swakarya* and one as *swasembada*. Desa I was selected from the ten *desas* as shown in Table 4.2. A map of the *kecamatan* is displayed in Figure 9.

TABLE 5
RANKING OF DESAS IN KECAMATAN PASAWAHAN*

<u>NAME OF DESA</u>	<u>CLASSIFICATION</u>	<u>RANK</u>
Pasawahan	Swasembada	1
Parakan Salam	Swakarya	2
Ciherang	Swakarya	3
Sawah Kulon	Swakarya	4
Tanjungsari	Swakarya	5
S i t u	Swakarya	6
Selaawi	Swakarya	7
CIHUNI (DESA I)	Swakarya	8
Pondok Bungur	Swakarya	9
Salem	Swakarya	10

*Data from Kecamatan Office.
Six preparatory *desas* are not included

The area of Pasawahan is 6,663.5 hectares of which 26% is paddy-field. There was a population of 36,175 in the area in 1978. Among the 23,518 people who are working, 35% are farmers, 45% laborers, 4% traders, and 16% others. Forty nine percent of the population are under 20 years of age.

Income per capita of Pasawahan in 1977 was Rp 25,000 - (about US \$60). Desa I income per capita in that year was

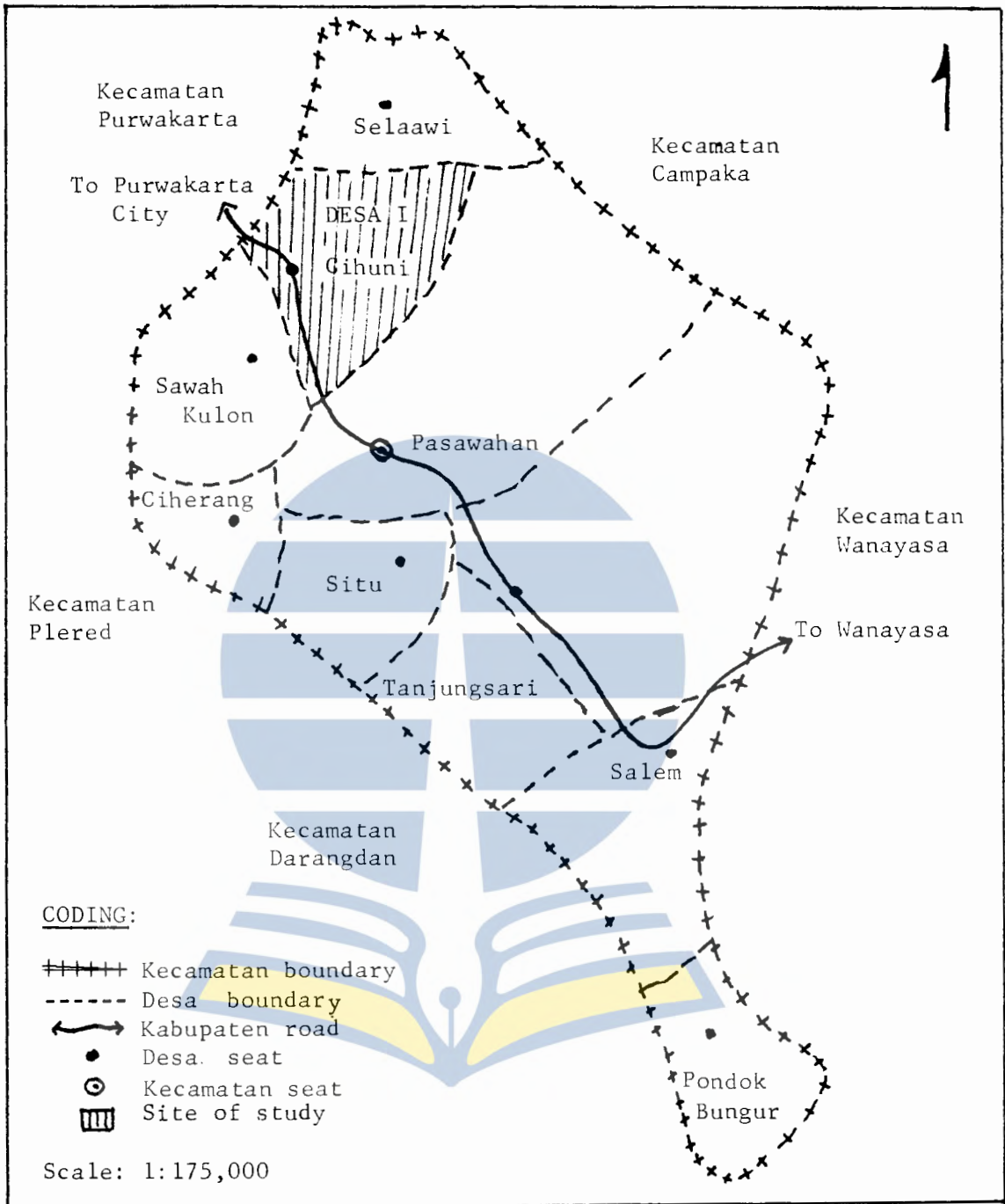


FIGURE 9
MAP OF KECAMATAN PASAWAHAN

US \$56.⁹ The main agriculture products are rice and seasonal fruits. Sheep, goats, water buffalo and cows are popular livestock. The *kecamatan* was also supplier of fishery stock.

There are 18 primary schools, one junior high school, and 15 religious primary schools in the Pasawahan area. Nonformal education programs carried out in Pasawahan include a radio servicing course, home economics, and religious education for adults.

According to the Head of the *kecamatan*, development problems faced by the *kecamatan* are lack of citizen participation in development programs, lack of transportation from *desa* to *desa* due to the bad condition of the roads, lack of an irrigation system (70% of the paddy fields depend on rain water), and lack of trained personnel to carry out vocational training.

Kecamatan II: Campaka

The second *kecamatan* selected was Campaka. The center of this *kecamatan* is located about 18 kilometers from the city. The area is 18,591 hectares, almost three times the Pasawahan area. It is comprised of 36% paddy-field, 36% dry land, and 28% forest, mountain, plantation, and reservoir. The population was 52,928 in 1978. Forty five percent of the population are under 20 years of age. Among

⁹Source: Kabupaten Purwakarta Office.

the 28,000 people who are working, 57% are farmers, 26% unskilled laborers, 5% traders, and 12% were artisans, civil servants and others.

There were 14 *desas* in Kecamatan II, four were preparatory/*swadaya desas*. The other ten *desas* from which Desa II was selected are listed in rank order in Table 6. Figure 10 shows a map of the *kecamatan*.

TABLE 6
RANKING OF DESAS IN KECAMATAN CAMPAKA*

<u>NAME OF DESA</u>	<u>CLASSIFICATION</u>	<u>RANK</u>
Cibening	Swasembada	1
Cikopo	Swasembada	2
Campaka	Swakarya	3
Cibatu	Swakarya	4
Cikadu	Swakarya	5
Cibungur	Swakarya	6
Cimahi	Swakarya	7
Cirende	Swakarya	8
CILANDAK	Swakarya	9
Cibukamanah	Swakarya	10

*Source: Kecamatan Office
Four preparatory *desas* are not included

The main agriculture products of the *kecamatan* are rice, corn and watermelon. Country chicken, sheep, goats, cows and ducks were among their popular livestock. Campaka is a producer of bricks for its surrounding *kecamatan*s and cities.

In 1977 the per capita income of the *kecamatan* was US \$70. In the same year, Desa II income per capita was US \$55 (one dollar equals Rp. 415).

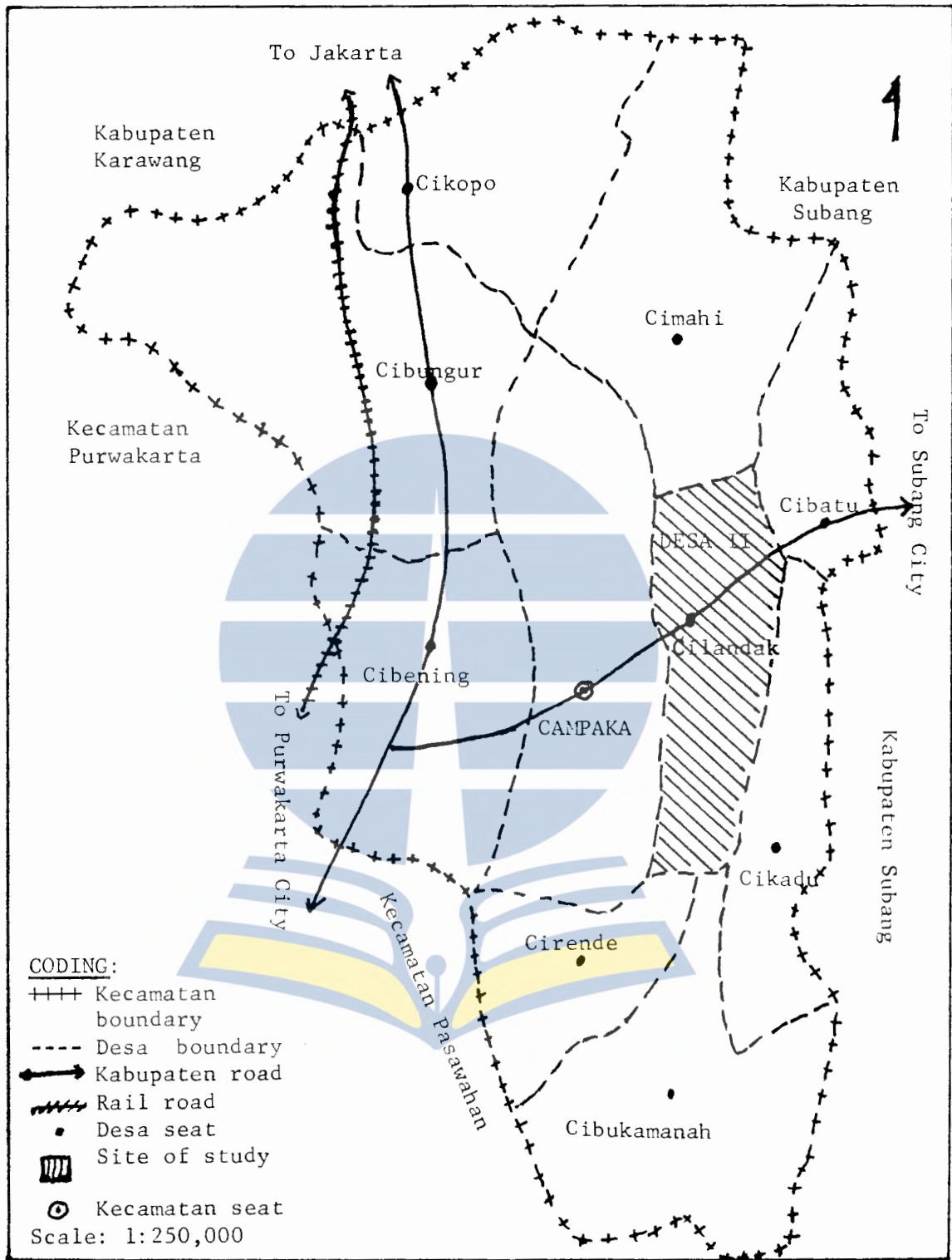


FIGURE 10
 MAP OF KECAMATAN CAMPAKEA

In terms of education, 42% of the population have completed at least primary school. There are 31 primary schools with 125 teachers and 5,102 pupils. There are also two junior high schools, one of which is a religious school, and 13 religious primary schools. Among nonformal education programs carried out in the *kecamatan* are home economic courses, womens farmer training, a massage course, carpentry, and religious education for adults.

Development problems encountered by the Head of the *kecamatan* are similar to problems identified in Pasawahan. Lack of citizen participation, irrigation, and transportation were among the greatest felt handicaps.

The Two Desas

Table 7 illustrates and compares the demographic and physical background of the two *desas*. Desa I area was almost half that of Desa II, 511 hectares and 1,026 hectares respectively. Paddy-field in Desa II was 8 times that of Desa I. Rice production in 1977, however, indicated that Desa I yielded over twice as much per hectare as Desa II. In Desa I the production was 4.8 tons per hectare while in Desa II only 2.2 tons. This was because in Desa I rice can be planted twice a year. In Desa II only once, due to a dependence on rain.

The population was 3,361 in Desa I and 4,062 in Desa II in 1978. The density was 6.4 in Desa I and 4 in Desa II per hectare. In Desa I 18% of the population were under 20 years

TABLE 7
DEMOGRAPHIC AND PHYSICAL BACKGROUND OF DESAS*

<u>BACKGROUND</u>	<u>DESA I</u>	<u>DESA II</u>
A R E A	511.1 ha	1026.4 ha
Paddy field	(7%)	(54%)
POPULATION	3361	4062
Under 20 yrs age	(18%)	(48%)
Working:	1259	1375
Farming	(33%)	(71.5%)
Laborer	(20.6%)	(15%)
Trader	(28%)	(3%)
RICE PRODUCTION (1977)	4.8 tons/ha	2.2 tons/ha
INCOME PER CAPITA (1977)	US \$ 56	US \$ 55
SCHOOLS: Primary	2	2
Religious/Primary	1	2**
TEACHERS/PUPILS: Primary	11/499	13/502
Religious	3/101	6/342**
COMMUNITY UNITS: RK	4	5
RT	12	21
Language	Bahasa Sunda	Bahasa Sunda
Religion	Islam (99.9%)	Islam (99.9%)
Location: From City	16 km	3 km
From Kecamatan	2 km	2 km
NATURAL RESOURCE	Rock	"Atras" sand

CODING: *Source: Desa Offices
ha = hectare km = kilometer

**In 1977 there were 4 schools with 527 pupils.
It dropped to 2 schools with 342 pupils
because two schools were destroyed and lacked
teachers.

of age. In Desa II there were 48% under 20 years of age.

Both *desas* are connected by a *kabupaten* road to Purwakarta city. (See Figures 11 and 12) Desa I is only 3 kilometers away from the city while Desa II is 16 kilometers from the city. The "Wednesday Market" is nearest to Desa I and the "Friday Market" is nearest to Desa II.

In terms of culture, both Desa I and Desa II are alike. There are indications, however, that Desa II is still more traditional in terms of their old customs -- e.g., harvest fiesta at the beginning of harvest time was still carried out in Desa II but no longer in Desa I. Both *desas* are predominantly Sundanese speaking *desas*. The population is predominantly moslem by religion. A lot more religious activities in Desa II than in Desa I were observed during the week of fieldwork.

Although water for farming is also a problem in Desa I it is more severe in Desa II. During the dry season there is no surface water and during the rainy season floods are a problem. A drinking water supply problem is encountered by both *desas*. Several water pumps, subsidized by the government through their development program, were idle in Desa I because the pipes were not deep enough to reach the ground water. If the irrigation problem can be solved, Desa II has a better potential than Desa I in terms of rice production.

Transportation from *desa* to *desa* is not as much a problem as transportation within Desa I or Desa II due to poor

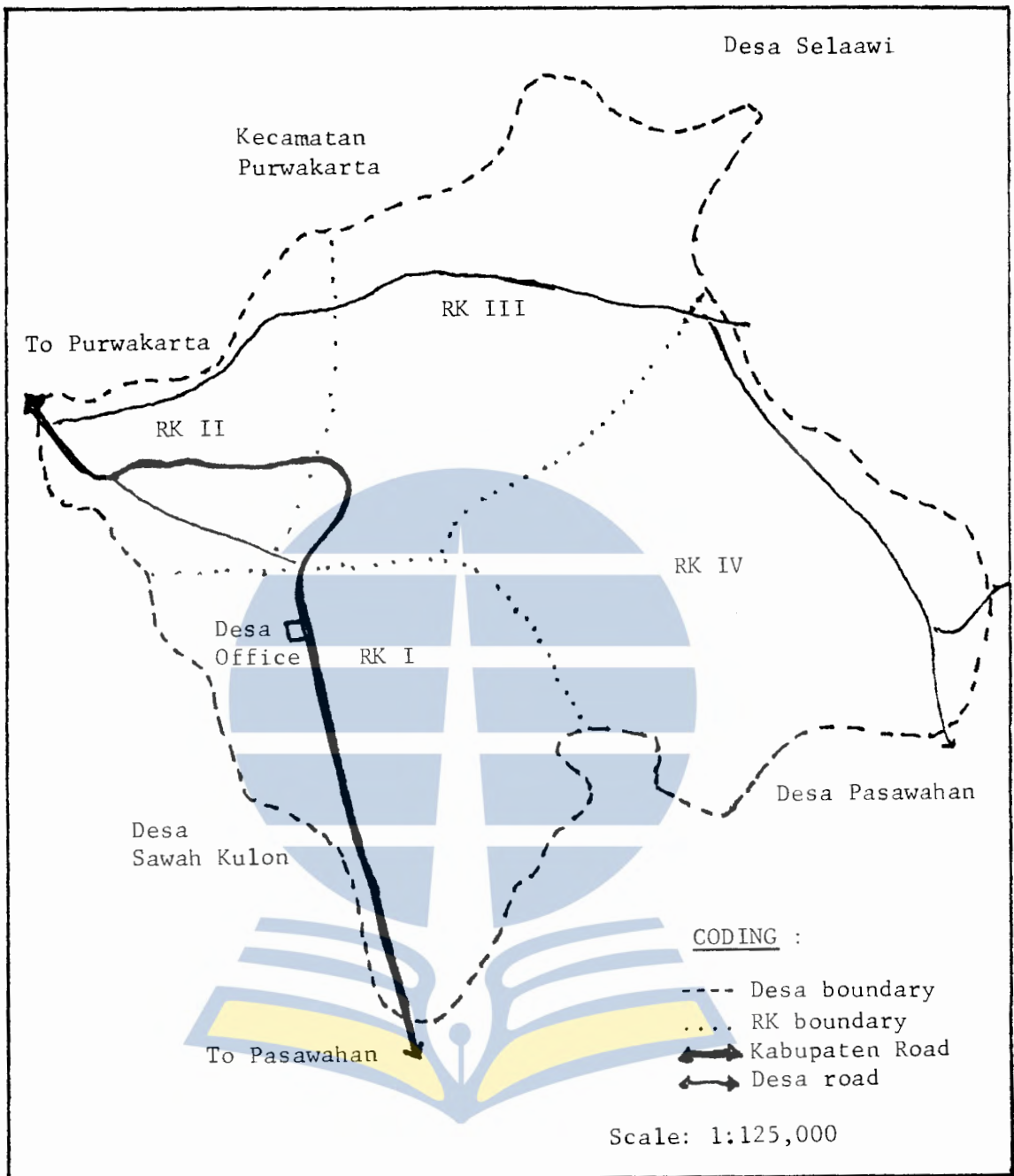


FIGURE 11
MAP OF DESA I

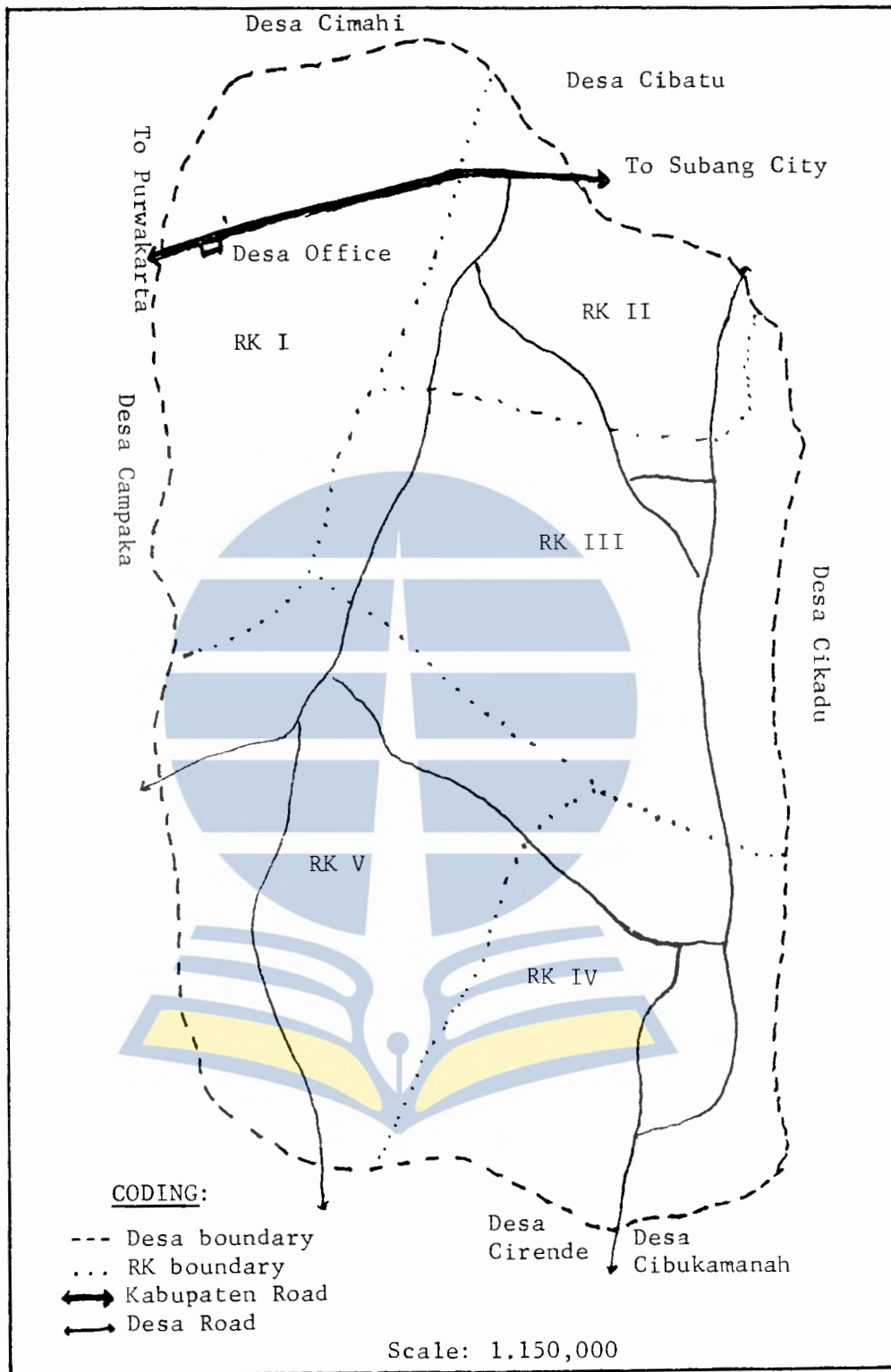


FIGURE 12
MAP OF DESA II

road conditions. Motor-cycle taxis run by unlicensed individuals is mushrooming in both *desas*, and in many *desas* in West Java, as a fast form of transportation from village to village. In Desa I, however, this was limited due to the few roads that can be reached by motor-cycle.

Electricity was available in the center of Desa I along the *kabupaten* road. Electric transmission lines pass through Desa II but no one has yet benefited from it.

In both *desas* there are no well organized citizen organizations for the betterment of the community. Recently however, in Desa I a "Mitra Cai" (water user organization) has begun to emerge and under the leadership of a retired school superintendent has just reached their first objective -- irrigation rehabilitation. It was during this process that the "Mitra Cai" leader of this *desa* was elected as president of "Mitra Cai" of the entire Kabupaten Purwakarta. It is being considered by the central government to build another dam in Kecamatan Pasawahan which can supply water to Kabupaten Purwakarta as a compensation for not being able to use Jatiluhur dam, which is ironically located in the *kabupaten*.

These are some of the important features of the two *desas* as an illustrative background to this study. Detailed data on the demographic background of the two *desas* and its *kecamatan*s are presented in Appendix C, Tables 1 to 5.

CHAPTER V

RESULTS OF STUDY

Data collected in this study and analyzed according to the procedures described in Chapter III are presented in seven sections of this chapter. The first section presents the demographic characteristics of the subjects. In the other six sections are presented data and analyses which are organized according to the six foci of this study. The six foci can be abbreviated as: interview approach versus group approach; effects of interview approach and interview approach on leaders/nonleaders; leaders versus nonleaders; Desa I versus Desa II; males versus females; and more-educated versus less-educated.

As described in Chapter I the hypotheses of this study were stated in a directional manner with some predictions of no difference in outcome. For the purpose of statistical analysis, however, the hypotheses were stated in the null form. The directional hypotheses were treated here as the alternative hypotheses.

Statistical analyses examined whether a null-hypothesis could be rejected or retained. If it was rejected, the respective directional/alternative hypothesis could instead be accepted. In a case where the directional hypothesis was

the same as the null-hypothesis, the retaining of the null-hypothesis also meant the retaining of the directional hypothesis.

The analyses of data are presented in this chapter according to each null-hypothesis. The results are then used to examine the respective directional hypothesis.

Data and analyses are presented according to the hypothesis being tested. There are 23 hypotheses which are presented in null-hypothesis form. Each null-hypothesis is presented first followed by data, analyses, and a decision regarding the retaining or rejection of the null-hypothesis. A brief summary is presented at the end of each section. An overall summary of the findings is also made at the closing of this chapter.

Section 1. Demographic Characteristics of Subjects

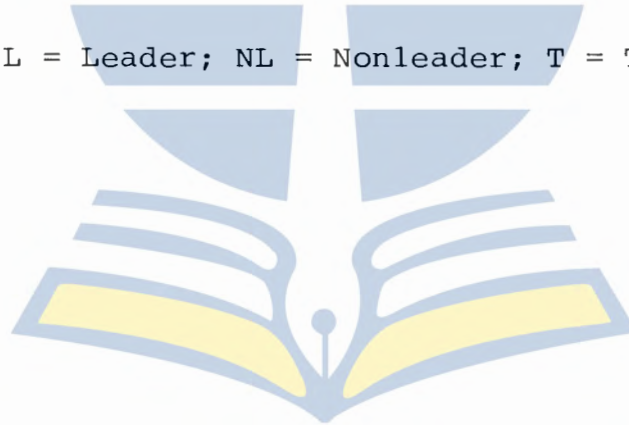
A general description of the subjects' characteristics is useful as a referent in understanding the results of this study. Seven of the subjects' characteristics were recorded. These are: leader/nonleader status, sex, age, marital status, highest level of (formal) education, occupation, and number of children.

As indicated in Table 8, 50 of the 95 subjects (or 53%) were nonleaders and 45 were leaders. Of the 45 leaders, seven were *desa* leaders, 13 RK leaders and 25 RT leaders. The analyses compares leaders and nonleaders without any

TABLE 8
NUMBER OF SUBJECTS BY SEX, BY DESA AND BY LEADER/NONLEADER

SEX	DESA I			DESA II			DESA I + DESA II		
	L	NL	T	L	NL	T	L	NL	TOTAL
MALE	22	13	35	23	13	36	45	26	81 (75%)
FEMALE	0	12	12	0	12	12	0	24	24 (25%)
TOTAL	22	25	47	23	25	48	45	50	95 (100%)

Coding: L = Leader; NL = Nonleader; T = Total



attempt to compare among leaders. The leader subjects of the three levels of community leadership were lumped into one category of leader and are presented in the tables as a leader and nonleader dichotomy.

In terms of sex, only 25% of the subjects were females. They came from the nonleader samples only. All community leaders in the two *desas* were males. The proportion of leader/nonleader and male/female subjects in Desa I and Desa II were very similar.

Eighteen percent of the subjects were 46 years of age and over. All of them were leaders. There were no nonleaders over 45 years of age because this study restricted itself to nonleaders between 18 and 45 years of age. There was no age restriction for leader subjects. As revealed in Table 9, there was only a single leader who was lower than 26 years of age. He was from Desa II. Of the total subjects, 16.8% were between 20 and 25 years of age; 30.6% between 26 and 35 years, and 35.8% between 36 and 45 years of age. The proportion in terms of age was approximately the same in both *desas*.

Table 10 reveals the distribution of subjects in terms of their educational background on the basis of number of years in school. Only 18% of the subjects had completed at least junior high school level. Fifty two percent had less than six years of primary school. The leaders were slightly higher than the nonleaders in education. Eleven of the 17 junior high graduates or higher were leaders. But

TABLE 9
NUMBER OF SUBJECTS BY AGE, BY DESA AND BY LEADER/NONLEADER

AGE (IN YEARS)	DESA I			DESA II			DESA I + DESA II		
	L	NL	T	L	NL	T	L	NL	TOTAL
20 - 25	0	6	6	1	9	10	1	15	16 (16.8%)
26 - 35	8	7	15	6	8	14	14	15	29 (30.6%)
36 - 45	5	12	17	9	8	17	14	20	34 (35.8%)
46 - 69	9	0	9	7	0	7	16	0	16 (16.8%)
TOTAL	22	25	47	23	25	48	45	50	95 (100%)

Coding: L = Leader; NL = Nonleader; T = Total



TABLE 10
NUMBER OF SUBJECTS BY EDUCATION, BY DESA AND BY LEADER/NONLEADER

EDUCATION (IN YEARS)	DESA I			DESA II			DESA I + DESA II		
	L	NL	T	L	NL	T	L	NL	TOTAL
NONE	3	6	9	5	3	8	8	9	17 (18%)
1 - 5	5	7	12	7	14	21	12	21	33 (34.7%)
6 - 8	7	7	14	7	7	14	14	14	28 (29.9%)
9 - 11	6	3	9	4	0	4	10	3	13 (13.7%)
MORE THAN 11	1	2	3	0	1	1	1	3	4 (4.2%)
TOTAL	22	28	47	23	25	48	45	50	95 (100%)

Coding: L = Leader; NL = Nonleader; T = Total

among the four who completed high school three were non-leaders.

Desa I subjects had a relatively higher educational average. Twelve of 47 subjects (25.5%) in Desa I had completed at least junior high level (9 years of schooling and over). In Desa II only 5 out of 48 subjects (10.4%) had completed at least junior high level. In other words, 74.5% of the subjects in Desa I and 89.6% of the subjects in Desa II had less than nine years of schooling. The percentage of subjects with no schooling at all were 19% in Desa I and 16.6% in Desa II.

In terms of their occupation, 30.5% of the subjects were farmers, 23.2% homemakers (housewives and not working), 16% civil servants (most of them *desa* officials), 11.6% unskilled laborers, and the remaining were traders, artisans and others. It was difficult to precisely classify their occupation because many of them had more than one occupation. The "Farmer & Trader" group as revealed in Table 11 is an example of this. In this case, the subjects thought that they spent the same amount of time and/or had the same income from the two kinds of jobs. It is interesting to note that 21 out of the 29 farmers were leaders. Seven out of 11 laborers were also leaders.

In Desa I there were more subjects working as civil servants and as laborers than in Desa II. The "Farmers" category was greater in Desa II than in Desa I. The pro-

TABLE 11
NUMBER OF SUBJECTS BY OCCUPATION, BY DESA AND BY LEADER/NONLEADER

OCCUPATION	DESA I			DESA II			DESA I + DESA II		
	L	NL	T	L	NL	T	L	NL	TOTAL
FARMER	7	1	8	14	7	21	21	8	29 (30.5%)
TRADER	0	3	3	0	0	0	0	3	3 (3.1%)
FARMER & TRADER	1	1	2	2	2	4	3	3	6 (6.2%)
CIVIL SERVANT/ AIR FORCES	8	2	10	4	1	5	12	3	15 (16.8%)
LABORER	6	3	9	1	1	2	7	4	11 (11.6%)
HOME MAKER	0	10	10	0	12	12	0	22	22 (23.2%)
CARPENTRY	0	4	4	0	2	2	0	6	6 (6.2%)
OTHER	0	1	1	2	0	2	2	1	3 (3.1%)
TOTAL	22	25	47	23	25	48	45	50	95 (100%)

Coding: L = Leader; NL = Nonleader; T = Total

portion of working adults in Desa II who were farmers was greater than in Desa I.

The size of family in terms of the number of children the subjects had at the time of the study varied from none at all to nine children. Table 12 reveals that 44% of the subjects had three children or less; 41% had 4 to 6 children, and 15% had 7 to 9 children. Leaders had less children than the nonleaders. In Desa I, 55% of the subjects had three children or less, in Desa II 52% of the subjects had 4 to 6 children.

In summary it can be concluded that the subjects were predominantly males (75%), 47% were community leaders, they varied in their occupation, 52% had less than six years of schooling, their age ranged between 20 and 69 years, and 85% had six children or less.

Section 2. Interview Approach versus Group Approach

The Quantity Variable

Null-Hypothesis (Ho) #1. There will be no difference between the number of community needs derived from a group approach and the number of community needs derived from an interview approach (quantity variable).

Data and analysis as presented in Tables 13, 14 and 15,

TABLE 12
 NUMBER OF SUBJECTS BY NUMBER OF CHILDREN, BY DESA, BY LEADER/NONLEADER

NUMBER OF CHILDREN	DESA I			DESA II			DESA I + DESA II		
	L	NL	T	L	NL	T	L	NL	TOTAL
0 - 3	12	14	26	4	12	16	16	26	42 (44.2%)
4 - 6	6	8	14	15	10	25	21	18	39 (41%)
7 - 9	4	3	7	4	3	7	0	6	14 (15%)
TOTAL	22	25	47	23	25	48	45	50	95 (100%)

Coding: L = Leader; NL = Nonleader; T = Total

yield information that there is a highly significant interaction between the approach variable and the number of responses to Questions #1, #2, and #1 and #2 combined. As displayed in Table 13, the number of responses generated by the two approaches (interview approach and group approach) differ significantly at greater than the .05 level of confidence, in which the group approach is higher than interview approach.

TABLE 13
ONE-WAY ANOVA ON QUANTITY OF RESPONSE
TO QUESTION #1, BY APPROACH VARIABLE

SOURCE OF VARIATION	SUM OF SQUARES	d.f.	MEAN SQUARE	F	SIGNIFICANCE OF F
Between	44.704	1	44.704	4.102	.046
Within	959.085	88	10.899		
Total	1003.789	89	11.279		

Variable/ Category	N	MEAN	
Interview	33	5.48	ETA = .21 Multiple R ² = .04
Group	57	6.95	

As the table also reveals, the group approach has 6.95 average responses per subject as compared to 5.48 average responses for the interview approach. The Eta value (.21), however, indicates that the correlation is not high. In other words, as indicated by the value of Multiple R², only

4.4% of the variance can be accounted for by the approach variable.

Table 14 reveals that in Question #2 the difference is significant at greater than the .01 level of confidence. Again, the average number of responses of the group approach is higher; 4.65 as compared to 3.3 for the interview approach. Even though the difference is smaller than in Question #1, the correlation is a little higher. In Question #2, 7.9% of the variance can be explained by the approach variable. It is almost double that of Question #1.

TABLE 14
ONE-WAY ANOVA ON QUANTITY OF RESPONSE
TO QUESTION #2, BY APPROACH VARIABLE

SOURCE OF VARIATION	SUM OF SQUARES	d.f.	MEAN SQUARE	F	SIGNIFICANCE OF F
Between	37.870	1	37.870	7.575	.007
Within	439.952	88	4.999		
Total	477.822	89	5.369		

Variable/ Category	N	MEAN
Interview	33	3.41
Group	57	4.65

ETA = .28
Multiple R² = .079

Table 15 shows similar data when the responses to Question #1 and Question #2 are combined and duplicated responses are only counted a single time (non-overlapping responses). There is significant interaction at greater than the .02 level of confidence between the dependent variable (quantity) and the independent variable (approach). The averages are 11.07 and 8.7 for the group and the interview approach respectively. Six and four tenths percent (6.4%) can be accounted for by the approach variable.

TABLE 15
ONE-WAY ANOVA ON QUANTITY OF RESPONSE
TO QUESTION #1 & #2 COMBINED, BY APPROACH VARIABLE

SOURCE OF VARIATION	SUM OF SQUARES	d.f.	MEAN SQUARE	F	SIGNIFICANCE OF F
Between	117.711	1	117.711	6.020	.016
Within	1720.689	88	19.553		
Total	1838.400	89	20.656		

Variable/ Category	MEAN		ETA = .25 Multiple R ² = .064
	N	MEAN	
Interview	33	8.70	
Group	57	11.07	

Data and analyses of Tables 13, 14 and 15 indicate that in terms of number of responses to Question #1, Question #2, and Questions #1 and #2 combined, the approach variable did make a difference, in which the group approach generated a

greater number of responses about community needs than the interview approach. This means that there is no basis to accept the null-hypothesis #1. The probability is 5% or less that the differences were due to chance.

Two-way analyses of variance was carried out to see the effect of the *desa* variable. This further analysis was carried out to see if the difference was in any way influenced by the differences in the two *desas*. Tables 16, 17 and 18 reveal the analyses. For Question #1 as shown in Table 16, there is significant interaction only between the approach variable. There is no significant interaction between *desas* or two-way interaction of approach and *desa* variables.

The comparison among means of the four sub-samples shows that the 6.51 response average for Desa I is not significantly different from the 6.32 response average for Desa II. However, the 5.48 response average for the interview approach is significantly different from the 6.95 response average for the group approach. The probability is only five out of a hundred that the differences are caused by chance. This result is considered appropriate because the condition of statistical independence was met through random assignment of subjects to the treatment groups. The concern that the particular *desas* used in this study biased the results is unfounded.

For Question #2, on the other hand, there are significant

differences between *desas* as well as between approaches, at greater than the .01 level of confidence. But, again, there is no significant two-way interaction between *desa* and approach variables as indicated in Table 17.

TABLE 16
TWO-WAY ANOVA ON QUANTITY OF RESPONSES
TO QUESTION #1, BY DESA AND BY APPROACH VARIABLES

SOURCE OF VARIATION	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F	SIGNIFICANCE OF F
Desa	.4571	.457	.041	.041	(n.s.)
Approach	44.329	1	44.329	3.933	.049
Approach X Desa	3.794	1	3.794	.342	(n.s.)
Within	954.834	86	11.103		
Total	1003.789	89	11.279		

Variable/ Category	Desa I	Desa II	Total	
Interview	5.27	5.67	5.48	Eta Approach = .21
Group	7.18	6.72	6.95	Eta Desa = .02
Total	6.51	6.32	6.41	Multiple R ² = .045

n.s. = not significant

Eighteen and three tenths percent (18.3%) of the variance can be accounted for by the approach and *desa* variables, for which a greater proportion (10%) can be accounted for by the *desa* variable than the approach variable (7.3%). This lack of two way interaction further supports the findings from

Question #1.

TABLE 17
TWO-WAY ANOVA ON QUANTITY OF RESPONSES
TO QUESTION #2 BY DESA AND BY APPROACH VARIABLES

SOURCE OF VARIATION	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F	SIGNIFICANCE OF F
Desa	49.381	1	49.381	11.049	.001
Approach	34.826	1	34.826	7.792	.006
Approach X Desa	6.221	1	6.221	1.392	(n.s.)
Within	384.349	86	4.469		
Total	477.822	89	5.369		

Variable/ Category	Desa I	Desa II		
Interview	3.73	2.95	3.31	Eta Approach = .27
Group	6.20	3.73	4.65	Eta Desa = .33
	4.96	3.43		Multiple R ² = .183

n.s. = not significant

In Question #1 and Question #2 combined, the analysis shows a similar conclusion as for Question #1. As displayed in Table 18 significant interaction is detected only between approaches at greater than the .05 level of confidence. No significant interaction was found between *desas*, nor two-way interaction of *desa* and approach variables.

The two-way analysis of variance between *desa* and approach variables indicates that the *desa* variable can account

for 10% of the variance on quantity of responses to Question #2 (as compared to 8% accounted for by the approach variable). There was no significant interaction on Question #1 or Questions #1 and #2 combined for the *desa* variable.

TABLE 18
TWO-WAY ANOVA ON QUANTITY OF RESPONSES
TO QUESTION #1 & #2 COMBINED, BY DESA
AND BY APPROACH VARIABLES

SOURCE OF VARIATION	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F	SIGNIFICANCE OF F
Desa	39.015	1	39.015	2.015	(n.s.)
Approach	112.819	1	112.819	5.826	.018
Approach x Desa	16.449	1	16.449	.850	(n.s.)
Within	1665.225	86	19.363		
Total	1838.400	89	20.656		
Variable/ Category	Desa I	Desa II			
Interview	8.80	8.61	8.70		Eta (Desa) = .15
Group	13.06	10.10	11.07		Eta (Group) = .25
	10.93	9.53			Multiple R ² = .085

n.s. = not significant

When the approach variable is considered, there is significant difference for all questions. However, Question #1, Question #2, and Questions #1 and #2 combined show no significant two-way interaction between the *desa* and approach

variables. Based on these findings, the earlier conclusion that Null-Hypothesis #1 can be rejected is further strengthened. Its alternative hypothesis that the group approach yields a greater quantity of responses than the interview approach in assessing community needs, then, can be retained.

The Specificity Variable

Null-Hypothesis #2. There will be no difference between the specificity of needs derived from a group approach and the specificity of needs derived from an interview approach (specificity variable).

To test Null-Hypothesis #2, chi-square analyses were conducted on all four questions used in the study instruments. Beside raw chi-squares and their level of significance which indicates relationships between dependent and independent variables, there is also presented Gamma statistics in the analysis, which shows the strength of the relationship.

The chi-square analyses on specificity of responses to Question #1, #2, #3, and #4 are presented in Table 19. The analyses reveal information that there is a significant relationship between the independent variable (approach) and the dependent variable (specificity) on all questions except #3.

The Gamma value for Question #3 (-.603) is shown as higher than the value for Question #4 (-.400). In Question

TABLE 19
CHI-SQUARE ANALYSIS ON SPECIFICITY OF RESPONSES TO QUESTIONS #1 TO #4
BY APPROACH VARIABLE

LEVEL OF SPECIFICITY	QUESTION #1			QUESTION #2			QUESTION #3			QUESTION #4		
	IA n=37	GA n=57	T n=94	IA n=34	GA n=57	T n=91	IA n=38	GA n=57	T n=95	IA n=38	GA n=57	T n=95
1 (LOW)	10.8	49.1	34.0	14.7	50.9	37.4	23.7	36.8	31.6	42.1	66.7	56.8
2	48.6	40.4	43.6	52.9	40.4	45.1	63.2	52.6	56.8	50.0	26.3	35.8
3	32.4	5.3	16.0	17.6	3.5	8.8	10.5	8.8	9.5	0.0	0.0	0.0
4	5.4	5.3	5.3	8.8	3.5	5.5	2.6	1.8	2.1	1.6	5.3	4.2
5 (HIGH)	2.7	0.0	1.1	5.9	1.8	3.3	0.0	0.0	0.0	5.3	1.8	3.2
TOTAL %	100	100	100	100	100	100	100	100	100	100	100	100

Coding: IA = Interview Approach; GA = Group Approach;
T = Total; n = Subjects; % = Percentage, calculated
from each column n.

Chi-Square Analysis:	Question #	χ^2	d.f.	Significance;	Gamma
	1	21.948	4	.0002	-.662
	2	15.245	4	.004	-.631
	3	1.851	3	(n.s)	-.603
	4	7.257	3	.064	-.400

#1 and Question #2 the Gamma values are $-.662$ and $-.631$ respectively. This shows that the relationship found on Question #1 and Question #2 on the specificity variable is strong. The relationship found on Question #4 is not as strong but still meaningful.

It is interesting to note that Question #1 and Question #2 asked for responses in an open ended fashion whereas Question #3 asked for the three highest priority needs from those already identified, and Question #4 asked for only a single response in terms of an individual (not community). It can be argued that the limiting effect of Question #3 (only three community needs could be identified) tended to make these needs more general in nature and consequently the type of question asked had a powerful effect on the specificity variable.

It can be concluded with 90% confidence that, based on Question #1 and Question #2, there is a strong relationship between the interview approach and a higher level of specificity, and a strong relationship between the group approach and a lower level of specificity. This is further substantiated, though not as strongly, by Question #4. These data do not support Null-Hypothesis #2. This means that its alternative hypothesis, that the interview approach generates a higher level of specificity of responses (needs), can be accepted.

The Means/Nonmeans Orientation Variable

Null-Hypothesis #3. There will be no difference between the means/nonmeans orientation of needs derived from a group approach and the means/nonmeans orientation of needs derived from an interview approach (means/nonmeans orientation variable).

Data and analyses to test this hypothesis are presented briefly in Table 20 (See Appendix D, Tables 6, 7, and 8 for the ANOVA results). There is no analysis for Question #2 because all responses to the question were categorized as means-oriented since Question #2 asked for educational needs which, for this study are classified as means-oriented needs. For the other three questions the analyses reveal no significant interaction between the approach variable and the means/nonmeans orientation variable.

TABLE 20
A COMPARISON OF AVERAGES OF MEANS/NONMEANS ORIENTATION
CATEGORY OF RESPONSES TO QUESTIONS #1, #3, AND #4.

<u>Variable & Category</u>		<u>N</u>	<u>Average*</u>	<u>Eta</u>
Question #1	Interview	37	1.05	.00
	Group	57	1.05	
Question #3	Interview	37	1.30	.06
	Group	57	1.25	
Question #4	Interview	37	1.36	.12
	Group	57	1.48	

*1 = Nonmeans Oriented 2 = Means-Oriented

As is shown in Table 20, there are no differences between the interview approach and the group approach for Question #1, and only small differences for Question #3 and #4. It is interesting to note that there are increases from question to question toward a more means-orientation. However, all of the question yielded non-means-oriented needs. These data indicate that there is no difference between the group approach and the interview approach in terms of the means/nonmeans orientation of needs. In other words, the Null-Hypotheses #3 is retained.

The Type (of Need) Variable

Null-Hypothesis #4. There will be no difference between the genre of needs derived from a group approach and the genre of needs derived from an interview approach (type variable).

The responses in terms of their genre (i.e., types of needs) were classified in two ways. First, they were classified by community functions categories using the Axinn Model as described in Chapter II. Second, they were classified according to categories which are more meaningful to the different government ministries in terms of possible future implementation. While the Axinn Model could be useful for integrative planning, the second classification would be more practical for distribution of responsibilities among different ministries.

Since data were of a nominal type, the Lamda statistics were chosen as a parameter to see the strength of relationship in addition to the chi-square statistics.

Type of Needs by Community Functions (Axinn Model).

Data and analyses for this classification procedure are presented in Table 21 and Table 22. Percentages presented are based on the total number of responses (frequencies and not subjects) of each sub-sample. As indicated in Table 21 there is no significant relationship between approach variable and type variable except for Question #2. However, the Lamda statistics for Question #2 are small thereby indicating that it has no predictive value. The four types of needs most frequently mentioned by both the group and interview approaches in answering Question #1 (general community needs), are almost the same. They are: supply, governance, linkages, and religious function types (from higher to lower percentages). The four types of needs most frequently mentioned in answering Question #2 (community educational needs) were slightly different between the two approaches. In the interview approach, they are: production, education, larger system and religious function types. In the group approach, they are: production, larger system, cultural, and education types. It should be noted that though Question #2 asked the subjects to identify educational needs, these needs were categorized according to their function (e.g. "Learning how to graft

TABLE 21
 CHI-SQUARE ANALYSIS ON GENERAL COMMUNITY NEEDS
 (QUESTION #1), AND EDUCATION NEEDS (QUESTION #2)
 BY FUNCTION, AND BY APPROACH

COMMUNITY NEED BY FUNCTION	QUESTION #1			QUESTION #2		
	IA n=197	GA n=397	TOTAL n=594	IA n=110	GA n=265	TOTAL n=375
SUPPLY 1	22.3	21.4	21.7	2.7	3.8	3.4
PRODUCTION 2	2.5	3.5	3.2	55.5	47.2	49.6
MARKETING 3	1.0	1.5	1.3	0.9	2.6	2.1
PERSONAL MAINTENANCE 4	9.1	8.6	8.7	0	0	0
HEALTH CARE DELIVERY 5	4.1	2.0	2.7	1.8	1.9	1.9
GOVERNANCE 6	18.8	14.9	16.1	6.4	3.0	4.0
EDUCATION 7	4.6	5.0	4.9	12.7	7.2	8.8
RELIGIOUS 8	12.7	12.1	12.3	9.1	6.8	7.5
CULTURAL 9	1.5	3.3	2.7	0.9	7.9	5.9
LINKAGE: Inward 10	17.3	17.4	17.3	0	0	0
LINKAGE: Outward 11	1.5	0.5	1.0	0	0	0
LARGER SYSTEM 12	4.6	9.8	8.0	10.0	19.6	16.8
TOTAL %	100%	100%	100%	100%	100%	100%

CODING: n = number of responses (not subjects)

% = percentages are calculated from each column n

IA = Interview Approach

GA = Group Approach

T = Total

STATISTICS:	χ^2	d.f.	Significance;	Lamda
Question #1	11.765	11	(n.s.)	.001
Question #2	18.674	8	.017	0.00

TABLE 22
CHI-SQUARE ANALYSIS ON COMMUNITY PRIORITY NEEDS
(QUESTION #3), AND INDIVIDUAL NEEDS (QUESTION #4)
BY FUNCTION AND BY APPROACH

COMMUNITY NEED BY FUNCTION	QUESTION #3			QUESTION #4		
	IA n=112	GA n=168	T n=280	IA n=38	GA n=57	T n=95
SUPPLY 1.	20.5	13.1	16.1	39.5	42.1	41.1
PRODUCTION 2.	8.0	12.5	10.7	7.9	8.8	8.4
MARKETING 3.	.9	3.6	2.5	0.0	1.8	1.0
PERSONAL MAINTENANCE 4.	10.7	7.1	8.6	36.8	22.8	28.5
HEALTH CARE DELIVERY 5.	1.8	.6	1.1	0.0	0.0	0.0
GOVERNANCE 6.	15.2	10.7	12.5	10.5	1.8	5.3
EDUCATION 7.	8.0	4.2	5.7	0.0	5.3	3.1
RELIGIOUS 8.	11.6	16.7	14.6	0.0	3.5	2.1
CULTURAL 9.	1.8	.6	1.1	0.0	0.0	0.0
LINKAGE: Inward 10.	15.2	22.0	19.3	0.0	3.5	2.1
LINKAGE: Outward 11.	.9	.6	.7	0.0	0.0	0.0
LARGER SYSTEM 12.	5.4	8.3	7.1	5.3	10.5	8.4
TOTAL %	100	100	100	100	100	100

Coding: IA = Interview Approach; GA = Group Approach;
T = Total; n = number of responses (not subjects);
% = percentages are calculated from each column n

STATISTICS:	χ^2	d.f.	Significance;	Lambda
Question #3	14.827	11	(n.s.)	.032
Question #4	11.056	8	(n.s.)	.042

mango tree" was categorized as "Supply"; "Koranic study" as "Religious").

Comparing data for Question #1 and Question #2 it is interesting to note that the "Production" function needs, which were rarely mentioned in Question #1, were overwhelmingly mentioned in Question #2.

Question #3 asked the subjects to choose the three most important community needs from those mentioned in answering Questions #1 and #2. Table 22 displays the data and results of the analyses. It also contains the data and results of analysis from Question #4, which asked for the one most important need of the subjects themselves instead of their community's needs. Chi-square analyses on both questions show no significant relationship between type variable and approach variable.

Since the tables show no significant relationship between independent variable (approach) and dependent variable (type), it can be concluded that the two approaches did not make any significant difference. There is no basis to reject Null-Hypothesis #4.

A summary of the two tables ranked for each sub-sample as indicated in Table 23, however, provides interesting information. First, the "Supply" function seems to be the most important one as perceived by the majority of subjects. Second, the "Supply" function was the most frequently mentioned in Question #1 and was also the most frequently mentioned in Question #4. In other words, the most important

TABLE 23
RANKING OF TYPE OF NEEDS BY FUNCTION,
QUESTION AND APPROACH

COMMUNITY NEED BY FUNCTION	RANKING							
	Question #1		Question #2		Question #3		Question #4	
	IA	GA	IA	GA	IA	GA	IA	GA
SUPPLY 1	1	1	6	6	1	3	1	1
PRODUCTION 2	9	8	1	1	6.5	4	4	4
MARKETING 3	12	11	8.5	8	11.5	9	-	8.5
PERSONAL MAINTENANCE 4	5	6	-	-	5	7	2	2
HEALTH CARE DELIVERY 5	8	10	7	9	9.5	11	-	-
GOVERNANCE 6	2	3	5	7	2.5	5	3	8.5
EDUCATION 7	6.5	7	2	4	6.5	8	-	5
RELIGIOUS 8	4	4	4	5	4	2	-	6.5
CULTURAL 9	10.5	9	8.5	3	9.5	11	-	-
LINKAGE: Inward 10	3	2	-	-	2.5	1	-	6.5
LINKAGE: Outward 11	10.5	12	-	-	11.5	11	-	-
LARGER SYSTEM 12	6.5	5	3	2	8	6	5	3

CODING: IA = Interview Approach

GA = Group Approach

Rank 1 = Highest, 12 = Lowest

-(Blanks) are for no responses; they are not assigned rank to show differences in distribution among subgroups.

self-need (Question #4) was the same as the most frequently mentioned community need (Question #1). Third, responses were more varied when asked about community needs, then when asked about their own self-need. Fourth, "Religious" function needs had fairly consistent and high rankings in the first three questions (community focus) but not for the fourth question (individual focus).

Type (of Needs) by General Area

Data and analyses of type based on a general area classification are summarized in Table 24 for Questions #1, #3 and #4. Question #2 is displayed separately in Table 25 to allow further detail within the "Education" category. If Question #2 was classified according to the classification used in the first Table, it would be lumped in the "Education" category.

Table 24 reveals that there is a significant relationship between approach variable and type (by general area) variable for Question #1 and Question #4. For Question #3, no significant relationship was found. However, due to the small size of the Lamda value it can be concluded that the relationship found in Question #1 and Question #4 has very weak predictive ability.

The area most frequently mentioned by all subjects to Question #1 and Question #3 was "Infrastructure." Interestingly, "Infrastructure" received small response on Question #4 (individual focus) and "Health and Welfare"

TABLE 24
 CHI-SQUARE ANALYSIS ON GENERAL COMMUNITY NEEDS
 (QUESTION #1), PRIORITY NEEDS (QUESTION #3),
 AND INDIVIDUAL NEEDS (QUESTION #4) BY FUNCTION AND APPROACH

COMMUNITY NEEDS BY AREA OF NEEDS	QUESTION #1		QUESTION #3		QUESTION #4	
	IA n=198	GA n=397	IA n=112	GA n=168	IA n=38	GA n=57
INFRASTRUCTURES ¹	29.8	25.4	28.6	26.8	0	5.3
PUBLIC BUILDINGS ²	17.7	16.9	14.3	18.5	0	3.5
AGRICULTURAL ³	8.1	6.0	2.7	2.4	2.6	0
COMMUNITY DEV'T ORGAN. ⁴	4.5	5.3	2.7	2.4	0	0
ECONOMIC ⁵	4.0	7.6	6.3	4.2	34.2	42.1
UTILITIES ⁶	4.0	5.0	4.5	2.4	0	0
HEALTH AND WELFARE ⁷	12.6	10.1	11.6	7.7	36.8	24.6
TRAINED Personnels ⁸	9.1	3.0	6.3	.6	10.5	0
EDUCATIONAL ⁹	6.1	11.3	19.6	28.0	5.3	14.0
DEVELOPMENT IN GENERAL ¹⁰	4.0	9.3	3.6	7.1	10.5	10.5
TOTAL %	100%	100%	100%	100%	100%	100%

CODING: n = number of responses (not subjects)

% = percentages are calculated from each column n

STATISTICS:	χ^2	d.f.	Significance	Lamda
Question #1	23.913	10	.004	.010
Question #3	14.309	10	(n.s.)	.028
Question #4	14.031	8	.050	.062

and "Economic" were the highest. The "Education" area received a large number of responses on Question #3 and the group approach showed a larger number of "Education" responses on all questions.

Table 25 displays a detailed breakdown of the educational category which was the focus of Question #2.

TABLE 25
CHI-SQUARE ANALYSIS ON COMMUNITY
EDUCATIONAL NEEDS (QUESTION #2)
BY GENERAL AREA AND APPROACH

Community Educational Needs By General Area	IA (n=110)	GA (n=265)	Total (n=375)
Basic Education	18.2	11.3	13.3
Cultural Education	.9	7.9	5.9
Health & Home Economics	39.1	23.4	28.0
Vocational Skills Educ.	15.5	16.6	16.3
Agricultural Education	13.6	29.8	25.1
Business & Industrial Education	3.6	4.9	4.5
Others (General)	9.1	6.0	6.9
Total %	100%	100%	100%

Coding: n = number of responses (not subjects)
% = percentages are calculated from each
column n

STATISTICS: χ^2 df. Significance Lamda
25.602 6 .003 .045

Table 25 shows significant relationship between the approach variable and the different types of educational areas. Again, however, the predictive ability is weak due to the low value of Lamda.

Though there are more significant relationships between the approach variable and the type variable on the general area classification rather than the Axinn Model classification, the weakness of the relationship further confirms Null-Hypothesis #4.

The Time Variable

Null-Hypothesis #5. There will be no difference in the time needed to conduct a group approach and the time needed to conduct an interview approach (time variable).

Man-hours per capita needed to conduct the study using an interview approach and a group approach is used as a measure for comparing the efficiency of the two approaches. Table 27 shows the total time (minutes) for each sub-group in the two *desas*. To test Null-Hypothesis #5, the total time allocated for interview approach and group approach is divided by the number of subjects for each group to get the time per capita value for each group. The results are presented in Table 26.

The table indicates that the group approach needed less time for preparation and execution than the interview approach. The time needed for the interview approach per-

subject is more than twice the group approach. A total of 50.8 minutes for the interview approach as compared to 20.2 minutes for the group approach. This means that Null-Hypothesis #5 is rejected.

TABLE 26
AVERAGE TIME PER SUBJECT
FOR EACH APPROACH

Approach	Preparation Time (in minutes)	Execution Time (in minutes)	Total Time (in minutes)
Interview	20.92	29.9	50.8
Group	6.45	13.77	20.22

In summary, of the five null-hypotheses tested in this section three were rejected and two were retained. The approach variable did account for differences on quantity, specificity, and time variables.

On the quantity of response, the group approach yielded a greater number of responses than the interview approach. On specificity, however, the interview approach yielded a higher level of specificity of needs than the group approach. The total time average per-subject needed to conduct the assessment through the group approach was half the time used through the interview approach.

On the means/nonmeans orientation and type of needs both the group approach and the interview approach yielded very similar results. Nonmeans-oriented needs are yielded from

TABLE 27
ACTUAL TIME NEEDED FOR EACH APPROACH*

	DESA I				DESA II				DESA I + DESA II			
	(n)	PT	ET	TT	(n)	PT	ET	TT	(n)	PT	ET	TT
Leader Interview	(10)	215	320	535	(9)	180	262	442	(19)	395	582	977
Nonleader Interview	(9)	195	270	465	(10)	205	284	489	(19)	400	554	954
SUB-TOTAL I (INTERVIEW APPROACH)	(19)	410	590	1000	(19)	385	546	931	(38)	795	1136	1931
Leader Group Approach	(7)	45	120	165	(9)	58	120	170	(16)	103	240	343
Nonleader Group Approach	(11)	70	150	220	(10)	65	120	185	(21)	135	270	405
Leader/Nonleader Group Approach	(10)	65	135	200	(10)	65	140	105	(20)	130	275	405
SUB-TOTAL II (GROUP APPROACH)	(28)	** 180	405	585	(29)	** 188	380	560	(57)	368	785	1153
TOTAL (I + II)	(47)	590	995	1585	(48)	573	926	1491	(95)	1163	1921	3084

Coding: n = number of subjects; PT = Preparation Time;
ET = Execution Time; TT = Total Time

* All times shown in minutes

**This is the total time known for the three groups in both desas.
The "PT" time for each subgroup is adjusted from this total by
multiplying the (n) in each cell with the average time per
capita ($180/28 = 6.4$).

the two approaches.

Further analysis indicated that those differences in the quantity variable were not influenced by the *desa* variable. There was no two-way interaction of approach and *desa* variable on the quantity variable.

Discussion and Summary of Findings

Discussion

When comparing these findings with the predictions as stated in directional hypotheses #1 to #5 in Chapter One, only the prediction on the type variable is not supported by the findings. Although it was not significant, data indicates an inclination toward the prediction. It can be argued that the weakness of relationship between the approach variable and the type of need variable was due to the classification system used in the analysis and that differences which exist were lost because of the classification system.

The effectiveness of the group approach seems to vary according to the focus of the question asked in the assessment when open-ended questions are used. This is shown by the fewer number of responses to Question #2 and the greater number of responses to Question #1. The data indicates also, however, that the number of responses to Question #2 for the group approach and the interview approach were similarly less as compared to the number of responses to Question #1. Despite the decline, the differences between the interview

approach and group approach is significant. It can be argued, then, that the decline in the number of responses to Question #2 does not mean that the group approach has less effect in Question #2 than in Question #1. As a matter of fact, the Eta value for Question #2 is greater than the Eta value for Question #1. Therefore, it is certain that the differences in the focus of the question does influence the number of responses to the question, but it does not minimize the effect of the approach variable on the quantity of responses. In other words, whether the question asks about community needs in general or educational needs, the group approach will yield a greater number of responses than the interview approach.

The decline in number of responses to Question #2 can be explained in different ways. First, possibly because subjects lost their interest in providing more answers after Question #1 was asked and answered, thus influencing the number of responses. Second, possibly because subjects were more concerned about their general community needs rather than educational needs. Observation in the field and analyses of Question #1, which showed few educational needs, seems to support this explanation.

The similar effect of the group approach and the interview approach on the means/nonmeans orientation of the responses was expected. It is possible, however, that this was because there was no attempt made to further probe

the answers to allow the subjects to provide further information. Until further research indicates, the finding of no effect of the group approach on the means/nonmeans orientation variable further strengthens the notion that villagers are nonmeans-oriented.

Summary of Findings

So far as these data indicate, the examination of Focus #1 can be summarized in four findings:

Finding #1. As a method of collecting villagers opinions concerning their community needs, the group approach is more effective than the interview approach on the basis of the quantity of community needs elicited through it, and more efficient on the basis of man-hours needed to carry out the need assessment.

Finding #2. An interview approach elicits a higher level of specificity of needs than the group approach, though all subjects tend to mention needs in nonspecific terms.

Finding #3. There is no significant effect of the approach variable on the means/nonmeans orientation of the needs. Community needs are identified by all subjects in a nonmeans-oriented manner.

Finding #4. Despite the significant effect of the approach variable on the quantity and specificity variable, it does not have a significant effect on the types of needs.

Section 3. The Effect of Approach Variables
On Leaders, and On Nonleaders

Quantity Variable (Among Leaders)

Null-Hypothesis #6 There will be no difference in the number of community needs derived from leaders who participate in a leader-only group approach, an interview approach, and a mixed leader/nonleader group approach (quantity variable).

To test Null-Hypothesis #6, leader subjects were classified into Leader Interview (LI), Leader Group (LG) and Mixed Leader-Non-leader Group approach (LNG). For the mixed group (LNG), only the leader responses were examined. Analyses of variance revealed significant interaction only on Question #1, as summarized in Figure 13. T-Test analyses show significant differences between LG and LNG in Question #1, and between LI and LG in Question #2 and Questions #1 and #2 combined. Analysis also indicates significant differences between LI and LNG in Question #1, Question #2, and Questions #1 and #2 combined. By examining the mean-averages in Question #1, the only question with significant interaction, it can be concluded, with 95% confidence, that leaders in LNG had a greater number of responses than leaders in LI, and with 90% confidence that leaders in LNG were also greater than the leaders in LG. No significant

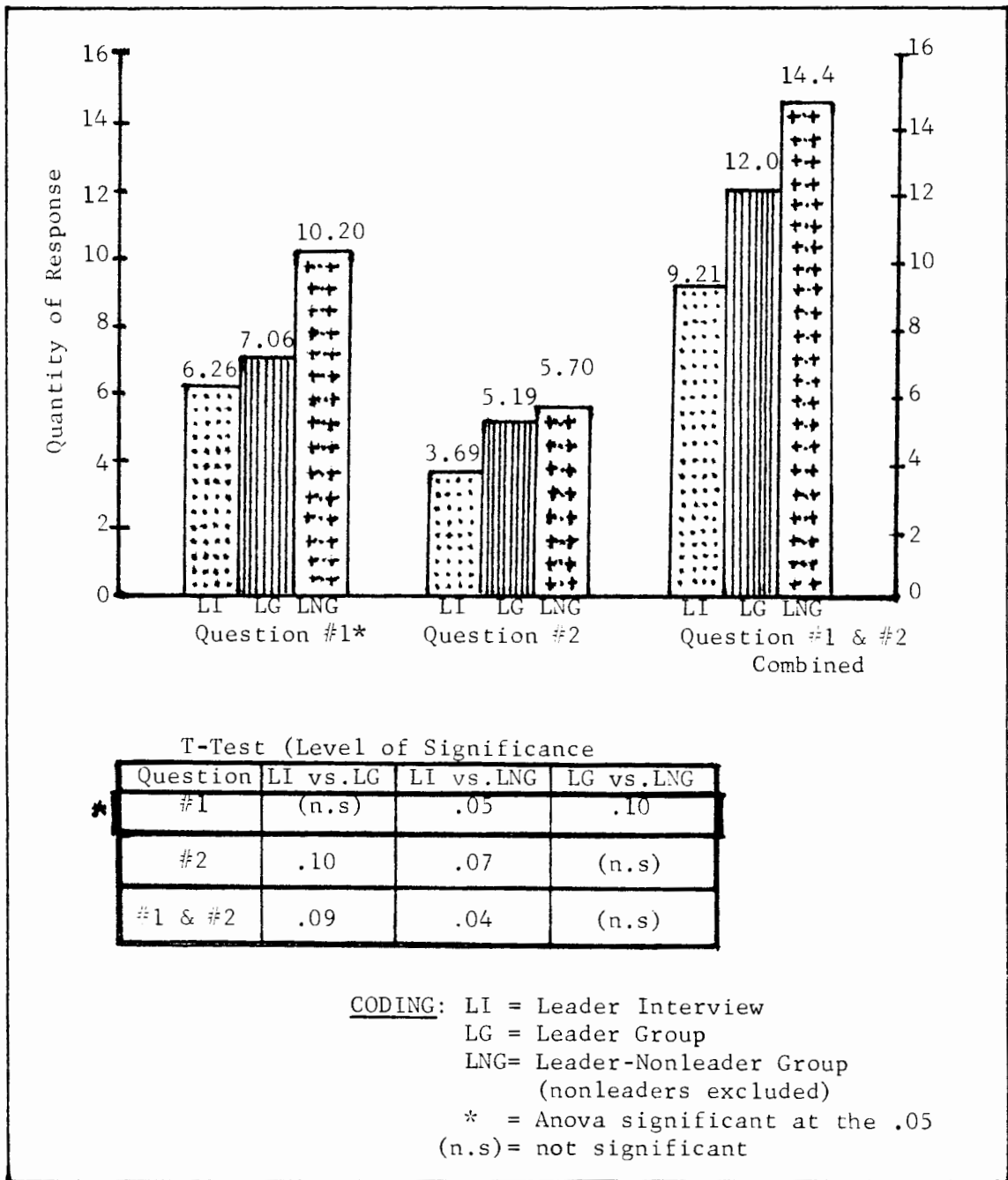


FIGURE 13
 AVERAGE QUANTITY
 RESPONSES FOR LEADER SUBGROUPS

differences, however, were found between leaders in LI and LG. This indicates that leaders assigned to a mixed leader-nonleader group approach gave significantly more responses than leaders assigned to a leader (only) group approach, and also significantly more responses than those who are assigned to the interview approach. In other words, for Question #1, leaders in the mixed leader-nonleader group approach yield significantly more responses than leaders in either of the other two approaches. Also, the interview and group approaches (leaders only) do not yield significantly different quantities of responses.

Though Question #2 and Question #1 and #2 combined were not found to have a significant interaction, it can be seen from Figure 4.6 that they tend to support the findings from Question #1.

These analyses partially reject the Null-Hypotheses #6 (LNG > LI, LNG > LG) and partially support the null-hypothesis (LG = LI). This partial rejection of the null-hypothesis, however, is very useful in that it suggests that a mixed leader-nonleader group approach is, on the basis of quantity of responses, a more effective approach for leader subjects than either of the others (LI and LG).

Quantity Variable (Among Nonleaders)

Null-Hypothesis #7. There will be no difference in the number of community needs derived from nonleaders who participate in

a nonleader-only group approach, an interview approach, and a mixed leader/nonleader group approach (quantity variable).

Data and analyses of variance as summarized in Figure 14 yield information that there is significant interaction between the nonleader subgrouping and quantity of responses for all questions. The probability is as high as 90% in Question #1, 95% in Question #2, and 96% in Questions #1 and #2 combined. The data show the largest quantity for nonleaders in the NG sample. Further T-Test analyses indicate significant differences between the nonleaders in NI and the nonleaders in NG for all questions. There are no significant differences between NI and LNG, nor between NG and LNG in any of the questions. This means that the Null-Hypothesis #7 is partially rejected. The data indicate that nonleaders were more effective, on the basis of quantity of responses, in the group approach consisting solely of nonleaders (NG) rather than in either interview approach (NI) or the mixed leader-nonleader group approach (LNG).

Additional analyses were conducted to compare leaders in LI and LG, and nonleaders in NI and NG. For this purpose, subjects in LNG were excluded from the analyses. These further analyses were carried out to examine specifically the effect of the group approach and interview

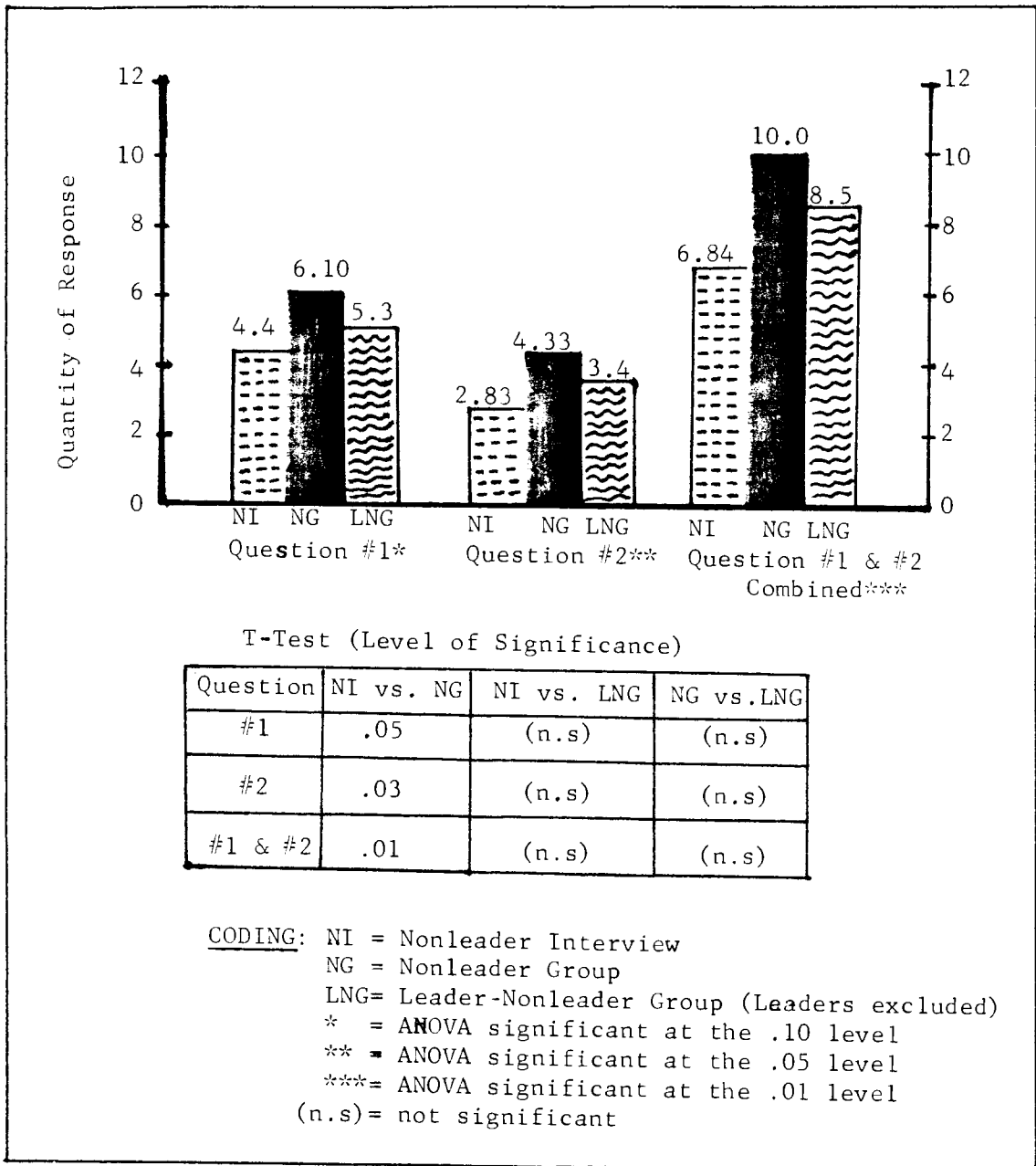


FIGURE 14
 AVERAGE QUANTITY OF RESPONSES
 FOR NONLEADER SUBGROUPS

approach in a "pure" form without the mixed group. A two-way analysis of variance was used to examine whether or not there is two-way interaction between the leader-nonleader variable and the approach variable on differences in the quantity variable. This is shown in Tables 28, 29, and 30.

TABLE 28
TWO-WAY ANOVA ON QUANTITY OF RESPONSES
TO QUESTION #1, BY LEADER/NONLEADER
AND BY APPROACH

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F	Significance of F
Leader/Nonleader	50.882	1	50.882	5.244	.025
Approach	104.571	1	104.572	10.777	.002
LNLX App.	.544	1	.544	.056	(n.s.)
Within	659.851	68	9.704		
Total	815.849	71	11.491		
Variable/ Category	Leader	Nonleader	Total		
Interview	6.26	4.39	5.32		
Group	7.06	6.09	6.59		Eta (Approach) = .27
Total	6.63	5.17	5.45		Eta (Leader/ nonleader) = .34
					Multiple R ² = .189

Table 20 indicates that for Question #1 there is significant interaction between approaches and also significant interaction between the leader-non leader variable. There was, however, no two-way interaction between these two independent variables (approach and leader-nonleader variables). Comparisons of means in each cell shows that both leaders and nonleaders had a great average number of responses in the group approach. The leaders were higher in both approaches than the nonleaders.

The eta values show that the leader-nonleader variable accounted for a greater portion of the variance than accounted for by the approach variable. The combination of both variables, as can be seen from the multiple R squared value, gives a higher predictive value. In this case, 19% of the variance can be accounted for by the combination of both variables. This suggests that a better prediction of individual responses can be made when both independent variables are known. However, the predictive power of the independent variables alone and together can be considered low.

Table 29 displays analysis for Question #2 which also shows significant interaction between approaches, and between leader-nonleader variables, but again no two-way interaction is detected.

Comparison among means, as also revealed in Table 29, shows that the conclusion for Question #1 is also appropriate for Question #2, with the exception that the means are lower in each cell than in Question #1, and both leaders

and nonleaders showed approximately similar differences in means between the interview approach and the group approach.

TABLE 29
TWO-WAY ANOVA ON QUANTITY OF RESPONSES
TO QUESTION #2 BY LEADER/NONLEADER
(EXCLUDE LNG) AND BY APPROACH

Source of Variation	Sum of Squares	Degree of Freedom	Mean Square	F	Significance of F
Leader/Nonleader	18.801	1	18.801	4.566	.036
Approach	44.705	1	44.705	10.872	.002
LNL X Appr.	1.430	1	1.430	.347	(n.s.)
Within	279.969	68	4.117		
Total	344.263	71	4.809		
Variable/ Category	Leader	Nonleader	Total		
Interview	3.69	2.83	3.26	Eta (Approach) = .26	
Group	5.19	4.33	4.76	Eta (Leader/ Nonleader) = .27	
Total	4.44	3.58	4.01	Multiple R ² = .141	

Data on quantity of responses for Question #1 and #2 combined also indicate significant interaction with either the approach or leader-nonleader variables, but no significant two-way interaction between these two variables on the dependent variable (quantity). Table 30 shows the results of this analysis.

TABLE 30
TWO-WAY ANOVA ON QUANTITY OF RESPONSES
TO QUESTIONS #1 & #2 COMBINED
BY LEADER/NONLEADER AND BY APPROACH

Source of Variation	Sum of Squares	Degrees of Freedom	Square	F	Significance of F
Leader/Nonleader	96.992	1	96.992	6.66	.015
Approach	213.334	1	213.334	13.562	.001
LNLX App.	1.624	1	1.624	.103	(n.s.)
Within	1090.81	71	15.363		
Total	1402.76	73	19.216		

Variable/Category	Leader	Nonleader	Total	
Interview	9.21	6.84	8.02	Eta (Approach) = .36
Group	12.00	10.00	11.0	
Total	10.60	8.42	9.51	Eta (Leader, Nonleader) = .28
				Multiple R ² = .18

Comparison among means indicates that the conclusion for the two questions separately is also the same as when they are combined.

Based on these analyses it is reasonable to conclude that the approach variable did make a difference on the quantity of responses as did the leader-nonleader variable. The lack of significance of the two-way interaction between the approach variable and the leader-nonleader variable further supports the confirmation of the alternative

hypothesis that the group approach yields a greater number of responses in both leaders and nonleaders.

Discussion

It was predicted that $LI \langle LNG \rangle LG$, and that $NI \langle NG \rangle LNG$. The results of this study indicated that the prediction is only partially supported by the data. Though there was an inclination of increased number of responses for LI, LG, and LNG, and for NI, LNG, and NG, the significant differences were only between LNG and LI, and NG and NI -- i.e., $LNG \rangle LI$, and $NG \rangle NI$. Although partial, the findings strengthened the argument that leaders will be more motivated to produce (in this case number of responses) when they are working with their followers while nonleaders will be more motivated to produce more when they are working with other nonleaders. Psychological and cultural explanations are both appropriate for the phenomena. In terms of group dynamics, a leader can only function and exercises his leadership when there are followers. The leader is also associated with more knowledge than the nonleaders. When the nonleaders are around, the leader may be motivated to show that the status belongs to him/her. In this case the leader may try to identify more responses than the nonleaders.

On the other hand, nonleaders, especially in rural Indonesian communities, may be reluctant to express their opinion when their leaders are around. Otherwise, they will be motivated to exercise their leadership among the

nonleaders by showing off their knowledge about their community needs.

As indicated, however, this explanation did not show a linear increase as expected. Possibly because the sample was small, or because the leaders in this study were limited to formal leaders.

Summary of Findings

As the data and analyses indicated, the finding can be summarized as follows.

Finding. Leaders yield more responses in a group approach in which both leaders and nonleaders are participating, but nonleaders yield more responses in a group approach in which the participants are all nonleaders.

Section 4. Leader Versus Nonleader

The Quantity Variable

Null-Hypothesis #8. There will be no difference in the number of community needs derived from leaders and the number of community needs derived from nonleaders regardless of the approach used to elicit the needs.

To test the hypothesis, the total sample of this study was divided into a leader sub-sample and a nonleader sub-sample. Analysis of variance was conducted and the results are presented in Tables 31, 32 and 33.

As revealed in Table 31, there was a highly significant interaction between the independent variable (leader-non-leader) and the quantity of responses to Question #1.

TABLE 31
ONE-WAY ANALYSIS OF VARIANCE ON QUANTITY OF RESPONSE
TO QUESTION #1 BY LEADER/NONLEADER

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	Significance of F
Between	114.905	1	114.905	11.376	.001
Within	888.884	88	10.101		
Total	1003.789	89	11.279		

Variable/ Category	N	MEAN
Leader	42	7.62
Nonleaders	48	5.35

ETA = .34
Multiple R² = .114

The Table shows that leaders gave a greater number of responses than did the nonleaders. The averages were 7.62 and 5.35 respectively. The Multiple R squared value indicates that the leader-nonleader variable accounts for 11.4% of the variance.

There is also significant interaction found on Question #2 as indicated in Table 32. Although both leaders and nonleaders gave less responses to Question #2 than their responses to Question #1, the leaders still yielded a higher quantity of responses than the nonleaders. The averages

are 4.74 and 3.65 for leaders and nonleaders respectively. The R squared value was lower than Question #1. In Question #2, only 5.6% of the difference can be attributed to the leader-nonleader variable.

TABLE 32
ONE-WAY ANALYSIS OF VARIANCE ON QUANTITY OF RESPONSE
TO QUESTION #2 BY LEADER/NONLEADER

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	Significance of F
Between	26.724	1	26.724	5.213	.025
Within	451.098	88	5.126		
Total	477.822	89	5.369		
Variable/ Category	N	MEAN	ETA = .24 Multiple R ² = .056		
Leaders	42	4.74			
Nonleaders	48	3.65			

The quantity of responses to Question #1 and #2 combined, counting duplicated responses only a single time (non-overlapping) was also analyzed and is presented in Table 33. It shows a significant interaction between the leader-nonleader variable and the combined quantity of responses. The leaders were greater than the nonleaders with the averages being 11.83 and 8.77 respectively. The R squared value was the same as Question #1. This means that 11.4% of the differences can be accounted for by the leader-nonleader

variable.

TABLE 33
ONE-WAY ANALYSIS OF VARIANCE ON QUANTITY OF RESPONSE
TO QUESTIONS #1 AND #2 COMBINED BY LEADER/NONLEADER

Source of Variation	Sum of Squares	Degrees or Freedom	Mean Square	F	Significance of F
Between	210.088	1	210.088	11.354	.001
Within	1628.313	88	10.504		
Total	1838.400	89	20.504		

Variable/ Category	N	MEAN
Leaders	42	11.83
Nonleaders	40	8.77

ETA = .34
Multiple R² = .114

These data and analysis indicate a significant interaction between the leader-nonleader variable and the quantity variable, which shows a higher quantity of responses for leaders as compared to nonleaders. It can be concluded, then, that the Null-Hypothesis #8 is rejected. In other words, its alternative hypothesis that leaders can identify more community needs than the nonleaders is supported by the data.

The Specificity Variable

Null-Hypothesis #9. There will be no difference in the specificity of needs derived from

leaders and the specificity of needs derived from nonleaders regardless of the approach used to elicit the needs.

Data and chi-square analyses of specificity of responses to the questions showed significant relationship with the leader-nonleader variable for Question #1 and Question #2 as is shown in Table 34. There is shown no significant relationship for Question #3 and Question #4. However, the Gamma values are very weak for Question #1 and Question #2 which suggests low predictive power though a significant relationship as been shown.

Interestingly, the percentage of leaders who responded at the two lowest levels of specificity is very high for all questions. These percentages range from 68.9% to 96%. This indicates that though there is a difference between leaders and nonleaders for Question #1 and Question #2 in favor of leaders being more specific, all respondents provided extremely general rather than specific responses. These data support Null-Hypothesis #9 that there is no difference between leaders and nonleaders on the basis of specificity.

The Means/Nonmeans Orientation Variable

Null-Hypothesis #10. There will be no difference in the means/nonmeans orientation of needs

TABLE 34
CHI-SQUARE ANALYSIS ON SPECIFICITY OF RESPONSES TO QUESTIONS #1 TO #4
BY LEADERS/NONLEADERS

LEVEL OF SPECIFICITY	QUESTION #1			QUESTION #2			QUESTION #3			QUESTION #4		
	L n=45	NL n=49	T n=94	L n=42	NL n=49	T n=91	L n=45	NL n=50	T n=95	L n=45	NL n=50	T n=95
1 (LOW)	26.7	40.8	34	43.0	32.7	37.4	31.1	32	31.6	62.2	52	57
2	42.2	44.9	43.6	33.3	55.1	45.1	53.3	60	56.8	26.7	44	36
3	26.7	6.1	16	14.3	4.1	8.8	11.1	8	9.5	0.0	0	0
4	4.4	6.1	5.3	2.4	8.2	5.5	4.4	0	2.1	6.7	2	4
5 (HIGH)	0.0	2.0	1.1	7.0	0.0	3.3	0.0	0	0.0	4.4	2	3
TOTAL %	100	100	100	100	100	100	100	100	100	100	100	100

Coding: L = Leaders; NL = Nonleaders; T = Total; n = Subjects;
% = Percentage, calculated from each column n.

Chi-Square Analysis:	Question #	χ^2	d.f.	Significance;	Gamma
	1	8.665	4	.07	-.294
	2	10.564	4	.03	.020
	3	2.655	3	(n.s)	-.110
	4	4.097	3	(n.s)	.116

derived from leaders and the means/
nonmeans orientation of needs derived
from nonleaders regardless of the
approach used to elicit the needs.

Analysis of variance was used to test the hypothesis. The results are presented in Table 35. This table shows that there is no significant interaction between the leader-nonleader variable and the means/nonmeans orientation of their responses for the three questions. A comparison of means shows small differences for each question. It is interesting to note the increases toward means-oriented responses in both leaders and nonleaders from question to question. Question #1 is very heavily nonmeans-oriented; Question #3 is beginning to show some means-oriented needs, and Question #4 is almost split between means-oriented and nonmeans-oriented needs. With this in mind, it can be concluded that Null-Hypothesis #10 cannot be rejected. In other words, there is no difference between leaders and nonleaders on the basis of a means/nonmeans orientation of their responses.

The Type (of Need) Variable

Null-Hypothesis #11. There will be no difference in the genre of needs derived from leaders and the genre of needs derived from nonleaders regardless of the approach used to elicit the needs.

TABLE 35
 COMPARISON OF AVERAGE MEANS/NONMEANS ORIENTATION SCORES
 TO QUESTIONS #1, #3, & #4 BY LEADER/NONLEADER

QUESTION #	SUBJECT	AVERAGE SCORE FOR MEANS/NONMEANS ORIENTATION	ETA	MULTIPLE R SQUARED
1	Leaders	1.02	.13	.017
	Nonleaders	1.08		
3	Leaders	1.23	.09	.009
	Nonleaders	1.31		
4	Leaders	1.43	.01	.001
	Nonleaders	1.43		

Type (of Need) by Community Functions

Data and chi-square analyses of the genre (type) of needs reveal a non-significant relationship on the first three questions when classified according to the 12 community functions (Axinn Model). On Question #4 the relationship is significant at the .03 level. The relationship is not strong ($\lambda = .099$).

Since Question #4 was concerned with self needs and not community needs, it is possible to treat the analysis of Question #1, #2 and #3 differently than Question #4. The non-significance of Question #1, #2 and #3 suggest that the Null-Hypothesis #11 has been partially proven. This means that there is no difference between leaders and nonleaders on the basis of general community and educational needs. However, the significant relationship on Question #4 indicates a difference between leaders and nonleaders on the basis of their self needs and consequently

partially supports a rejection of the Null-Hypothesis #11.

Table 36 displays a rank ordering of the responses for the four questions according to the twelve community functions.

Data on the ranking of community needs indicates a similar distribution of perception between leaders and nonleaders. The three most popular general community needs as seen by both leaders and nonleaders are "Supply," "Governance," and "Inward Linkage" needs (Question #1). Question #2, educational needs, shows "Production", "Education in Larger Context", and "Education (Basic)" as the three highest ranking needs. The three highest ranking answers to Question #3 indicate slight differences with the three mentioned in Question #1. "Religious" needs are seen as one of the top three priorities for Question #3 along with "Supply" and "Inward Linkage". Question #4 indicates "Supply" as first followed by "Personal Maintenance." There was no agreement between leaders and nonleaders as to the third highest ranking for Question #4.

Among the non-popular needs, "Outward Linkage" was commonly viewed as the least needed, followed by "Health Care Delivery" and "Marketing" needs.

Type (of Need) by General Area

Analysis on the basis of the types of needs as classified by the general area classification indicates a highly significant relationship between the leader-nonleader variable

TABLE 36
 RANKING AND CHI-SQUARE ANALYSES
 OF TYPES OF NEEDS
 BY FUNCTION, BY QUESTION, AND BY LEADER/NONLEADER

COMMUNITY NEED BY FUNCTION	Question #1		Question #2		Question #3		Question #4*	
	L	NL	L	NL	L	NL	L	NL
SUPPLY	1	1	7.5	6	2	3	1	1
PRODUCTION	8	11	1	1	5	4.5	7	3
MARKETING	12	10	9	7.5	9	9	9	6.5
PERSONAL MAINTENANCE	6	5	-	-	6	6	2	2
HEALTH CARE DELIVERY	9	9	7.5	9	11.5	11	-	-
GOVERNANCE	2	3	5.5	7.5	4	4.5	4.5	4
EDUCATION	7	7.5	3	3	7.5	8	7	5
RELIGIOUS	4	4	4	5	3	1.5	4.5	8.5
CULTURAL	10	7.5	5.5	4	11.5	10	-	-
LINKAGE: Inward	3	2	-	-	1	1.5	7	6.5
LINKAGE: Outward	11	12	-	-	10	12	-	-
LARGER SYSTEM	5	6	2	2	7.5	7	3	8.5

CODING: L = Leaders

NL = Nonleaders

1 = Highest rank

12 = Lowest rank

* Chi-square = 16.768
 significant at .03

and the type variable for Question #2, #3, and #4. There is no significant relationship for Question #1.

As revealed in Table 37 and Table 38, the relationships (λ) are weak. This means that even though there is a relationship between the leader-nonleader and type (area) variables, the strength of the relationship is not meaningful to be used as a prediction measure for Question #1 and #2. The difference between leaders and nonleaders, then, seems to lie on the ordering of their community needs priorities (Question #3) and their self-needs (Question #4).

The three responses ranked highest on Question #3 are the same for leaders and nonleaders. They are "Infrastructure," "Public Buildings," and "Community Development in General." Note, though, that the first priority mentioned by the leaders is mentioned as second by the nonleaders. The least frequently mentioned are "Community Development Organization," "Trained Personnel," and "Agricultural" needs. It is interesting to note the low priority for "Agricultural" needs which could have been expected to be high in a rural environment.

In terms of their self-needs (Question #4), leaders and nonleaders agree on their first two priority needs (i.e., "Economic" and "Health & Welfare"), but disagree on the third priority. Nonleaders indicate "Educational" as the third priority while leaders indicate "Development in General."

TABLE 37
RANKING AND CHI-SQUARE ANALYSES OF TYPES OF NEEDS
BY GENERAL AREA, BY QUESTION, AND BY LEADER/NONLEADER

COMMUNITY NEEDS BY AREA OF NEEDS	Question #1		Question #3		Question #4	
	L	NL	L	NL	L	NL
INFRASTRUCTURES	1	1	1	2	4.5	6.5
PUBLIC BUILDINGS	2	2	2	3	4.5	-
AGRICULTURAL	5	9	6	10	8	6.5
COMMUNITY DEV'T ORGAN.	9	7.5	10	7	-	-
ECONOMIC	7.5	6	5	6	1	1.5
UTILITIES	10	7.5	7	9	-	-
HEALTH AND WELFARE	3	3	4	4	2	1.5
TRAINED Personnels	7.5	10	8	8	6.5	5
EDUCATIONAL	4	4	3	1	6.5	3
DEVELOPMENT IN GENERAL	6	5	9	5	3	4

CODING: L = Leader; NL = Nonleader

l = Highest rank/ 10 + Lowest rank

STATISTICS:	χ^2	d.f.	Significance	Lamda
Question #1	9.044	9	(n.s.)	.009
Question #2	21.568	9	.01	.122
Question #4	12.151	7	.09	.097

TABLE 38
 CHI-SQUARE ANALYSIS ON EDUCATIONAL NEEDS (QUESTION #2),
 AS CLASSIFIED BY GENERAL AREA CLASSIFICATION:
 LEADER VS. NONLEADER (IN RANKING)

COMMUNITY EDUCATIONAL NEEDS BY AREA OF NEEDS		QUESTION #2	
		L	NL
BASIC EDUCATION	1.	4	3
CULTURAL EDUCATION	2.	3	1
HEALTH & HOME ECONOMICS EDUCATION	3.	1.5	4
VOCATIONAL/SKILLS EDUCATION	4.	1.5	2
AGRICULTURAL EDUCATION	5.	6	6
PRISONERS AND INDUSTRIAL EDUCATION	6.	5	5
OTHERS (GENERAL)	7.	7	7

$\chi^2 = 22.443$ d.f. = 5 Significance = .0004
 Lambda = .060

These data and analyses yield information that support Null-Hypothesis #11 on the basis of general community needs (Question #1) and educational needs (Question #2) and also reject the null-hypothesis on the basis of priority of community needs (Question #3) and self-need (Question #4).

When the examination of genre of need according to the community function (Axinn Model) is combined with the genre of need according to the general area classification, it seems that only responses to Question #4 support the rejection of Hypothesis #11. The responses to Question #1, #2, and #3 support the retention of the null-hypothesis. In other words, a difference between leaders and nonleaders exists when self needs are elicited. No difference exists when community needs are elicited.

Discussion and Summary of Finding

Discussion

Regardless of the approach used to elicit the needs, it was predicted that leaders will identify more needs, be less specific, be nonmeans-oriented, and identify different types of needs than nonleaders. The findings, however, support only the prediction on the quantity variable. The notion that leaders have different perceptions of their community needs than nonleaders is not supported by the findings. In other words, there does not appear to be a gap between leaders and nonleaders on their community needs.

Summary of Findings

So far as the analyses indicated, the results can be summarized as three findings as follows:

Finding #1. Leaders identify more needs regarding their community than nonleaders, but both leaders and nonleaders similarly perceive their community needs in terms of goals to be achieved rather than as ways to achieve the goals.

Finding #2. Both leaders and nonleaders are nonspecific in the needs they identified.

Finding #3. Leaders and nonleaders have similar perception about their community needs but they are different in how they rank their priority self-need.

Section 5. Desa I Versus Desa II

Analyses were conducted to examine data in terms of the *desa* variable used to elicit the needs. Four hypotheses are tested and presented in this section.

The Quantity Variable

Null-Hypothesis #12. There will be no difference in the number of community needs derived from Desa I and the number of community needs derived from Desa II regardless of the approach used to elicit the needs.

Data and analyses as shown in Table 39 indicate significant differences only on Question #2, in which Desa I

showed a greater quantity of responses than Desa II (4.96 as compared to 3.43). The difference is significant at the .01 level. On the basis of Question 1 and Questions #1 and #2 combined, the Null-Hypothesis #12 can be retained, but on the basis of Question #2 the hypothesis is rejected.

TABLE 39
COMPARISON OF MEAN-AVERAGES DESA I AND DESA II
ON THE QUANTITY OF RESPONSES TO QUESTION #1,#2,
AND #1 AND #2 COMBINED

QUESTION	DESA I (n=43)	DESA II (n=47)
#1 *	6.51	6.32
#2 **	4.96	3.43
#1 & #2 combined ***	10.93	9.53

* p .10 (Eta = .03)
** p .001 (Eta = .33)
*** p .10 (Eta = .15)

The Specificity Variable

Null-Hypothesis #13. There will be no difference in the specificity of needs derived from Desa I and the specificity of needs derived from Desa II regardless of the approach used to elicit the needs.

Analyses on specificity indicate a significant relationship only on Question #3. As displayed in Table 40, the relationship for Question #3 is significant at the .01

level, and the Gamma value of .564 indicates a strong relationship in which Desa II showed a higher level of specificity.

TABLE 40
CHI-SQUARE ANALYSIS* ON SPECIFICITY OF
RESPONSES TO QUESTION #3: DESA I VS DESA II

Level of Specificity	DESA I (n=47)	DESA II (n=48)	TOTAL (n=95)
1. (Low)	46.8%	16.7%	31.6%
2	46.8	66.7	56.8
3	6.4	12.5	9.5
4	0	4.2	2.1
5 (High)	0	0	0
TOTAL	100%	100%	100%

*Significant at .01; Gamma = .564

Null-Hypothesis #13, then, can be retained on the basis of Question #1, #2, and #4, and rejected on the basis of Question #3.

The Means/Nonmeans Orientation Variable

Null-Hypothesis #14. There will be no difference in the means/nonmeans orientation of needs derived from Desa I and the means/nonmeans orientation of needs derived from Desa II regardless of the approach used to elicit the needs.

Data and analyses to test the hypothesis again indicate a single significant finding on Question #3, in which Desa I showed a higher average of means/nonmeans oriented needs than Desa II (1.42 and 1.13 respectively), as shown in Table 41. There is no significant differences on Question #1, and #4. It can be concluded that Null-Hypothesis #14 can be retained on the basis of Questions #1 and #4, and rejected on the basis of Question #3.

TABLE 41
COMPARISON ON MEANS/NONMEANS ORIENTATION
OF RESPONSES TO QUESTION #1, #3 and #4:
DESA I VS. DESA II

<u>QUESTION</u>	<u>DESA I</u>	<u>DESA II</u>
#1	1.08	1.05
#3*	1.42	1.13
#4	1.37	1.48

*p .01 (Eta = .33)

The Type (of Need) Variable

Null-Hypothesis #15. There will be no difference in the genre of needs derived from Desa I and the genre of needs derived from Desa II regardless of the approach used to elicit the needs.

Type (of Need) by Community Functions

Data and analyses on type of needs as classified by community function classification are presented in Table 42.

TABLE 42
CHI-SQUARE ANALYSIS ON TYPES OF NEEDS (QUESTIONS #1 TO #4)
AS CLASSIFIED BY COMMUNITY FUNCTIONS: DESA I VS. DESA II

COMMUNITY AND SELF NEEDS BY FUNCTION	QUESTION #1			QUESTION #2			QUESTION #3			QUESTION #4		
	D I n=291	D II n=303	TOTAL n=594	D I n=214	D II n=161	TOTAL n=375	D I n=139	D II n=141	TOTAL n=280	D I n=47	D II n=48	TOTAL n=95
SUPPLY 1.	15.1	28.1	21.7	4.7	1.9	3.5	12.2	19.9	16.1	17.0	64.6	41.1
PRODUCTION 2.	4.5	2.0	3.2	46.3	54.0	49.6	15.8	5.7	10.7	12.8	4.2	8.4
MARKETING 3.	2.7	0.0	1.3	3.3	.6	2.1	5.0	0.0	2.5	2.1	0.0	1.1
PERSONAL MAINTENANCE 4.	9.6	7.9	8.8	0.0	0.0	0.0	11.5	5.7	8.6	40.4	16.7	28.4
HEALTH CARE DELIVERY 5.	3.1	2.3	2.7	2.8	.6	1.9	1.4	.7	1.1	0.0	0.0	0.0
GOVERNANCE 6.	18.6	13.9	16.2	4.2	3.7	4.0	12.2	12.8	12.5	8.5	2.1	5.3
EDUCATION 7.	5.8	4.0	4.9	8.4	9.3	8.8	6.5	5.0	5.7	6.4	0.0	3.2
RELIGIOUS 8.	7.6	16.8	12.3	9.3	5.0	7.5	7.9	21.3	14.6	0.0	4.2	2.1
CULTURAL 9.	3.8	1.7	2.7	2.8	9.9	5.9	0.0	2.1	1.1	0.0	0.0	0.0
LINKAGE: Inward 10.	16.8	17.8	17.3	0.0	0.0	0.0	16.5	22.0	19.3	2.1	2.1	2.1
LINKAGE: Outward 11.	1.4	.3	.8	0.0	0.0	0.0	1.4	0.0	.7	0.0	0.0	0.0
LARGER SYSTEMS 12.	11.0	5.3	8.1	18.2	14.9	16.8	9.4	5.0	7.1	10.6	6.3	8.4
TOTAL %	100	100	100	100	100	100	100	100	100	100	100	100

Coding: n = Number of responses (not subjects);
% = percentages are calculated from each column n

STATISTICS:	χ^2	d.f.	Significance;	Lambda
Question #1	47.453	11	.000	.101
Question #2	19.649	8	.012	.014
Question #3	36.278	11	.0002	.066
Question #4	28.338	8	.0004	.320

In all four questions there is a significant relationship between the *desa* variable and the type variable with at least a 99% probability. The Lamda values are small, which show a weak relationship, except for Question #4 which shows a fairly strong relationship (Lamda = .320). This analysis therefore rejects Null-Hypothesis #15.

Type (of Needs) by General Areas

Data and analyses on type of needs as classified by general area are presented in Table 43 and Table 44. A significant relationship is found in all four questions, with a greater strength than was found in the community function classification. This, therefore, supports the conclusion that there is no basis to retain Null-Hypothesis #15 as suggested by the earlier analysis on type by community function classification.

Discussion and Summary of Finding

In comparing Desa I and Desa II the findings can be summarized as follows. First, in terms of the quantity variable, Desa I showed a greater number of educational needs than Desa II but showed a similar number of general community needs. Second, in terms of specificity of needs, Desa II showed a higher level of specificity for the top three community needs (Question #3), but showed a similar level of specificity on general community needs (Question #1), educational needs (Question #2), and self-needs (Question #4). Third, Desa I shows more means-oriented responses

TABLE 43
CHI-SQUARE ANALYSIS ON TYPES OF NEEDS
BY GENERAL AREA, BY QUESTION AND BY DESA

COMMUNITY AND SELF NEEDS BY GENERAL AREA	QUESTION #1			QUESTION #3			QUESTION #4		
	DESA I n=292	DESA II n=303	TOTAL n=595	DESA I n=139	DESA II n=141	TOTAL n=280	DESA I n=47	DESA II n=48	TOTAL n=95
INFRA STRUCTURES 1.	24.7	29.0	26.9	23.7	31.2	27.5	2.1	4.2	3.2
PUBLIC BUILDINGS 2.	9.9	24.1	17.1	5.8	27.7	16.0	0.0	4.2	2.1
AGRICULTURAL 3.	5.5	7.9	6.7	8.2	2.8	2.5	2.1	0.0	1.1
COMMUNITY DEV'T. ORGAN. 4.	6.0	3.3	5.0	1.4	3.5	2.5	0.0	0.0	0.0
ECONOMIC 5.	8.6	4.3	6.4	5.8	4.3	5.0	25.5	52.1	31.9
UTILITIES 6.	3.4	5.9	4.7	2.2	4.3	3.2	0.0	0.0	0.0
HEALTH AND WELFARE 7.	14.7	7.3	10.9	15.1	3.5	9.3	42.6	16.7	29.5
TRAINED PERSONNEL 8.	6.2	4.0	5.0	5.8	0.0	2.9	6.4	2.1	4.2
EDUCATIONAL 9.	13.0	6.3	9.6	33.8	15.6	24.6	17.0	4.2	10.5
DEVELOPMENT IN GENERAL 10.	7.2	7.9	7.6	4.3	7.1	5.7	4.3	16.7	10.5
TOTAL %			100	100	100	100	100	100	100

Coding: n = Number of responses (not subjects);
% - Percentages are calculated from each column n

STATISTICS:	χ^2	d.f.	Significance;	Lambda
Question #1	45.919	9	.0001	.130
Question #3	52.625	9	.0000	.255
Question #4	31.235	7	.003	.219

TABLE 44
 CHI-SQUARE ANALYSIS ON TYPE OF RESPONSES
 TO QUESTION #2, AS CLASSIFIED BY GENERAL
 AREA: DESA I VS. DESA II

EDUCATIONAL NEEDS BY "AREA"	DESA I n=214	DESA II n=154	TOTAL n=368
Basic and Cultural	17.3%	18.2%	17.7%
Health and Home Economics	24.3	34.4	28.5
Vocational/Skills	16.8	16.2	16.6
Agricultural	28.0	22.1	25.5
Business and Industrial	7.0	1.3	7.1
Others (General)	6.5	7.8	7.1
TOTAL	100%	100%	100%

CODING: n = number of responses (not subjects)

% = percentages are calculated from each
column n

STATISTICS: $\chi^2 = 11.036$; d.f. = 5;

significance = .05; Lamda = .107

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concerning the top three community needs (Question #3) than Desa II, but the same nonmeans-oriented responses on general and educational community needs as well as on self-needs. In terms of type of needs as classified by community function or by general area, however, there is an indication that Desa I and Desa II are slightly different.

Discussion

Since the *desas* are of similar level, and random sampling was used to select the subjects of this study from each *desa*, it was predicted that there will be no difference between Desa I and Desa II on quantity, specificity, and mean/nonmeans orientation. It was predicted, however, that differences will occur on the types of needs identified by the two *desas*. The findings support the predictions. It was on educational needs that the two *desas* were different. Probably the educational background of the two *desas*' subjects has influence on the differences. As indicated in the demographic background of the subjects, Desa I has a greater percentage than Desa II subjects who have 9 or more years of schooling.

Finding. The two *desas* appear to be different in the educational needs that they identify, yet they appear to be similar in other community needs.

Section 6. Comparison Between Sexes

As described in Section 2 the sample for this study was predominantly males due to the fact that the leaders were all males. To avoid the possibility of a leader-male bias in comparing males and females on the four dependent variables, the investigator excluded the leaders in the computation. The comparisons of males and females described in this section, therefore, should be considered a comparison between male and female non-leaders.

Comparison on Quantity Variable

Null-Hypothesis #16. There will be no difference in the number of needs derived from males and the number of needs derived from females regardless of the approach used to elicit the needs.

The results of analyses of variance to test the hypothesis are presented in Tables 45, 46, and 47. Among three comparisons, two were revealed as significant.

Table 45 reveals a significant interaction on Question #1, at the .005 level of confidence. This means that the average 6.24 responses for males and 4.39 responses for females differ significantly. As indicated by the value of Multiple R^2 , 16% of the variance on Question #1 can be explained by the sex variable.

TABLE 45
ONE-WAY ANOVA ON QUANTITY OF RESPONSE
TO QUESTION #1 BY SEX VARIANCE

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	Significance of F
Between	40.941	1	40.941	0.637	.005
Within	218.038	46	4.740		
Total	258.979	47	5.510		

Variable/ Category	MEAN		ETA = .40 Multiple R ² = .16
	N	MEAN	
Male	25	6.24	
Female	23	4.39	

The difference of .35 average responses between males and females on Question #2 is not significant as shown in Table 46. But if responses to both Questions #1 and #2 are combined, the average number of male responses was significantly higher than the average of female responses. As displayed in Table 47, the chance is only 1.5% that the difference is due to chance error. On the combined quantity, the sex variable only explains 12.2% of the variance.

These analyses yield information that nonleader-males and females did differ in the quantity of responses to Question #1 but did not differ on Question #2. Since the first question asked about community needs in general, and

TABLE 46
ONE-WAY ANOVA ON QUANTITY OF RESPONSE
TO QUESTION #2 BY SEX VARIABLE

SOURCE OF VARIATION	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F	SIGNIFICANCE OF F
Between	1.240	1	1.240	.366	(n.s.)
Within	155.739	46	3.386		
Total	156.979	47	3.340		
Variable/ Category					
	n	Mean			
Male	25	3.80	ETA = .09		
Female	23	3.45	Multiple R ² = .008		

n.s. = not significant

TABLE 47
ONE-WAY ANALYSIS OF VARIANCE ON MEANS-NONMEANS CATEGORY
OF RESPONSE TO QUESTIONS #1 AND #2 COMBINED FOR
MALES AND FEMALES

SOURCE OF VARIATION	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F	SIGNIFICANCE OF F
Between	59.641	1	59.641	6.397	.015
Within	428.838	46	9.323		
Total	488.479	47	10.393		
Variable/ Category					
	n	Mean			
Male	25	9.84	ETA = .35		
Female	23	7.61	Multiple R ² = .122		

the second question asked about educational needs of the community, it is reasonable to conclude that the difference in the average number of responses of males and females is dependent upon what questions are asked. If the question is on community needs in general (Question #1), the probability is very high that the males will give a greater number of responses than females. But if educational needs of the community are being asked, the probability is high that both will give the same average number of responses. Why the two different questions yielded different quantities of responses for males and females, however, cannot be answered directly from this study. In referring to Null-Hypothesis #16, however, the analysis partially rejected the hypothesis.

Comparison on Specificity Variable

Null-Hypothesis #17. There will be no difference in the specificity of needs derived from males and the specificity of needs derived from females regardless of the approach used to elicit the needs.

Table 48 summarizes the results of analyses on specificity on the four questions. As chi-square analysis statistics indicate, a significant relationship was established only on Question #2 at the .03 level of confidence, with $\Gamma = .357$. This means that females are associated with a higher level of specificity than males. In Question #2,

TABLE 48
CHI-SQUARE ANALYSIS ON SPECIFICITY OF RESPONSES
BY QUESTION, BY MALES AND FEMALES AND BY SEX VARIABLE

LEVEL OF SPECIFICITY	QUESTION #1			QUESTION #2			QUESTION #3			QUESTION #4		
	M n=26	F n=23	M+F n=49	M n=25	F n=24	M+F n=49	M n=26	F n=24	M+F n=50	M n=26	F n=24	M+F n=50
1 (LOW)	46.2	34.8	40.8	48.0	17.0	32.7	34.6	29.2	32.0	57.7	45.8	52.0
2	34.6	56.5	44.9	36.0	75.0	55.1	57.7	62.5	60.0	38.5	50.0	44.0
3	7.7	4.3	6.1	8.0	0.0	4.1	7.7	8.3	8.0	0.0	0.0	0.0
4	7.7	4.3	6.1	8.0	8.0	8.2	0.0	0.0	0.0	0.0	4.2	2.0
5	3.8	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	2.0
TOTAL %	100	100	100	100	100	100	100	100	100	100	100	100

Coding: n = Number of responses (not subjects)
% = percentages are calculated from each column n

<u>STATISTICS:</u>	<u>Chi-Square</u>	<u>d.f.</u>	<u>Significance;</u>	<u>Gamma</u>
Question #1	3.021	4	(n.s)	.050
Question #2	8.983	3	.03	.357
Question #3	.170	2	(n.s)	.102
Question #4	2.721	3	(n.s)	.209

48% of the males were rated as level 1 while only 17% of the females were so rated. At level 2, 36% of the males as compared to 75% of the females.

In three other questions, even though differences were not significant, the trend shows females as having higher levels of specificity. It is also interesting to note, that in all four questions there was no female at level 5, while some males were at level 5. In Question #3, all males and females were not higher than level 3. Possibly the task of choosing the three most important community needs made them choose responses that were more general in nature so that it could include the more specific needs.

It is interesting that though Question #2 did not discriminate between males and females on the basis of quantity, it did on the basis of specificity. It could be reasonable to expect that the higher the specificity the higher the quantity. The research, however, does not show a relationship between quantity and specificity on the basis of sex.

Based on this analysis it can be summarized that except for Question #2, the Null-Hypothesis #17 can be retained.

Comparison on Means/Nonmeans Orientation Variable

Null-Hypothesis #18. There will be no difference in the means/nonmeans orientation of needs derived from males and the means/

nonmeans orientation of needs derived from females regardless of the approach used to elicit the needs.

Data and analyses on this dependent variable indicate no significant differences on three of the questions. The averages of males and females for each question are presented in Table 49. Note the increasing trend of mean-averages from question to question.

TABLE 49
COMPARISON AMONG MEAN-AVERAGES OF MALES
AND FEMALES ON MEANS/NONMEANS ORIENTATION
RESPONSES TO QUESTION #1, #3, AND #4.

<u>QUESTION</u>	<u>MALES</u>	<u>FEMALES</u>	<u>TOTAL</u>
#1	1.04	1.11	1.08
#3	1.31	1.31	1.31
#4	1.50	1.35	1.43

Note: Differences between Male and Female are not significant

Since data for these questions indicate no differences between males and females on the means/nonmeans orientation of their responses, Hypothesis #18 cannot be rejected.

Type (of Need) Variable

Null-Hypothesis #19. There will be no difference in the genre of needs derived from males and the genre of needs derived from females regardless of the approach

used to elicit the needs.

Type by Community Function

Data and analysis on type of needs as classified according to the 12 community functions are presented in Table 50. Chi-square analyses indicated a significant relationship between the sex variable and the type variable for Question #2, #3, and #4. No significant relationship was found for Question #1. The Lamda values, however, are small for the first three questions. For Question #4 the relationship is stronger (Lamda = .315).

On Question #1, both males and females indicate a similar distribution on the type of community needs they identify. The three most popular types of needs are the same for both males and females, i.e., "Supply", "Governance", and "Inward Linkage." On Question #2, 38% of the males identified "Production" educational needs, while 65% of the females also identified the "Production" type of educational needs. Males are more varied than females on educational needs.

On Question #3, the males' three highest priorities were "Supply", "Governance" and "Religious" needs, while females indicated "Production," "Inward-Linkage," and "Religious" needs. Thus, only on "Religious" needs did both males and females agree on priority.

On Question #4 males again indicated "Supply" needs (54%), and females indicated a different type of need --

TABLE 50
CHI-SQUARE ANALYSIS ON TYPES OF NEEDS
BY COMMUNITY FUNCTIONS, BY QUESTION AND BY SEX VARIABLE

COMMUNITY AND SELF NEEDS BY FUNCTION	QUESTION #1			QUESTION #2			QUESTION #3			QUESTION #4		
	M n=158	F n=101	M+F n=259	M n=95	F n=81	M+F n=176	M n=26	F n=24	M+F n=50	M n=26	F n=24	M+F n=50
SUPPLY 1.	24.1	14.9	20.5	7.4	1.2	4.5	21.8	5.7	14.2	53.8	25.0	40.0
PRODUCTION 2.	1.3	5.2	1.9	37.9	63.0	49.4	3.8	22.9	12.8	3.8	25.0	14.0
MARKETING 3.	2.5	2.0	2.3	5.3	1.2	3.4	6.4	0.0	3.4	3.8	0.0	2.0
PERSONAL MAINTENANCE 4.	10.1	10.9	10.4	0.0	0.0	0.0	9.0	10.0	9.5	19.2	45.0	32.0
HEALTH CARE DELIVERY 5.	3.2	4.0	3.5	1.1	1.2	1.1	1.3	2.9	2.0	0.0	0.0	0.0
GOVERNANCE 6.	14.6	14.9	14.7	5.3	1.2	3.4	15.4	10.0	12.8	11.5	0.0	6.0
EDUCATION 7.	3.8	5.9	4.6	8.4	8.6	8.5	3.8	5.7	4.7	7.7	0.0	4.0
RELIGIOUS 8.	10.8	11.9	11.2	4.2	9.9	6.8	12.8	17.1	14.9	0.0	0.0	0.0
CULTURAL 9.	4.4	5.0	4.6	10.5	3.7	7.4	2.6	1.4	2.0	0.0	0.0	0.0
LINKAGE: Inward 10.	17.1	18.8	17.8	0.0	0.0	0.0	10.3	20.0	14.9	0.0	4.2	0.0
LINKAGE: Outward 11.	.6	1.0	.8	0.0	0.0	0.0	1.3	1.4	1.4	0.0	0.0	0.0
LARGER SYSTEMS 12.	7.6	7.9	7.7	0.0	9.9	15.3	11.5	2.9	7.4	0.0	0.0	0.0
TOTAL %	100	100	100	100	100	100	100	100	100	100	100	100

Coding: n = Number of responses (not subjects);
% = Percentages are calculated from each column n

STATISTICS:	χ^2	d.f.	Significance;	Lambda
Question #1	4.636	11	(n.s)	.016
Question #2	21.090	8	.007	.112
Question #3	29.995	11	.002	.173
Question #4	15.967	6	.014	.315

"Personal Maintenance" needs (46%). This could suggest that females can differentiate better than males between community needs and their own needs. Notice also the variability of needs among males, and the more homogeneous types of needs among females.

Further examination of Question #1 and #3 show that one out of three of the most popular needs changed for both the males and females. While males first indicated "Religious" needs they changed to "Linkage-Inward" needs, females first indicated "Supply" needs and changed to "Production" needs.

The analysis shows differences between sexes on the type of needs they perceive except on general community needs (Question #1). In order to fully reject the Null-Hypothesis #19, it would have to be worded in the following way:

"There are differences between males and females on types of educational needs, community priority needs, and their self-needs as classified by community function, but on general community needs there is no difference between these groups."

Type by General Area

Data and analysis on type of needs as classified by general area indicated a single significant relationship between the sex variable and the type variable on Question #2. Table 51 shows the analysis on Question #2 (Community

Educational needs). As revealed in the Table, the relationship is fairly strong ($\lambda = .327$). There was no significant relationship found on the other three questions.

TABLE 51
CHI-SQUARE ANALYSIS ON TYPE OF NEED FOR QUESTION #2
BY GENERAL AREA, BY SEX

Educational Need By General Area	Male (n=90) %	Female (n=80) %	Total (n=170) %
Basic & Cultural	14.4	18.8	16.5
Health & Home Economics	14.4	62.5	37.1
Vocational/ Skills	13.3	2.5	8.2
Agricultural	41.1	12.5	27.6
Business & Industrial	6.7	1.2	4.1
Others (General)	10.0	2.5	6.5
Total	100%	100%	100%

CODING: n = number of responses (not subjects)
% = percentages are calculated from each column n

STATISTICS: $\chi^2 = 52.145$ d.f. = 5; significance = .0000
 $\lambda = .337$

On educational needs, males and females indicated different general areas of needs. Females identified educational needs in the area of "Health and Home Economics" as needed by their community, while males identified "Agri-

culture" as their community needs.

On the basis of Question #2, Null-Hypothesis #19 is partially rejected.

Discussion and Summary of Finding

As a summary to this section on sex differences, it can be concluded that except in the Means/Nonmeans Orientation of responses (Null-Hypothesis #18) data and analyses indicate that in one way or another there are differences between males and females on quantity, specificity, and types of needs. It does not mean, however, that all three of the other hypotheses (Hypothesis #16, #17, and #19) are fully rejected. The findings show that males gave more responses to Question #1 (general community needs), but did not differ from females on Question #2; females showed a higher level of specificity on Question #2, but did not differ from males on three other questions; both males and females had similar perceptions of what are the general community needs, but they had different perceptions of educational needs, community priority needs, and their own self needs; and both males and females perceived needs in terms of an outcome instead of in terms of a means to achieve an outcome.

Discussion

The hypothesis that differences of sex roles in a rural village biases the perception of males and females on their community needs is challenged by the findings. There

is no difference between males and females on the type of general community needs or on the type of educational needs they identify.

However, it is interesting to note that in terms of quantity of responses there is a significant difference in favor of males on Question #1 but no difference on Question #2. It was hypothesized that differences would exist due to the role differences in sexes and the traditional Indonesian woman's role which is rather inhibited. It is possible that the women respondents became more willing to respond as the process (group or interview) continued. This might be a reason for the lack of sex differences on Question #2.

The idea that since females tend to be less talkative than males it will make their responses more general than males is not supported by the findings. Not only did males and females indicate nonspecific responses to Question #1, but opposite to the prediction, it turned out that females were more specific than males on educational needs. This finding indicates that quantity of response and specificity does not necessarily correlate.

Summary of Finding

Finding. Male nonleaders identify more community needs than female nonleaders, yet females appear to be more specific on educational needs than males.

Section 7. Educational Differences

This section presents data and analyses on the examination of educational background (years of schooling) of the subjects in relation to the four dependent variables of this study. Four hypotheses are stated to examine this relationship.

Quantity Variable

Null-Hypothesis #20. There will be no difference in the number of needs derived from less-educated subjects and the number of needs derived from more-educated subjects, regardless of the approach used to elicit the needs.

Tables 52, 53 and 54 reveal data and analyses to test Null-Hypothesis #20. In all Tables, data indicate significant interaction between the educational variable and the quantity variable at greater than the .01 level of confidence for all questions.

As Table 52 reveals, the average number of responses seem to be positively correlated with the educational background of the subjects. There is a trend toward a linear increase in the number of responses as the education level moves higher.

On Question #2, as shown in Table 53, there is not a similar trend as for Question #1, nor is there for Question #1 and #2 combined (Table 54). What is interesting is that

the highest educational level did not always yield the highest quantity of responses. The subjects with more than 11 years of education, for example, identified a fewer number of community educational needs than those who had 6 years of education. However, those with six years of education and over always yielded a greater quantity of responses than those with less than six years of education.

TABLE 52
ONE-WAY ANOVA ON QUANTITY
OF RESPONSES TO QUESTION #1, BY EDUCATION LEVEL

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	Significance of F
Between	139.557	4	34.889	3.431	.012
Within	864.232	85	10.167		
Total	1003.789	89	11.279		

Variable/ Category	n	Mean
None	16	5.25
1-5 years	30	5.17
6-8 years	27	7.63
9-11 years	13	7.69
>11 years	4	8.0

Eta = .37
Multiple R² = .139

Further analysis of the means indicates no significant differences among means for all questions, except between the "> 11 years" and the "less than 6 years" categories in Question #1, and between the "9-11 years" and the "1-5 years" categories in Question #2.

TABLE 53
ONE-WAY ANALYSIS OF VARIANCE ON QUANTITY
OF RESPONSES TO QUESTION #2: EDUCATION LEVEL

SOURCE OF VARIATION	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARE	F	SIGNIFICANCE OF F
Between	130.206	4	32.552	7.960	.001
Within	347.616	85	4.090		
Total	477.822	89	5.369		

Variable/Category	N	Mean
None	16	3.63
1- 5 years	30	2.90
6- 8 years	27	4.75
9-11 years	13	6.47
11 years	4	4.25

ETA = .52
Multiple R squared = .272

TABLE 54
ONE-WAY ANALYSIS OF VARIANCE ON QUANTITY
OF RESPONSES TO QUESTION #1 AND #2 COMBINED:
EDUCATION LEVEL

SOURCE OF VARIATION	SUM OF SQUARE	DEGREES OF FREEDOM	MEAN SQUARE	F	SIGNIFICANCE OF F
Between	414.362	4	103.590	6.183	.001
Within	1424.038	85	16.753		
Total	1838.400	89	20.656		

Variable/Category	N	Mean
None	16	9.69
1- 5 years	30	7.90
6- 8 years	27	11.81
9-11 years	13	13.38
11 years	4	12.25

ETA = .47
Multiple R squared = .225

From the Multiple R squared in the three tables it can be concluded that the education variable did account for 14% of the variance in Question #1, 27.2% in Question #2, and 22.5% in Question #1 and #2 combined. These are greater than the proportion of variance accounted for by the approach, *desa*, or leader-nonleader variables.

These analyses indicate that though there is a significant correlation between quantity of responses and educational level, there are no significant differences among means that indicate a linear increase. This means that Null-Hypothesis #20 is only partially rejected.

Specificity Variable

Null-Hypothesis #21. There will be no difference in the specificity of needs derived from less-educated subjects and the specificity of needs derived from more-educated subjects regardless of the approach used to elicit the needs.

Data and analyses on specificity of responses indicate no significant finding except for Question #4 which is significant, at the .04 level. However, since the measure of relationship (in this case, Lamda value) is small and not significant, it can be concluded that Null-Hypothesis #21 is supported by the findings. In other words, Null-Hypothesis #21 cannot be rejected.

Means/Nonmeans Orientation Variable

Null-Hypothesis #22. There will be no difference in the means/nonmeans orientation of needs derived from less-educated subjects and the means/nonmeans orientation of needs derived from more-educated subjects regardless of the approach used to elicit the needs.

Table 55 shows data and analyses on the means/nonmeans orientation of the responses. There is no significant interaction between level of education and the means/nonmeans orientation variable in all questions. There is no basis to reject Null-Hypothesis #22.

Type (of Needs) Variable

Null-Hypothesis #23. There will be no difference in the genre of needs derived from less-educated subjects and the genre of needs derived from more-educated subjects regardless of the approach used to elicit the needs.

Data and analysis on type of needs as classified by community function reveal significant relationships on Question #1, #2, and #4, but no significant relationship on Question #3. The Lamda values, however, are all very small, which indicate a very weak relationship between the education variable and the type (by function) variable.

TABLE 55
 COMPARISON ON MEANS/NONMEANS ORIENTATION
 RESPONSES TO QUESTION #1, #3, and #4:
 BY EDUCATION LEVEL

EDUCATION LEVEL	N	AVERAGE MEANS-ORIENTATION		
		Q#1	Q#3	Q#4
None	17	1.0	1.24	1.42
1-5 years	32	1.03	1.16	1.35
6-8 years	28	1.10	1.29	1.58
9-11 years	13	1.07	1.47	1.39
> 11 years	4	1.0	1.50	1.15
Eta		.19	.25	.20
Multiple R Squared		.035	.061	.042

CODING: N = Number of subjects
 Q = Question
 1 = Nonmeans-Oriented
 2 = Means-Oriented

(Chi-square analyses data are presented in Appendix C, Table 9 to 12). These findings support the Null-Hypothesis #23.

Comparison among sub-samples on the type of needs most frequently identified in answering the four questions are presented in Table 56. As the Table reveals, the "supply" and education for "production" needs seem to be the most popular needs in the two *desas* and are similarly viewed by all subjects across education levels. (Question #1 and #2). Note, however, when they are asked about the top priority needs in the community (Question #3), the needs most frequently identified are "Inward-Linkage Needs." There is an indication that the subjects with an educational background over 11 years of schooling are more concerned with "Governance" rather than "Production" needs.

Type (of Needs) by General Area

Data and analyses on type of needs as classified by the general area show significant relationship on all four questions. Again, the Lamda values are small and suggest a weak relationship in the four questions and are too weak to be meaningful as predictors. Therefore, it further supports the retention of Null-Hypothesis #23. Data and alayses are presented in Appendix C, Tables 13 to 16.

Comparison among the three most frequently identified general areas of needs for all of the four questions are shown

TABLE 56
 COMPARISON AMONG EDUCATIONAL LEVEL ON
 THE THREE MOST FREQUENTLY IDENTIFIED TYPE
 OF NEEDS (BY FUNCTION) FOR QUESTION #1, #2, #3, #4.

EDUCATION LEVEL (Years of school)	QUES- TION	RANK 1	RANK 2	RANK 3
NONE 1- 5 6- 8 9-11 > 11	#1	Inward-Link Supply Supply Governance Supply	Supply Inward-Link Governance Supply Inward-Link	Religious Relig./Gov. Inward-Linkage Religious Governance
NONE 1- 5 6- 8 9-11 > 11	#2	Production Production Production Production Larger Syst	Larger Syst Larger Syst Larger Syst Education Supply/Governance	Religious Religious Educ./Culture Larger System
NONE 1- 5 6- 8 9- 11 > 11	#3	Inward-Link Religious Inward-Link Inward-Link Governance	Supply/Religious Inward-Link Production Governance/Supply Supply	Supply Supply Larger System
NONE 1- 5 6- 8 9-11 > 11	#4	Personal M. Supply Supply Larger System/Supply Governance	Supply Personal M. Personal M. Supply/Per- sonal Maintenance	Larger System Production Production Product./Perso- nal M.

in Table 57. The Table indicates that the needs identified in Question #1 are similarly identified in Question #3 on the basis of the most frequently mentioned needs (Rank 1). Notice that while four sub-samples indicate "Infra Structure" needs, the highest level of education (> 11 years) indicated different needs (i.e., "Trained Personnel"). There is considerable variance on their self-needs (Question #3). On educational needs (Question #2), "Health and Home Economic" needs are identified by all of the four higher level education groups, but "Agricultural" by the Non-schooled subjects.

In summary, it can be concluded that formal educational background does not make a meaningful difference in perceived needs except on the basis of quantity which accounts for 14% to 27% of the variance.

Discussion and Summary of Finding

Discussion

Education variable has differential effect only on the quantity of response. Probably because education level (years of schooling) made the more-educated subjects express themselves better, orally or in writing, than the less-educated subjects.

Finding

The more the formal educational background of the villagers, the more likely they will identify a greater number of community needs, and the more likely their self

TABLE 57
 COMPARISON AMONG EDUCATIONAL LEVEL ON THE
 THREE MOST FREQUENTLY IDENTIFIED TYPE OF NEEDS
 (BY GENERAL AREA) FOR QUESTION #1, #2, #3, AND #4

EDUCATION LEVEL (Years of school)	QUES- TION	RANK 1	RANK 2	RANK 3
NONE 1- 5 6- 8 9-11 > 11	#1	Infrastruct. Infrastruct. Infrastruct. Infrastruct. Trained Personnel	Public Bldg Public Bldg Public Bldg Public Bldg/Education Infrastruct.	Health Health Education Education Education
NONE 1- 5 6- 8 9-11 > 11	#3	Infrastruct. Infrastruct. Infrastruct. Infrastruct. Trained Personnel/Others (General)	Education Public Bldg Education Education	Public Bldg Education Public Bldg Public Bldg Economic
NONE 1- 5 6- 8 9-11 > 11	#4	Health Economic Economic General Dev't Trained Personnel	Economic Health Health Economic Economic/Health	Education General Dev't Education Health/Educ.
NONE 1- 5 6- 8 9-11 > 11	#2	Agricultural Health & Home Econ Health & Home Econ Health & Home Econ Health & Home Econ/Agriculture	Basic & Cult Agriculture Agriculture Basic & Cultural/Vocational	Health & Home Econ Basic & Cul- tural Basic & Cul- tural

*Question #2 has different classification categories.
 (All Educational needs)

needs will be specific. Educational background, however, does not differentiate the specificity and means/nonmeans orientation of community needs.

Further Discussion

Looking at the rank ordering of independent variables in terms of their eta values on quantity of responses on general community needs (Question #1), from high to low, the order is sex, education, leader/nonleader, approach, and *desa* variables. This means that a prediction on quantity of responses in terms of general community needs can be made best on the basis of the sex variable. The *desa* variable is the weakest basis on which to make a prediction or to explain the variance. On the number of responses concerning educational needs, the rank ordering is: education, *desa*, approach, leader-nonleader, and sex variable. This means that differences on the basis of educational needs can be explained/predicted best on the basis of the educational background of the subjects.

Second, only fifty percent of the variance can be explained by the total combination of the five independent variables of sex, education, approach, *desa*, and leader-nonleader. The combination of *desa* and approach variables, for example, explain only 18.3% of the variance for Question #2, and only 4.5% of the variance for Question #1 and #2 respectively. The sex variable explains 16% and 1% for Questions #1 and #2. The educational variable explains

13.9% of the variance for Question #1 and 27.3% of the variance for Question #2. As revealed in Figure 15, the five variables explain only 46% and 54% of the variances for Question #1 and Question #2 respectively. If further cross-analyzed, the effect of the independent variables on the quantity of responses show that differences between leaders and nonleaders are affected by their educational background and sex differences. As data reveal, leaders were all males and had a relatively higher educational background.

Analyses on specificity indicate that only the approach variable differentiates the level of specificity of needs -- that specificity of responses are strongly related with the interview approach. On the other hand, no relationship exists between the five independent variables and means/nonmeans orientation. This means that villagers are not only homogeneously nonmeans-oriented, but this homogeneity is not affected by different approaches. This homogeneity can be explained, most likely, by the cultural variable.

The fact that differences in sex, education, leadership position, approach, and *desa* did not differentiate the type of need identified by the subjects was not as expected. It is suspected that the classification procedure for examining the types of needs influenced the type variable in such a way that differences which existed were lost in the process. The analyses of types of needs on the basis of a general

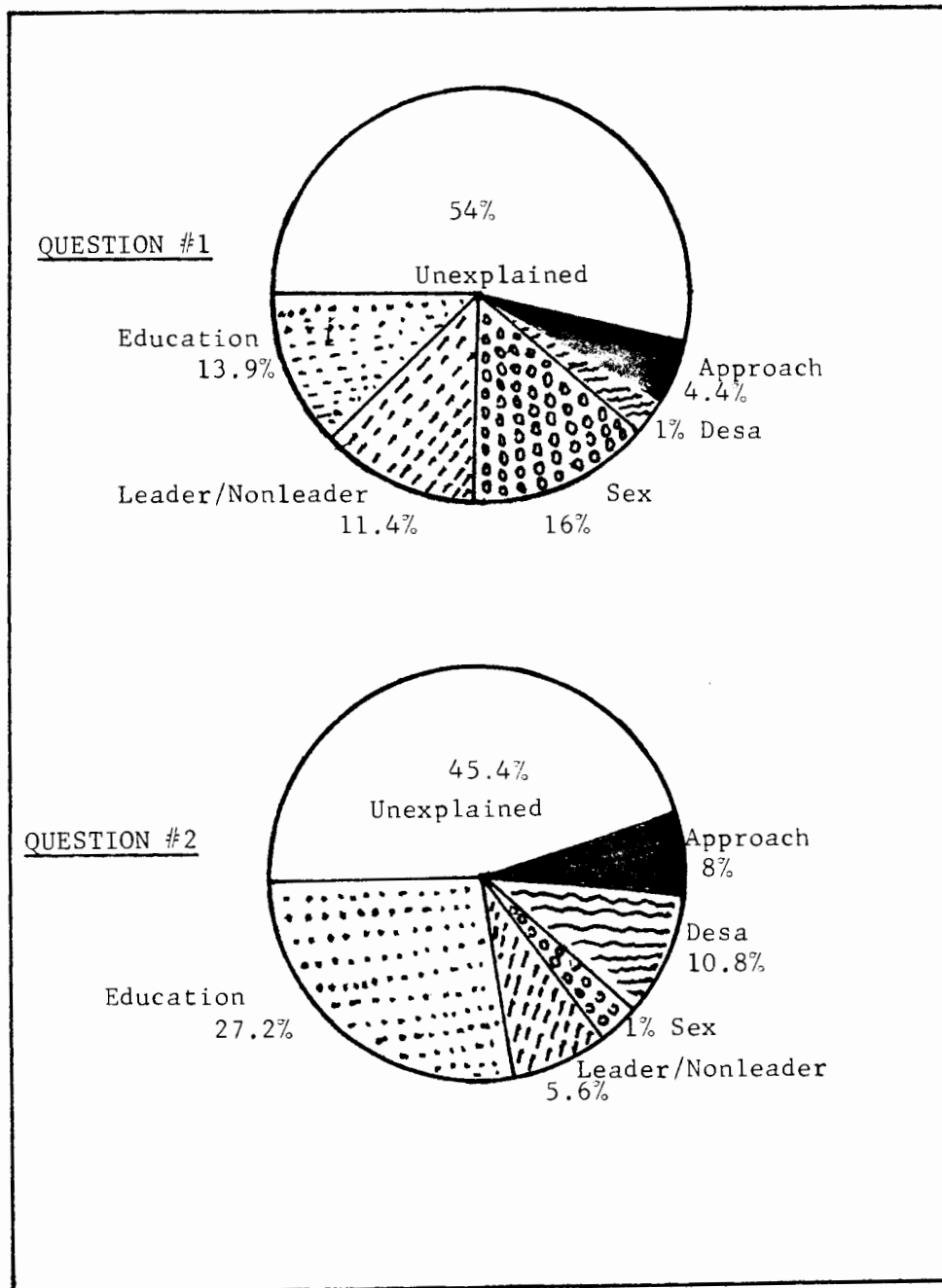


FIGURE 15
 THE PROPORTION OF VARIANCE
 FOR QUESTION #1 AND #2
 EXPLAINED BY INDEPENDENT VARIABLES

area classification which indicated more significant relationships, although weak, than on the basis of a functional classification seem to support the argument. Another possible explanation, however, is that villagers are homogeneous on their perceptions concerning their community needs.

If a further comparison is made of the needs identified by the villagers and the environmental and human problems of the two *desas* as seen by the research team, it can be concluded that the identified felt needs mirror the real needs of the communities. The "supply," "inward-linkage," and "governance" needs, for examples, are real and very important issues in both *desas*, and most likely also in other rural villages in Indonesia.

In Desa I, for example, the "governance" needs were very strong. The weakness of leadership of the *desa* chief could be seen very clearly by an outsider and is felt strongly by the villagers. This *desa* was an under-achiever as compared to its potentiality in human resources as well as natural resources. If there were not informal leaders who came forward, there would be no sign of a development program at all in Desa I. Villagers are waiting for a new and creative *desa* leader. It can be predicted that in the next election (1980) the *desa* chief will not be reelected.

About 60% of the "governance" needs were needs for better leadership, and villagers' involvement in the village policy and decision making processes. Although the propor-

tion of the subjects who identified "governance" needs were only 16%, the fact that this type of need came out in the study is very interesting and encouraging. It is interesting because it was assumed that villagers would be very reluctant to give opinions that criticize their government. It is encouraging, because without citizens who have the courage to criticize their leaders or government it is difficult to develop a democratic community. Looking further at the percentages of "governance" needs in the interview approach and in the group approach, there is an indication that villagers were only slightly influenced by their presence in a group in expressing their opinions on "governance" needs.

On educational needs, the villagers' greatest concerns was education for "production." Again, these needs were real needs. There are a lot of things that can be done by the villagers to increase their incomes and the betterment of their community. Resources are there, but the technical know-how is missing.

Summary

The findings for the six foci of this study, divided into their 23 directional hypotheses are presented in Table 58. Detailed significant testing results can also be found in Appendix C, Table 17. The following is a description of Table 58.

TABLE 58
SUMMARY OF THE ANALYSES OF DIRECTIONAL HYPOTHESES
BY FOCUS BY VARIABLE, AS INTERPRETED FROM
THE TESTING OF THE NULL-HYPOTHESES

Focus	Variable	Directional Hypotheses	Conclusion (Yes or No)
#1	Quantity Specificity Means/ Orientation Type of Need Time	Group Interview Group Interview Group = Interview (Nonmeans oriented) Group \neq Interview Group Interview	Yes Yes Yes No Yes
#2	Quantity	LI LNG LG NI NG LNG	Yes? ¹ Yes? ²
#3	Quantity Specificity Means/ Orientation Type of Need	Leaders Nonleaders Leaders Nonleaders Leaders Nonleaders Leaders \neq Nonleaders	Yes No No Yes? ³
#4	Quantity Specificity Means/ Orientation Type of Need	Desa I = Desa II Desa I = Desa II Desa I = Desa II Desa I \neq Desa II	Yes? ⁴ Yes? ⁵ Yes? ⁶ Yes? ⁷
#5	Quantity Specificity Means/ Orientation Type of Need	Males Females Males Females Males Females Males Females	Yes? ⁸ Yes? ⁹ No Yes? ¹⁰
#6	Quantity Specificity Means/ Orientation Type of Need	More Less schooling schooling More Less schooling schooling More Less schooling schooling More Less schooling schooling	Yes No Yes No

Coding of Table 58

- LI = Leader Interview approach
 LG = Leader only Group approach
 LNG = Mixed Leader-Nonleader Group approach
 NI = Nonleader Interview approach
 NG = Nonleader-only Group approach

TABLE 58 -- CONTINUED

Coding of Table 58

- 1) Yes LNG LI but LNG = LG. This was significant only for Question #1.
- 2) Yes for all questions on Community needs, but only that NG NI and not NG LNG.
- 3) Significant only on self-need on the basis of type by functions, and not significant on general community needs on the basis of type by general area.
- 4) Only for education needs.
- 5) Only for community priority needs.
- 6) Only for community priority needs.
- 7) The measure of relationships are weak.
- 8) No for educational needs.
- 9) Only for self need.
- 10) Only for educational needs.

FOCUS #1. Group Approach vs. Interview Approach.Finding #1

Group approach is more effective than an interview approach in terms of the quantity of community needs elicited through it, and more efficient than the interview approach in terms of man-hours needed to conduct the needs assessment.

Finding #2

An interview approach elicited a higher level of specificity of needs than a group approach, though villagers tend to mention needs in nonspecific terms.

Finding #3

There is no significant effect of the approach variable on the means/nonmeans orientation of the needs. Villagers identify their community needs as ends to be achieved rather than as means to achieve the ends.

Finding #4

Despite the significant effect of the approach variable on the quantity and specificity variables, it does not have significant effect on the types of needs. Both interview approach and group approach elicited similar types of needs.

FOCUS #2. Effect of Group Approach and Interview Approach on Leaders and on NonleadersFinding #5

Leaders yield more responses in a group approach in which both leaders and nonleaders are participating than in

an interview approach or a group approach consisting of leaders only.

Finding #6

Nonleaders yield more responses in a group approach in which the participants are all nonleaders than in an interview approach or in a mixed leaders-nonleaders group approach.

FOCUS #3. Leader vs. Nonleader

Finding #7

Leaders identify more needs regarding their community than nonleaders, but both leaders and nonleaders similarly perceive their community needs in terms of ends to be achieved rather than as ways to achieve the ends.

Finding #8

Both leaders and nonleaders are nonspecific in the needs they identified.

FOCUS #4. Desa I vs. Desa II

Finding #9

Desa I appears to be different from Desa II in their educational needs, yet they appear to be similar in other respects.

FOCUS #5. Male vs Female

Finding #10

Male nonleaders identify more community needs than female nonleaders. Yet, females appear to be more specific

on educational needs than males.

FOCUS #5. Educational Differences

Finding #11

The more years of schooling background of the villagers, the more likely they will identify a greater number of community needs, and the more likely their self-need will be specific. Educational background, however, does not differentiate the specificity, means/nonmeans orientation, and the types of community needs identified.

All in all, the analyses and finding clearly indicate that villagers know what are their community needs. If not better, at least as good as their leaders. Given appropriate guidance, the villagers could make a community needs assessment by themselves.

CHAPTER VI

CONCLUSION, IMPLICATION, AND RECOMMENDATION

The primary purpose of this study was to investigate the effectiveness and the efficiency of a group approach and an interview approach as methods for community needs assessment. More specifically, this study examined whether a group approach generates a greater number of responses, a higher level of specificity, more means-oriented responses, different types of needs, and needs less time for the administration of a group approach than an interview approach. In addition, this study examined whether relationships exist between the independent variables of *desa*, leader/nonleader, sex, education, and the dependent variables of quantity, specificity, means/nonmeans orientation, and types of responses.

This chapter presents the conclusions and implications that were drawn from the study and recommendations are made regarding further study in the area of community needs assessment.

Conclusion and Implication

Based on the analyses, findings and discussions, the conclusions of this study and its implications can be formulated as follows.

Conclusion #1

A group approach as a method of community needs assessment in rural *desas* is more preferable than an interview approach, if effectiveness and efficiency are the criteria used in choosing a method. If the objective of the assessment is to collect data on a higher level of specificity of needs, however, the interview approach is most appropriate. Whichever method is chosen, the types of needs identified through it will be similarly reliable. Since the two approaches have their own advantages and disadvantages, the combination of the two approaches in a community needs assessment seems very useful. For example, first an interview approach could be conducted to collect specific community needs from leaders and educated individuals in the community. A series of group approaches involving nonleaders could then be carried out to discuss the needs identified in the first stage, decide priorities, and probably further organize activities to fulfill the needs. In other words, an interview approach and a group approach could be used as preliminary strategies in organizing a community development program, in which community education is the key process.

Implication

This conclusion, put into practice, implies that community education workers should be trained in using both interviewing and group meeting techniques as methods of needs assessment as well as methods of training the villagers in

the community education process for community development.

In order to get greater inputs from the nonleaders it is important to conduct a group meeting for the non-leaders without their leaders participating in it. The results could then be presented and discussed in a mixed leader-nonleader group meeting.

The group approach for needs assessment will be more meaningful to the villagers and therefore will enhance their participation if it is used as a vehicle for getting the villagers involved in the decision making process of their programs. This will be in accord with the Indonesian community education philosophy that "community education is for the people by the people."

Conclusion #2

If it is true that there is no gap between leaders and nonleaders on their perception of their community needs, then community needs can be assessed from the community leaders alone, or from nonleaders alone, through an interview approach or through a group approach. If the purpose of the assessment is to develop a community development program that needs villager involvement, however, a group approach involving nonleaders is strongly suggested.

Implication

Since the results of community needs assessment are approximately similar in terms of type of needs identified from leaders and from nonleaders, in a situation where the

time to conduct the assessment is limited, a group approach with community formal leaders can suffice for identifying community needs. The *minggon* (weekly meeting) of community leaders in the *desa* can be easily used for assessment purposes. Such an "emergency" of needs assessment, however, can show bad planning. It is worse if it is used as an excuse on behalf of the central government or planners. Even though the needs assessment through a leaders-only group approach will yield valid results, the effect of such assessment will not enhance the villagers' participation and thus will minimize the probability to succeed. As described in the first implication, participation of villagers in decision making is imperative in any community education endeavor.

Conclusion #3

Since the quantity of community needs derived from villagers varied significantly on the basis of their years of schooling, sex, and leader/nonleader status, the sampling frame of a community needs assessment should take into account these variables. In other words, a stratified random sampling by schooling background, by sex and by leader/nonleader is highly suggested.

Implication

Conclusion #3 has two implications. First, the community education workers and participants, who are the persons who would conduct the needs assessment, need to

know how to carry out a rather complex selection of samples -- a stratified random sampling technique. It seems to be a difficult task for the villagers and even for the community education agent with their low educational background to do such a task. Experience from the field, however, indicated that a random sampling technique such as a "lottery" system is easily understood by villagers of low educational background. A stratified random sampling technique is basically drawing lotteries from different sub-groups of the villagers. Therefore, it would not be difficult to train them, if necessary, in how to conduct such a sampling technique. This use of an appropriate sampling technique is considered important by the investigator because the needs assessment is supposed to yield valid results in terms of the real needs and representativeness of the community. Otherwise, it cannot be used as a basis to make a community education program compatible with the needs of the people in the community.

Second, a stratified random sampling technique requires to know beforehand the specific demographic backgrounds of the villagers, such as sex, years of schooling, leader/nonleader status, etcetera. This means that such data should be available in the respective *desa* office. Unfortunately, however, such data are not always available in the *desas*, especially in terms of the educational background. It is highly recommended that a *desa* census be conducted in the preliminary process of a community development program.

Data from the census can be used for many purposes.

Conclusion #4

It is not enough to assess community learning needs by asking only for educational needs. There are needs of a general type that can be used to assess learning needs which are not covered in the answers to the question on educational needs.

Implication

The most direct implication of conclusion #4 is that any learning needs assessment of a *desa* community should also include questions about community needs in general. Villagers are nonmeans-oriented and less aware of their learning needs. This means that their learning needs should be analyzed through their general needs. How such analyses could be made cannot be recommended from this study. Further probing of the subjects' responses is suggested to know what is really meant by the subjects. This will increase the preciseness of the needs and hopefully will give clues of whether their needs are learning or nonlearning oriented. Further analysis of how to meet the nonlearning needs will also indicate whether a training step is needed as an instrument to achieve the goal of meeting the needs. It is also important to note that an educational need felt by villagers might not be a real educational need. For example, if a need to learn how to repair motorcycles is stated by a subject, it might be an expression of a need for

a job. In other words, there are educational needs felt by the villagers that indicate signs or symptoms of their nonlearning needs, and there are other needs felt by the villagers that imply the acquisition of certain knowledge or skills - i.e. learning needs - as the first or probably the only step to meet the need. Probing in the interview or group meeting can unfold the real need.

The fact that the leaders are also nonmeans oriented has a discouraging implication for community development. It means that the leaders who are supposed to be good examples for nonleaders are in the same condition with their followers -- occupied more by their needs in terms of goals to be achieved rather than by the alternative ways or means of how to achieve the goals. The awareness and knowledge about alternative ways for achieving needs is therefore needed to be implanted in the villagers. It is an important learning need, and the acquisition of it will increase the creativeness of the villagers, which is a golden key for development. This is an example of why there is an importance for a community development program with stress on human resource development.

The importance of such attributes as creativity, innovativeness, achievement motivation in development and modernization have been documented in a wide range of research reports (McClelland: 1960; Hagen: 1961; Everett M. Rogers: 1969). Two studies in West Java further confirmed that such attributes are associated with the level of economic develop-

ment of communities.

The first one is the Sukartini study comparing economic leaders in a developed *desa* and a less developed *desa* in West Java.¹ Her study indicated that the individuals who have influence on the economic system in a developed *desa* indicated a more innovative personality than those individuals who had influence on the economic system of a less developed *desa*. The study confirmed Hagen's hypothesis of innovative personality. Her study also revealed that the innovative economic leaders had a common background, educated in a democratic family atmosphere. Similarly, the autocratic economic leaders came from an autocratic family atmosphere.

The second study was a comparison between library readers in more advanced and less advanced communities in a city and two *desas* conducted by Mohammad Suparman² in West Java. His study indicated that readers in more advanced communities are significantly more associated with reading materials of more "achievement motivation" content and the readers in less advanced communities are more significantly associated with reading materials of more "power

¹Sri Patmah Sukartini, "Tokoh-Tokoh Yang Memegang Peranan Ekonomi di desa yang relatif maju dan di desa yang relatif kurang berkembang" (Unpublished Master Thesis, IKIP Bandung, 1969).

²Mohammad R. Suparman, "Buku Bacaan Yang paling Kurang menarik para pengunjung taman bacaan rakyat di kota dan di desa" (Unpublished Master Thesis, IKIP Bandung, 1969).

motivation."

These two studies are highlighted here to further support the importance of nurturing such attributes as creativity, innovativeness and achievement motivation, and the importance of a democratic atmosphere in community decision making as implied by the conclusions of this study.

Conclusion #5

It is unwise to believe that similar *desas* have similar educational needs.

Implication

Conclusion #5 has an implication that a nation-wide survey (of needs assessment) as a basis for planning community education programs at the village level is not a good practice. There are differences of educational needs among *desas* which have to be considered, beside the similarities, to make the program compatible with the respective village needs. In other words, needs assessment should be decentralized at the village level, or at least at the subdistrict level. This further implies the need for establishing an organization-mechanism in at least the sub-district level, (*kecamatan*) that will facilitate such an endeavor. During the last four years the Ministry of Education and Culture in Indonesia has been experimenting with such an idea of establishing a coordinative body at the sub-district level for nonformal (community) education

programs. Unless coordination among government agencies has been achieved and delegation of authority of development planning to local communities becomes the policy and practice, such a framework is doomed to fail. A lesson from the experiment indicates that increased awareness of problems and needs, the eagerness and creativity of the villagers through a participatory planning process, were dramatically killed by the fact that other sectors of the administration system, for example banking regulations, failed to meet the needs of the rural poor.

These are five conclusions and their implications that can be derived from this study. All indicate clearly a wider implication for the need and importance to reverse the course of development from an urban biased to a rural biased; and from a top-down approach to a grass-roots approach of planning and development. This, of course, is very difficult, if not to say impossible to do, especially on the part of the people in power with vested interest. It is also difficult to do even if the people in power are honest and willing to make such a great decision. These difficulties, however, will be meaningless if seen from the democratic and humanistic values which are very dear principles of Indonesia, and the prospect of better effects of such a scheme. Probably a rural biased development scheme will not be as fast as an urban biased development scheme in terms of the increase in income per capital or GNP, but high income per capita with unbalanced distribution

of income among people is not fair, if not to say immoral. The investigator believes that moderate increases of income per capita with well-distributed income is a lot better than high income per capita with only a small proportion of the people benefiting from it.

As a suggestion to start exercising the grass-roots approach to planning, the government can ask and supervise how the village communities can use the annual development subsidy to the villages for the purpose of development programs in the villages through a participatory decision making process. Additional subsidy and other facilities could then be given to the villages which show reasonable progress in their self-help development programs, and additional supervision given to villages which show less progress. Given the trust and adequate supervision by the government, the investigator believes that the villagers can organize and manage their own course of life. If the equality of individuals is secured by the constitution of the Republic and in the constitution of One God, it is difficult to believe that such an approach cannot be done.

The history of mankind shows that the violations of such human values, as democracy, were checked by human nature through bloody fighting. It is our duty to learn from history and try to hinder such a tragedy in the future.

Recommendation for Further Research

So far as the investigator knows, this study comparing an interview approach and a group approach in assessing community needs assessment is the first of its kind and therefore can also be seen as an exploratory study. Due to the many intervening variables, the results of this study are not specifically conclusive. There were many difficulties in handling the data and presenting the results, which were hard to comprehend in designing the study. In other words, further studies are needed. The following studies are among those which possibly can be handled more easily.

First, a series of similar studies can be conducted focusing only on a specific category of respondent at a time. By so doing, more definitive conclusions can be made, and the findings for each focus of study can be used to analyze the differential effects of the approach variable for different categories of villagers. In other words, the six foci of this study can be separated into six or more single studies. For example; the effect of an interview approach and a group approach on male villagers; or the effect of an interview approach and a group approach on female nonleaders; etc.

Second, similar studies should be conducted with instruments that provide for probing questions (i.e., ask further information from the subjects in terms of what they

meant by their responses). As indicated in the discussion, it was suspected that the nonmeans-oriented nature of the responses was probably because no attempt was made to further pursue the meaning of the responses as seen by the respondents.

Third, a study using both the interview approach and the group approach can be carried out to provide further information of the usefulness of the two methods in assessing community needs in the context of community development activities. In such a study, an interview approach is first conducted and types of needs are identified and listed. The results can then be used as discussion material in the second stage of the study using the group approach. The rank ordering of types of needs in the two approaches can be compared. The sequence of the methods used can be reversed. The subjects of the study can be the same category of villagers in the two approaches or it could be two different categories of villagers. The last version, for example, can be designed as described in Figure 16.

FIGURE 16
A STUDY DESIGN SUGGESTED
FOR THE SUCCESSIVE COMBINATION OF APPROACHES

1. Interview Approach	2. Group Approach
Leader	Nonleader
Nonleader	Leader

Concluding Remark

This study reveals important and interesting results. There are hypotheses which are supported by the findings but there are also hypotheses which are challenged by the findings. Further research is certainly needed. This study has created more questions to be further examined. The direction of the new questions, however, are more clear and specific than before. As an exploratory study, then, it gave functional inputs for further research on community needs assessment methodology. For sure, another study similar to this can learn from the mistakes made in this study.

Keeping in mind the possible human error in the study, the investigator believes that his bias toward the group approach as a better method for a community needs assessment has been supported to some extent by the findings. If there is added the positive potential effect of a group approach in a community needs assessment that asks for the real involvement of villagers in the decision making process for the betterment of their community, the investigator is very sure that the effect will be greater than as revealed in this study.

He is anxious to test this in practice.

APPENDICES

APPENDIX A. INTERVIEW GUIDE

1. English Version
2. Bahasa Sunda Version

APPENDIX A: INTERVIEW GUIDE (English version)

INTERVIEW GUIDEKEYWORDSMESSAGE

Thank you

I would like to thank you for the allocation of time you give to talk with me. Not to make you confused, let me first introduce myself and what is the purpose of visiting you here now.

Introduce your
name
occupation
task and purpose

My name is (SURYANI ZAHIR), as you can see from this letter. I am a lecturer at IKIP Bandung. The Office of Education Research and Development, Ministry of Education and Culture, asked me to visit several villages in this Kabupaten (District) in an attempt to collect villagers' opinions concerning their community needs or problems in development. Such information would be very useful to help Government attempt in directing development plan in the villages, so that development programs will be more relevant with the village community's needs.

Why she/he is
selected and how.

In this village there are 48 persons from whom I intend to collect their opinions. They are men and women, leaders and nonleader. Those 48 persons are selected randomly (through a lottery) from the list of households in the village office. You are one of the 48 persons that are selected in the lottery. Thus, we did not select people according to their economic status (poor or rich), nor on their education background. The purpose is that the 48 persons could be seen as representative of this village.

Two methods

Half of the 48 persons I will interview one by one at their house. You are one of them. That is why I come to you now. The other half will be asked their opinions in group meetings.

What is expected
from respondent

I will ask you four questions and several information about yourself. It will take about 30 minutes. From you I expect answers that really come from your own opinion and feeling. Feel free to say whatever comes into your mind after I asked a question. Those questions are not intended to test you. There is no wrong answer. The right answer, however, is the honest answer from you.

Does respondent
understand?

Do you understand? Please, do not hesitate to ask any question if you have one.

(If there is no more question, and respondent seems to understand it, start asking the First Question)

Start the interview

If you understand already, let us begin with the first question.

SECOND ANSWER: The needs of this village community that can be accomplished through development attempts that prioritizing self-development of its villagers are:

THIRD QUESTION

Among those needs you mentioned in answering the first and the second questions, choose three that according to your opinion are the most important needs of this village community.

ANSWER: The three most important needs of this village community are:

FOURTH QUESTION

Among all of those community needs you mentioned in answering the first and second questions, which is the most important need for yourself? Please mention only one need.

ANSWER: For myself, the most important need is:

ADDITIONAL INFORMATION

As I told you earlier, I need several additional information about yourself. These information are for statistical use only. I do not need to write your name and address. The information needed are:

1. Sex : Male
 Female
2. Age : Years

3. You are : Married
 Divorced
 Not Married
4. Education : Illiterate/Non
 Some Primary School (Class:)
 Completed Primary School (6 years)
 Junior High Class: ()
 Completed Junior High ()
 Senior High Class: ()
 Completed Senior High ()
 Higher than Senior High
(Describe:)
 Other (Describe:)
5. Occupation :
6. Number of Children: persons.
-

KEYWORDS

MESSAGE

Respondent Comment?

I have no more questions to ask. Do you have any comment about it? You are welcome to ask any questions if you have. Or perhaps you would like to add your response that just came into your mind?

Thank You

If you do not have any question or comment, I better stop our talk up to this time. I now have work to do, and I have to visit some other persons. Thank you very much for the time and opinions you give to me.

Permit to go.

Please permit me to go.

APPENDIX A: INTERVIEW GUIDE (Bahasa Sunda version)

PADOMAN WAWANCARAPOKO EUSIEUSI NU DITEPIKEUN

Basa nganuhunkeun	Langkung ti payun abdi ngahaturkeun nuhun ku sadiana Bapa/Ibu nampi abdi natamu kadieu. Supados Bapa/Ibu henteu ragu-ragu, langkung ti payun abdi bade ngajelaskeun saha abdi sareng naon maksudna abdi dongkap ka dieu.
Sebutkeun: - ngaran - pagawean - tugas jeung maksud	Sapertos diserat dina ieu katerangan, ngaran abdi (_____). Abdi digawe di IKIP Bandung. Tapi dina waktos ieu abdi keur ngajalankeun tugas ti Badan Penelitian Pendidikan dan Kebudayaan, Departemen Pendidikan dan Kebudayaan di Jakarta. Tugasna nyaeta ngumpulkeun pamanggih-pamanggih warga desa ngeunaan pangabutuh masyarakat desa dina raraga pembangunan/pembangunan masyarakat desana masing-masing. Eta pamanggih-pamanggih warga desa teh bakal aya gunana, boh keur pamatintah atanapi keur desana sorangan, dina nangtukeun pembangunan desa. Misalna supaya pembangunan di masing-masing desa bisa leuwih cocog jeung nu dipikabutuh ku desana.
Sababna kapilih	Ti desa Bapa/Ibu ieu aya 48 urang anu bakal ditaros pamanggihna; awewe-lalaki, kaasup warga desa biasa jeung pamuka masyarakat. Nu 48 urang teh dipilih sacara dilotre make daftar cacah jiwa anu aya di kantor desa. Kaleresan Bapa/Ibu kalebet salah saurang anu kapilih dina eta lotre. Maksudna dilotre teh, supaya anu 48 urang tea tiasa dianggap ngagambarkeun masyarakat desa ieu.
Dua cara	Nu 48 urang tea, satengahna ditepungan hiji-hiji, satengahna deui ditaros pamanggihna sacara rombongan dina riungan di desa. Bapa/Ibu kelebet anu kedah ditepungan hiji-hiji, nya ieu pisan sababna abdi dongkap ka dieu.

Naon nu diharep
ti responden

Ka Bapa/Ibu abdi bade naroskeun opat soal jeung sababaraha keterangan panambah anu bakal merlukeun waktu kirang-langkung satengah jam. Ti Bapa/Ibu diharepkeun jawaban anu sabebasna sareng sajujurna, anu karasa atanapi kapikir ku Bapa/Ibu. Ieu soal-sual teh sanes dimaksudkeun kanggu nguji Bapa/Ibu. Teu aya jawaban anu lepat. Anu diharepkeun teh mung pamanggih Bapa/Ibu anu sajujurna.

Naha responden
geus ngarti?

Kumaha Bapa/Ibu parantos ngartos kana maksud ieu paguneman. Upami teu acan ngartos, atanapi bilih aya patarosan sateuacana abdi ngawitan naroskeun soal kahiji, mangga tong asa-asa taroskeun ka abdi.

(Lamun teu aya pertanyaan jeung responden kaciri geus ngartieun, mimitian ku Soal Kahiji).

Mimitian Wawancara

Upami Bapa/Ibu parantos ngartos, mangga ayeuna urang ngawitan ku Soal Kahiji.

KELOMPOK : L N NO : DESA 1 2

Tanggal : _____

Jam : _____

SUAL KAHJI

Saperti Bapa/Ibu geus pada terang, ayeuna urang teh keur aya dina waktu pangwangunan/pembangunan. Salian ti usaha-usaha pembangunan nu dijalankeun ku Pamarentah, diharepkeun yen masyarakatna sorangan milu aktip dina usaha ngabangun desana masing-masing. Kaaktipan pembangunan desa ku jalan usaha masyarakat sorangan teh kecida pentingna. Kahiji, memang Pamarentah merlukeun bantuan rayat keur suksesna pengwangunan. Kadua, tiap desa tangtuna oge boga kabutuhan-kabutuhan atawa masalah-masalah pangwangunan nu beda, nu ngan warga desana sorangan nu bakal leuwih nyaho jeung bisa ngarasa-keunana. Ku kituna usaha pengwangunan ku masyarakatna sorangan teh bakal leuwih cocog jeung kabutuhan masyarakatna sorangan.

Dina rangka pembangunan desa nu geus disebutkeun bieu, desa Bapa/Ibu ge tangtu boga kabutuhan-kabutuhan pembangunan nu perlu dicumponan. Nurutkeun pamanggih Bapa/Ibu, naon nu dibutuhkeun ku umumna warga desa ieu, nu kudu dicumponan ku jalan usaha pembangunan, supaya ieu masyarakat desa teh bisa leuwih maju ?

Sebutan sing loba nu kanyahoan atawa karasa ku Bapa/Ibu.

JAWABAN : Nu dipikabutuh ku umumna masyarakat ieu desa nyaeta :

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

KELOMPOK : ^L ^N NO DESA ¹ ²

SUAL KADUA

Diantara kabutuhan-kabutuhan ieu masyarakat desa teh aya nu bisa dicumponan lamun aya modal/biaya tapi aya oge nu bisa dicumponan ku jalan mekarkeun diri unggal warga desa ieu. Mekarkeun diri teh hartina nambahan atawa ningkatkeun kanyaho, elmu jeung pangabisa diri sorangan ngeunaan rupa-rupa hal. Nurutkeun Bapa/Ibu naon kabutuhan-kabutuhan umumna masyarakat desa ieu anu kaasup kana jenis kabutuhan ieu. Bapa/Ibu meunang nyebutkeun deui naon nu geus disebut tadi tiheula dina ngajawab soal kahiji lamun hal eta ceuk Bapa/Ibu kaasup kana golongan kabutuhan mekarkeun diri.

JAWABAN : Kabutuhan-kabutuhan umumna masyarakat desa ieu anu bisa dicumponan ku usaha pembangunan anu ngutamakeun make jalan mekarkeun diri tiap warga desa ieu nyaeta :

SUAL KATILU

Diantara kabutuhan-kabutuhan nu ku Bapa/Ibu geus disebutkeun dina jawaban kahiji jeung kadua, pilih tilu nu ceuk Bapa/Ibu paling penting.

JAWABAN : Tilu pangabutuh ieu masyarakat desa nu paling penting nyaeta :

P A M U N G K A S

POKO EUSI

EUSI NU DITEPIKEUN

- Komentar ? Mung sakitu soal-sual nu ku abdi ditaroskeun ka Bapa/Ibu. Upami Bapa/Ibu aya komentar dina eta hal, atanapi aya hal anu bade ditambahkeun anu tadi hilap atanapi kirang dina ngajawab soal-sual tea, mangga sebatkeun sacekapna.
- Basa ngahuhunkeun Upami teu aya deui tambahan ti Bapa/Ibu, rupina dicekapkeun sakieu bae ieu obrolan urang teh. Sakali deui abdi ngahaturkeun nuhun kana bantuan Bapa/Ibu.
- Permisi Kumargi ngabujeng waktos, abdi bade permios bae.

oOo

APPENDIX B. GROUP APPROACH GUIDE

1. English Version
2. Bahasa Sunda Version

APPENDIX B: GROUP APPROACH GUIDE (English Version)

GROUP APPROACH GUIDEKEYWORDSMESSAGE

Thank you for coming

Ladies and Gentlemen, first of all I would like to say thank you very much for your cooperation and come to this meeting. As you already

Introduce your name

knew, my name is (_____), fieldworker from the Office of Educational Research and Development, Ministry of Education and Culture, Jakarta.

-- your task

My task is to collect villagers' opinions concerning village community's needs for developing their villages.

-- what for?

The opinions of villagers would be very useful to help Government attempt in directing development plan in the villages, so that development programs will be more relevant with the village community's needs.

Why she/he is selected and how

In this village there are 48 persons from whom I intend to collect their opinions. They are men and women, leaders and nonleaders. Those 48 persons are selected randomly (through a lottery) from the list of households in the village office. You are among them who are selected in the lottery. Thus we did not select people according to their economic status (poor or rich), nor on their education background. The purpose is that the 48 persons could be seen as representative of this village.

Two methods

Half of the 48 persons are interviewed one by one at their house. The other half will be asked in group meetings. You are among those who are going to be asked in the group meeting. That is why we are here now.

KEYWORD

What is expected
from respondents

Discussion rules

MESSAGE

I will ask you four questions and several information about your-selves. It will take approximately two hours. Those questions are not intended to test you. The questions will ask only about your opinion after group discussion is over.

This group discussion will be arranged as follows:

1. I will distribute a four cards questionnaire to you and a pencil. You have to open one card at a time if I told you so.
2. I will read aloud the question. At the same time, you can also read it silently on the card in front of you. For you who cannot read, just listen to me carefully. If necessary I will read it again to make it clear for you.
3. Before I let you say your response to the question, I will ask if there is anyone among you who does not understand the question yet.
4. If all of you understand the question already, I will ask your response one by one in turn -- clockwise or counterclockwise. While someone is taking his/her turn and giving his/her response orally, the others are not allowed to interfere or give any comment. The person who is giving his/her response, on the other hand, is not allowed to criticize others' opinions given earlier. However, if his/her opinion is similar with the previous speaker, he/she can say: "Idem or similar with Mr/Mrs..... opinion.

KEYWORDMESSAGE

5. After all of you take your turn, I will give ten minutes for you to discuss your answers. In this occasion you can criticize, give comment, give agreement or disagreement with others' opinions. You could add further argument to your opinion. During this discussion time, I will function as facilitator.
6. When time is up (after 10 minutes), I will ask each of you to write your final answer to the question. Choose the answers that according to you the most suitable answers for you. You write the answers in the space underneath the question. If the space is not enough, use the opposite page of the card. If you cannot write, please memorize your answers. I will help you later after this meeting is over. In this case I ask your cooperation to stay here a little bit longer than the others.
- Locate who cannot write.
- Summary of procedures
- General discussion
- Confidential
- These are the procedures we are going to do in this meeting for each of the four questions. I will read the question aloud; you speak out your answer in turn; open discussion for ten minutes; and closed by writing your final answer individually.
- After all questions are asked and answered, there will be a general discussion led by (_____).
- It is important to know that even though you write your answers in the cards and I will ask several information about your age, occupation, education, number of children, but your name and address will not be recorded. So your answers will be kept confidential. We also do not want to ask you about any secret thing.

KEYWORDS

Permission for
tape recording

Prepare the tape
if permitted.

DISTRIBUTE CARDS
AND PENCILS.

Start with EXAMPLE

Read aloud

Motivate if
needed

Discussion

MESSAGE

If you do not mind I will record your discussion in this tape recorder, so that I can get a complete record about your opinions. If you do not allow me to do so, however, I will not insist. But then I have to depend my recording only on my own notes, which could be incomplete. What do you think? Could I use tape recorder?

To make the procedure of discussion clear for you, let us begin with an example.

1. Please open the first card in front of you. In this card there is an example question. I will read it aloud for you. Listen carefully.
2. "In your opinion, can this village be classified as developed or not?"
3. Let us start answering the question orally. Do not write your answer yet. Please begin from Mr/Mrs... on my left, then take turn to your left. Please begin..
(Do it until all get their turn. Motivate respondent who reluctant or shy to give his/her response to speak)
4. Now I will give you five minutes to discuss your responses. Please start. It is your floor. I will sit here as facilitator and time recorder.
(Let them do their own discussion. Ask a person to speak first if no one starts the discussion. Ask probing question if necessary. Stop speaker who talking irrelevant things).

KEYWORDS

Final Answer

Write the answer.

Check if all
understandOpen second
card

First Question

MESSAGE

5. Time is up (for discussion). You have heard others' responses to the questions, and discuss their arguments. Now you have to make up your mind and choose your own final answer which according to you the most appropriate one. Your final answer could be the same with your answer before discussion. It could also be a new one as a result of listening and joining the discussion. Your answer could be the same with some others' responses, it could be different. It does not matter. What does matter is, that the response you are going to write is the most suitable one for your opinion and feeling. You understand?

Now, please write your response in the space underneath the question. Those who cannot write please memorize the answer, because I will help you to write it later.

These are the steps we are going to follow in answering the four questions.

Any question about the procedure?

You understand it already?
Very good.

Now let us open the second card. It contains the first question. Please flip the first card and fold back like this, so that the second card now on the top. Listen carefully, I will read the question aloud.

FIRST QUESTION.

(Do steps 1 to 5)

KEYWORDSMESSAGE

Open Third card

Please fold this second card like the first one. Now you are facing the third card containing the second and third questions.

Second Question

SECOND QUESTION

(Do steps 1 to 5)

Third Question

THIRD QUESTION

(Do steps 1 to 5)

Open the last card

Please open the last card. It contains the fourth question and additional information.

Fourth question

FOURTH QUESTION

(Do steps 1 to 5)

Additional
Information

ADDITIONAL INFORMATION

For these additional information will not need to be discussed in the group. You give your answer by giving check mark like this (V) (Give examples on the blackboard). Or write additional information in the appropriate space. You only check one for each question.

Lead respondents to fill the answer. Two other field-worker can be asked to help. Collect the card if done except those who cannot write.

General discussion Those who cannot write asked to split from the group to another place.

I have asked all of the four questions and you have answered them. Now this meeting will be closed with general discussion. Those who do not write their answers yet, please follow me to another room. I will help you one by one to write your answers. Mr. Romli will replace my place as facilitator.

KEYWORDS

Interviewer help
the special group
one by one. General
discussion for the
rest.

MESSAGEGENERAL DISCUSSION

(Describe to the group)

1. What is the purpose of this survey and how the information will be useful.
2. Invite the group to give their comments or to ask questions in connection with the questions or survey as a whole)

Closing/
Thank you

(If discussion is over or has to be stopped because the time is up, say thank you to the group for their willingness to participate in the group meeting. Let them take the pencil as a present).

NOTES: When the discussion is in the second step (individual response) facilitator should make accurate notes about each individual responses. The two other fieldworkers should do the same. It should be done if tape recorder is not used.

Change the course of taking turn from left to right, left to right, etc.

RESEARCH QUESTIONNAIRES

GROUP: L N NO.: DESA: 1 2

Date: _____ Hour: _____ to _____

QUESTION

In your opinion, can this village be classified as developed or not?

ANSWER In my opinion, this village can be classified as _____.

(Question #1, #2, #3, and #4 and additional information are the same as in the Interview Guide).

APPENDIX B: GROUP APPROACH GUIDE (Bahasa Sunda version)

PADOMAN DISKUSI KELOMPOKPOKO EUSIEUSI NU DITEPIKEUN

Basa nganuhunkeun	Langkung ti payun abdi ngahaturkeun nuhun ku sadiana Bapa2/Ibu2 ngahadiran ieu riungan.
Sebutkeun ngaran	Nami sim kuring (_____). Abdi digawe di IKIP Bandung. Tapi dina waktos ieu nuju ditugaskeun ku Badan Penelitian Pendidikan dan Kebudayaan, Departemen Pendidikan dan Kebudayaan di Jakarta, ngempelkeun pamanggih-pamanggih warga desa ngeunaan kabutuhan masyarakat desa dina raraga pangwangunan/pembangunan desa masing-masing. Katerangan ngeunaan kabutuhan-kabutuhan warga desa teh gede gunana, boh keur pamarentah atawa desana masing-masing, dina usaha pembangunan desa. Misalna supaya pembangunan desa leuwih cocog jeung kabutuhan desana masing-masing.
- pagawean	
- tugas jeung maksud	
Sababna kapilih	Ti desa ieu aya 48 urang anu bakal ditaros pamanggihna, awewe-lalaki, kaasup warga desa biasa jeung pemuka masyarakat. Nu 48 urang teh dipilihna sacara dilotre make daftar cacah jiwa anu aya di kantor desa. Bapa-bapa jeung Ibu-ibu teh kalebet warga desa ieu anu kaleresan kapilih dina eta lotre.
Dua cara	Nu 48 urang tea satengahna ditaros pamanggihna sacara ditepangan hiji-hiji ka bumina masing-masing. Anu satengahna deui ku abdi ditaros sacara rombongan/kelompok. Bapa-bapa sareng Ibu-ibu kalebet golongan anu ditaros pamanggihna sacara kelompok. Eta maksudna urang kempel dina waktos ieu.

POKO EUSI

Naon nu dipikaharep ti kelompok

EUSI NU DITEPIKEUN

Ka Bapa2/Ibu2 abdi bade naroskeun opat soal sababaraha katerangan panambah, anu bakal meryogikeun waktu kirang-langkung 2½ jam. Eta soal-sual teh sanes dimaksudkeun kanggo nguji Bapa2/Ibu2. Sual-sual anu bakal ditaroskeun teh ngan ngeunaan pamanggih Bapa2/Ibu2 masing-masing sabadana diskusi kelompok.

Aturan diskusi

Jalana diskusi kelompok engke bakal diatur kieu:

1. Ka Bapa2/Ibu2 bakal dibagikeun kartu-kartu soal. Hiji-hiji eta kartu teh kedah dibuka upami ku abdi tos dibejaan.
2. Abdi rek macakeun heula soal nu kahiji. Bapa2/Ibu2 kenging ngiring maca kartu nu aya dipayuneun Bapa2/Ibu2 dina hate. Ka Bapa2/Ibu2 anu teu acan tiasa maca, cekap ngadangukeun bae sing taliti. Upami peryogi, abdi bade macakeun eta soal sakali deui supaya jelas.
3. Saacana dijawab, ku abdi dipasihan kasempetan ka Bapa2/Ibu2 bisi aya taroskeuneun upami teu jelas.
4. Ku cara giliran, abdi bade menta ka Bapa2/Ibu2 supaya ngajukeun pamanggihna masing-masing sacara lisan. Dina waktu aya saurang anu keur nyebutkeun pamanggihna, teu meunang aya nu ngaganggu. Nu keur nyarios oge teu kenging ngiritik pamanggih Bapa2/Ibu2 anu ti heula. Tapi upami pamanggihna sami sareng anu ti payun, Bapa2/Ibu2 tiasa nyebatkeun yen pamanggih Bapa/Ibu sarua jeung Bapa/Ibu...ANU...
5. Saberesna sadayana kabagian nyebatkeun pamanggihna masing-masing, bakal aya kasempetan soal-jawab (diskusi) anu lamina sapuluh menit. Dina ieu kasempetan, Bapa2/Ibu2 kenging masihan katerangan nguatkeun atawa ngiritik pamanggih Bapa/Ibu anu sejenna.

POKO EUSIEUSI NU DITEPIKEUN

6. Saparantos beres diskusi, ku abdi bakal dipenta jawaban ti Bapa2/Ibu2 masing-masing. Pilih jawaban anu nurutkeun pamanggih Bapa/Ibu sorangan paling cocog. Eta jawaban teh kedah diseratkeun dina handapeun soal anu ditaroskeun tea, anu tos disadiakeun kanggo eta jawaban. Upami tempatna teu cekap tiasa disambung dina kertas kosong sapalihna. Upami Bapa/Ibu teu tiasa nyerat, jawabanana supados diapalkeun bae heula. Engke upami sadayana soal tos diajukeun, ku abdi bade dibantuan nyeratkeunana. Disuhunkeun ridona sabada diskusi Bapa/Ibu anu teu tiasa nyerat supaya calik di dieu heula rada lami meueusan.

Ringkesan

Tah kanggo tiap soal anu bade diajukeun bakal dimimitian ku abdi ngabacakeun soalna. Jawaban lisan sacara giliran diharepkeun ti Bapa2/Ibu2 masing-masing, disambung ku diskusi (sual-jawab) sabebasna salami 10 menit. Sarengsena diskusi, Bapa/Ibu masing-masing kedah nangtukeun jawaban2 anu paling cocog keur Bapa/Ibu sorangan sarta nyeratkeun eta jawaban dina kertas سوالان.

Diskusi umum

Sarengsena sadaya soal tos dijawab, bakal diayakeun diskusi umum anu bakal dipimpin ku Bapa (_____).

Peryogi dijelaskeun, sanaos abdi bakal nyatet katerangan ngeunaan yuswa, padamelan, pendidikan, sareng jumlah putra Bapa/Ibu, ari jenengan sareng alamat Bapa2 sareng Ibu2 mah moal dicatet.

Meunang direkam?

Upami Bapa2/Ibu2 ngidinan, ieu diskusi teh ku abdi bade direkam. Maksudna supaya pamanggih-pamanggih Bapa2/Ibu2 dina diskusi teh henteu aya anu kaliwat dicatetna ku abdi. Kumaha kinten-kintena tiasa direkam atanapi henteu?

Sadiakeun alat rekaman lamun diidinan.

POKO EUSIEUSI NU DITEPIKEUN

- Bagikeun kartu soal jeung patlot. Ieu kartu soal ulah waka dibuka sateuacan dibebejaan ku abdi.
- Mimitian ku Conto Ngarah jelas, hayu urang ngawitan ku hiji conto, kumaha carana ieu diskusi kedah dijalankeun.
- Baca sing tarik
1. Bukakeun kartu soal. Halaman kahiji aya Conto.
 2. "Nurutkeun pamanggih Bapa/Ibu naha ieu desa teh kaasup golongan desa nu maju atawa teu acan?"
 3. Urang mimiti giliran ngajukeun jawaban masing-masing sacara lisan. Ulah waka nyerat. Mangga ngawitan ti Bapa/Ibu palih kencaen abdi, teras nguriling ka palih kenca. (Teruskeun giliran nepi ka beresna)
- Bere motivasi lamun diperlukeun.
- Diskusi
4. Bapa2/Ibu2 ku abdi dipasih waktu lima menit kanggo soal-jawab (diskusi). Mangga nyanggakeun ka sadayana. Abdi mah mung bade jadi tukang ngukur waktu bae. (Antep maranehna sina diskusi sabebasna. Penta saurang ngajukeun pamanggihna ngeunaan jawaban nu sejen, lamun teu aya anu wani ngamimitian diskusi. Bere motivasi ku jalan nanyakeun pamanggih saurang nu hadir anu beda jeung nu sejena.)
- Milih jawaban sorangan
5. Waktu diskusi tos seep. Bapa2/Ibu2 parantos ngadangu jawaban-jawaban nu sanesna sareng katerangan-keterangan tambahan dina diskusi. Ayeuna Bapa2/Ibu2 masing-masing kedah netepkeun jawaban (2) nu dianggap ku Bapa/Ibu paling cocog ceuk pikiran Bapa/Ibu sorangan. Eta jawaban-jawaban teh tiasa bae sami sareng jawaban nu ku Bapa/Ibu disebutkeun sacara lisan, atawa tiasa oge jawaban anyar tina hasil ngadangukeun diskusi. Jawaban Bapa/Ibu mungkin bae sarua jeung jawaban Bapa/Ibu anu sejena, tapi tiasa oge beda tinu sanes. Eta mah moal jadi naon-naon. Anu penting mah, eta jawaban teh kudu nu paling jitu atawa cocog nurutkeun pamanggih Bapa/Ibu nyalira.

POKO EUSIEUSI NU DITEPIKEUN

Tuliskeun jawaban
(Pariksa nu teu
bisa nulis)

Mangga ayeuna geura seratkeun eta jawaban Bapa/
Ibu dina tempat nu tos disayagikeun. Nu teu tiasa
nyerat, apalkeun bae heula jawabanana.

Cek geus ngarti
atawa acan?

Tah kitu carana nu ku urang bakal dipigawe dina
ngajawab soal-soal anu ku abdi bakal diajukeun.
Bisi aya nu bade naroskeun tata-cara ieu sateu-
acana ngawitan ku soal anu saleresna, mangga tong
asa-asa. Kumaha parantos ngartos, teu acan?

.....(Lamun dianggap geus pada ngarti, mimitian
ngajukan soal kahiji.)

Buka kartu kadua

Upami sadayana tos ngartos, hayu urang ngawitan .
Mangga buka halaman kadua. Lipetkeun bae lambaran
kahiji sacara kieu (Bere conto). Dina lambaran
kadua aya Soal Kahiji.
Dangukeun sing leres abdi rek maca soal kahiji.

Soal kahiji
(Lakukeun)
(langkah 1 - 5)

SUAL KAHIJI

J.s.t

Buka kartu katilu

Ayeuna mangga buka lambaran katilu anu eusina
soal kadua sareng soal katilu.

Soal kadua
(Lakukeun)
(langkah 1-5)

SUAL KADUA

J.s.t

Soal katilu
(Lakukeun)
(langkah 1-5)

SUAL KATILU

J.s.t

POKO EUSIEUSI NU DITEPIKEUN

Buka kartu kaopat

Ayeuna mangga buka kartu kaopat, kartu paling ahir. Eusina Sual Kaopat sareng katerangan tambahan.

Sual Kaopat

SUAL KAOPAT

(Lakukeun)
(langkah 1-5)

J.s.t

Katerangan
Panambah

KATERANGAN PANAMBAH:

(Bimbing responden ngajawab hiji-hiji katerangan panambah. Bisa dibantu ku anggota team)

Ieu katerangan panambah ngeunaan diri Bapa2/Ibu2 diperyogikeun kanggo kaperluan statistik. Nami sareng alamat Bapa/Ibu henteu peryogi diseratkeun. Jawabanana cekap ku Bapa2/Ibu2 diseratkeun ku cara nyeratkeun tanda curek (V) dina tempat nu disadiakeun anu paling cocog, dihareupeun katerangan anu dimaksud.

Kumpulkeun kartu
sualan

Upami parantos, eta kartu-kartu soal ku abdi bade dikempelkeun. Patlotna mah mangga bae candak kanggo oleh-oleh.

Diskusi Umum
(Nu teu bisa nulis
pisahkeun)

Sadaya soal tos ditaroskeun sarta dijawab ku Bapa/Ibu sadayana. Hatur nuhun. Ayeuna kasempetan kanggo soal-jawab ngobrolkeun hal-hal anu tadi didiskusikeun. Ka Bapa/Ibu anu teu acan nyeratkeun jawabanana, mangga ngalih tempatna. Tuturkeun bae abdi. Ieu diskusi teh saterasna bade dipingpin ku (_____).

Jalankeun diskusi

DISKUSI UMUM (PAMUNGKAS)

Lamun diskusi geus anggeus atawa disetop sabab waktuna beak, saacana dibubarkeun kudu ngucapkeun nuhun heula ku sadiana responden hadir dina ieu riungan sarta mikeun pamanggihna masing-masing.

APPENDIX C

Table 1 to Table 17

TABLE 1
 LAND SIZE OF THE COMMUNITIES
 BY TYPE, BY COMMUNITY
 (In Hectares)

LAND	KABUPATEN PURWAKARTA	KECAMATAN I	KECAMATAN II	DESA I	DESA II
DRY LAND	37,242.4	3,204.9	6,640.3	475.1	559.8
RICE FIELD	16,468.8	1,731.0	6,652.0	36	466.5
PLANTATION	5,097.4	-	1,646	-	-
FARM	4,938	-	137.5	-	-
FOREST AND MOUNTAIN	22,526.8 22,526.8	1,693.9 1,693.9	7,030.6 7,030.6	-	-
WATER RESERVOIR	8,866.5	}	46.1	-	-
ROAD	178		33.6	}	
RIVER	174				307.1
OTHER	2,016.8	}		-	-
TOTAL	97,508.7		6,663.5	18,589.7	511.1

TABLE 2
POPULATION BY AGE, BY COMMUNITY

AGE	KABUPATEN PURWAKARTA	KECAMATAN I	KECAMATAN II	DESA I	DESA II
0 - 4	49,088	4,944	5,790	154	505
5 - 9	49,295	4,747	6,768	121	596
10 - 14	46,238	4,487	6,217	162	460
15 - 19	39,063	3,561	4,886	168	409
20 - 24	38,552	3,563	5,220	173	366
25 - 29	35,400	2,885	5,067	196	352
30 - 34	33,595	2,472	4,984	228	279
35 - 39	29,335	2,253	3,078	247	308
40 - 44	25,134	2,097	2,877	352	239
45 - 49	22,302	1,905	2,426	441	149
50 - 54	20,190	1,719	2,371	525	123
55 and over	25,729	1,620	3,236	594	276
TOTAL	413,941	36,175	52,928	3,361	4,062

TABLE 3
POPULATION WHO WORK, BY OCCUPATION, BY COMMUNITY

OCCUPATION	KABUPATEN	KECAMATAN I	KECAMATAN II	DESA I	DESA II
FARMER - LAND OWNER	64,431	6,046	8,863	215	815
FARMER - LANDLESS	42,621	4,021	7,273	242	85
LABORER	57,791	10,491	7,260	284	192
ANIMAL HUSBANDRY/ FISHERY	7,790	573	975	75	
HOME INDUSTRY	3,660	74	463	5	17
TRADER	11,934	959	1,365	385	36
CIVIL SERVANT	7,876	268	375	45	20
CARPENTER/ BRICKLAYER	3,300	210	662		30
TAILOR	1,420	74	294		14
BARBER	1,527	46	74	124	10
BLACKSMITH	86	5	3		-
MIDWIFE	254	26	41		
OTHER SERVICES	6,907	695	392		32
TOTAL	210,103	23,518	28,083	1,375	1,259

TABLE 4
POPULATION BY EDUCATIONAL BACKGROUND, BY COMMUNITY

EDUCATION	KABUPATEN	KECAMATAN I	KECAMATAN II	DESA I	DESA II
NOT IN SCHOOL*	179,995	16,887	30,509	1,526	2,974
COMPLETED PRIMARY SCHOOL	175,229	17,547	17,734	1,385	784
COMPLETED JUNIOR HIGH	44,625	11,535	3,944	391	281
COMPLETED SENIOR HIGH	13,488	235	739	59	23
COMPLETED ACADEMY (BA)	527	11	21	-	-
COMPLETED UNIVERSITY (MA)**	74	-	1	-	-
TOTAL	413,941	36,173	52,928	3,261	4,062

* Includes persons with education less than primary school, children in schools and children not yet in school.

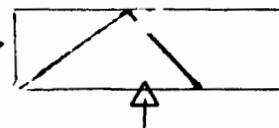
** Several university graduates from these communities were in residence in big cities.

TABLE 5
NUMBER OF SCHOOLS BY COMMUNITY

SCHOOL	KABUPATEN PURWAKARTA	KECAMATAN I	KECAMATAN II	DESA I	DESA II
PRIMARY	277 1,704 57,822	18 106 4,761	31 125 6,102	2 11 499	2 13 502
JUNIOR HIGH	12 229 5,930	1 11 333	1 16 513	-	-
SENIOR HIGH	8 123 3,375	-	-	-	-
HIGHER	2 36 221	-	-	-	-
RELIGIOUS/ PRIMARY	149 469 19,186	15 36 1,401	13 27 1,454	4 6 343	1 3 101
RELIGIOUS/ SECONDARY	1 12 345	-	1 7 69	-	-
RELIGIOUS/ HIGHER	5 41 456	-	-	-	-
TOTAL	455 2,614 87,235	34 153 6,495	46 175 8,138	6 17 242	3 16 603

Coding:

No. of Schools



No. of Students

No. of Teachers

TABLE 6
 ONE-WAY ANOVA ON MEANS/NONMEANS
 ORIENTATION OF RESPONSES TO QUESTION #1:
 INTERVIEW APPROACH VS GROUP APPROACH

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	Significance of F
Between	.000	1	.000	.001	.976 (n.s.)
Within	4.734	92	.051		
Total	4.734	93	.051		

<u>Variable</u>	N	Mean
Interview Approach	37	1.05*
Group Approach	57	1.05

*1 = nonmeans oriented

2 = means oriented

TABLE 7
 ONE-WAY ANOVA ON MEANS/NONMEANS
 ORIENTATION OF RESPONSES TO QUESTION #3:
 INTERVIEW APPROACH VS GROUP APPROACH

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F	Significance of F
Between	.060	1	.060	.301	.584 (n.s.)
Within	18.291	92	.199		
Total	18.351	93	.197		

<u>Variable</u>	N	Mean	Eta = .06
Interview Approach	37	1.30	
Group Approach	57	1.25	

TABLE 8
 ONE-WAY ANOVA ON MEANS/NONMEANS
 ORIENTATION OF RESPONSES TO QUESTION #4:
 INTERVIEW APPROACH VS GROUP APPROACH

Source of Variation	Sum of Square	Degrees of Freedom	Mean Square	F	Significance of F
Between	.336	1	.336	1.364	.246 (n.s.)
Within	22.643	92	.246		
Total	22.979	93	.247		

<u>Variable</u>	N	Mean	Eta = .12
Interview Approach	37	1.36	
Group Approach	57	1.40	

TABLE 9
CHI-SQUARE ANALYSIS ON GENERAL COMMUNITY NEEDS
(QUESTION #1) BY FUNCTION, BY EDUCATIONAL LEVEL

COMMUNITY NEED BY FUNCTION	EDUCATION (in years)					TOTAL n=594
	NONE n = 87	1-5 yrs n=164	6-8 yrs n=210	9-11 yrs n=101	>11 yrs n=32	
SUPPLY 1	18.4	24.4	24.3	16.8	15.6	21.7
PRODUCTION 2	1.1	1.8	4.3	4.0	6.3	3.2
MARKETING 3	1.1	0.6	1.0	3.0	3.1	1.3
PERSONAL MAINTENANCE 4	12.6	12.2	7.6	4.0	3.1	8.8
HEALTH CARE 5 DELIVERY	2.3	1.8	4.3	2.0	0	2.7
GOVERNANCE 6	10.3	13.4	15.7	20.8	34.4	16.2
EDUCATION 7	4.6	4.9	2.9	9.9	3.1	4.9
RELIGIOUS 8	14.9	13.4	10.5	14.9	3.1	12.3
CULTURAL 9	1.1	1.2	3.3	4.0	6.3	2.7
LINKAGE: Inward 10	31.0	18.3	13.3	12.9	15.6	17.3
LINKAGE: Outward 11	0	1.2	0.5	2.0	0	0.8
LARGER SYSTEM 12	2.3	6.7	12.4	5.9	9.4	8.1
TOTAL %	100%	100%	100%	100%	100%	100%

CODING: n = number of responses (not subjects)

% = percentages are calculated from each column n

STATISTICS: χ^2 d.f. Significance; Lamda
73.739 44 .003 .039

TABLE 10
CHI-SQUARE ANALYSIS ON GENERAL COMMUNITY NEEDS
(QUESTION #2), BY FUNCTION, BY EDUCATIONAL LEVEL

COMMUNITY NEED BY FUNCTION	EDUCATION (in years)					TOTAL n=375
	NONE n=58	1-5 yrs n=88	6-8 yrs n=128	9-11 yrs n=84	> 11 yrs n=17	
SUPPLY 1	5.2	0.0	3.9	2.4	17.6	3.5
PRODUCTION 2	46.6	64.8	47.7	46.4	11.8	49.6
MARKETING 3	8.6	2.3	0.8	0.0	0.0	2.1
PERSONAL 4						
MAINTENANCE 5	0.0	0.0	0.0	0.0	0.0	0.0
HEALTH CARE 6						
DELIVERY 7	0.0	0.0	2.3	2.4	11.8	1.9
GOVERNANCE 8	0.0	1.1	3.1	8.3	17.6	4.0
EDUCATION 9	6.9	6.8	7.8	13.1	11.8	8.8
RELIGIOUS 10	10.3	8.0	5.5	9.5	0.0	7.5
CULTURAL 11	6.9	3.4	7.8	6.0	0.0	5.9
LINKAGE: 12						
Inward	0.0	0.0	0.0	0.0	0.0	0.0
LINKAGE: 13						
Outward	0.0	0.0	0.0	0.0	0.0	0.0
LARGER 14						
SYSTEM	15.5	13.6	21.1	11.9	29.4	16.8
TOTAL %	100%	100%	100%	100%	100%	100%

CODING: n = number of responses (not subjects)

% = percentages are calculated from each column n

STATISTICS: χ^2 d.f. Significance; Lamda

79.409 32 .0000 .027

TABLE 11
 CHI-SQUARE ANALYSIS ON
 COMMUNITY PRIORITY NEEDS (QUESTION #3)
 AS CLASSIFIED BY FUNCTION, BY EDUCATIONAL LEVEL

COMMUNITY NEED BY FUNCTION	EDUCATION (in years)					TOTAL n=280
	NONE n=51	1-5 yrs n=96	6-8 yrs n=82	9-11 yrs n=39	11 yrs n=12	
1 SUPPLY	17.6	15.6	14.6	15.4	25.0	16.1
2 PRODUCTION	9.8	8.3	15.9	10.3	0.0	10.7
3 MARKETING	5.9	3.1	1.2	0.0	0.0	2.5
4 PERSONAL MAINTENANCE	7.8	10.4	9.8	2.6	8.3	8.6
5 HEALTH CARE DELIVERY	0.0	2.1	1.2	0.0	0.0	1.1
6 GOVERNANCE	7.8	10.4	13.4	15.4	33.3	12.5
7 EDUCATION	3.9	7.3	2.4	10.3	8.3	5.7
8 RELIGIOUS	17.6	17.7	13.4	10.3	0.0	14.6
9 CULTURAL	0.0	0.0	3.7	0.0	0.0	1.1
10 LINKAGE: Inward	23.5	16.7	18.3	25.6	8.3	19.3
11 LINKAGE: Outward	0.0	0.0	1.2	2.6	0.0	0.7
12 LARGER SYSTEM	5.9	8.3	4.9	7.7	16.7	7.1
TOTAL %	100%	100%	100%	100%	100%	100%

CODING: n = number of responses (not subjects)

% = percentages are calculated from each column n

STATISTICS: χ^2 d.f. Significance; Lamda
 41.356 44 (n.s.) .034

TABLE 12
CHI-SQUARE ANALYSIS ON INDIVIDUAL PRIORITY NEED
(QUESTION #4) BY FUNCTION, BY EDUCATIONAL LEVEL

COMMUNITY NEED BY FUNCTION	EDUCATION (in years)					TOTAL n=95
	NONE n=17	1-5 yrs n=33	6-8 yrs n=28	9-11 yrs n=13	>11 yrs n= 4	
SUPPLY 1	23.5	48.5	53.6	23.1	25.0	41.1
2						
PRODUCTION	0.0	9.1	10.7	15.4	0.0	8.4
MARKETING 3	0.0	0.0	3.6	0.0	0.0	1.1
PERSONAL 4						
MAINTENANCE	47.1	33.3	17.9	15.4	25.0	28.4
HEALTH CARE 5						
DELIVERY	0.0	0.0	0.0	0.0	0.0	0.0
6						
GOVERNANCE	0.0	0.0	7.1	7.7	50.0	5.3
7						
EDUCATION	5.9	3.0	0.0	7.7	0.0	3.2
8						
RELIGIOUS	5.9	0.0	0.0	7.7	0.0	2.1
9						
CULTURAL	0.0	0.0	0.0	0.0	0.0	0.0
LINKAGE: 10						
Inward	5.9	0.0	3.6	0.0	0.0	2.1
LINKAGE: 11						
Outward	0.0	0.0	0.0	0.0	0.0	0.0
LARGER 12						
SYSTEM	11.8	6.1	3.6	23.1	0.0	8.4
TOTAL %	100%	100%	100%	100%	100%	100%

CODING: n = number of responses (= subjects)

% = percentages are calculated from each column n

STATISTICS: χ^2 d.f. Significance; Lamda

45.664 32 .05 .093

TABLE 13
CHI-SQUARE ANALYSIS ON GENERAL COMMUNITY NEEDS
(QUESTION #1) BY GENERAL AREA, BY EDUCATIONAL LEVEL

COMMUNITY NEEDS BY AREA OF NEEDS	EDUCATION (in years)					TOTAL n=595
	NONE N=87	1-5 yrs n=164	6-8 yrs n=211	9-11 yrs n=101	>11 yrs n=32	
INFRA 1 STRUCTURES	35.6	29.3	24.2	22.8	21.9	26.9
PUBLIC 2 BUILDINGS	24.1	20.7	15.2	12.9	6.3	17.1
AGRICUL- 3 TURAL	5.7	6.7	7.6	6.9	3.1	6.7
COMMUNITY 4 DEV'T ORG.	2.3	1.8	6.6	8.9	6.3	5.0
5 ECONOMIC	6.9	6.1	5.2	7.9	9.4	6.4
6 UTILITIES	1.1	5.5	7.1	2.0	3.1	4.7
HEALTH AND 7 WELFARE	13.8	12.8	9.5	9.9	6.3	10.9
8 TRAINED Personnels	2.3	3.0	2.8	8.9	25.0	5.0
9 EDUCATIONAL	5.7	6.1	11.8	12.9	12.5	9.6
10 DEVELOPMENT IN GENERAL	2.3	7.9	10.0	6.9	6.3	7.6
TOTAL %	100%	100%	100%	100%	100%	100%

CODING: n = number of responses (not subjects)

% = percentages are calculated from each column n

STATISTICS: χ^2 d.f. Significance; Lamda
75.989 36 .0001 .008

TABLE 14
CHI-SQUARE ANALYSIS ON COMMUNITY PRIORITY NEEDS
(QUESTION #3) BY GENERAL AREA, BY EDUCATIONAL LEVEL

COMMUNITY NEEDS BY AREA OF NEEDS	EDUCATION (in years)					TOTAL n=280
	NONE n=51	1-5 yrs n=96	6-8 yrs n=82	9-11 yrs n=39	>11 yrs n=12	
INFRA 1 STRUCTURES	29.4	25.0	28.0	35.9	8.3	27.5
PUBLIC 2 BUILDINGS	21.6	20.8	17.1	5.1	0.0	16.8
AGRICUL- 3 TURAL	2.0	4.2	2.4	0.0	0.0	2.5
COMMUNITY 4 DEV'T ORG.	2.0	2.1	3.7	2.6	0.0	2.5
ECONOMIC 5	5.9	5.2	3.7	2.6	16.7	5.0
UTILITIES 6	0.0	2.1	6.1	5.1	0.0	3.2
HEALTH AND 7 WELFARE	7.8	14.6	6.1	5.1	8.3	9.3
TRAINED 8 Personnels	0.0	1.0	2.4	5.1	25.0	2.9
EDUCATIONAL 9	27.5	10.8	26.8	33.3	16.7	24.6
DEVELOPMENT IN GENERAL	3.9	6.3	3.7	5.1	25.0	5.7
TOTAL	100%	100%	100%	100%	100%	100%

Coding: n = number of responses (not subjects)

% = percentages are calculated from each column

STATISTICS: χ^2 d.f. Significance; Lamda
62.578 36 .004 .031

TABLE 15
 CHI-SQUARE ANALYSIS ON COMMUNITY EDUCATIONAL NEEDS
 (QUESTION #2) BY GENERAL AREA, BY EDUCATIONAL LEVEL

COMMUNITY EDUCATIONAL NEEDS BY GENERAL LEVEL	EDUCATION (in years)					TOTAL n=375
	NONE n=58	1-5 yrs n=88	6-8 yrs n=128	9-11 yrs n=84	> 11 yrs n=17	
BASIC EDUCATION	17.2	14.8	9.4	16.7	5.9	13.3
CULTURAL EDUCATION	6.9	3.4	7.8	6.0	0	5.9
HEALTH AND HOME ECO- NOMIC EDUCATION	15.5	38.6	29.7	22.6	29.4	28.0
VOCATIONAL/ SKILLS EDUCATION	8.6	17.0	15.6	22.6	11.8	16.3
AGRICULTURAL EDUCATION	39.7	20.5	27.3	15.5	29.4	25.1
BUSINESS AND INDUS- TRIAL EDUCATION	10.3	4.5	2.3	4.8	0	4.5
OTHERS (GENERAL)	1.7	1.1	7.8	11.9	23.5	6.9
TOTAL %	100%	100%	100%	100%	100%	100%

CODING: n = number of responses (not subjects)

% = percentages are calculated from each column n

STATISTICS: χ^2 d.f. Significance; Lamda
 50.815 24 .001 .031

TABLE 16
CHI-SQUARE ANALYSIS ON INDIVIDUAL PRIORITY NEEDS
(QUESTION #4) BY GENERAL AREA, BY EDUCATIONAL LEVEL

COMMUNITY NEEDS BY AREA OF NEEDS	EDUCATION (in years)					TOTAL n=95
	NONE n=17	1-5 yrs n=33	6-8 yrs n=28	9-11 yrs n=13	>11 yrs n= 4	
INFRA STRUCTURES	5.9	0.0	7.1	0.0	0.0	3.2
PUBLIC BUILDINGS	5.9	0.0	0.0	7.7	0.0	2.1
AGRICUL- TURAL	0.0	3.0	0.0	0.0	0.0	1.1
COMMUNITY DEV'T ORG.	0.0	0.0	0.0	0.0	0.0	0.0
ECONOMIC	29.4	42.4	50.0	23.1	25.0	38.9
UTILITIES	0.0	0.0	0.0	0.0	0.0	0.0
HEALTH AND WELFARE	47.1	33.3	21.4	15.4	25.0	29.5
TRAINED Personnels	0.0	0.0	3.6	7.7	50.0	4.2
EDUCATIONAL	11.8	6.1	14.3	15.4	0.0	10.5
DEVELOPMENT IN GENERAL	0.0	15.2	3.6	30.8	0.0	10.5
TOTAL %	100%	100%	100%	100%	100%	100%

CODING: n = number of responses (= number of subjects)
% = percentages are calculated from each column n

STATISTICS: χ^2 d.f. Significance; Lamda
48.991 28 .008 .100

TABLE 17
SUMMARY OF THE FINDINGS

NULL HYPO- THESIS AND VARIABLE	BASIS FOR JUDGMENT (SIGNIFICANCE)					DECISION
	Q#1	Q#2	Q#1	Q#3	Q#4	
#1 (Quantity)	.046	.007	.016	-	-	rejected
#2 (Specificity)	.0002	.004	-	n.s	.064	rejected
#3 (Means/Non- means)	n.s	-	-	n.s	n.s	retained
#4 (Type by Function)	n.s	.017	-	n.s	n.s	retained
(Type by area)	.004	.003	-	n.s	.05	retained*
#5 (Time)						rejected
#6 (Quantity)/ Leader	.05	n.s	n.s	-	-	partial
#7 (Quantity)/ Nonleader	.10	.05	.01	-	-	partial
#8 (Quantity)	.001	.025	.001	-	-	rejected
#9 (Specificity)	.07	.03	-	n.s	n.s	retained
#10 (Means/Non- means)	n.s	-	-	n.s	n.s	retained
#11 (Type-Func- tion)	n.s	n.s	-	n.s	.03	partial
(Type-Area)	n.s	.0004	-	.01	.09	partial
#12 (Quantity)	n.s	.01	n.s	-	-	partial
#13 (Specificity)	n.s	n.s.	-	.01	n.s	partial
#14 (Means/Non- means)	n.s	n.s	-	.01	n.s	partial
#15 (Type-Func- tion)	.000	.012	-	.0002	.0004	reject**
(Type-Area)	.0001	.005	-	.0000	.003	reject**
#16 (Quantity)	.005	n.s	.015	-	-	partial
#17 (Specificity)	n.s	.03	-	n.s	n.s	partial
#18 (Means/Non- means)	n.s	-	-	n.s	n.s	retained
#19 (Type-Func- tion)	n.s	.007	-	.002	.014	partial
(Type-Area)	n.s	.000	-	n.s	n.s	partial
#20 (Quantity)	.012	.001	.001	-	-	partial***
#21 (Specificity)	n.s	n.s	-	n.s	.04	retained
#22 (Means/Non- means)	n.s	-	-	n.s	n.s	retained
#23 (Type-Func- tion)	.003	.000	-	n.s	.05	retained*
(Type-Area)	.001	.004	-	.008	.001	retained*

CODING: Q = Question

n.s = Not significant

- = Not used to test the hypothesis

* = Relationship is very weak

** = Relationship is weak

*** = Not all means are different from each other

Description of Table 17Focus 1. Interview Approach Versus Group Approach

Of the five null-hypotheses, three were rejected and two were retained. Data indicate that the interview approach is different from the group approach on the basis of quantity of responses, specificity of responses, and time needed to conduct the assessment. Quantity of response and time needed to conduct the assessment favored the group approach. Specificity of response favored the interview approach. The interview approach is not different from the group approach on the basis of means/nonmeans orientation and genre (type) of needs elicited. Both approaches yielded nonmeans-oriented responses.

Focus 2. Effect of Interview Approach and Group Approach on Leaders and Nonleaders

Data and analyses for focus 2 indicate partial rejection of both of the null-hypotheses. For leaders, significant interaction between the approach variable (leader-only group approach, mixed leader/nonleader group approach, and interview approach) and the quantity variable was only shown for Question #1, and hence the null-hypothesis was only partially rejected. For Question #1, general community needs, the mixed leader/nonleader group approach (LNG) yielded a significantly greater quantity of needs than either the leader-only group approach (LG) or the interview approach (LI). When asked about educational needs, there

was no superiority among approaches for the leaders. For nonleaders, significant interaction between the approach variable and the quantity variable was shown on Question #1, #2, and #1 and #2 combined. However, the T-test comparing pairs of approaches showed significant differences only between the nonleader-interview (NI) and the nonleader-only group approach (NG) and hence the null hypothesis was only partially rejected. The nonleader-only group approach yielded a significantly greater quantity of needs than the nonleader interview approach.

Focus 3. Comparison Between Leaders and Nonleaders

Of the four null-hypotheses, one was rejected, two were retained and one was partially rejected. Data indicate that the leaders generate a significantly greater quantity of responses than nonleaders thereby rejecting null-hypothesis #8. Leaders and nonleaders are not different on specificity of response or means/nonmeans orientation of response. Both leaders and nonleaders generate low level of specificity of responses and nonmeans-oriented responses, therefore retaining null-hypotheses #9 and #10. Genre (type) of needs was different for leaders and nonleaders only when asked Question #4 (self-needs). No difference on the basis of genre of needs was found between leaders and nonleaders for the other questions thereby only partially rejecting null-hypothesis #11.

Focus 4. Comparison Between Desas

Of the four null-hypotheses, one was rejected and three were partially rejected. Data indicate a significant difference between Desa I and Desa II on the ranking of needs according to genre. However, the rejection of the hypothesis has weak predictive value. In terms of quantity of response, specificity of response and means/nonmeans orientation of response both *desas* yielded very similar responses. However, a single question yielded significant differences between *desas* for each of these three dependent variables and hence the partial rejection of the three null-hypotheses.

Focus 5. Comparison Between Sexes

Of the four null-hypotheses, one was retained and three were partially rejected. Data indicate no difference between male and female nonleaders on the basis of means/nonmeans orientation of their responses. Both groups yielded nonmeans-oriented responses. In terms of quantity of responses, males yielded a greater quantity on Question #1 and combined Question #1 and #2. Males and females were not different on Question #2. In terms of specificity, females yielded higher specificity of responses on Question #2 with no difference between males and females on the other questions. In terms of genre of need, male and females had different rankings on

Question #2, #3 and #4. There was no difference on Question #1.

Focus 6. Comparison on the Basis of Educational Background

Of the four null-hypotheses, three were retained and one was partially rejected. In terms of quantity of response, Question #1 yielded quantities in direct relation to level of education. Though Question #2 and combined Questions #1 and #2 yielded differences in quantity on the basis on educational level it was not directly related. However, it showed that six or more years of education yielded a greater quantity of responses than less than six years of education. This finding, therefore, only partially rejects the null-hypothesis. Grouping subjects by educational background, however, yield no difference in the specificity of response, means/nonmeans orientation or response or genre of needs. Therefore the retention of the three null-hypotheses.

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